

FACTORS INFLUENCING ALABAMA
AGRICULTURE

Its Characteristics and Farming Areas

By

Ben F. Alvord
M. A. Crosby
E. G. Schiffman

AGRICULTURAL EXPERIMENT STATION
of the
ALABAMA POLYTECHNIC INSTITUTE

In cooperation with

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF AGRICULTURAL ECONOMICS

M. J. FUNCHESSE, *Director*
AUBURN, ALA.

FACTORS INFLUENCING ALABAMA AGRICULTURE

Its Characteristics and Farming Areas

By

Ben F. Alvord, *Agricultural Economist*
Alabama Agricultural Experiment Station

M. A. Crosby, *Assistant Agricultural Economist*
Bureau of Agricultural Economics, United
States Department of Agriculture

and

E. G. Schiffman, *Assistant Agricultural Economist*
Alabama Agricultural Experiment Station

Contents

	Page
I INTRODUCTION	3
II HISTORICAL BACKGROUND	3
Early Settlement	3
Early Agriculture of Alabama	4
III FACTORS INFLUENCING THE AGRICULTURE OF ALABAMA	4
Physical Factors	4
Topography	5
Precipitation	5
Temperature	8
Soils	11
Biological Factors	13
Economic and Social Factors	16
Trends in population, tenure, number and size of farms and improved land in farms	16
Population	18
Tenure	20
Transportation	26
Other factors	27
IV CHARACTERISTICS OF THE AGRICULTURE OF ALABAMA	27
Rural Land Ownership	27
Size of land holdings	28
Business of owner	29
Residence of owner	33
Land Value	35
Taxation and Mortgages	35
Selected Production Expenses	37
Value of Farm Crops	37
Family Living	39
Land Utilization	39
Total cropland	39
Land in forest	40
Pasture	41
Trends in Crop Acreages	41
Trends in Crop Yields	46
Crop Distribution	48
Field crops	48
Vegetables harvested for sale	56
Fruits and nuts	56
Livestock	57
Trends	57
Present distribution	59
V DESCRIPTION OF FARMING AREAS	65
Area 1—Tennessee and Limestone Valleys	65
Area 2—Sand Mountains	70
Area 3—Talladega Mountains	71
Area 4—Piedmont Plateau	72
Area 5—Upper Coastal Plain	72
Area 6—Black Prairie Belt	73
Area 7—Southwest Piney Woods	74
Area 8—Southeastern and South Central Coastal Plain	74
Area 9—Gulf Coast	76

Factors Influencing Alabama Agriculture

Its Characteristics and Farming Areas

THE KIND of farming now followed and that to be followed in future years in any area of Alabama is and will be influenced by the present status of physical, biological, and social and economic factors in that area. Consequently, sound agricultural planning for the future must start with adequate information of past and present conditions. This publication is designed to provide such information.

County data are shown in order that variations in different parts of the State may be more readily observed and their significance more fully appreciated. The various phases of agriculture are presented largely in hachure and dot maps, supplemented with brief and pertinent comments on the import of the facts presented¹. These facts outline areas that are relatively uniform in many phases of agriculture within their area borders, but which exhibit some distinct differences, as units, from all other areas of the State. Throughout each homogeneous area similar practices and management may be expected to yield somewhat similar results, insofar as farming is concerned. Thus, these areas for many purposes may be profitably studied and treated as units. To facilitate such study the areas have been delineated and described.

HISTORICAL BACKGROUND

Early Settlement

During the sixteenth century Spanish explorers, especially De Soto, made many explorations within the Gulf of Mexico and inland into what is now Alabama. The first permanent settlement was made when a colony was established at what is now Mobile in 1711. Few settlers made their homes in interior Alabama until after the Revolutionary War when a number from the Atlantic seaboard began arriving along the Alabama and Tombigbee rivers. The first great influx of settlers started shortly before Alabama became a State in 1819. The wealthier settlers owning slaves usually occupied the river terrace lands and later the black prairie lands while others resided in hillier sections near by. In 1820 the population was 127,901 of whom about a third were negroes; by 1840 the population was about 590,000 of whom nearly half were negroes. With the exception of the mountainous areas, some slaves were held in most parts of Alabama, but they were most numerous in the level river terrace and black land areas of the State where the colored population even yet frequently outnumbers the white.

¹The maps and charts of this publication were prepared by the Bureau of Agricultural Economics, United States Department of Agriculture.

Early Agriculture in Alabama¹

The first farmers in Alabama were Indians. Their principal crops were corn, beans, peas, pumpkins, and squash. De Soto in his expedition through the Indian country in 1540 left hogs and cattle at some of the villages, thereby laying the foundation for the future production of these animals. The early white settlers, produced vegetables, grains, and livestock for home use, and indigo, tobacco, and corn for export. Exports from Mobile for several years subsequent to 1777 consisted principally of indigo, indigo seed, corn, tobacco, rice, cattle, tallow, raw hides, salted wild beef, salt fish, and such forest products as squared timbers and cedar posts. Cotton was not listed as an export at that time but some mention is made of its being grown. Before the end of Spanish rule, however, cotton and corn were listed as the principal exports.

After the invention of the cotton gin in 1793 cotton production increased tremendously, especially on the fertile valley lands of the Alabama, Tennessee, and Tombigbee Rivers. Slave owners settled principally in these river basins where large tracts of land suitable for the production of cotton were available. Small farmers formed a majority of the population but were concerned chiefly with producing meat and bread for home use. The black prairie land was shunned at first because of its sticky soil and dense growth of canebrake but between 1830 and 1860, when most of the desirable land in the river terraces and adjacent ridges had been occupied, planters settled in the black prairie land which later became the principal cotton producing section of the State.

The bulk of the small farm owners occupied the less desirable lands of the State. "The small farmer's economic motives and methods of living made expansive fields and access to market much less important than to the planter. . . . Access to the crossroads store and a few trips to a plantation town sufficed his needs for commercial contact"². The small farmers soon succumbed to the allurements of cotton. In fact the crop lien system made it impossible for some, perhaps a considerable number, to make a choice of crops as the village merchant who had advanced their supplies often forced them to grow cotton, even to the practical exclusion of food and feed crops.

FACTORS INFLUENCING THE AGRICULTURE OF ALABAMA

Physical Factors

Physical factors of topography, climate and soil are probably the most important and most permanent factors leading to differences in agriculture in various parts of Alabama. Farmers enhance changes in topography and soils through their farming practices, but fundamental differences in both topogra-

¹This discussion is based on "History of Alabama and Her People" by Albert Benton Moore; "Alabama" by W. Brewer; and "History of Alabama" by Albert J. Pickett.

²History of Alabama and Her People, by Albert Benton Moore. Pp. 389 and 390.

phy and soil in various areas of the State may be expected to exist for centuries. There is, of course, no known method of exercising control over climate even though practices and farming methods may be varied somewhat to minimize the effects of climate. Major variations in the characteristics of these factors are pointed out in this section in order that differences in farming may be better understood.

Topography.—The general land surface of Alabama rises gradually from sea level on the Gulf Coast in the southwestern part of the State to more than 1000 feet in the mountainous section in the northeast (Figure 1). The mean elevation of the State is about 600 feet, while that of the highland region is about 800 feet. The highest point is Cheaha Peak in Talladega County, which rises to an altitude of 2407 feet. The southern part of the State, frequently spoken of as the Lower Coastal Plain¹, is generally undulating to gently rolling and contains a considerable area of river terrace and bottom land. This area is bordered on the north by a belt of hilly, broken land much of which is badly eroded and otherwise unsuited for the production of row crops. To the north of this area is a gently rolling prairie usually spoken of as the Prairie Belt, the Black Belt or the Black Prairie Belt. Between this belt and the mountainous region is a stretch of hilly, broken land extending from the east central to near the northwestern corner of the State, commonly called the Upper Coastal Plain.

The Appalachian Mountain region in northern and northeastern Alabama varies widely in topography. A large area centering in Cullman, Blount, Marshall, and DeKalb Counties is commonly referred to as Sand Mountain and is characterized by relatively broad, smooth and undulating ridges having an elevation of 500 to more than 1000 feet. This is bordered on the north by the Tennessee River Valley and on the south by an area consisting of limestone valleys lying between ranges of heavily wooded mountains. The Piedmont Plateau is a triangular area in the east central part of the State between the Appalachian Mountains and the Lower Coastal Plain. It has an elevation generally between 500 and 1000 feet above sea level and an uneven surface which is usually characteristic of foothill regions. In the extreme northern part of the State, centering in western Jackson County, foothills of the Cumberland Mountains present a very rolling topography which extends on into Tennessee.

Precipitation.—The average annual precipitation, largely rainfall, in Alabama is ample for most crops, but it is not uniformly distributed throughout the seasons nor is it uniform in amount throughout the State. It varies from about 50 inches in three central areas to 68 inches in southeastern Baldwin County (Figure 2). The mountainous areas tend to have higher pre-

¹Areas discussed in this paragraph may be located in Figure 6.

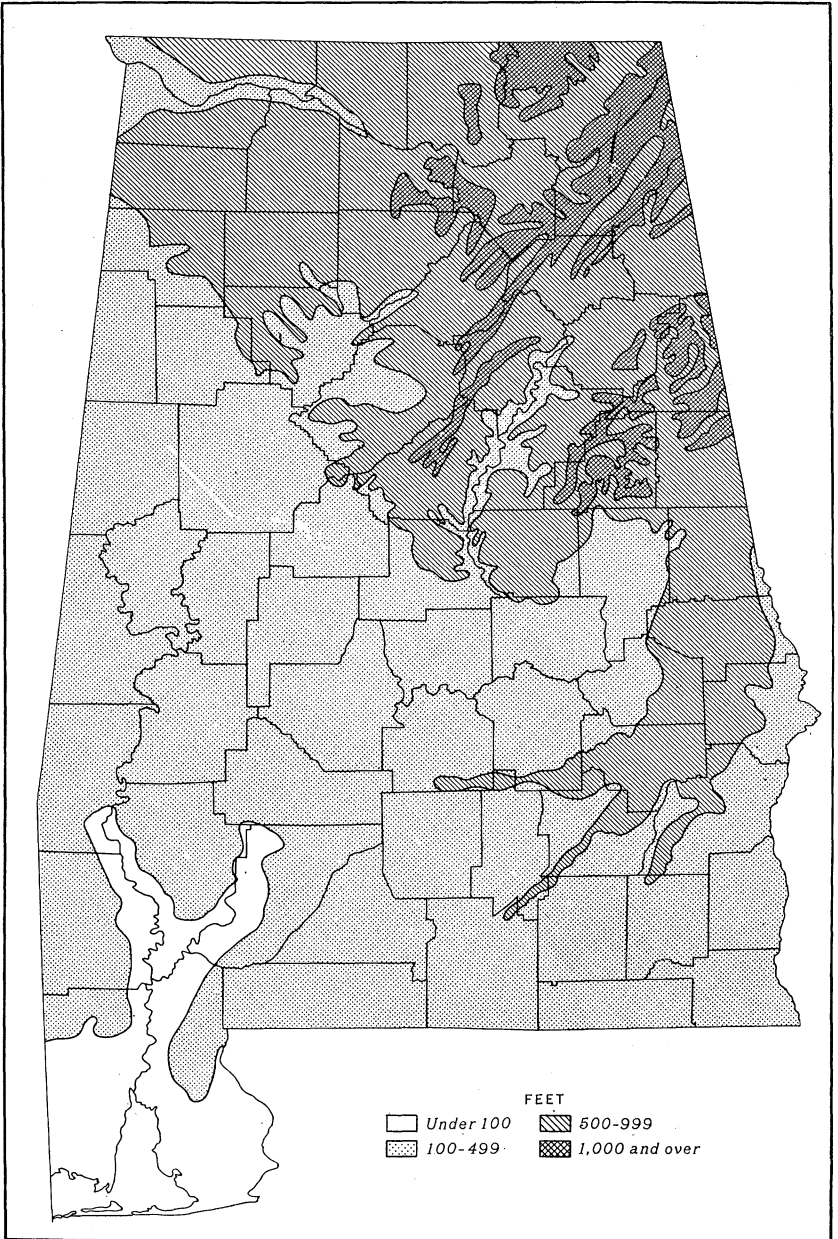


FIGURE 1.—ELEVATION

With the exception of some of the more level Sand Mountain areas, land having an altitude in excess of 1000 feet is largely uncultivated, as is also much of the rough land of moderate elevation around Birmingham and much of the lowland of southwestern Alabama.

precipitation than the plain areas where both are equally distant from the Coast. The extreme variation in normal summer rainfall (June-September, inclusive) is from 15 to 29 inches. The high summer precipitation in the southern counties unquestionably increases the risk of poor fruiting and boll weevil damage in cotton production. The contrast in fall precipitation as represented by average September rainfall is even greater, the extreme variation being from about three inches in much of central Alabama to seven in Baldwin County. This difference indicates a definite increase in the weather-damage hazard during the cotton picking season in the southern counties. Very little snow is seen in the southern half of the State, but it commonly falls each winter in the mountainous regions and in all areas north of Birmingham. Snow usually melts rapidly and is of little value in protecting winter crops from freezes.

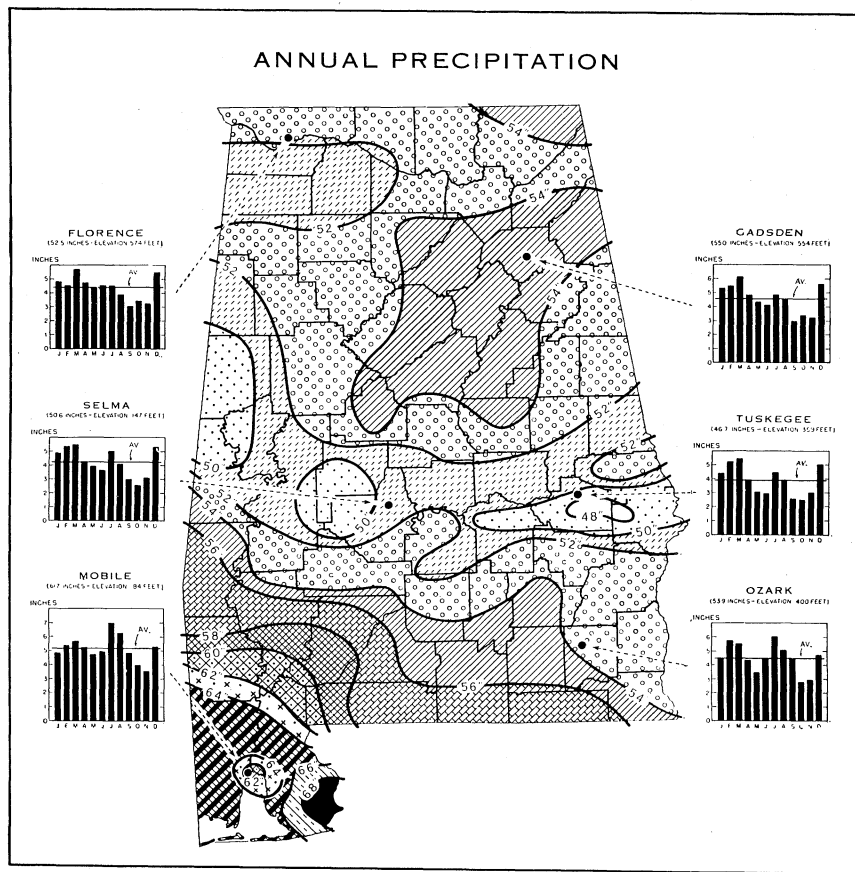


FIGURE 2.—AVERAGE ANNUAL PRECIPITATION AND AVERAGE MONTHLY DISTRIBUTION AT SELECTED STATIONS IN ALABAMA (U.S. WEATHER BUREAU)

The relatively heavy summer and early fall rainfall of southern Alabama, particularly near Mobile, increases the hazards of cotton production.

Frequent variations from normal precipitation occur and are often detrimental to farming interests. Occasional "downpours" are important offenders in promoting soil wastage through erosion. Drouths are usually of short duration, but, when combined with relatively high temperatures, soils having poor water holding capacity, and crops which require a large amount of moisture for proper development, usually reduce total production out of proportion to their duration.

Temperature.—Alabama extends 330 miles northward from the Gulf of Mexico, covering nearly five degrees of latitude. Thus, latitude, altitude, and nearness to a large body of water exercise varying influences upon the temperature which in turn helps determine the kind of farming followed.

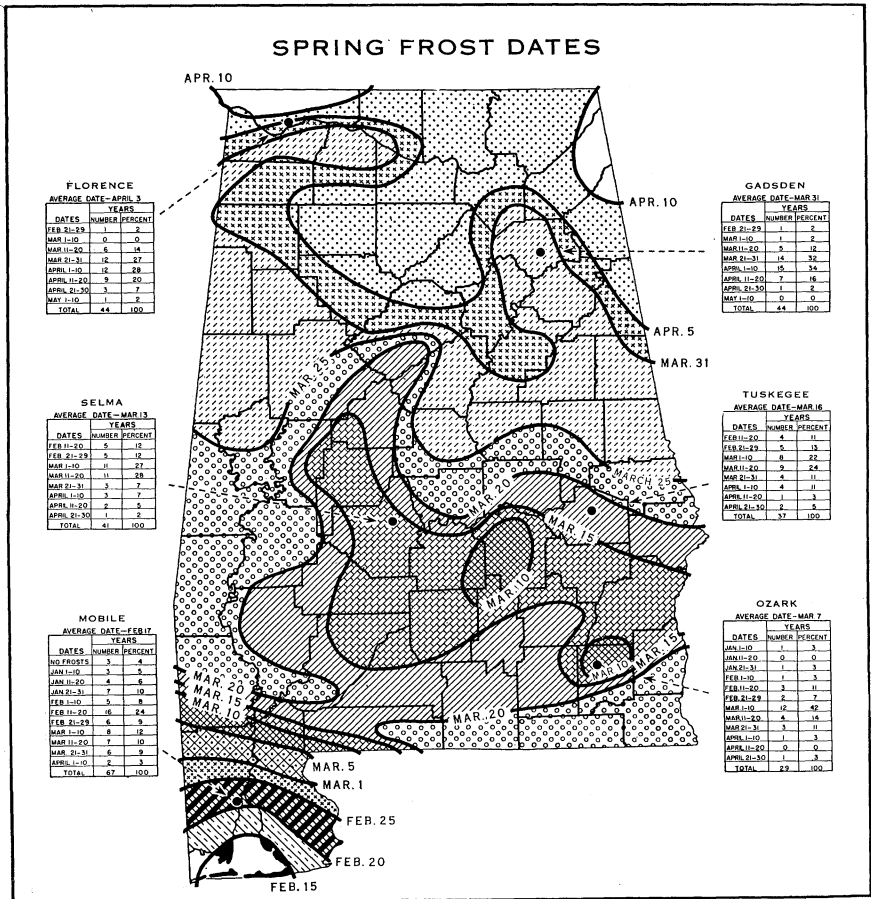
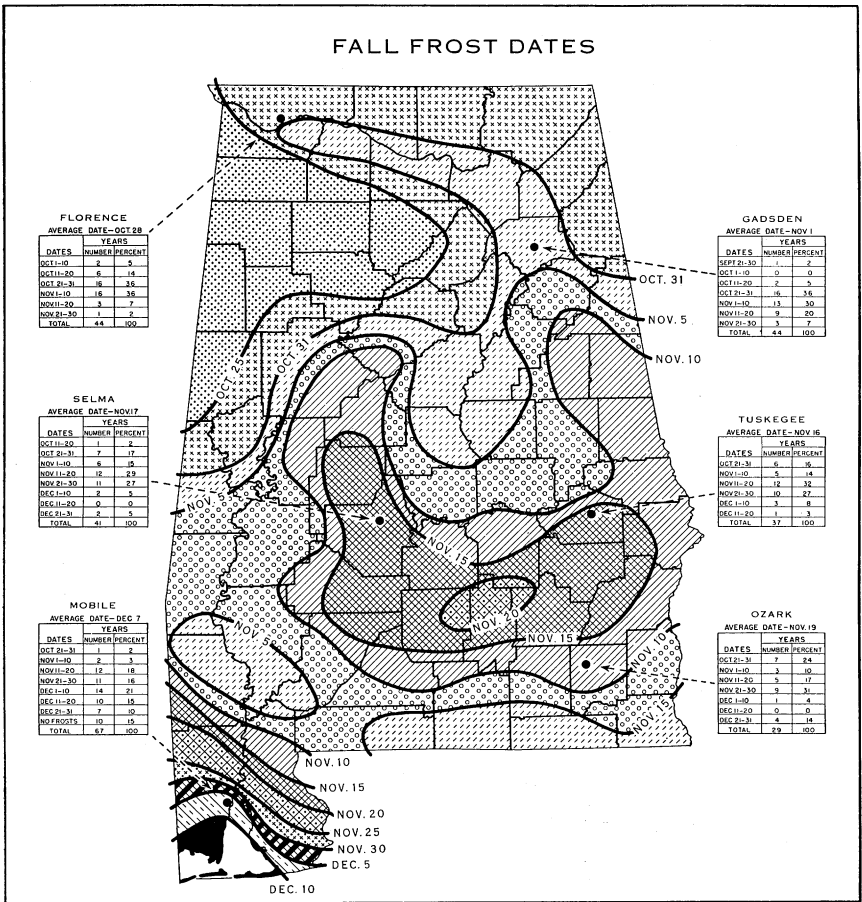


FIGURE 3.—AVERAGE DATES OF LAST KILLING FROST IN SPRING (U.S. WEATHER BUREAU)

A large area stretching eastward from Dallas and adjacent counties and centering in Montgomery County is peculiarly favored by relative freedom from late spring frosts.

Alabama has a relatively mild climate. Extreme summer heat and extreme winter cold occur very rarely. Zero temperature was recorded, however, in February 1899 as far south as Mobile. The average annual minimum temperature varies from about five degrees above zero in the northern part to about 30 degrees above at the Coast. The temperature seldom remains below the freezing point for a full day in the southern third of Alabama, but in the central and northern areas sub-freezing temperatures are maintained on an average throughout one to five full days of each winter. Average dates of the last killing frost in the spring and the first killing frost in the fall are shown in Figures 3 and 4.



**FIGURE 4.—AVERAGE DATES OF FIRST KILLING FROST IN FALL
(U.S. WEATHER BUREAU)**

Approximately the same area of south central Alabama that is favored by few late spring frosts is also favored by few early fall frosts.

Hardy winter vegetables usually live in the gardens and grow slowly throughout the winter season in the southern half of the State. Winter legumes, winter oats, wheat, and rye are seldom killed or seriously injured in winter in most parts of the State if proper practices are followed. Some citrus fruit is grown near the Coast but the freezing risk is high. The growing season varies from about 200 days near Tennessee to about 300 at the Coast (Figure 5).

Mild temperatures tend to leave the farmers with certain problems that might be less severe if winters were more rigorous. The ground is seldom frozen long enough or deep enough to check erosion. Temperatures are not low enough in winter to kill many insect pests and disease germs, and the mild winters are often detrimental to the fruit crop.

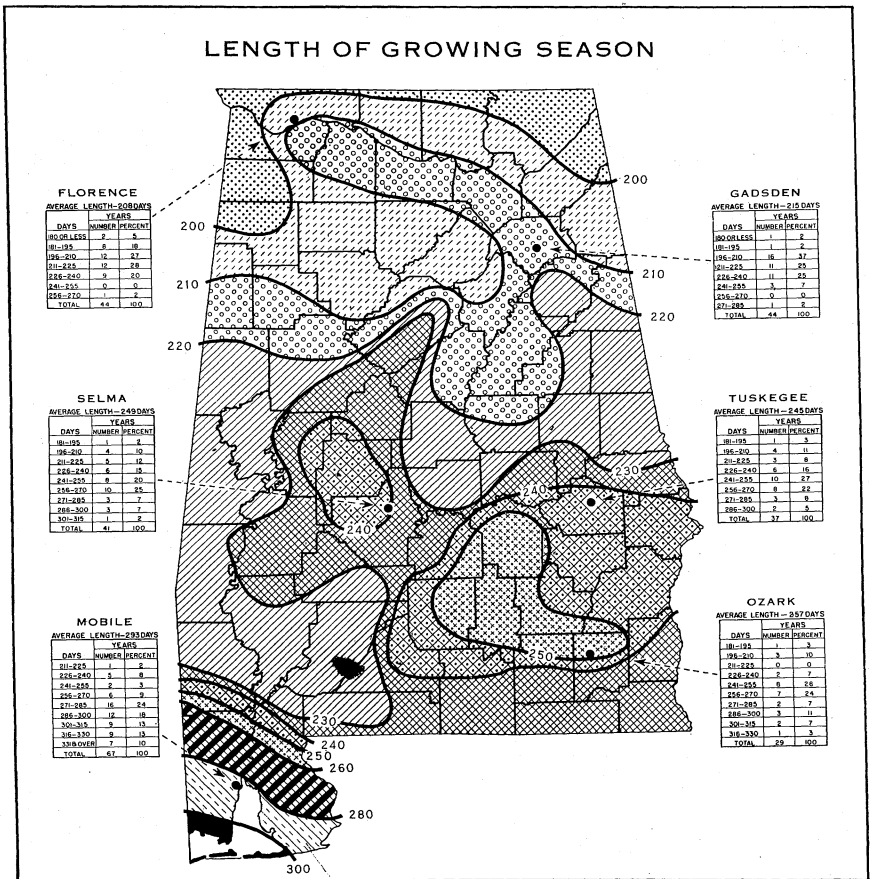


FIGURE 5.—LENGTH OF GROWING SEASON

Areas northwest of Selma and south of Montgomery have long growing seasons considering latitude, altitude and distance from bodies of water.

Soils¹.—Alabama soils exhibit an unusually wide variation in both texture and fertility. These soils range from deep sands to heavy clays. Some of the sandy soils are so deficient in organic matter as to be almost sterile, while others are highly productive. The clay soils range from types that are heavy, plastic, sticky and poorly drained to permeable clays that are easily worked and highly productive. Some soils are responsive to fertilization and good management while others are difficult to cultivate and nonresponsive to application of fertilizer. Some soils have been completely destroyed by erosion while others have been little damaged in this way. With this wide variation in soil characteristics, it is obvious that the kind of farming followed in different parts of the State should be greatly influenced by the type, texture, productivity and other characteristics of the soil.

For the purpose of this study the soils of Alabama have been divided into 10 distinct groups or areas as shown in Figure 6. Brief legends on the map describe the chief land characteristics of the different soil areas. The principal factors determining the grouping of the soils into the respective areas were: (1) soil texture and other physical characteristics, (2) topography, (3) land cover or use, and (4) erodibility.

Soils of the **Limestone Valleys** are derived from pure and cherty limestones. They are generally considered good soils and vary in color from gray to brown and red. In texture they range from Sandy loams to clays. Since they occupy nearly level to undulating topography, they are generally well drained. The Clarksville and Decatur series predominate in the Limestone Valleys.

The soils of the **Appalachian Mountains** are gray to brown silt and fine sandy loams derived largely from shales and sandstone. They are well drained and are easy to till where the topography is not too rugged. The rougher areas are mostly wooded but the flat hilltops are generally cultivated. Soils of this area respond readily to good management and fertilizer application. Soils of the Hartselle and Hanceville groups predominate.

Soils of the **Talladega Mountains** are mostly slaty and shaly loams. The topography is rough and rugged and most of the area is wooded, only the more level sections being in cultivation. Soils of the Talladega group predominate.

Soils of the **Piedmont** are derived from igneous rocks, have brown to red surface soils, red friable subsoils, and are the oldest soils in the South. The soils of this area are inherently strong, but the topography is variable and is usually sufficiently rolling to present a problem of erosion control where the crops are under cultivation.

¹This discussion of soils and the accompanying soil map is adapted from unpublished maps and writings by Dr. G. D. Scarseth, formerly Associate Soil Chemist, Ala. Poly. Inst.; a generalized discussion of soils by J. F. Stroud, formerly State Soil Surveyor of Alabama, in connection with "The Soil Provinces of Alabama", published in 1932; and "Soils of the United States" by Dr. C. F. Marbut, Principal Soil Scientist, published in the Atlas of American Agriculture, U.S.D.A.

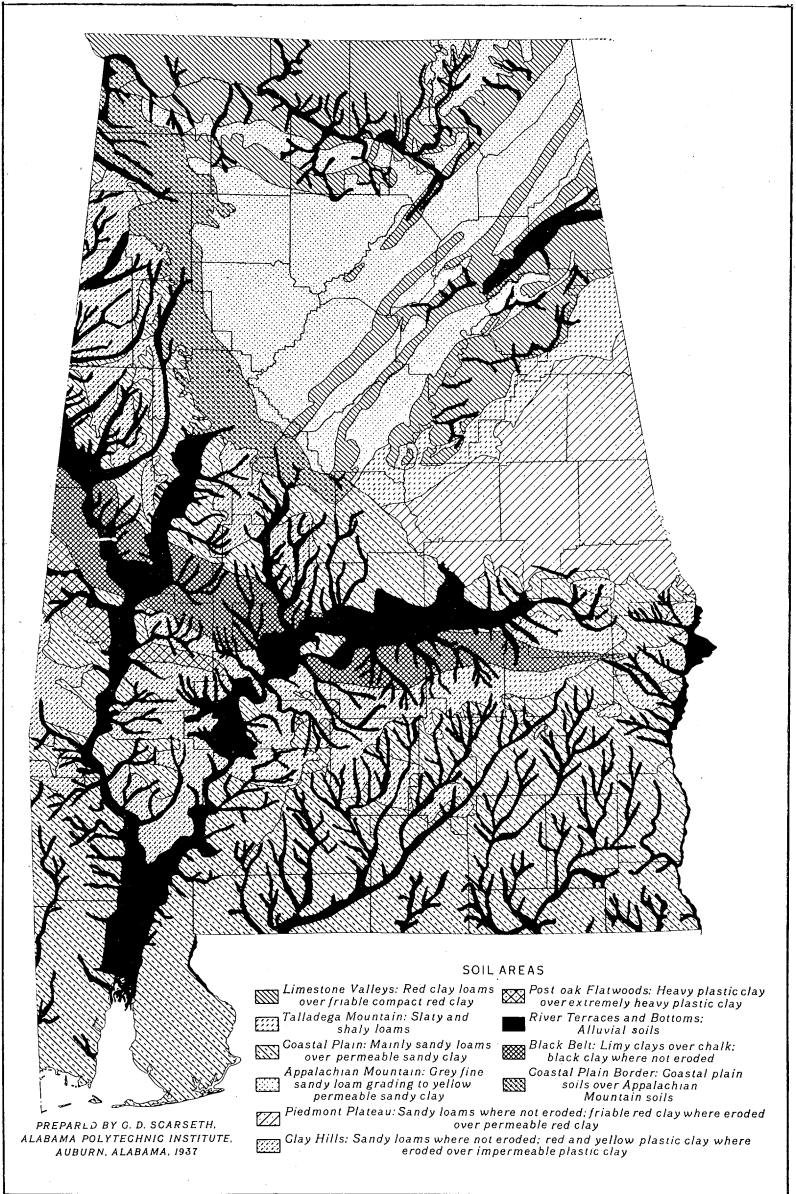


FIGURE 6.—GENERAL SOIL AREAS OF ALABAMA

The soils of Alabama have been divided into 10 areas on the basis of differences in related types, surface features, productivity and native vegetation. In texture the soils range from deep sands in some parts of the State to stiff, impervious clays in other parts. Note how the area of alluvial river terrace and bottom lands cut across other type areas in the southern and western parts of the State.

Soils of the **Coastal Plain Border** are sandy, gravelly, and even rocky in some places. The better types respond readily to good management and fertilizer application. A large proportion of the area has a rough, broken topography and as a result cultivation is "patchy" and is confined principally to the more level sections.

In general the **Clay Hills** is a rough, broken area possessing a wide variety of soils with clays predominating. These are fairly productive soils but their quality depreciates rapidly with erosion. Soils of the Susquehanna group predominate except in the northern part of the area where many are classified as Ruston.

The true prairie soils of the **Black Prairie Belt** belong principally to the Houston group and are derived from Selma chalk. In many sections these soils have a high calcium carbonate content. They often have characteristic Houston top soils, but, because of leaching and erosion, the color for which the Belt was named is now found only in small areas. Many of the higher elevations, on which tree growth occurs, have soils ranging from fine sandy loams and reddish-brown loams to heavy clays. These soils are very acid and are derived from clay material deposited on top of the Selma chalk.

Soils of the **Coastal Plain** are usually somewhat sandy. The gray and yellow Norfolk soils and the brownish red Ruston soils constitute the largest group and are derived from unconsolidated sand and clay materials. They often grade off into sands which occur in large areas of the Plain. The Orangeburg group of soils occurring in this region are considered good agricultural soils. The Plummer soils, largely in Washington County, are poorly drained and constitute the other important soil group of the Coastal Plain area.

The soils in the **Postoak Flatwoods** are similar to those of the Clay Hills. The topography, however, is comparatively flat and the drainage is usually poor. Soils of the Susquehanna group predominate.

"Along the rivers and large creeks there are strips of overflow land and rather wide **second bottoms** or **terraces** lying above overflow. These are some of the most fertile soils of the State. The second bottoms, or terraces, lie very favorable to the use of power machinery. They are easy to till and are adapted to practically all crops grown in the region. Owing to the many streams in Alabama, this soil province is very large and important, especially in the Coastal Plain region"¹. Soils of this area are, of course, laid down by river overflow. The broad Mobile river bottoms are too low and flat for general farming.

Biological Factors

Biological factors not only have been important in determining the character of Alabama's agriculture, but in many in-

¹Discussion by J. F. Stroud.

stances have also been responsible for a substantial reduction in farmers' incomes. Weeds, insect pests, and diseases have, in some instances, prevented the normal development, and consequently the production of certain crops, which over a period of time have caused changes in the actual or relative importance of these crops. Likewise, livestock production and the relative importance of the various classes of livestock have been affected by animal diseases and parasites.

Biological factors have exercised an important influence on the acreage devoted to various crops, but data permitting a quantitative measurement are, with few exceptions, meager. Constantly changing conditions other than those of a biological nature have also made it difficult to isolate changes due to biological factors from those due to non-biological factors. However, in the case of the shifts from cotton to corn and corn to cotton during the period of 1909-29, non-biological difficulties appear to have been sufficiently unimportant to permit an analysis of the effects of the boll weevil on these shifts. Thus, during the period 1909-14, in which normal cotton yields were reduced only 2 per cent, cotton acreage was 32 per cent larger than corn acreage; in the period 1915-23 when boll weevils reduced cotton yields by 27 per cent, the acreage in cotton was 22 per cent smaller than corn acreage; in the period 1924-29 when cotton yields were reduced 10 per cent by the boll weevil, the cotton acreage was 22 per cent larger than corn acreage.

It is difficult to measure the detrimental effects of all biological factors on crops and livestock, but in some instances, as in the case of the cotton crop, data are available which show the reduction from "normal" or "full" yield from specific causes, some of which are biological in nature (Figure 7). A "normal" or "full" yield as used here is that yield per acre which is expected when the season is favorable and insects and diseases have caused little or no damage. During the 30-year period 1909-38, insects and diseases were responsible, on the average, for a 17 per cent reduction in cotton yields, or one-half the reduction in cotton yields due to all causes. Of the 17 per cent reduction in cotton yields from "full" or "normal" yields due to biological causes 13 per cent was due to the boll weevil, 2 per cent to other insects, and 2 per cent to plant diseases. Of the 17 per cent reduction resulting from non-biological causes, 6 per cent was due to deficient moisture, 5 per cent to excessive moisture, 4 per cent to other climatic conditions, and 2 per cent to all other causes. Thus, in terms of yields per acre, plant diseases and insects alone were responsible for an average annual reduction in cotton yields of 46 pounds of lint per acre during the years 1909-38, which on the basis of acreage harvested annually for these years amounts to an average of 270,000 bales per year. Although data are not available on reductions in yields from biological factors for crops other than cotton, such evidence as exists indicates that losses in yields of other crops due to insects and diseases were very substantial.

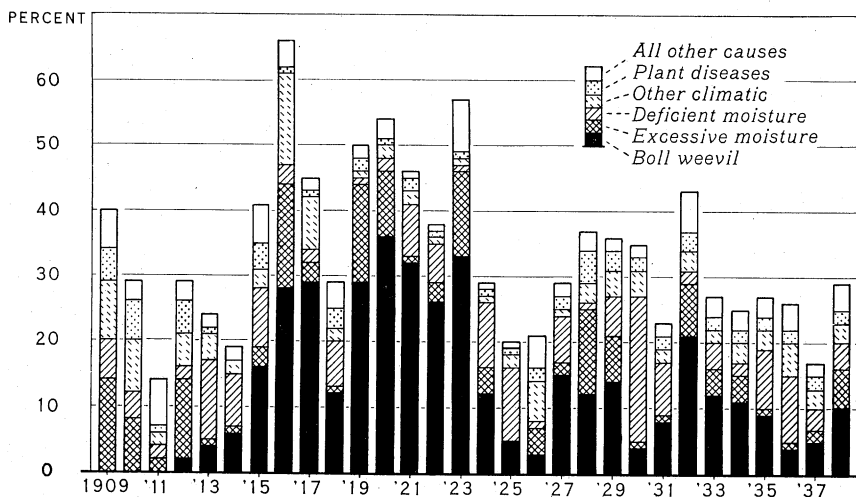


FIGURE 7.—REDUCTION FROM NORMAL YIELD OF COTTON PER ACRE FROM SPECIFIC CAUSES, ALABAMA, 1909-38 (B.A.E.)

The reduction from normal cotton yields from all causes averaged 33 per cent or 90 pounds of lint per acre during the period 1909-38. Biological factors, which include all insects and diseases, were responsible for an average annual reduction of 46 pounds of lint cotton per acre during these years.

The damage to most crops resulting from weeds has been relatively small, for, in most instances, they can be controlled without excessive effort. During the years 1909-38 losses in cotton yields due to weeds and certain other miscellaneous causes were only 1.5 per cent. Data on losses from weeds in other crops are not available but it is highly probable that these losses were of less importance than those due either to plant diseases or insects.

Diseases and parasites affecting the various classes of livestock have been responsible for very substantial reductions in the incomes received by Alabama farmers. Although it is impossible to determine accurately total losses resulting from these causes, estimates of certain types of losses in hogs have been made which indicate that in general they are large. According to an executive of a packing company¹ receiving a large number of Alabama hogs, about 98 per cent of those slaughtered were infested with parasites. Only 2 per cent of the livers of these hogs and 5 per cent of the kidneys were saved and no attempt was made to use the lungs for edible meats. Losses of this and other types were responsible for a premium of three-eighths of a cent per pound being paid on all hogs that were free of parasites. These losses were for hogs that reached the market and were slaughtered, and, of course, did not include the many that died before reaching the market nor the financial losses due to the inefficient use of feed on the part of those infested with para-

¹As quoted in an unpublished manuscript of John L. Liles, Jr.

sites. While data were not available on losses of the other principal classes of livestock due to diseases and parasites, available evidence indicated that they were also large.

Economic and Social Factors

Trends in population, tenure, number and size of farms, and improved land in farms.—During the period of 1890-1930 while Alabama's population was steadily increasing the percentage of white and urban population also increased (Table 1). The total population increased nearly 75 per cent and the white population increased from about 55 per cent of the total population in 1890 to 64 per cent in 1930. Rural population also increased but this increase was proportionally less than that of total population, rural population constituting about 90 per cent of the total in 1890 but only 72 per cent in 1930.

Since the increase in rural population between 1890 and 1930 was not accompanied by a corresponding increase in land in farms, the number of rural persons per 100 acres of land in farms increased from 6.9 to 10.8 during this period. While this is an indication of the increasing density of rural population it does not accurately measure this density. A better measure is the number of rural-farm persons per 100 acres of improved land. These data are not available for years prior to 1920, but the rural-farm population per 100 acres of improved land increased from 13.5 persons in 1920 to 16.1 persons in 1935. When the fact is considered that there were some technological advancements in agricultural methods during this period it would appear that effective labor supply per 100 acres of improved land was relatively greater in the latter period than the above population figures indicate.

The number of persons 10 years old and over engaged in agriculture increased rapidly from 1890 to 1910 but has declined since then. However, the percentage that this group was of all persons gainfully employed in all occupations decreased steadily from about 68 per cent in 1890 to 48 per cent in 1930. The number of persons 10 years old and over engaged in agriculture per 100 acres of improved land increased from 4.8 to 5.9 in 1930, the greatest number being in 1910 when there were 6.9 per 100 acres of improved farm land.

The percentage of all farm operators that were owner-operators, and the percentage of land in farms that was operated by owner-operators, decreased between 1890 and 1935. Owner-operators constituted 51.4 per cent of all operators in 1890 and only 35.4 per cent in 1935, while the percentage of farm land operated by owner-operators decreased from 65.6 per cent in 1900 to 51.8 in 1935.

The percentage of white farm operators increased from 57.9 in 1900 to 66.6 in 1935 with the most rapid increase occurring between 1910 to 1920. The fact that the percentage of white farm operators has been consistently less than the percentage

TABLE 1.—Rural and Urban Population, Land Tenure, Number of Farms, Land in Farms, Improved Land in Farms, Average Size of Farm, 1890-1935. (U.S. Census)

Item	Unit	1890 (June 1)	1900 (June 1)	1910 (Apr. 15)	1920 (Jan. 1)	1930 (Apr. 1)	1935 (Jan. 1)
Total population	1000 persons	1513	1829	2138	2348	2646	
Rural population	1000 persons	1361	1612	1768	1839	1902	
Rural-farm population	1000 persons				1335	1336	1386
Persons engaged in agriculture (over 9 years old)	1000 persons	370	513	665	500	493	
Per cent of total population that was white	Per cent	55.2	54.7	57.5	61.6	64.3	
Per cent of total population that was rural	Per cent	89.9	88.1	82.7	78.3	71.9	
Rural population per 100 farm acres	Number	6.9	7.8	8.5	9.4	10.8	
Rural population per 100 improved acres	Number	17.7	18.6	18.2	18.6	22.9	
Rural-farm population per 100 improved acres	Number				13.5	16.1	16.1
Persons (over 9 years old) engaged in agriculture per 100 acres improved farm land	Per cent	4.8	5.9	6.9	5.1	5.9	
Per cent of gainfully employed persons (over 9 years old) in agriculture	Per cent	68.3	67.2	66.6	55.0	48.0	
Per cent of all farmers who were owner-operators	Per cent	51.4 ¹	41.9	39.5	41.8	35.1	35.4
Per cent of all farm land operated by owner-operators	Per cent		65.6	64.1	61.9	53.6	51.8
Per cent of all farmers who were white	Per cent		57.9	58.0	62.8	63.5	66.6
Per cent of all farm land operated by white farmers	Per cent		77.2	75.4	77.8	76.3	80.1
All farms	Number	157,772	223,220	262,901	256,099	257,395	273,455
All land in farms	1000 acres	19,853	20,685	20,732	19,577	17,555	19,661
Improved land in farms ²	1000 acres	7698	8655	9694	9893	8318	8602
Per cent of total land area in farms	Per cent	60.5	63.0	63.2	59.7	53.5	59.9
Per cent of total farm land area improved	Per cent	38.8	41.8	46.8	50.5	47.4	43.8
Average size of farms	Acres	125.8	92.7	78.9	76.4	68.2	71.9

¹Includes farms operated by managers.

²Includes all land regularly tilled or mowed, land in pastures that has been cleared or tilled, land lying fallow, land in gardens, orchards, vineyards, nurseries, and except in 1930 and 1935, land occupied by farm buildings.

of land in farms operated by them indicates that white farmers operate larger farms than colored.

The percentage of total land area in farms and the percentage of improved land in farms, while showing some fluctuation from one Census period to another, showed no significant trends in the period 1890-1935.

The total number of farms in Alabama for the period 1890-1935 reached a peak of 273,455 in 1935. The average size of farm, however, decreased from 125.8 acres in 1890 to 71.9 in 1935, or about 43 per cent.

Population.—Alabama's population increased from about 1,513,000 in 1890 to about 2,646,000 in 1930 (Table 1). The population density was, however, slightly below the average of the East South Central States in 1930. This density varied considerably within the State (Figure 8). Counties of western and southern Alabama have in general relatively sparse population. In 1930, Mobile County in southwestern Alabama was fourth in population density, and Houston County was seventh. Montgomery County which is more centrally located in the State was second in population density, and Jefferson County in the north central part of the State was first. All other of the first 15 counties in population density were located in the northern or eastern part of the State. In recent years the industrial districts have been the areas of rapid population growth. Out of a total increase for the State of about 298,000 the industrial district around Birmingham, including the counties of Jefferson, Walker, and Tuscaloosa, accounted for a growth of over 140 thousand people from 1920 to 1930.

If the longer period, 1890 to 1930, is considered, the areas of rapid increases in population have been the city areas, the industrial areas, some of the more level mountainous areas, and the southern border counties. Decreases have taken place in several Prairie Counties and since 1920 in practically all of the rural sections of the Piedmont Counties. Population changes in rural areas appear to reflect changing farming conditions. A trend toward livestock farming has lessened the need for farm labor in the Black Prairie Belt. Soil erosion and opportunity for employment in local cotton mills, probably led numbers of the younger element of the farm population to desert the farms of the Piedmont. Adaptability of some of the more level ridge tops of the Appalachian Mountains to intensive farming practices has led to marked increases in farm population in these areas. Industrial development has been largely responsible for the marked increase in urban population.

The population increase was very largely due to excess of births over deaths. Relatively little immigration from foreign countries has occurred, as is indicated by the fact that only 0.9 per cent of the white population in 1930 was foreign born. This compares with 12.3 per cent for the United States as a whole.

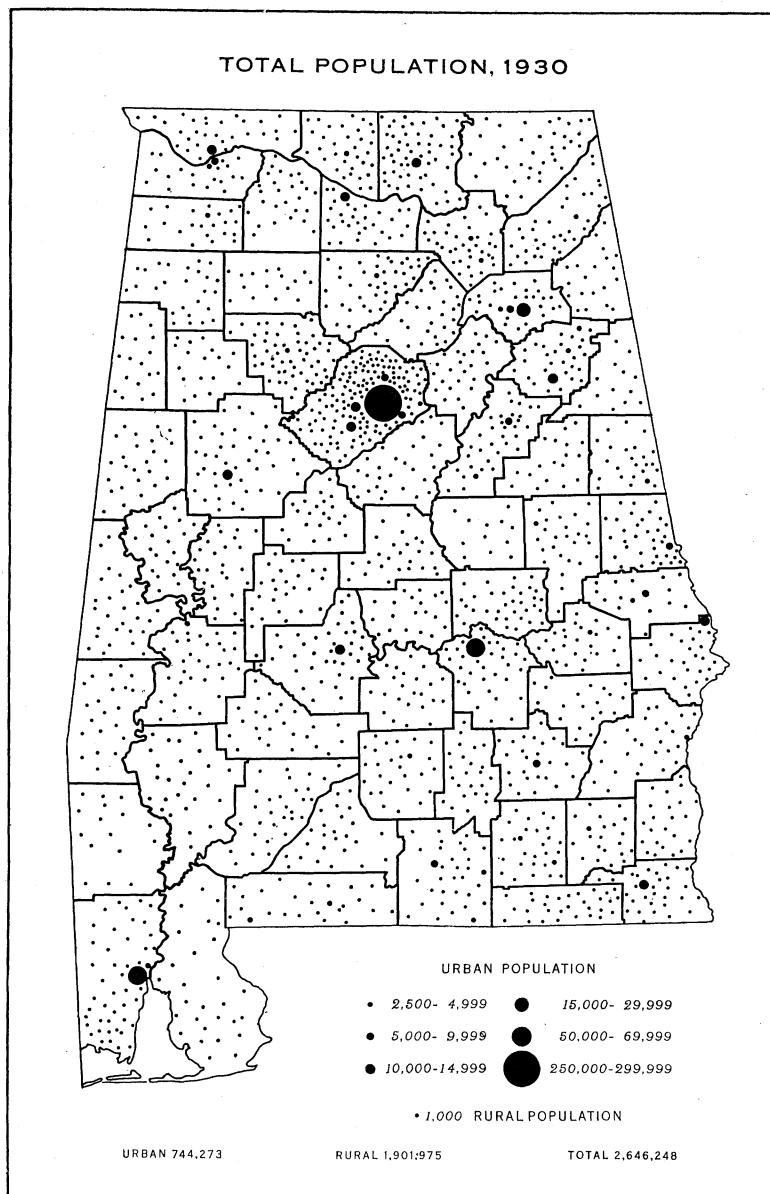


FIGURE 8.—TOTAL POPULATION, 1930

About 72 per cent of Alabama's total population was classed as rural, and slightly more than 50 per cent of the total was classed as rural-farm population. In rural areas there was a close relationship between the distribution of total population and land in farms.

Negroes comprised about 36 per cent of the population of Alabama in 1930. They were most numerous in the Black Prairie Belt and in adjacent counties. There was also some concentra-

tion in parts of the Tennessee Valley. Mountainous sections outside the mineral districts were occupied largely by whites. In many rural mountainous sections there were no Negroes, but in most towns of some size a few found employment and made their homes.

Alabama is predominantly rural. In 50 of the 67 counties 80 per cent or more of the population in 1939 was rural (Figure 8). Only Jefferson, Montgomery, Mobile, Etowah, and Calhoun Counties had a population which was more than 50 per cent urban. Even Jefferson County, which leads in urban population, was nearly 30 per cent rural. The density of rural, as well as total population, tends to be greatest in northern Alabama. Nine of the 13 counties having a rural population density in excess of 45 per square mile are at least as far north as Jefferson County. The recent (1920 to 1930) increases in rural population have been distributed widely over the State. Centers of rapid increase in this period were Jefferson, Elmore, the Gulf Counties, and northern Alabama.

In southeastern Alabama the light soil, long growing season, and lower than average percentage of crop acreage in cotton perhaps lead to slightly less demand for labor than elsewhere in Alabama. At least less labor is available there. Intensive crops in the neighborhood of Birmingham and near the Gulf require a relatively large supply of labor. In addition, many farmers near Birmingham work part time off the farm. Similarly in the heavily wooded section of southwestern Alabama part-time employment in timber off the farm tends to keep the supply of labor in relation to area of cropland somewhat higher than normal.

The percentages of total population represented by rural, white, and rural farm population, in 1930 are shown in Figures 9A, 9B, and 9C, respectively.

Tenure.—In 1935 Alabama had 273,455 farm operators of whom 176,247, or 64 per cent were tenants. Of the total number of tenants approximately 39 per cent were croppers. The proportion of tenant operators varied from 24 per cent in Mobile County to 86 in Dallas County. Tenants comprised more than 75 per cent of all operators in 14 counties and less than 50 per cent in only 6. The prevalence of tenants varied widely by geographic areas, the Black Prairie Belt, an area of heavy concentration of Negroes, having the highest percentage of tenancy and the southwestern section of the State the lowest. There also were marked variations between different parts of the State in the type of tenants. For example, in Pike County 60 per cent of all tenants were croppers as compared with only 15 per cent in Jefferson County. Moreover, in 10 of the 67 counties 50 per cent or more of the tenants were croppers and in 5 counties 25 per cent or less of all tenants were croppers.

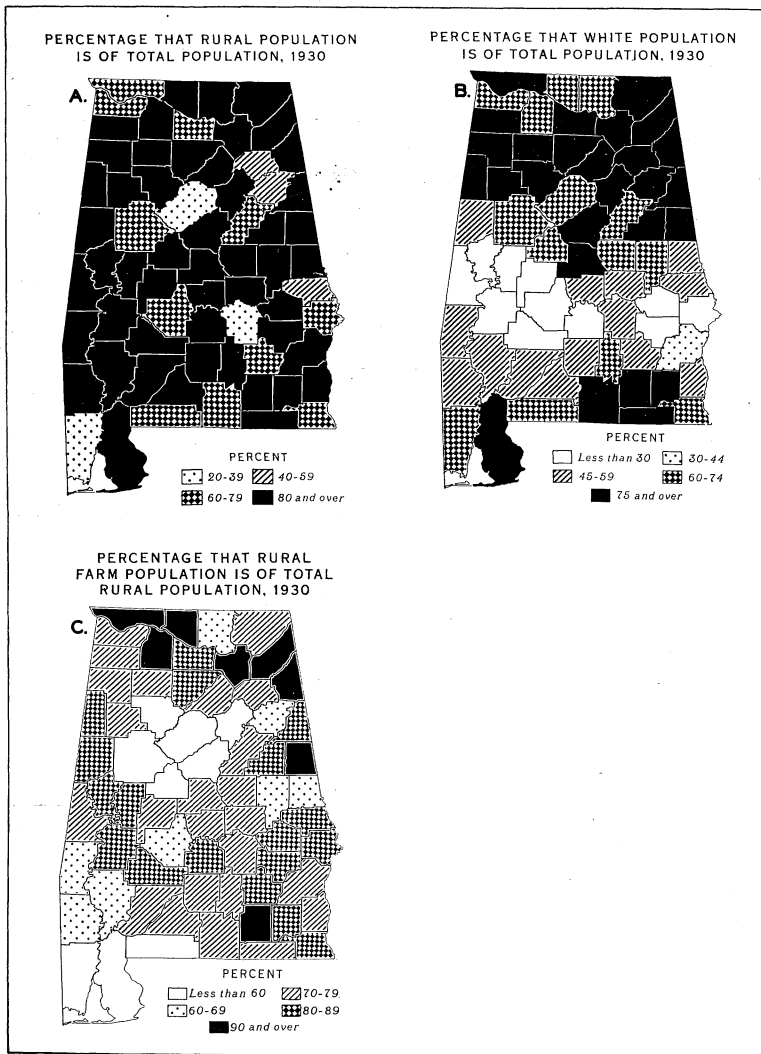


FIGURE 9.—SOME CHARACTERISTICS OF ALABAMA'S POPULATION

A—No county can be considered as strictly urban although the rural population was less than 40 per cent of the total in Jefferson, Montgomery, and Mobile Counties in 1930. B—About two-thirds of the population of Alabama was white. Colored population was concentrated largely in and near the Black Prairie Belt, in the Tennessee River Valley, and other limestone valleys, in cities, and in relatively small portions of other areas. C—Rural farm population accounted for 90 per cent or more of the total rural population in 8 counties, 6 of which were in northern Alabama, and for less than 40 per cent in 9 counties, 6 of which were near Birmingham.

Figures 10A, 10B, 10C, and 10D show the per cent that tenants were of all farm operators, croppers of all tenants, white operators of all operators, and white croppers of all croppers.

Many factors affect the tenure of farm operators but most of these are difficult to measure in quantitative terms because of lack of data or the interrelationships of the factors associated with tenure. Sixty-seven per cent of all farm operators were white and of these 45 per cent were either full or part owners, 19 per cent croppers, and 36 per cent other tenants. Thirty-three per cent of all farm operators were colored and of these 17 per cent were full or part owners, 37 per cent croppers, and 46 per cent other tenants. Thus, it may be noted that the proportion of croppers and other tenants was approximately one and one-half times as large for colored as for white operators. The proportion of white operators who were full and part-owners was two and one-half times that of colored operators.

The degree of concentration of colored operators is associated with tenure. In areas in which colored operators represented a small proportion of all operators a much larger proportion of colored farmers was owner-operators. In 25 counties in which an average of only 10 per cent of all operators were colored, 34 per cent of the colored operators were full or part owners, while in 10 counties in which 75 per cent or more of all operators were colored only 12 per cent of the colored operators were owner-operators.

From data compiled on a county basis there appears to be little, if any, relation between the percentage of all operators that were tenants and the residence of the land owners¹. Counties having the highest percentage of land owned by residents of the county and adjoining counties have about as high a percentage of tenancy as those counties in which a greater proportion of the land is held by more remote owners. Nor did size of ownership units or type of owner show any marked association with tenancy. Some relationship between tenancy and residence of owner, type of owner, or size of ownership unit might have been indicated had data been available on a precinct or beat basis rather than on a county basis. Because of the smaller units the number of observations would have increased and this probably would have permitted the elimination of some of the interrelationships in factors affecting the tenure of operators.

The proportion of colored operators who were tenants was greater than that of white operators because their inferior training and associated factors made them less capable of successfully managing farms, and because they usually lacked the necessary capital to become land owners. At the time of emancipation many white operators were already owners while most Negroes were of necessity required to start their farming operations as tenants.

¹See section on "Character of Rural Land Ownership in Alabama".

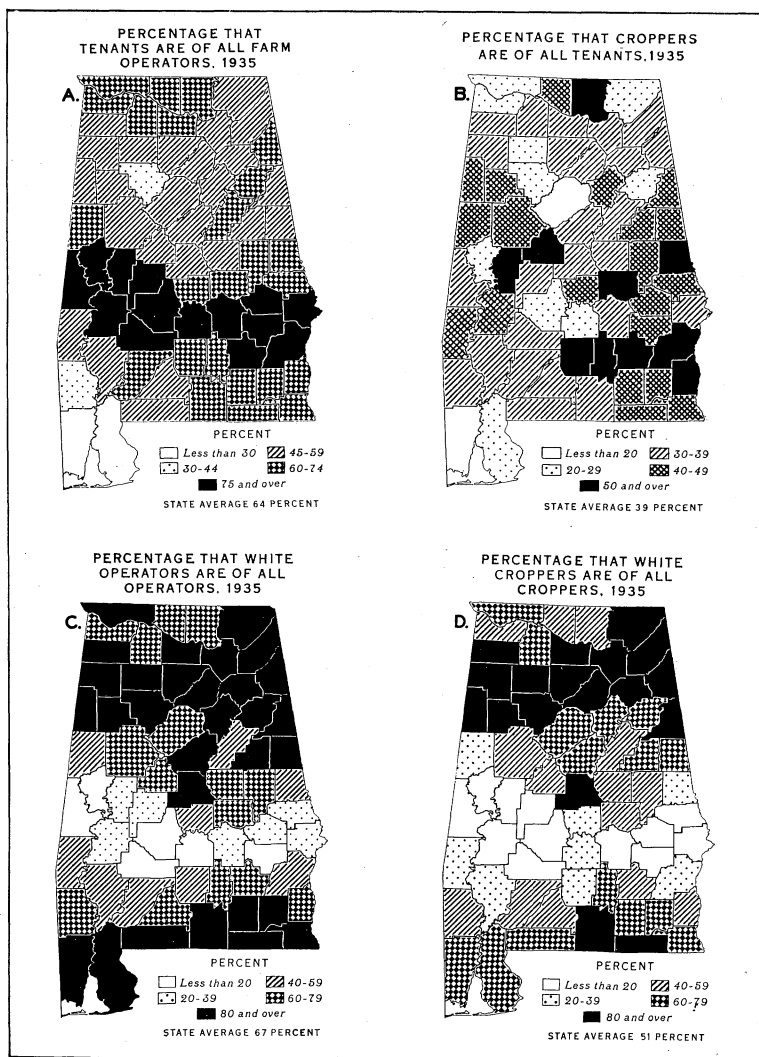


FIGURE 10.—SOME TENURE AND RACE CHARACTERISTICS OF FARM OPERATORS

A—Tenant operators were concentrated most heavily in and near the Black Prairie Belt, and owner-operators near the Gulf Coast. B—Croppers were relatively less numerous around Birmingham and near the Coast than in other parts of the State. C—White farm operators were relatively most numerous in all parts of the State except in and near the Black Prairie Belt. D—White croppers were most numerous in the mountainous sections and in the southern tier of counties. Usually a higher percentage of colored than of white tenants were croppers.

The fact that a larger proportion of colored tenants than of white tenants was croppers probably resulted from a greater inability to finance themselves to the extent necessary to become share or cash tenants and to their inability to become successful

farm operators without the constant and close supervision usually given croppers.

There were marked differences in the average amount of all land per farm on the basis of color of operator, white operators averaging about 87 acres each and colored operators 43 acres. Colored croppers with an average of 33 acres each in 1935 had the smallest amount of all land in farms and white full and part owners the largest with an average of 113 acres each. The average size of farm of all operators of all descriptions was approximately 72 acres. On the basis of tenure of operator, full and part owners had an average of about 105 acres each, croppers 40 acres, and other tenants 59 acres.

Noticeable variations by color and by tenure of operator appeared in cropland harvested in 1934 but they were much less pronounced than those in land in farms. Apparently much of the excess of land in farms held by owner-operators over that held by tenants was in woods, pasture, or wasteland not used for crops. All land in farms operated by each tenant averaged only 49 per cent of that operated by each full or part owner; whereas, cropland harvested comprised 85 per cent of that operated by full or part owners. The amount of cropland harvested per operator in 1934 varied from an average of 21 acres per colored tenant to 30 acres per white owner-operator, the average for all operators being 26 acres. Cropland harvested by white operators averaged 29 acres or approximately one third more than the 22 acres for each colored operator.

There was little difference in the value of land and buildings on the basis of tenure of operator, but there was a difference on the basis of color. In 1935 the value of land and buildings averaged \$16.22 per acre for all colored operators and \$19.35 per acre for all white operators. This difference was probably largely due to a difference in value of buildings rather than land.

Tenants in Alabama are highly mobile. This is indicated by the fact that for the State as a whole approximately 40 per cent of all tenants had moved during the previous year (Figure 11A), and about 74 per cent had moved within the past five years. Some degree of mobility was exhibited by full owners but this was much less pronounced than in the case of tenants as only about 8 per cent had been on the farm less than one year (Figure 11B), and only 24 per cent had been on the same farm less than five years.

It appears that white tenants move more frequently than colored tenants. Ten counties having an average of about 11 per cent of all tenants colored reported 48 per cent of their tenants as having lived on the occupied farm less than 1 year, while 10 other counties having approximately 49 per cent colored tenants reported only 39 per cent of tenants as having lived on the occupied farm for less than 1 year. Colored tenants probably move less frequently than white tenants because of financial

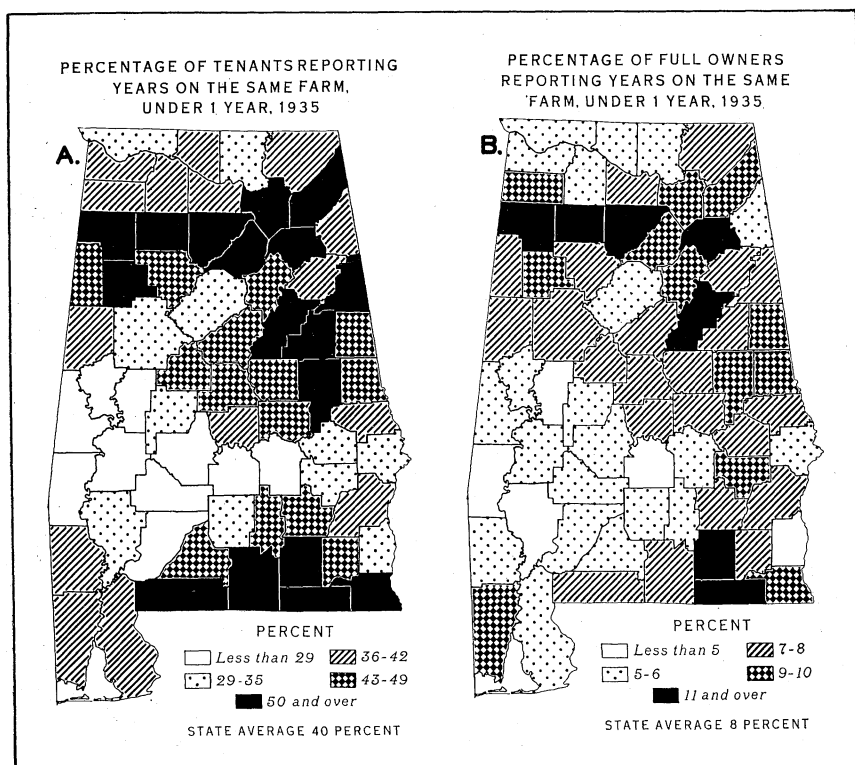


FIGURE 11.—MOBILITY OF TENANT AND OWNER OPERATORS, 1935

A—In 1935 approximately 40 per cent of all Alabama tenants had moved within a year. Coffee County with 61 per cent and Wilcox County with 18 per cent moving that year, represented the extremes. B—In 1935 approximately 8 per cent of full owners reported having lived less than 1 year on the farm then occupied. Least movement was reported in and near the Black Prairie Belt and in Henry County.

liability to landlords which frequently must be cleared before they are permitted to move, and also because of the fact that they, as a group, are less inclined to be aggressive.

Such factors as the prevalence of the verbal rental agreement, disagreement between landlord and tenant, and failure of landlord or tenant to live up to the rental agreement, are frequently used to explain the mobility of tenants. But the other factors, such as the nomadic tendencies of tenants, force of habit, and the common mirage of the "greater greenness of the pasture across the fence" are in many instances of equal or greater importance in causing tenants to move repeatedly.

In the foregoing discussion an attempt has been made to explain certain tenure conditions in relation to their broader applications to the State as a whole. It would seem, however, that no single group of factors, when uniformly applied to any particular area in the State, will completely explain the tenure conditions existing in that area. Before tenure conditions in any

particular area can be adequately explained, certain factors such as the historical development of the area, type of farming followed, nationality of the people, and other factors must be taken into consideration in addition to the factors previously mentioned.

Transportation.—The accessibility of transportation facilities to certain areas of Alabama has, in some instances, been an important factor in influencing the type of farming in these areas. This influence is perhaps of greatest importance in determining the location of many of the present fruit and vegetable areas. For instance, it is probably a factor in the location of a production area in Chilton County near the main highway between Birmingham and Montgomery. It may well be a factor in the locating of producing areas on Sand Mountain, particularly in Cullman County. No major areas of the State, however, are entirely without what may be termed "all weather highways". In most of the State there are relatively few days of the year when the principal county dirt roads are impassable, although wet weather handicaps travel on dirt roads in the heavy clay soils areas such as the Black Prairie and all limestone valley areas.

Motor trucks, in relation to crop acres, are less numerous in Alabama than in the United States as a whole. Railway mileage, however, is proportionately greater than for the whole United States. The Alabama farmer is fairly well served by railroads. Every county has some railway mileage within its borders and the railway network performs a highly valuable service to farmers throughout the State. Previous to the establishment of improved highways and the introduction of the motor truck it was extremely difficult, expensive, and often times impossible for farmers to find other than nearby market outlets for their perishable or semi-perishable products unless they were located near a railroad providing frequent service. Even under present circumstances, with extensive highway facilities in many parts of the State, most of the important commercial fruit and vegetable production areas are located near railroads which provide fast through-service to the important northern and eastern market outlets. This, however, does not minimize the importance of motor trucks, which in recent years have been of increasing importance in the distribution of fruits and vegetables to nearby markets and in some instances to distant markets, and as such have tended to encourage expansion of production to points beyond those areas adjacent to railroads.

In the case of certain staple and non-perishable agricultural commodities such as cotton, transportation has been a problem of only minor importance and has not affected their production in any area of the State to any marked extent. The same has been true in the production of cattle, hogs, sheep, and goats. It is largely with the perishable and semi-perishable products marketed at distant points that the time element is of such im-

portance that transportation facilities have greatly affected the location of the areas where these crops are produced.

Other factors.—Other factors affect the type of farming in the various parts of the State, but some of them, particularly legislation and inventions, appear to aid in intensifying differences already existing in types of farming rather than in altering the types. Laws for the encouragement of forestry aid most in natural forest districts. Agricultural adjustment legislation tends on the whole to encourage pasturage where it is best adapted and intensive cropping where crops are best adapted. Tractor development usually encourages more intensive cropping where intensive cropping already exists because of topography and soil conditions. Scientific information regarding fertilizer adaptability has undoubtedly led to rapid expansion of cropping in some areas, particularly in the mountainous region, that would otherwise have been more slowly developed and that might have been left to a greater extent to forestry uses. Further development along comparable lines may change the type of farming in a minor way, but it seems probable that such factors will not introduce sudden and radical changes in type of farming in many areas of the State.

CHARACTERISTICS OF THE AGRICULTURE OF ALABAMA

Rural Land Ownership¹

The study of rural land ownership was undertaken to show graphically the present ownership pattern in the State. Information was obtained for 66 of the 67 counties². In all, 169,192 ownership units including 29,425,250 acres of land were involved in this study which included approximately 90 per cent of the total land area of the State and 91 per cent of the area of all counties from which data were obtained. The analysis included the delineation of all ownerships of two acres or more on survey township plats similar to those used by tax assessors. In addition, the name of the owner, the total acreage he owned, his present address and occupation were determined where possible.

The tabulations were made on a survey township basis and summaries prepared for each county³. Duplications in ownerships were eliminated within county boundaries, but obviously this did not eliminate all the duplications within the State because of ownerships extending across county lines. Ownerships were analyzed according to size of holding, by residence of owner and by occupation of owner.

The data were obtained and analyses made to provide a background for determining the effects of the size of land holding, the residence of the land owner, and the business of the

¹Surveys of 57 counties were made by the Alabama Relief Administration in 1935, and of the remaining 9 counties by the Works Progress Administration of Alabama in 1937.

²No data available for Russell County.

³It is important that the survey township unit be distinguished from the minor civil divisions commonly referred to as precincts or beats.

land owner on the agriculture of the State and on rural land tenure in all of its various phases. This discussion, however, is largely limited to a description of existing conditions in regard to size of holding, residence of owner, and occupation of owner.

Size of land holding¹.—The problem of concentration of ownership is important from the standpoint of land-use planning by Federal agencies and also by individual farmers. Holdings were divided into four size groups; namely, 99 acres or less, 100 to 499 acres, 500 to 1999 acres, and 2000 acres and over (Figure 12). The average size of holdings was 174 acres (Figure 13), the extremes in average size being 82 acres in Blount County and 375 acres in Sumter County. There were four counties in the Sand Mountain area having average size holdings of less than 100 acres, and 8 of the 10 Black Prairie Belt counties had average size holdings of 250 acres or more.

The smaller size group, 99 acres or less, comprised 62 per cent of all rural land ownership units but only 16 per cent of the total acreage. These small ownership units were found in greatest numbers in townships in which physiographic or other conditions permitted more intensive farming practices and where a relatively large proportion of the land was in cultivation. This is particularly true of the Sand Mountain area, central Chilton County, and the lower part of the Gulf Coast Counties.

Ownership units of 100 to 499 acres accounted for a high percentage of the land in a number of townships all over the State. Such units, however, were found somewhat more frequently in the southern coastal plain where the crop acreage per mule and per man has tended to be somewhat above the average for the State, in 4 counties of the upper coastal plain, and in parts of northeastern Alabama where on many farms a moderate amount of wasteland is associated with the tillable land.

A large proportion of the 500 to 1999-acre group centered in the Black Prairie Belt where farms of this size were economic units for cotton production prior to the advent of the boll weevil. Since then, those farms in the lighter soil areas have continued in cotton production while holdings in the areas with heavy soils not so well adapted to cotton production under boll weevil conditions have shifted more or less to livestock production with little if any change in size of holdings.

In the group of 2000 or more acres a large proportion of the holdings are centered in the industrial area adjacent to Birmingham where mining interests control much land; in the Coosa and Tallapoosa Valleys where power companies own considerable land to protect their reservoirs; and in the southwestern part of the State where lumbering interests own large acreages of land.

¹All land owned within the boundaries of a particular county by one owner was considered as an ownership unit and was used in determining the size of holding. This ownership unit should not be confused with the Census "farm" which is defined as including all land which is directly farmed by one person, either by his own labor alone or with the assistance of members of his household, or hired employees.

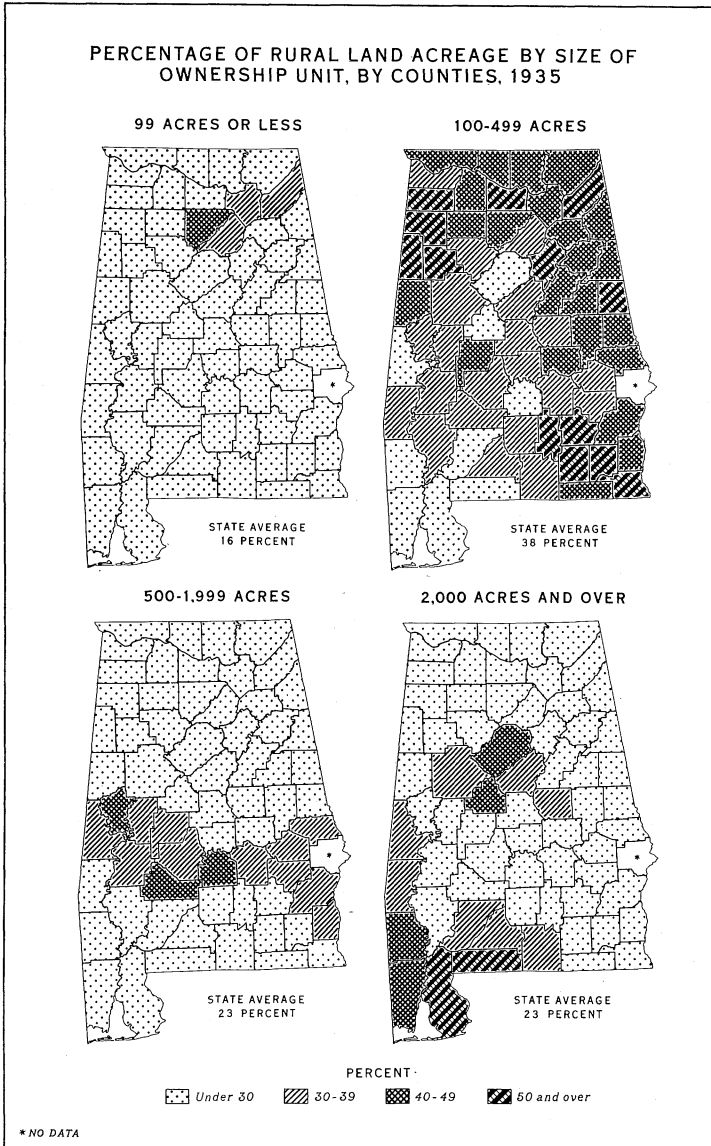


FIGURE 12.—PERCENTAGE OF RURAL LAND ACREAGE BY SIZE OF OWNERSHIP UNITS, BY COUNTIES, 1935

Small holdings were relatively numerous in the Sand Mountain region and large farms in the Black Belt, southwestern Alabama and near Birmingham.

Business of owner.—The business of the owner of land implies to some extent the use and purpose for which the land is held and may affect problems of reforestation, erosion control, tenancy, speculation, and over-capitalization. The businesses of

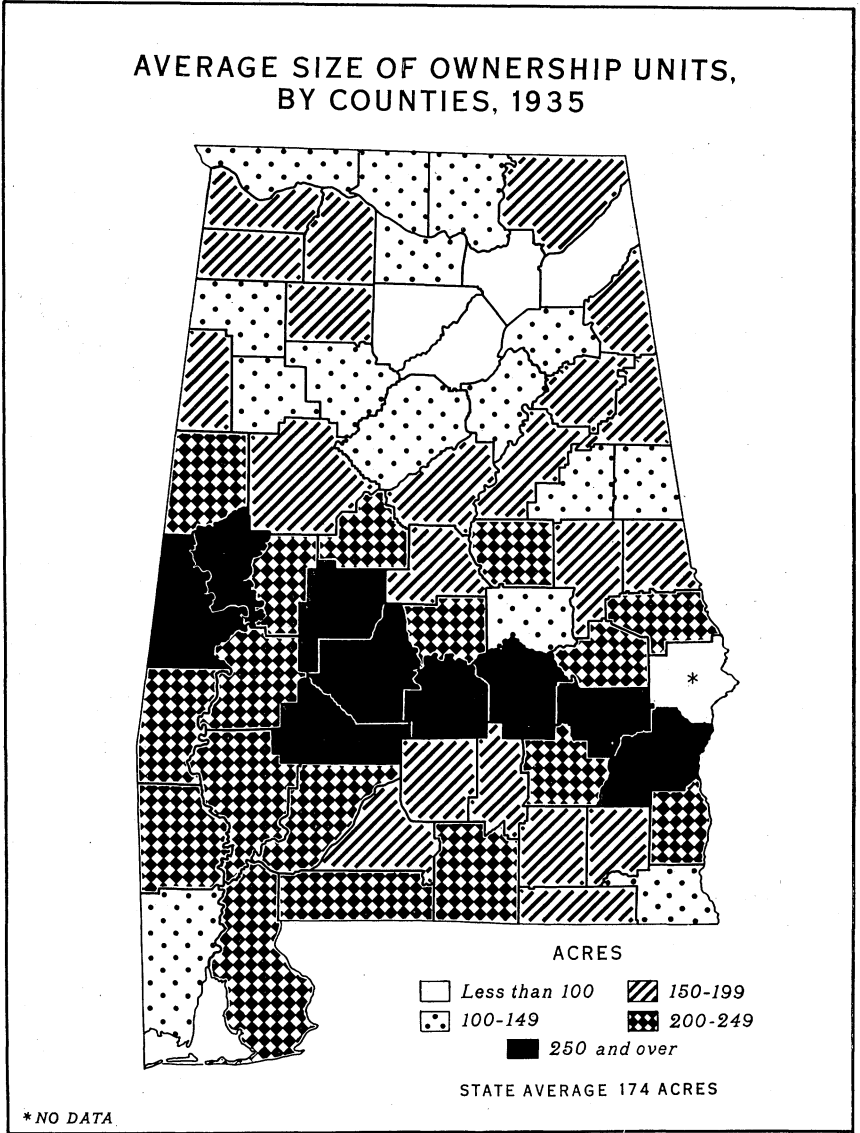


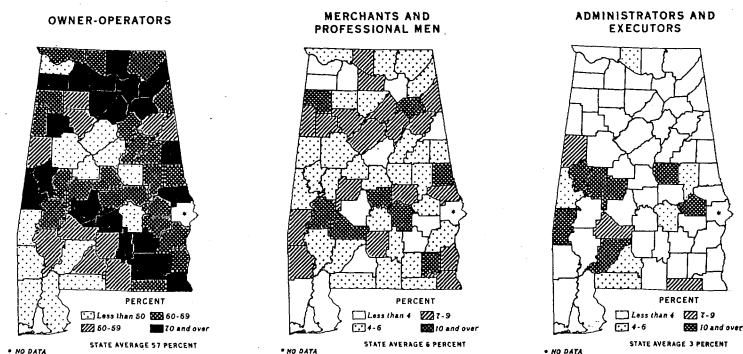
FIGURE 13.—AVERAGE SIZE OF OWNERSHIP UNITS, BY COUNTIES, 1935

In general, ownership units were largest in the Black Belt and smallest in the Sand Mountain area.

owners were divided into seven groups as follows: (1) owner-operators¹, (2) merchants and professional men, (3) administrators and executors, (4) banks, mortgage companies and real estate agencies, (5) wood using industries, (6) mining,

¹An owner-operator is defined as any owner of rural land who received 50 per cent or more of his gross income in 1935 from the land.

A. PERCENTAGE OF TOTAL RURAL LAND ACREAGE OWNED, BY SELECTED TYPE OF OWNER, 1935



B. PERCENTAGE OF TOTAL RURAL LAND ACREAGE OWNED, BY SELECTED TYPE OF OWNER, 1935

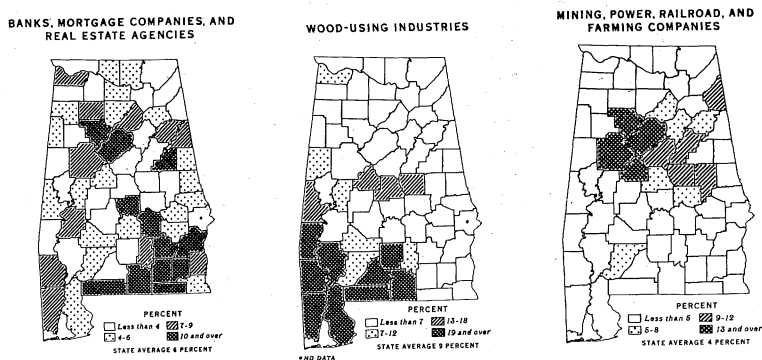


FIGURE 14.—RURAL LAND ACREAGE BY TYPE OF OWNER, 1935

A—With the exception of the mineral and industrial district around Birmingham and the timbered sections of the southwestern part of the State, rural land held by owner-operators was well distributed over Alabama. Rural land owned by merchants and professional men was well scattered over Alabama, and that controlled by administrators and executors was most heavily concentrated in scattered counties in the southern half of the State. B—Ownership of rural land by banks, mortgage companies and real estate agencies was most heavily concentrated in southeastern Alabama where the ratio of mortgage indebtedness to the value of land and buildings was unusually high (see section on Taxation and Mortgages), in the mining and industrial area around Birmingham, and in a few other scattered areas. Land owned by wood-using industries was mainly in the timbered and cut-over areas in southwestern Alabama. Rural land owned by mining, power, railroad and farming companies was heavily concentrated in the mining and industrial area around Birmingham, and in the Coosa and Tallapoosa River Valleys.

power, railroad, and farming companies, and (7) all other businesses and business unknown (Figure 14A and 14B).

Of the 169,192 ownership units in 66 counties, 74 per cent were listed as being owned by owner-operators. These owners held 16,874,610 acres, which was 57 per cent of the 29,425,250

acres of rural land in these counties. Of the remaining land holdings except those held by public agencies¹, merchants and professional men held 5 per cent of the ownership units and 6 per cent of the acreage; administrators and executors 2 per cent of the ownership units and 3 per cent of the acreage; banks, mortgage companies and real estate agencies 1 per cent of the ownership units and 6 per cent of the acreage; wood-using industries 1 per cent of the ownership units and 9 per cent of the acreage; mining, power, railroad, and farming companies less than 1 per cent of the ownership units and 4 per cent of the acreage; and all other businesses and business unknown 16 per cent of the ownership units and 13 per cent of the acreage². Holdings of rural land by those other than owner-operators exist primarily because of mineral, timber, and water resources, speculation, desire for investment, and foreclosures.

The acreage of rural land held by owner-operators was relatively small in the industrial counties around Birmingham, in the Coosa and Tallapoosa river valleys where non-farm interests are found, in Colbert and the southwestern counties where lumbering interests are extensive, and in Montgomery County where city residents own a considerable acreage.

The county data shown and unpublished township data indicate substantial ownership of rural land by merchants and professional men in many parts of the State, and on many types of land. Much of such land probably was acquired through inheritance or through direct purchase for investment.

The distribution of rural land controlled by administrators and executors varies quite widely throughout the State. This situation was, no doubt, influenced by differences in interpretation of the terms in securing the data. It is likely that in some instances heirs were considered as owner-operators in some counties while in others the ownerships were considered as estates or property held in trust.

The concentration of acreage held by banks, mortgage companies, and real estate agencies in the southeastern part of the State, and in Autauga and Montgomery Counties was evidently the result of foreclosures. In Clay County there appears to have been a considerable amount of investment and speculation. The concentration of this type of ownership in the timbered and newly developed areas of some of the southwestern counties was evidently the result of speculation and investment by real estate agencies of various kinds.

The concentration of ownership by wood-using industries was mainly in the thinly settled areas of southwestern Alabama. Some of this is timbered land that is still being lumbered or turpentine and some is cut-over land owned by lumber companies. An area of minor importance appears in the hilly section south of the industrial counties.

¹Map on land owned by public agencies is shown in section on residence of owner.

²Map not shown for land owned by those owners included in "all other businesses and business unknown."

Rural land owned by mining, power, railroad and farming companies is concentrated mainly in the industrial area adjacent to Birmingham where large acreages of mineral land are held by mining companies, and in the Coosa and Tallapoosa river valleys where a considerable acreage is held by power companies.

Residence of owner.—Location of residence of owner affects the supervision and management of the holdings which in turn may present problems of land use. Owners living off the land and at a considerable distance from it are not able to give personal supervision to the extent possible by resident-owners. The holdings were divided into the following groups by residence of owner, namely; owner living in the county in which the holding was located or in an adjoining county of Alabama; owner living in Alabama but not in the county in which the holding was located or adjoining county; owner living outside the State or at an unknown address and public-land holdings (Figure 15).

Owners living in the county or an adjoining county in Alabama held 90 per cent of the ownership units and 83 per cent of the acreage; residents of Alabama who did not live in the county or an adjoining county held 2 per cent of the ownership units and 5 per cent of the acreage; residents outside the State of Alabama or of unknown address accounted for 7 per cent of the ownership units and 10 per cent of the acreage, while public agencies held 1 per cent of the ownership units and 2 per cent of the acreage. Land was held by distant owners largely because of mineral, timber, and other non-farming interests, and because of the reluctance or inability on the part of heirs to dispose of inherited farm land. Out-of-State owners were not necessarily distant owners because they may have resided just across the State border from their holdings.

Ninety per cent or more of the land was owned by residents of the county in which the land was located or in an adjoining county of Alabama in a considerable area centering in and around Jefferson County, and in Marengo, Wilcox, Crenshaw, and Macon Counties. Probably much of the land near Birmingham was owned by financial and business interests within the city. A considerable proportion of the land in five southwestern counties of Alabama was owned by people residing elsewhere. Each of these counties borders Mississippi or Florida in which owners of land may reside, and this area has been the scene of considerable speculative buying by residents of distant sections who hoped to capitalize on increasing land values as these relatively new areas were developed.

Ownership of land in non-adjacent counties centered somewhat in the Talladega Mountains where timber and mineral resources apparently attracted outside investors; in the Coosa and Tallapoosa Valleys where the Alabama Power Company

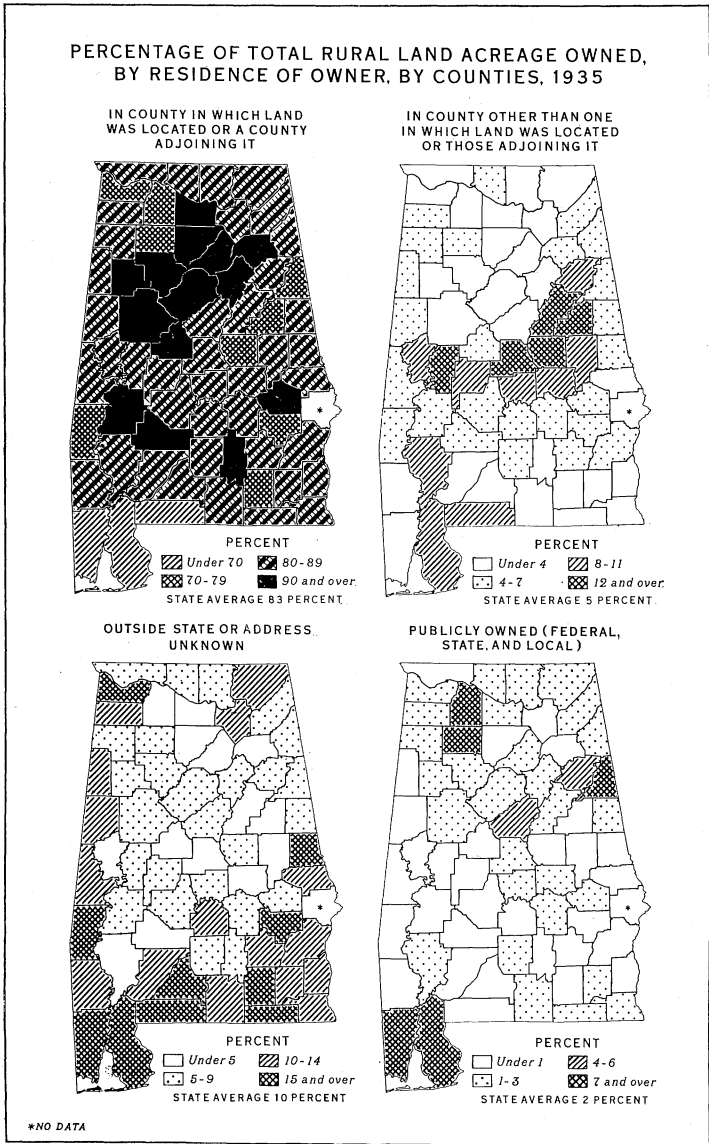


FIGURE 15.—PERCENTAGES OF TOTAL RURAL LAND ACREAGE OWNED, BY RESIDENCE OF OWNER, BY COUNTIES, 1935

Most units are owned by nearby residents but some, especially near the State's border, are owned outside Alabama.

has acquired land to protect its reservoirs; and in the Black Prairie Belt Counties where estates have been built up but the principal heirs have apparently moved away.

In 10 counties 15 per cent or more of the land was owned by out-of-State residents or by people whose addresses were unknown. Five of these counties were in the southwestern part of the State while seven were border counties and the owners could have lived close to their property, although in another State.

The publicly-owned land was principally in National forests in Winston, Lawrence, and Cleburne Counties. There was also considerable land held under tax title in many Alabama counties.

Land Value

The value per acre of farm land in 1930 ranged from \$7.13 in Coosa County to \$65.28 in Jefferson County, the average for the State being \$20.17. The value of farm land generally was influenced by proximity to cities—Jefferson, Mobile, Houston, and Montgomery Counties reporting higher values than adjacent counties (Figure 16A).

High land values in Colbert County probably reflect to some extent the urban development near hydro-electric power production areas. Farm lands in the Tennessee Valley and Sand Mountain areas of north Alabama, as well as in the intensively farmed sections of the southern part of the State, are generally of moderate to high value apparently because of the productivity of the soil. Low values of farm land were reported in the hilly regions northwest of Birmingham, in the rough sections of the Piedmont region, in the thinly populated area of the southwestern part of the State—excluding the Gulf counties—and in the eroded lands on or near the northern border of the peanut area in the southeastern part of the State.

Taxation and Mortgages

Farm taxes in relation to farm value were much lower in Alabama in 1929 than the average for the United States. In only Nebraska, Delaware, Virginia, and Texas were the taxes lower in relation to value of farm real estate than in Alabama. Most of the counties in which taxes per acre exceeded 35 cents were in the Tennessee Valley and Sand Mountain regions and in counties in which cities are located. In general, there was a close association between land values and taxes per acre (Figure 16B). Nevertheless, within Alabama the ratio of taxes to value varied considerably from county to county. The ratio was one per cent or more in a series of counties from Choctaw on the west to Barbour on the east side of the State and in several counties of north Alabama (Figure 16C). There was no consistent relation between amount of taxes per acre and ratio of taxes to value.

There were 19,036 tax sales of rural property in the State from 1928 to 1933¹. While some properties may have been sold

¹Clark, Carl M., Rural Property Tax Problems in Alabama, Ala. Agr. Expt. Sta. Bul. 247, June 1940.

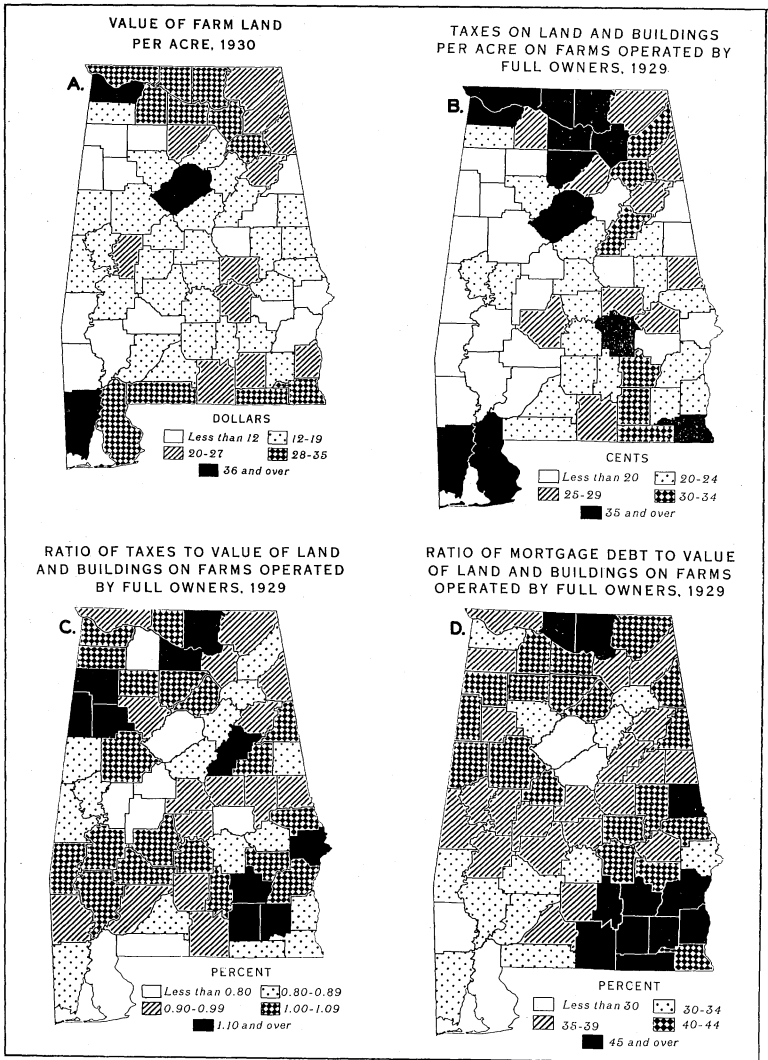


FIGURE 16.—FARM VALUES, TAXES, AND MORTGAGES

A—Most valuable farm lands in 1930 were in the Tennessee Valley and Sand Mountain areas of northern Alabama, in the extreme southern part of the State, in Hale County, and near cities. B—In general, taxes tended to be light on farm land of low value in 1929. C—Low valued farm lands tended to be taxed higher than average in relation to value. Compare Figures 16A and 16C. D—The value of farm land per acre appeared to have little influence on the ratio of mortgage debt to the value.

more than once and a number were undoubtedly non-farm in character, the total was nevertheless impressive. Least numerous sales were found in the Black Prairie Belt and adjacent counties. Sales were most numerous in the Gulf counties, but were also numerous in most of the mountainous region in north-western Alabama and in parts of the Peanut Belt and south-

western part of the State. Tax sales appear to have been negatively associated with size of ownership units and positively associated with newly developed areas with speculative interests and lastly with reputedly poor farming areas.

In 1930 farms of the nine southeastern Alabama counties were more heavily mortgaged than in other sections. In each of these counties 45 per cent or more of the farms were under mortgage according to the Census, and in eight of these counties the mortgages covered 45 per cent or more of the value of the farm involved. Several of the Tennessee Valley and adjacent counties were also more heavily involved than the average county (Figure 16D).

Selected Production Expenses

Farming in most of Alabama is characterized by heavy expenditures for commercial fertilizer, at least for cotton and commercial vegetables and frequently for feed crops (Figure 17A). Livestock production is important in the aggregate but on most farms is a minor enterprise based largely upon home produced feeds and tends to be limited by this production. Protein and mineral supplements are purchased to some extent throughout the State. Heaviest feed purchases are made by farmers specializing in market milk and in commercial poultry and egg production. Labor is usually plentiful but, in general, relatively little is hired since most farmers prefer to work their land with their family labor or with tenants. Nevertheless, farmers operating on a large scale usually employ some help on a wage basis especially to grow feed crops and many employ occasional day labor in rush times. Low labor compensation per day and physical conditions usually do not favor the use of labor-saving equipment. Therefore, tractors and tractor equipment in the State, as a whole, are of minor importance despite their use in a few areas especially suited to such equipment. The purchase of such equipment is probably encouraged as much or perhaps even more by the cost of mules than by the cost of man labor.

The growing of winter legumes, principally vetch and Austrian winter peas, both for soil improvement and winter cover of cropland, has developed rapidly during the past few years (Figure 17D). This practice has increased more rapidly in the Limestone Valley and mountainous sections of the northern and northeastern parts of the State than in the Lower Coastal Plain and Black Prairie Belt sections.

Value of Farm Crops

In general, highest values per harvested crop acre of all farm crops, including orchards and farm gardens, were reported from northern Alabama and lowest from the southeastern part of the State (Figure 17C). Five counties reported values in excess of \$41 per acre and four counties of less than \$20 per

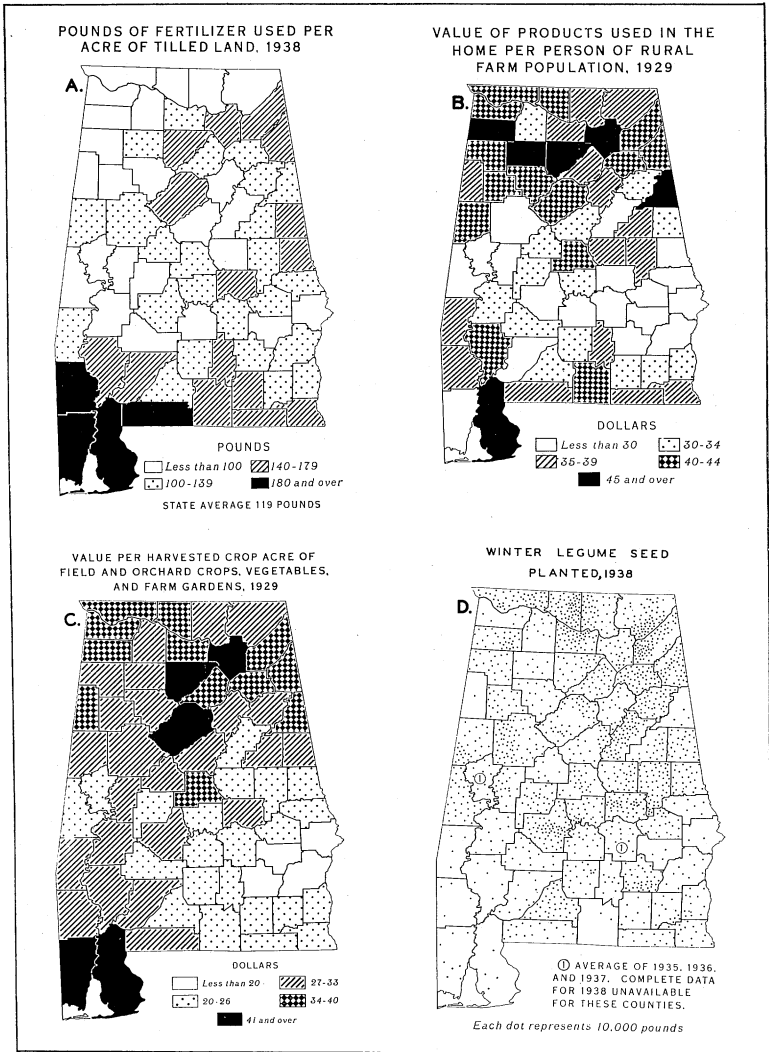


FIGURE 17.—FERTILIZER AND LEGUME SEED USED, VALUE OF CROPS, AND VALUE OF PRODUCTS USED IN THE HOME

A—Truck crop production led to the high application of fertilizer per acre in southwestern Alabama. B—Large ownership units, high proportion of tenancy and large percentage of colored farmers tended to be associated with low values of home-used products. C—Low values of crops per harvested crop acre tended to be associated with low crop yields and utilization of land by crops having a low unit value. D—The use of winter legumes is more prevalent in northern and northeastern Alabama than in the southern part of the State.

acre. The high values reported from Jefferson, Baldwin, and Mobile Counties were largely the result of the production of truck crops and double cropping, while those from Cullman and Marshall Counties were related more to high crop yields.

Family Living

Low cash income has increased the effort of a great number of Alabama farmers upon production for home consumption. Nevertheless, in 1935 only 22 per cent of "census" farms reported farm orchards, 82 per cent farm gardens, 30 per cent Irish potatoes, 74 per cent sweet potatoes, 70 per cent swine, 76 per cent cows milked, and 89 per cent chickens. Apparently, Alabama farmers who do attempt to produce for home consumption are able to provide an abundance. The average value of food products consumed per person on the farms where produced was about equal to the United States average. Within Alabama there was much variation in this consumption (Figure 17B). Generally, mountain counties with their high percentage of white farm population tended to produce more products for home use than the State average as did also Baldwin County and other southern counties having a high percentage of white farmers. The sections in which relatively small amounts were produced for home use included the Black Prairie Belt and adjacent counties as well as Tuscaloosa and Talladega Counties. With the single exception of Pickens County, no county having less than 50 per cent white farm population had a per capita consumption of \$40 worth of home grown farm products. In contrast no county having less than 20 per cent white farm population had a per capita consumption of as much as \$30 worth of these products.

Land Utilization

Alabama has an approximate land area of 32,818,560 acres of which 19,660,828 acres, or approximately 60 per cent, was in farms in 1935. The acreage of land in farms in 1935 was 11 per cent greater than in 1930 but the acreage of cropland in farms showed an increase of only 2 per cent for this period. Figure 18A shows the geographical distribution of the land in farms on January 1, 1935.

Total cropland.—Land in harvested crops plus land that was idle or fallow and land on which crop failure occurred, amounted to 8,356,185 acres or 42 per cent of the land in farms in 1934, while total pasture made up 26 per cent, and woodland and other land not pastured accounted for slightly more than 32 per cent of land in farms.

Land in harvested crops amounted to 7,238,606 acres, or about 87 per cent of the total acreage of cropland, the remaining 13 per cent being made up of idle and fallow land and crop failure. Crop failure, due to weather, insects and other causes, was relatively unimportant in 1934 and amounted to only a little more than 1 per cent of the planted crop acreage. This was considerably less than the acreage of crop failure reported for 1924 and 1929. There was little change in the acreage of idle or fallow land between 1924 and 1934. Figures 18B, 18C, and 18D show the distribution of cropland harvested, crop failure, and idle cropland, and the total number of farms.

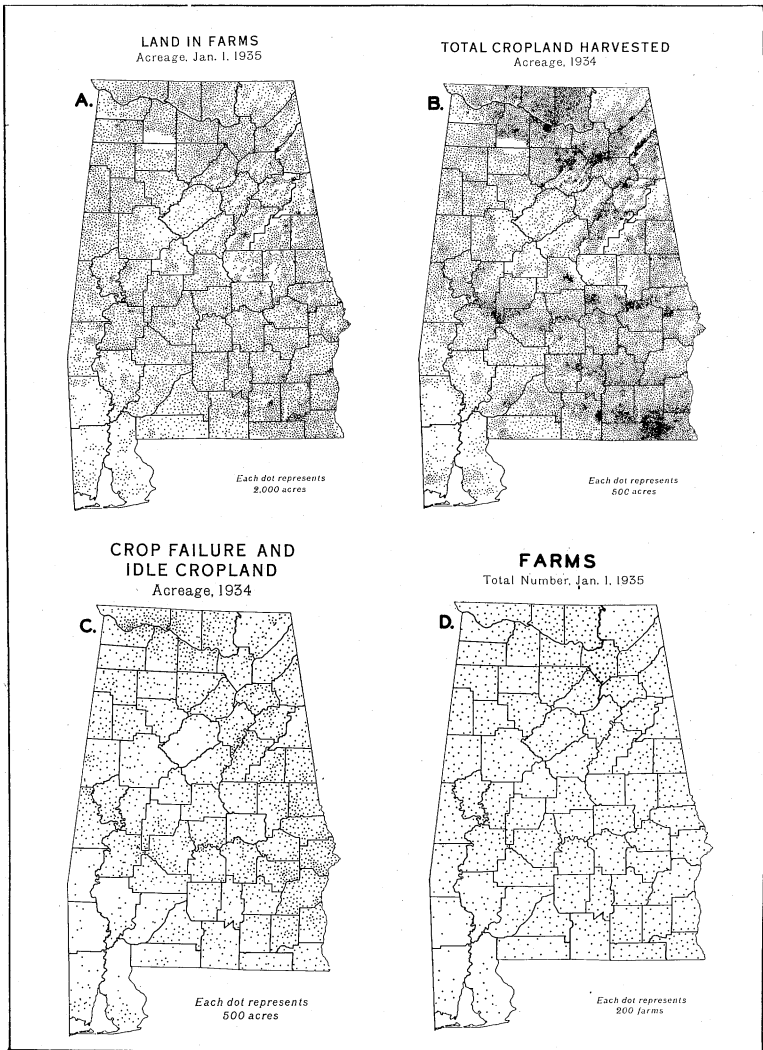


FIGURE 18.—LAND IN FARMS, HARVESTED CROPS, AND CROP FAILURE, AND NUMBER OF FARMS

A—Mountainous and rough land in many parts of Alabama, and infertile or undeveloped land of the southwestern part of the State were largely responsible for areas of non-farm land. B—Generally speaking, heavy concentrations of harvested cropland indicated relatively level and productive areas. C—The distribution of crop failure and idle cropland followed closely the general pattern of land in farms in 1934. D—The number of Census farms followed, in general, the amount of land in farms, but were relatively more numerous than acres of farm land in intensive farming areas.

Land in forest.—The total acreage of forest land in Alabama, which includes that on land in farms as well as on land in non-farm uses, constitutes approximately 68 per cent of the State's total land area. On a county basis the percentage of total

land area in forest was highest in Baldwin County where it constituted 93 per cent of the total land, and lowest in Chambers County where it covered 40 per cent. The proportion of total land area in forest was greatest in the southwestern part of the State and in an area centering near Birmingham, and lowest in the counties along the northern border of the State. A considerable proportion of the present acreage of forest land is cut-over land now covered with second growth trees of varying quality and condition.

Pasture.—Land in plowable, woodland, and other pasture amounted to 5,042,063 acres, or approximately 26 per cent of the total acreage of land in farms in Alabama in 1934. There has been a slight though gradual increase in the total acreage of pasture, as well as in the percentage of total farm land in pasture since 1934. Plowable pasture constituted 27 per cent, and woodland and other pasture made up the remaining 73 per cent of the total acreage of farm land in pasture in 1934.

Plowable pasture was most heavily concentrated in those areas in which soil conditions were especially favorable to the production of a larger variety of grasses and legumes (Figure 19A). This applies particularly to the heavier soils, and in some such areas a considerable acreage of land was infested, prior to withdrawal from cultivation by Bermuda and Johnson grass, both of which are difficult to eradicate when once established on heavy soils. The acreage of improved pasture in Alabama is relatively small, much of the reported plowable pasture consisting of worn out, unproductive land that has been abandoned for crop production and has become occupied by naturally seeded plants, some of which are of small value as pasture. Such land, once it became infested with Johnson and Bermuda grass and was withdrawn from cultivation, gradually became occupied by Dallis grass, lespedeza, white clover, black medic and native hop clovers.

Heaviest concentrations of woodland pasture and other non-plowable pasture in 1934 were in those sections in which rough, broken topography makes a relatively large proportion of the farm land unsuited for the production of cultivated crops (Figure 19B). In such areas woodland pasture may consist of virgin forests, or it may be land that formerly was cultivated but has become badly eroded and allowed to grow up to second-growth timber.

Other pasture generally occurs on land that is too rocky, rough, or stumpy for the production of crops, or on low, wet, poorly drained land.

Trends in Crop Acreages

The acreages devoted to specific crops and trends in these acreages for the years 1867-1938, were apparently the result of a combination of several or all of the following factors: relative comparative production advantages, relative prices received,

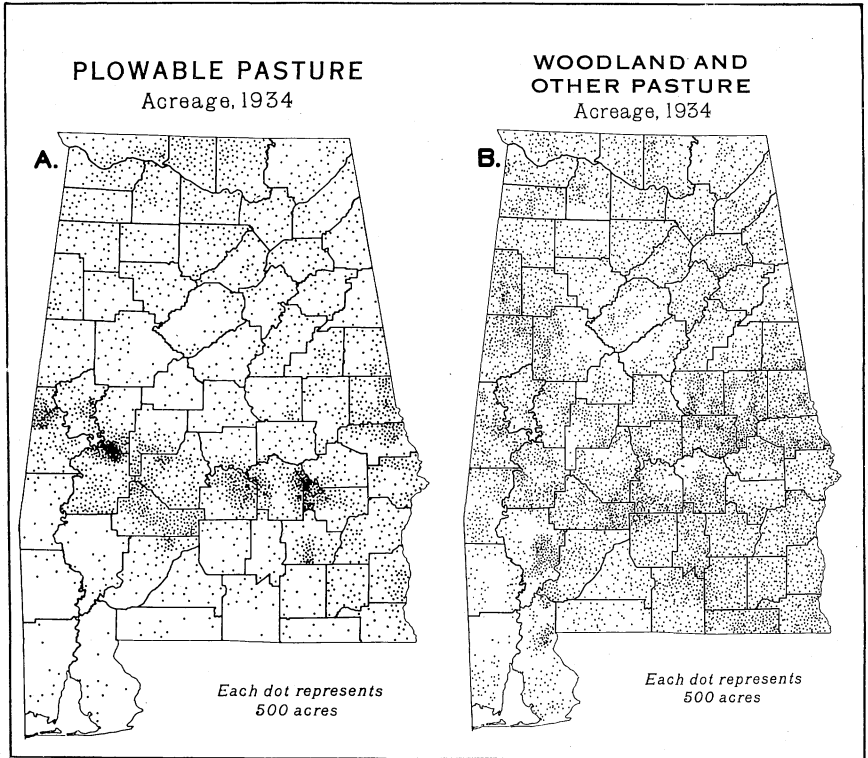


FIGURE 19.—LAND IN PLOWABLE PASTURE AND IN WOODLAND AND OTHER PASTURE

A.—Plowable pasture is heavily concentrated in the Black Prairie Belt. Very little is reported from the southwestern part of the State and in the rough areas, partly because of the relatively small proportion of land in farms. B.—Heaviest concentration of woodland pasture and other nonplowable pasture were in the Piedmont Plateau, Upper Coastal Plain, and the rough, hilly area bordering the Black Prairie Belt on the south.

technological changes, custom or habit, yields, insect and disease damage, and governmental acreage control programs.

From the standpoint of acreage, **cotton** and **corn** were by far the most important crops produced in Alabama during the period 1867-1938. They occupied an average of 68 per cent of the total area of improved land in farms during the Census years 1889-1934. The acreages in cotton and corn increased at about the same rate from 1867 to 1895, and then cotton acreage increased much more rapidly than corn until 1914, after which date the acreage devoted to these two crops varied inversely, the one about offsetting the other (Figure 20A). The per cent of improved farm land that was in cotton and corn during the Census years 1889-1934 varied from 60 to 78, but there was no evidence of a long-time trend during this period. In 1934, cotton and corn comprised 80 per cent of the total harvested cropland in Alabama. Cotton represented less than 20 per cent in only 4 and over 35 per cent in 5 counties. Corn represented less than

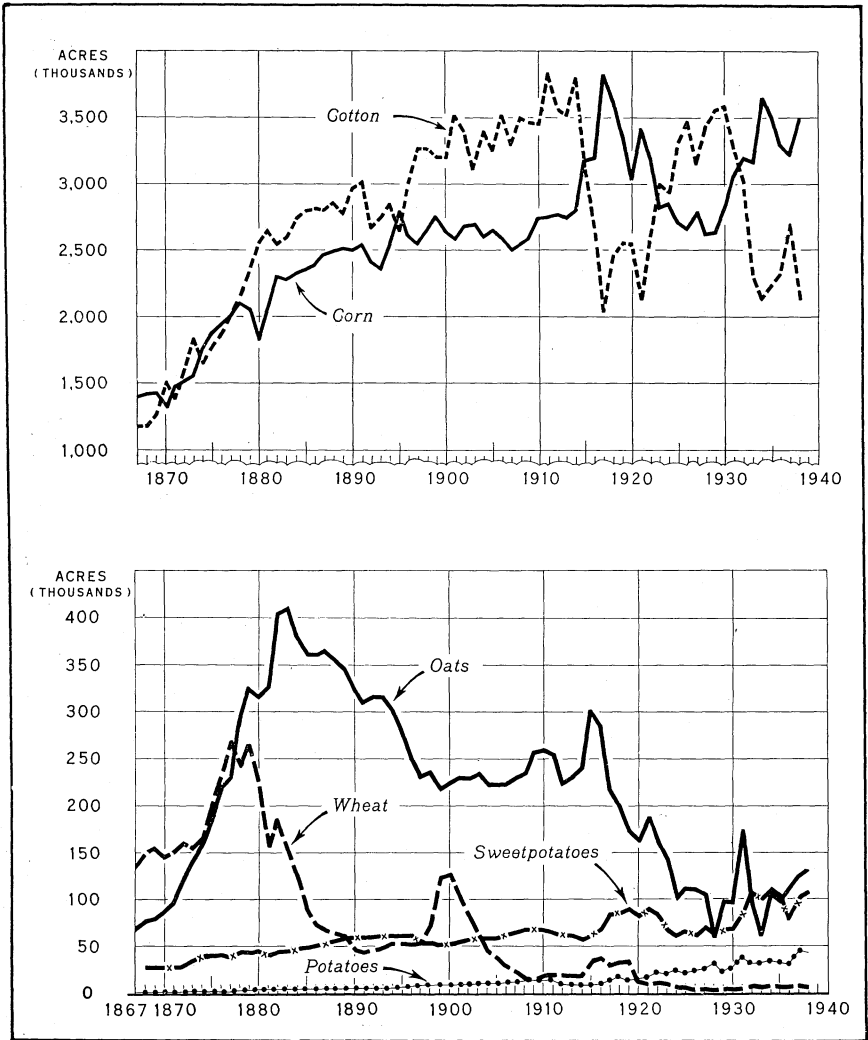


FIGURE 20A (Top).—ACRES IN COTTON AND CORN, ALABAMA, 1867-1938

The cotton acreage in Alabama increased steadily with only minor interruptions from 1,183,000 acres in 1867 until it reached a peak of 3,833,000 acres in 1911. It then remained relatively constant until 1914, after which the acreage fluctuated widely as a result of boll weevil infestation and governmental acreage control programs. Corn acreage increased from 1,400,000 acres in 1867 to 2,780,000 acres in 1895 and remained fairly constant until 1915. After the latter date fluctuations in corn acreage varied inversely and more or less equally with fluctuations in cotton acreage. The maximum corn acreage was reached in 1917 when 3,830,000 acres were devoted to this crop.

FIGURE 20B (Bottom).—ACRES IN OATS, WHEAT, SWEET POTATOES, AND POTATOES, ALABAMA, 1867-1938

The acreage in oats increased sharply from 68,000 acres in 1867 to 410,000 acres in 1883, and declined gradually to a low of 58,000 acres in 1928, and increased only moderately since the latter date. The acreage in wheat reached a peak of 270,000 acres in 1877, and then declined steadily, with only two important interruptions, to an average of 5,400 acres for the 10 years, 1929-38. Both sweet potato and potato acreages increased greatly during the period 1867-1938.

40 per cent of harvested cropland in only 2 counties and more than 71 in only one.

The acreage devoted to **oats** in Alabama reached a peak of 410,000 acres in 1883 and after that date declined to an average of 109,000 acres for the ten years, 1929-38. Wheat acreage also declined rapidly after reaching a maximum of 270,000 acres in 1877. The average area in **wheat** for the period 1929-38 was only 5,400 acres or about 2 per cent of the maximum figure in 1877 (Figure 20-B).

Sweet potato and **potato** acreages increased greatly from 1869 to 1938, sweet potatoes having occupied an average of 35,000 acres during the 10-year period 1869-78 and 93,000 acres during the ten year period 1929-38. Potatoes occupied an average of 3,000 acres during the earlier period and 34,000 acres during the latter period.

It is extremely difficult, if not impossible, to ascertain the reasons for the various shifts and trends in the acreages of all of the above crops. There do appear, however, to be certain plausible explanations for some of the shifts from one crop to another and for the trends in acreage of some crops. The rather rapid increase in both cotton and corn acreage during the years 1867-95, appears to have been a part of the general agricultural expansion that took place in this period of rapidly increasing population. The continued expansion of cotton acreage during the period, 1896-1914, as compared with the relatively constant corn acreage, appears to have been stimulated by increasing yields and rising cotton prices during this period. Furthermore, there was little or no increase in corn requirements for feeding livestock since a substantial reduction in hog numbers about offset the increase in horses and mules from the standpoint of feed requirements. From 1915 to 1938 cotton and corn acreages varied inversely. During the first nine years of this period, cotton acreage was substantially reduced because of damage from the boll weevil and corn acreage increased rapidly. For the years 1924 to 1932, damage to cotton resulting from the boll weevil was reduced and cotton displaced part of the acreage previously devoted to corn. In 1932, the acreage in corn was approximately equal that of cotton, but since 1933 governmental control programs and other factors have been largely responsible for corn acreage exceeding cotton acreage by about 35 per cent.

The relatively uniform increase in sweet potato acreage appears to have been associated with the increasing demands of an increasing population; whereas, the increase in Irish potato acreage, much of which occurred in the two decades 1919-38, was largely due to the development of commercial production areas in Baldwin and Mobile Counties.

Data on the acreages of most **legume crops** were not available previous to 1924 (Figure 21A). Using the five-year period

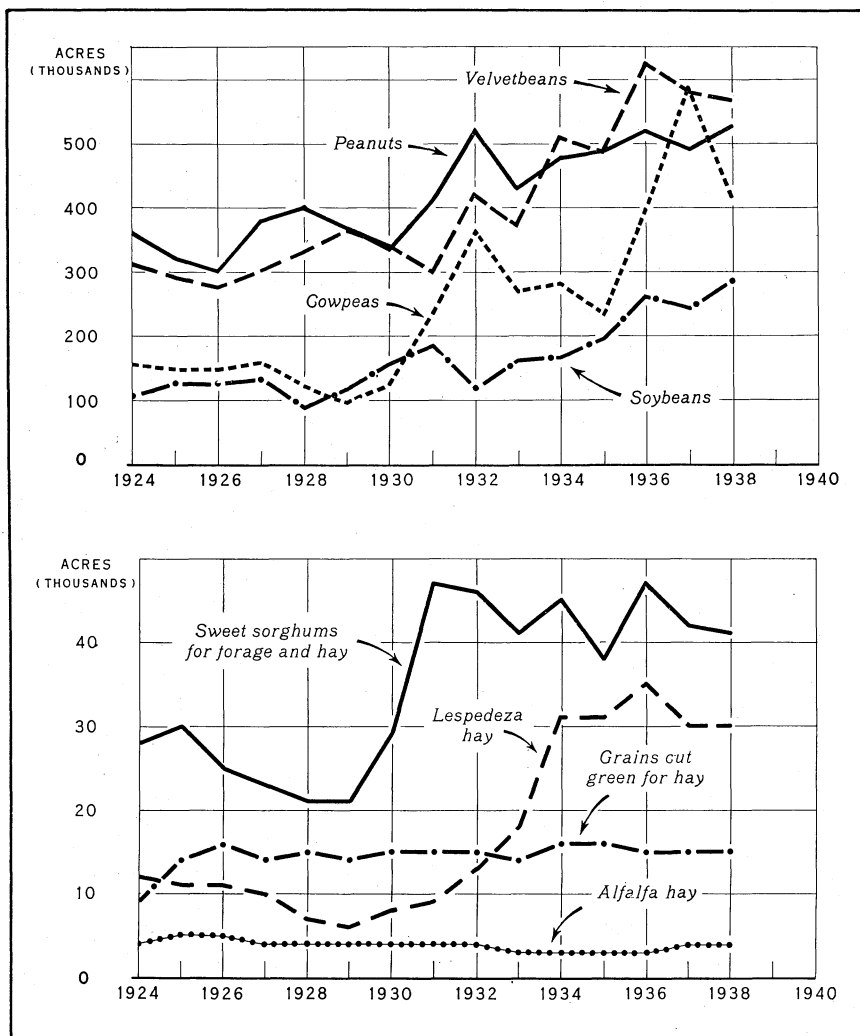


FIGURE 21A (Top).—ACRES (SOLID EQUIVALENT) IN PEANUTS, VELVET BEANS, COWPEAS, AND SOYBEANS, ALABAMA, 1924-38

Acreages of peanuts, velvet beans, cowpeas, and soybeans increased markedly during the years 1924-38. These increases occurred largely after 1930, and, in general, were continued through 1938.

FIGURE 21B (Bottom).—ACRES IN SWEET SORGHUMS FOR HAY AND FORAGE, LESPEDEZA (JAPAN CLOVER) HAY, GRAINS CUT GREEN FOR HAY, AND ALFALFA HAY, ALABAMA, 1924-38

The average acreage devoted to the production of sweet sorghums for forage and hay increased about 72 per cent from the 5-year period 1924-28 to 1934-38. Lespedeza (Japan Clover) hay acreage increased from an average of 10,000 acres for the years 1924-28 to 31,000 acres for the period 1934-38, or about 210 per cent. The acreages of grains cut green for hay and alfalfa hay remained relatively constant during the period 1924-38.

1924-28 as a basis for comparison with the period 1934-38, there was a 41 per cent increase in **peanut**, 84 per cent in **velvet bean**, 99 per cent in **soybean**, and 161 per cent in **cowpea** acreage. The combined average annual acreage for those four annual legume crops was 919,000 during the earlier period as compared with an average of 1,666,000 acres during the latter period. The acreage in winter legumes, largely devoted to crimson clover, Austrian winter peas, and vetch, increased from an almost negligible amount in 1924 to an estimated 625,000 acres in 1938. Perennial legume crops have been of relatively minor importance in Alabama and the very small acreage occupied by these crops has remained relatively constant over a period of years. With the comparatively recent introduction of the perennial legume kudzu which occupied an estimated 6,032 acres in Alabama in 1938, and lespedeza sericea, an increase in the acreage of perennial legumes will probably occur in future years.

Trends in the acreage of the more important crops as shown in Figures 20A to 21B have, for the most part, kept pace with population increases. Exceptions to this are wheat and oats, the wheat acreage declining greatly since 1877 and oat acreage since 1883.

Trends in Crop Yields

Yields of most crops, for which data were available, fluctuated widely during the 72-year period, 1867-1938, and certain crops showed marked trends in yields. Between the two 20-year periods, 1869-88 and 1919-38, average **cotton** yields increased 35 per cent; **oat** 53 per cent; **wheat** 65 per cent; and **sweet potato** 8 per cent. Average yields of **corn** increased from 12.6 to 13.1 bushels per acre or 4 per cent, and **potato** yields decreased about 3 per cent during this period (Figure 22A and 22B).

Data on yields of some crops were not available previous to 1924; thus, it is not possible to compare the trends in yields of these crops with those of crops, the yields of which were available for the period beginning 1867. There were, however, definite trends in the yields of certain of these crops when computed on the basis of the 5-year periods, 1924-28 and 1934-38. From the period, 1924-28, to the latter period average peanut yields increased from 574 to 729 pounds per acre or 27 per cent; yields of velvet beans increased 7 per cent, wild hay 14 per cent, and tame hay 3 per cent. There was no change in the average yields of soybeans or cowpeas during these two periods. Lespedeza hay yields decreased 4 per cent.

Average **cotton** and **corn** yields for the 10 years, 1928-37, were higher in the counties in the northern third of the State than in any other section (Figures 23A and 23B). The ten-year average yield of corn in the nine counties that had average yields of 10 bushels per acre or less was 9.2 bushels (Figure 23B). All

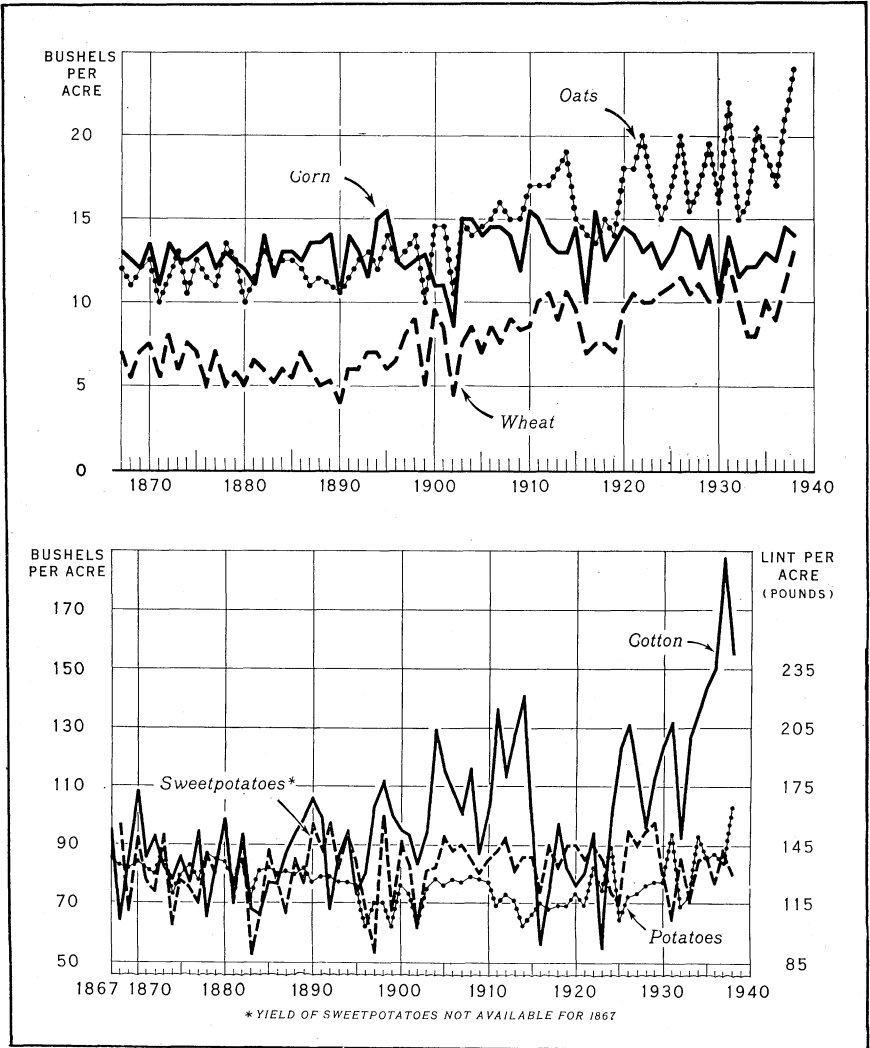


FIGURE 22A (Top).—YIELDS OF CORN, OATS, AND WHEAT, ALABAMA, 1867-1938

Yields of corn during the period 1867-1938 varied from 8.5 to 15.5 bushels per acre, with an average yield of 13 bushels for the period. There was no long-time trend in corn yields as shown by the fact that for the 20-year period, 1869-1888, corn yields averaged 12.6 bushels per acre and 13.1 bushels for the years 1919-38. Average oat yields per acre increased from 11.8 to 18.1 bushels, or about 53 per cent, and average yields of wheat increased from 6.2 to 10.2 bushels per acre, or about 65 per cent.

FIGURE 22B (Bottom).—YIELDS OF COTTON, SWEET POTATOES, AND POTATOES, ALABAMA, 1867-1938

Yields of cotton during the period 1867-1938 varied from 93 pounds of lint per acre in 1923 to 290 pounds in 1937. Yields increased from an average of 135 pounds per acre during the 20-year period, 1869-1888 to 183 pounds for the period 1919-38, or about 35 per cent. Average potato yields during the same period, decreased from 81 to 79 bushels per acre, and yields of sweet potatoes increased from 78 to 84 bushels per acre.

of these counties were located in the southern half of the State. Of the eleven counties that had an average yield of 15 bushels and over, 9 were located in the northern half of the State. The other two were Mobile and Baldwin Counties in the extreme southern part of the State. The relatively high yields in these two southern counties as compared with other counties in this area were due to the fact that corn in these counties frequently followed potatoes or other heavily fertilized vegetable crops and thus received a residual benefit from the large quantities of fertilizer used. Fifteen of the 17 counties that had ten year average yields of cotton of 225 pounds of lint per acre and over were located in the northern third of the State. All thirteen of the counties with average yields of less than 175 pounds of lint per acre were located in the southern part of the State, most of them in the south-central section.

The most important long-time factor that has tended to reduce yields has been the continuous depletion of soil fertility. There is also some evidence that insects and diseases have been responsible for greater reduction in yields in recent years than in earlier years. Of the several factors that have tended to maintain or to increase yields the most important were: improved varieties, more extensive use of fertilizers, and improved cultivation practices. Available data indicate that there has been no climatic changes of a nature that affected the trends of crop yields over a long period of time.

Figures 23C and 23D show the average percentage variation of annual cotton and corn yields from normal yields, by counties, for selected years.

Crop Distribution

Field crops.—Cotton, corn, and hay are the major crops grown in Alabama and normally occupy more than 90 per cent of the total acreage of harvested crops. Cotton usually has occupied from 45 to 50 per cent of the harvested crop acreage, corn from 37 to 42 per cent, and hay crops about 5 per cent. However, due to the cotton acreage reduction and soil conservation programs, low prices, and numerous other factors, there has been a considerable change in the relative proportion of land devoted to these three major crops. In 1929 cotton occupied 50 per cent, corn 37 per cent, and hay crops 6 per cent of the harvested crop acreage; whereas, in 1934 cotton occupied approximately 29 per cent, corn 50 per cent, and hay crops 12 per cent of the harvested crop acreage. Peanuts are a major crop in southeastern Alabama and are gaining in importance in other parts of the State. Sweet potatoes are grown in all parts of the State and Irish potatoes are commercially important in certain sections. Truck crops and fruits are important in some sections but the acreage in these is small in comparison with that of cotton, corn, and hay.

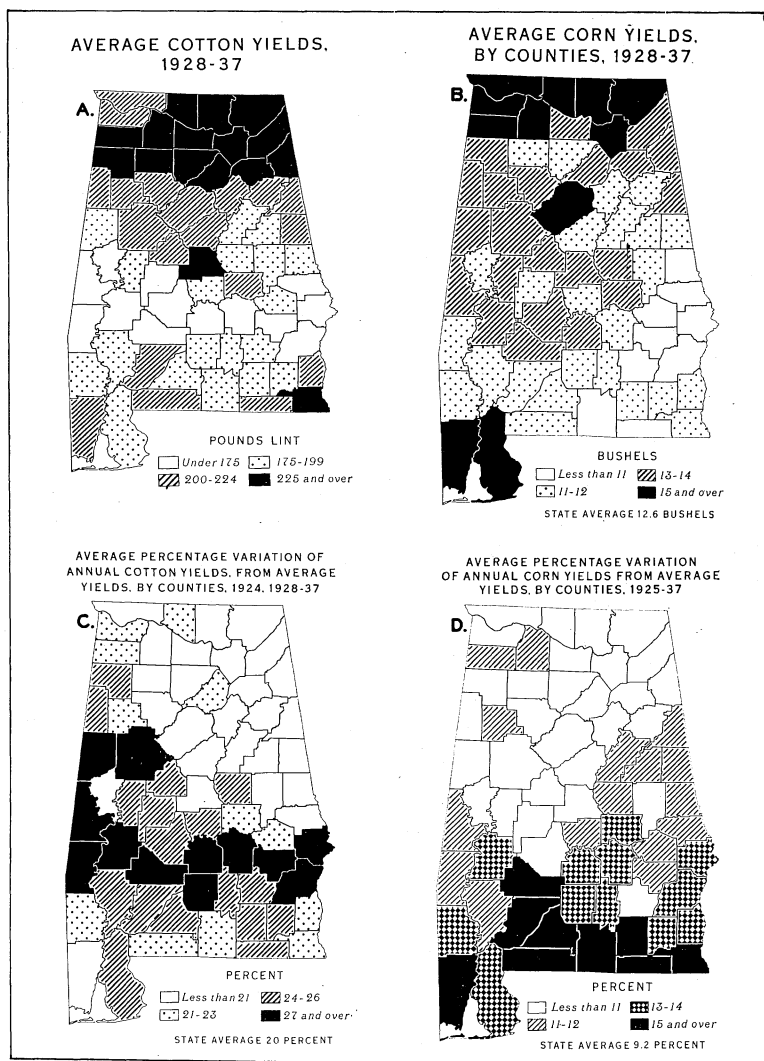


FIGURE 23.—AVERAGE YIELD AND VARIATION IN YIELDS OF COTTON AND CORN

A—Average cotton yields varied from 140 pounds of lint per acre in Bullock County to 298 pounds in Marshall County. Yields were generally highest in the northern and lowest in the south central areas. B—Average annual corn yields varied from 8 bushels per acre in Russell and Bullock Counties to 17 bushels in Colbert, Lauderdale, and Limestone Counties. Corn yields were generally higher in the northern than in the southern part of the State, with lowest yields in the east central area. C—Annual yields of cotton fluctuated most widely in the counties of the south central and southern parts of the State, and least widely in the counties in the northeastern one-third of the State. D—Annual corn yields for counties in the northern half of the State were much more constant than were the widely fluctuating annual yields in counties in the southern part of the State.

Cotton is the principal money crop in Alabama and is grown to some extent in all parts of the State (Figure 24A). In soil, temperature, and length of growing season, practically all of

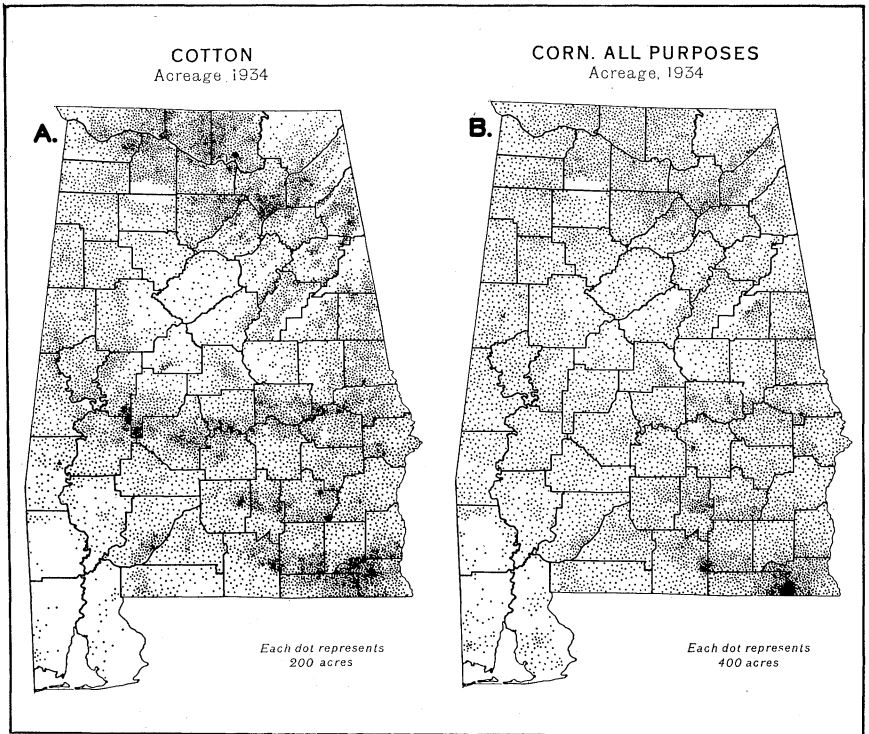


FIGURE 24.—ACREAGE DISTRIBUTION OF COTTON AND CORN

A—The cotton acreage was distributed roughly on the same basis as the cropland harvested, with heaviest concentrations in the Tennessee Valley, Sand Mountain, Black Prairie Belt, Piedmont, and southeastern Coastal Plain areas. B—The distribution of the corn acreage was fairly uniform over the State, and while roughly following the distribution of cropland, it was proportionately greater in those areas in which cotton production was less heavily concentrated.

the State is adapted to the growing of cotton. The intensity of cotton production, however, varies considerably between different areas. Boll weevil infestation and weather-damage during the picking season make cotton production extremely hazardous near the Gulf Coast where heavy rainfall occurs during the four-month period — June to September. Normally the cotton acreage is influenced materially by the price. A year of low prices usually is followed by decreased plantings, and high prices by increased plantings.

Corn is the principal feed and food grain grown in Alabama, and, prior to the cotton acreage reduction program, normally ranked next to cotton in both acreage and value (Figure 24B); in 1934, however, the corn acreage exceeded that of cotton by a considerable margin. Usually the acreage of corn fluctuated inversely with the acreage of cotton, the combined acreage of the two crops remaining relatively constant. The harvested corn acreage in Alabama in 1934 was reported as 3,648,657 acres,

or slightly more than 50 per cent of the total acreage of harvested crops. This amounted to an increase of approximately 38 per cent over the 1929 acreage.

A total of 906,286 acres of **all hay, including sorghum for forage**, was harvested in Alabama in 1934. This comprised slightly more than 12 per cent of the total acreage of harvested crops in 1934, and amounted to an increase of 95 per cent over the harvested hay acreage in 1929.

Alabama is on a deficit hay basis in that usually less is produced than is used by the livestock in the State. This is partly due to weather conditions which make it difficult to save hay of good quality, and partly to a lack of perennial hay crops that are adapted to the soil and climatic conditions of Alabama. As a consequence Alabama depends largely on annual crops for the production of hay, less than 23 per cent of the total acreage in hay crops in 1934 being accounted for by perennial crops. Annual legumes, principally cowpeas, soybeans and peanuts, made up 67 per cent, tame and wild grasses 22 per cent, and sorghums for forage 5 per cent of the total acreage of hay harvested in 1934 (Figures 25A to 25D). Lespedeza, small grains cut for hay, timothy or clover, and alfalfa accounted for the remaining 6 per cent, with lespedeza the most important. As cowpeas and soybeans grown for hay frequently are grown after oats or other small grains, there is some duplication of the acreage in crops. Duplication also occurs to some extent with peanut hay which is a by-product of peanuts harvested for market. Sweet clover and lespedeza, small grains cut for hay, and timothy or clover were confined principally to the Tennessee and other limestone valleys, and alfalfa was reported mainly from the Black Prairie Belt and the Tennessee Valley.

Peanuts were reported from 126,076 Alabama farms in 1934. These farms had a total of approximately 600,000 acres, which represents an increase of more than 40 per cent over the 1929 acreage. Peanuts are grown to some extent in all parts of Alabama but commercial production is concentrated in the lower coastal plain in the southeastern part of the State. The heavy concentration of peanut production in this area is largely due to soil adaptation which, together with market considerations, permitted a decided shift to this crop as a substitute for cotton during the heavy boll weevil infestation beginning in 1912. Similar soils in south central and southwestern Alabama appear to be well adapted to peanut production but these sections were more sparsely settled, farming was less commercialized, cotton production was less important, and the need for a crop to take the place of cotton was not so strongly felt during the early boll weevil infestation.

Peanuts are grown alone or interplanted with other crops. Of the 1934 crop 350,585 acres were grown alone and 248,978 acres with other crops (Figure 26A).

Peanuts usually are grown alone when intended for market

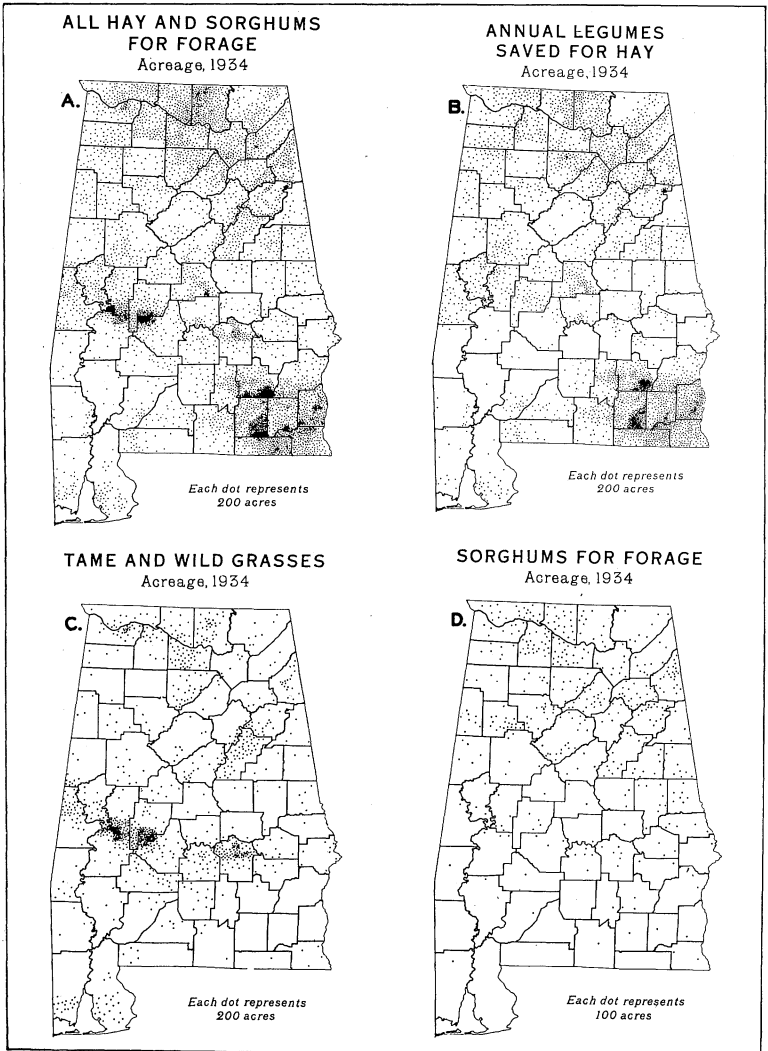


FIGURE 25.—ACREAGE DISTRIBUTION OF HAY, ANNUAL LEGUMES, GRASSES, AND SORGHUMS

A—Heaviest concentrations of total hay acreage were in the Black Prairie Belt, Tennessee Valley, Sand Mountain, and southeastern Coastal Plain areas. B—Heaviest concentrations were in the southeastern Coastal Plain, and in the Tennessee Valley and Sand Mountain areas in the northern part of the State. C—Heaviest concentration of tame and wild grasses cut for hay was in the Black Prairie Belt and consisted chiefly of Johnson and Bermuda grass. Areas of secondary importance were in the Tennessee and Coosa Valleys. D—Sorghums grown for forage were confined mostly to the northern third of the State with heaviest concentrations in the Tennessee Valley and some of the limestone valleys.

and are generally interplanted with corn, or corn and velvet beans when grown to be hogged-off. The practice of growing alone predominates in Coffee, Dale, Henry, and Pike Counties,

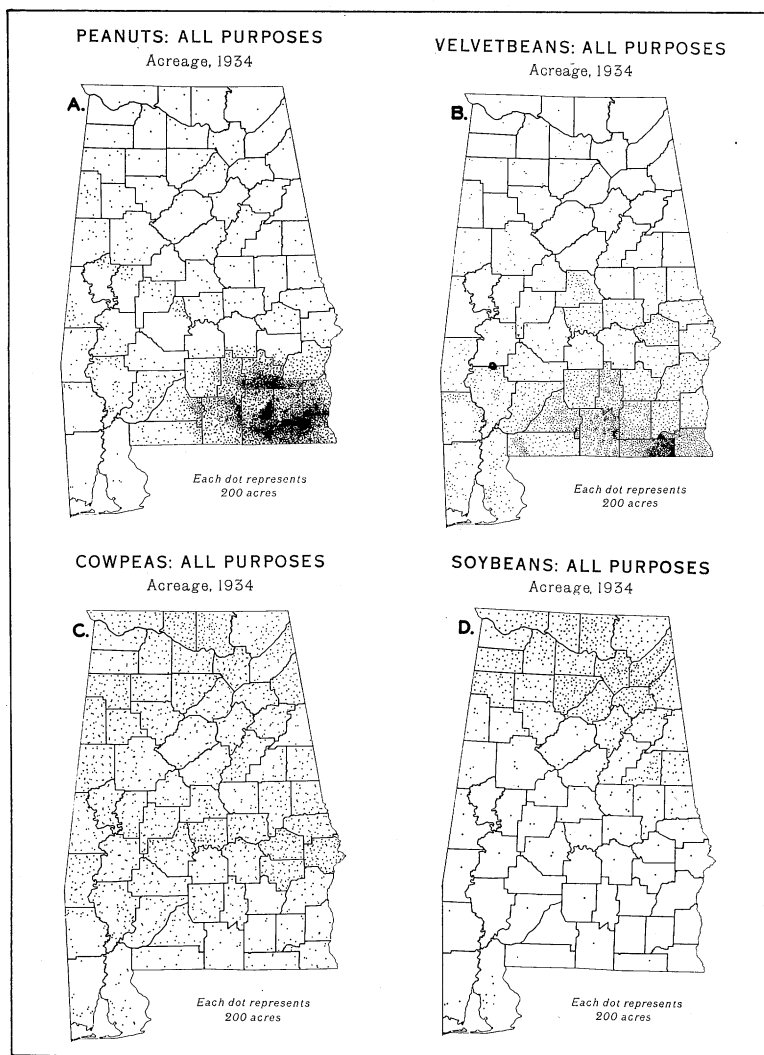


FIGURE 26.—ACREAGE DISTRIBUTION OF PEANUTS, VELVET BEANS, COWPEAS, AND SOYBEANS

A—Peanut production is heavily concentrated in the southeastern part of the State. Of the total acreage in 1934, 58 per cent was grown alone and 42 per cent with other crops, principally corn or corn and velvet beans. B—Velvet beans require a relatively long growing season, hence the crop is confined largely to the southern part of the State. Velvet beans usually are grown with some other crop, principally corn or corn and peanuts. C—The acreage of cowpeas was quite evenly distributed over the State in proportion to the acreage of cropland harvested. The acreage far more than doubled between 1929 and 1934, largely as a result of the cotton acreage reduction and soil conservation programs. D—The acreage of soybeans was confined almost entirely to the Tennessee Valley, Sand Mountain, and Limestone Valley areas. A large proportion of the soybeans grown alone is included in the acreage of annual legumes saved for hay.

an area in which the principal markets for harvested nuts are located. When peanut prices are more favorable than hog prices

a considerable proportion of the crop that was intended for hogging may be harvested for market, and, conversely, when hog prices are more favorable a larger proportion of the acreage may be hogged-off.

Velvet beans are important both as a source of feed and as a soil improving crop in southern Alabama (Figure 26B). They usually are grown with other crops, principally corn or corn and peanuts, only about 6 per cent of the 1934 acreage being grown alone. Velvet beans are heavily concentrated in the southeastern part of the State. It is the usual practice to pick a sufficient quantity of beans for an ample supply of seed and some reserve feed and graze off the remainder of the crops with cattle or hogs after the corn has been harvested.

The acreage of **cowpeas** was distributed over the State somewhat in accordance with harvested cropland (Figure 26C). There was some concentration in the poorer soil areas where the crop was grown primarily for soil improvement. Cowpeas are grown either alone or with other crops, principally corn. Of the total acreage reported for 1934, 49 per cent was grown alone and 51 per cent with other crops. A considerable proportion of the acreage grown alone was saved for hay. The 1934 acreage of cowpeas in Alabama was 265 per cent greater than that reported for 1929, largely as a result of the cotton acreage reduction and soil conservation programs.

The production of **soybeans** was confined almost entirely to the northern one-third of the State (Figure 26D). Approximately 91 per cent of the 1934 acreage was grown alone. A large percentage of the soybeans grown alone is included in the acreage of annual legumes saved for hay. The acreage grown with other crops was confined principally to the Piedmont area. A considerable percentage of the acreage grown with other crops was harvested by hand, both for seed and for hay. The total acreage of soybeans in the State increased more than 90 per cent from 1929 to 1934.

The total acreage of **oats** harvested for grain, that is, oats cut and threshed and oats cut and fed unthreshed, amounted to 105,212 acres in 1934 (Figure 27A). This was an increase of 7 per cent over the acreage for 1929. Approximately 85 per cent of the crop was cut and fed unthreshed, most of the threshed oats being produced in the Black Prairie Belt. Oats frequently are followed by cowpeas, soybeans or some other hay crop; consequently, there is some duplication in the reported acreage of oats and hay crops. Oats cut green for hay are not included in the acreage reported as harvested for grain.

Sweet potatoes and yams are produced in all parts of the State and were grown on about 74 per cent of the farms in 1934. Except for a few commercial areas in the southwestern part of the State and the Sand Mountain area the crop is grown principally for home use. The 1934 acreage showed an increase of 63 per cent over that of 1929 (Figure 27B).

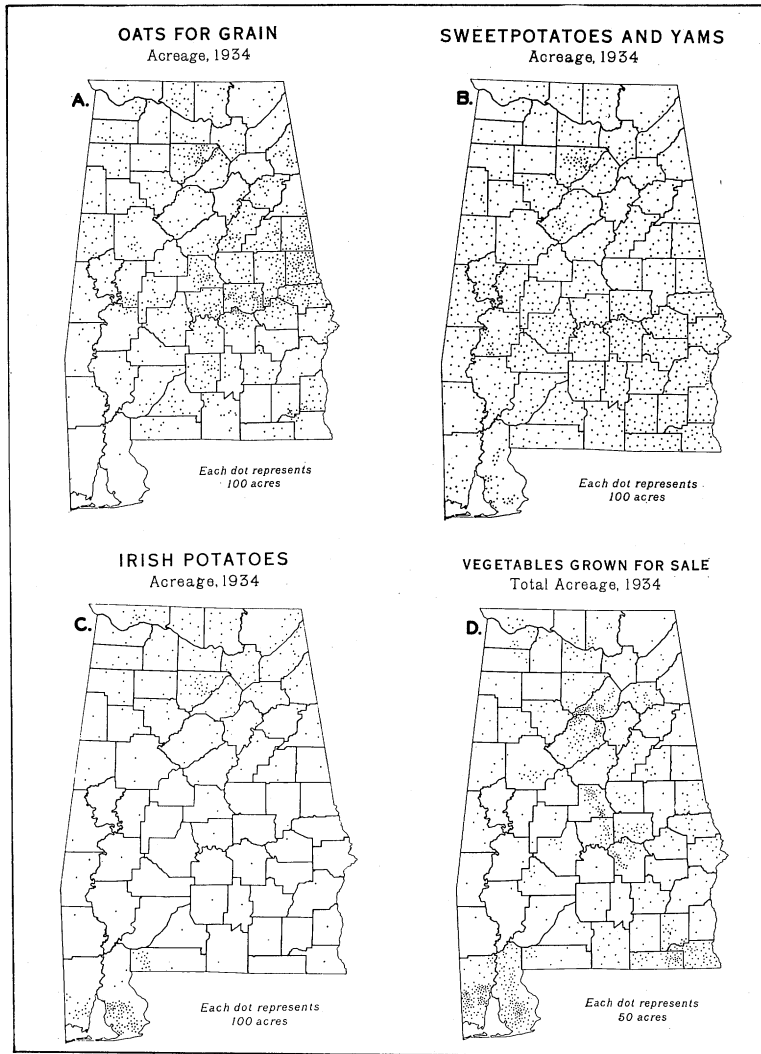


FIGURE 27.—ACREAGE DISTRIBUTION OF OATS, SWEET POTATOES, POTATOES, AND VEGETABLES

A—Heaviest concentrations of oat acreage were in the Piedmont, the eastern part of the Upper Coastal Plain, and the Black Prairie Belt. B—The acreage of sweet potatoes and yams was well distributed over the State. Heaviest concentrations in proportion to the acreage of land in harvested crops were in the southwestern part of the State and the Sand Mountain areas. C—The acreage of Irish potatoes was most heavily concentrated in the southwestern part of Alabama where commercial production is relatively important, and in the Tennessee Valley and Sand Mountain areas in the northern part of the State. D—Cabbage, sweet corn, snap beans and tomato production was confined largely to the Gulf Counties and areas adjacent to the cities and larger towns. Heaviest concentration of watermelon production was in the southeastern and central parts of the State.

Much of the **Irish potato** crop is grown in small patches for home use; the crop is commercially important in Baldwin, Escambia, and Mobile Counties in southwestern Alabama and in

eastern Cullman County in the north central part of the State. The acreage of Irish potatoes increased nearly 58 per cent between 1929 and 1934 (Figure 27C).

Other **minor crops**, listed in the order of their importance as to acreage, are sugar cane, wheat, grain sorghums, rice, tobacco, mixed grains, and barley. However, the total acreage of these crops in 1934 amounted to but little more than 0.5 per cent of the total acreage of harvested crops. Sugar cane is restricted chiefly to the southern half of the State and is grown principally for syrup. Wheat production is confined almost entirely to the Tennessee Valley, Limestone Valleys, and Piedmont. Grain sorghums are of little importance. Tobacco is grown in a limited way in nearly all parts of the State but the crop as a whole is comparatively unimportant. Rice is limited principally to the southern part of the State and is grown almost entirely for home use.

Vegetables harvested for sale.—Vegetables harvested for sale in 1934 occupied only 0.62 per cent of the total acreage of harvested crops in Alabama, yet they were of considerable importance in certain sections (Figure 27D). The principal truck crops, listed in order of acreage, were watermelons, sweet corn, cabbage, tomatoes, and snap or string beans.

Watermelons are grown to some extent for home use in all parts of Alabama. Commercial production was most heavily concentrated in Mobile and Baldwin Counties on the Gulf Coast, in Dale, Geneva, and Houston Counties in the southeastern, and in Autauga and Chilton Counties in the central part of the State.

Most of the so-called sweet corn is early field corn adapted to harvesting in the "roasting ear" stage for table use. More than three fourths of the sweet corn acreage was in Baldwin County in 1934.

Commercial cabbage production was confined mostly to Mobile County, 73 per cent of the State's total acreage being in this county in 1934. Other areas of some importance were adjacent to Birmingham and Montgomery.

The acreage of snap or string beans was more widely distributed over the State than that of any other truck crop except watermelons. Heaviest concentrations were adjacent to Birmingham, Montgomery and some of the larger towns, and in Baldwin, Escambia, and Mobile Counties.

Heaviest concentration of tomato production was in Jefferson, Blount, and St. Clair Counties where producers depended largely on the Birmingham market. Areas of less importance were in Montgomery County and along the more important lines of transportation into Birmingham.

Fruits and nuts.—Tree fruits, with the exception of oranges, are grown mostly for home use in Alabama. There are a few commercial apple and peach orchards but no important areas of commercial production. Peaches are the most important tree

fruit grown and are fairly evenly distributed in most of the State north of the Black Belt. Few are grown in the heavy Black Belt soils and less are grown in the southern part of the Coastal Plain than in North Alabama (Figure 28A). Apple production is confined mainly to the hilly and mountainous sections of northern Alabama (Figure 28B). Pears are quite evenly distributed over the State except for a slight concentration in Mobile County, but plums and cherries are confined mainly to the northern part (Figure 28C). The production of oranges is limited to the hardy varieties, such as the Satsuma and Mandarin types, and nearly all groves are located in Mobile County. Orange production has declined in Alabama since 1929.

Grapes are grown principally for home use. Production is confined mainly to the Tennessee Valley and the mountainous sections of the northern part of the State. Small plantings, principally of the scuppernong varieties, are found in Mobile and Baldwin Counties.

Commercial strawberry production is largely concentrated in three areas; in Butler, Conecuh, and Escambia Counties where the industry developed from the momentum of an early start; and in Chilton County in central Alabama, and Cullman County in the north central part of the State. The latter two areas cater somewhat to the Birmingham market, but Cullman County, in particular, sends much of its fruit to northern markets.

The 1935 Census did not report the number of bearing trees but the 1930 Census reported 423,840 trees of bearing age and 318,917 trees of nonbearing age in Alabama. Pecans are grown principally in the southern half of the State (Figure 28D). The reported production in 1929 was less than 4 pounds of nuts per tree of bearing age.

Livestock

Trends.—The numbers of the principal classes of livestock in Alabama fluctuated widely during the period, 1867-1939, with certain classes displaying marked trends in numbers during these years (Figure 29). The number of hogs increased rapidly from 1867 to 1898, at which time a peak of 1,640,000 head was reached; after this date the number declined to a low of 776,000 head in 1926, then increased cyclically to 1939. The trend in the number of cattle and calves was upward throughout the period, 1869-1939, with an all-time high of 1,125,000 head in 1935. There were marked cyclical fluctuations in cattle numbers beginning with the year 1890, the cycles running from 14 to 16 years and following the cycles for the United States. Milk cows increased somewhat more rapidly than did all cattle and calves. During the 20 years, 1869-88, milk cows comprised an average of 30 per cent of all cattle as compared with an average of 42 per cent for the 20-year period, 1919-38. There was a definite upward trend in the number of horses and mules until 1917, after which the number gradually decreased to 369,000 as of

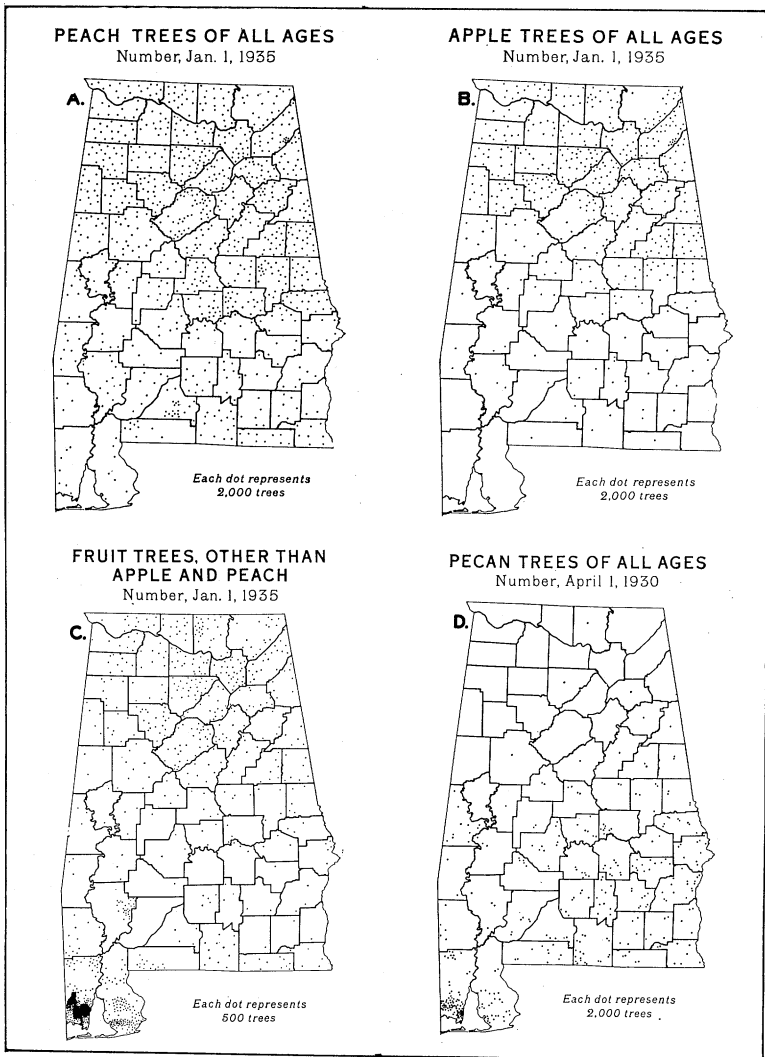


FIGURE 28.—DISTRIBUTION OF PEACH, APPLE, OTHER FRUIT, AND PECAN TREES

A—Peaches, while largely non-commercial, are the most important tree fruit grown in Alabama and are quite evenly distributed over the northern half of the State. Fewer peaches are grown in southern Alabama and very few on Black Prairie Belt soils. B—Apples are grown principally for home use and production is confined mostly to the hilly and mountainous sections of the northern part of the State. C—Pears, plums, and cherries are grown mostly for home use. Pear trees are quite evenly distributed; plums and cherries are grown mostly in the northern part of the State; and, oranges are grown almost entirely in Mobile and Baldwin Counties. D—The 1935 Census did not report the number of pecan trees but the 1930 Census reported 423,840 trees of bearing age and 318,917 trees of nonbearing age. Pecan trees are well distributed over the southern half of the State with heaviest concentration in Mobile County.

January 1, 1939, the smallest number since 1908 when there were 365,000 head. This decrease in work stock may at least be partially attributed to the introduction of tractors, trucks,

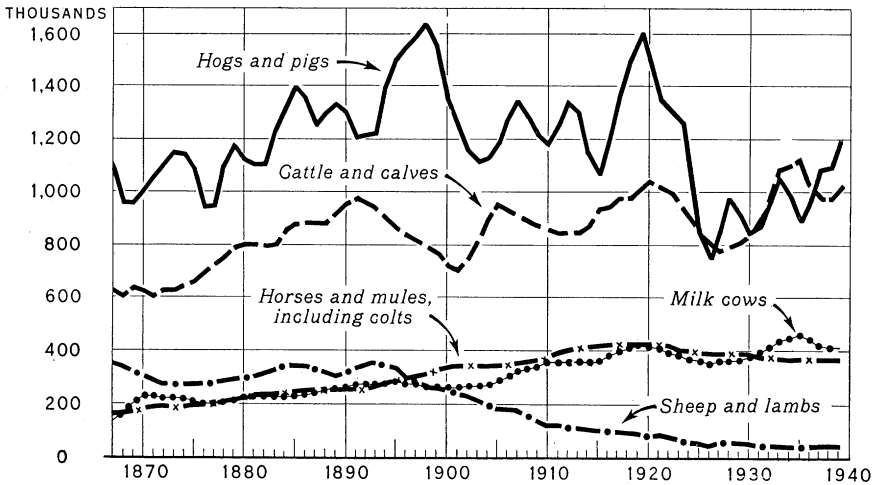


FIGURE 29.—NUMBERS OF PRINCIPAL CLASSES OF LIVESTOCK, ALABAMA, 1867-1939

Numbers of the principal classes of livestock in Alabama fluctuated cyclically and over longer periods of time, during the years 1867-1939. For the entire period there was a slight downward trend in the number of hogs and pigs; a very sharp decrease in sheep and lambs; a steady upward trend in cattle, calves and milk cows; and an upward trend in the number of horses and mules.

and automobiles. From the standpoint of numbers, sheep and lambs were more important in Alabama than milk cows during the 32-year period preceding 1899, but since that time have declined to an average of 51,000 head in the period, 1929-38.

The numbers of all classes of livestock in Alabama increased less rapidly than did population during the period of 1870-1930, as shown by the fact that for the two census years 1870 and 1880 there was an average of 94 hogs, 63 cattle, 20 milk cows, and 27 sheep per 100 persons as compared with an average for the two census years, 1920 and 1930 of 47 hogs, 38 cattle, 16 milk cows, and 3 sheep per 100 persons. Alabama was less self-sufficient in regard to livestock production in 1930 than in any other previous census period following the Civil War.

Notwithstanding a slight increase in the acreage of cropland harvested between 1925 and 1935 there was a decrease of approximately 5 per cent in the number of horses and mules on Alabama farms during this period. This decrease was all in the number of horses as the number of mules increased slightly more than 6 per cent. The decrease in total number of work stock probably reflects the increased use of automobiles and tractors. In the same period cattle numbers increased nearly 37 per cent; swine numbers increased 5 per cent; and sheep numbers declined about 20 per cent.

Present distribution.—In general, the State may be thought of as having four principal areas from the standpoint of livestock production. In southeastern Alabama commercial hog pro-

duction prevails; in the southwest range livestock including cattle, hogs, sheep, and goats, relatively few of which are high in quality, are produced commercially. Animals of better quality are frequently produced on the farms. In the Black Prairie Belt both beef and dairy cattle, as well as turkeys and some sheep, are produced commercially. Finally, north of this Belt production of livestock and livestock products is chiefly for home use but a considerable quantity is diverted to local towns and cities. The total livestock population in terms of animal units in relation to harvested crop acres is greatest in the Black Prairie Belt and southwestern Alabama. Otherwise, the relationship tends to be somewhat uniform except for a tendency for the number of animal units to be large in relation to cropland where crops utilize relatively small portions of the total farm land.

Work stock are more evenly distributed over the State in relation to cropland than any other class of livestock. The number of work stock tends to be relatively large, however, in intensive farming areas, particularly in the vegetable producing areas, and in the regions of heavy lime soils (Figure 30A). It tends to be relatively small in lighter soil areas. While nearly all of the horses and mules were work animals, a few colts were reported in all counties, but these were in noticeable numbers only in some Black Prairie and Tennessee Valley Counties.

Cattle and calves are most numerous in the Black Prairie Belt and least numerous in the thinly populated and rough areas. Some of the latter areas emphasize production on the range and under these conditions the few cattle are relatively important as a source of income to the scattered farmers. Dairy herds near cities and towns usually increase the cattle numbers locally (Figures 30B and 30C).

Milk production was distributed, in a general way, according to cows milked (compare Figures 30C and 30D). Some concentration of this production occurred around cities and in the Black Prairie Belt. Most of the production of northern Alabama was for use on the farm.

Swine of all ages tend to be most numerous in southern Alabama, particularly where they are produced commercially in the southeastern peanut producing section (Figure 31A). Range hogs, while sparse in southwestern Alabama, are numerous in relation to the total number of farms, but their size and quality are below average.

Sows and gilts were relatively less numerous in northern Alabama than all swine (compare Figures 31A and 31B). Many hogs of northern Alabama are purchased as shoters from elsewhere and fattened for home meat, thus limiting the number of brood hogs in this section.

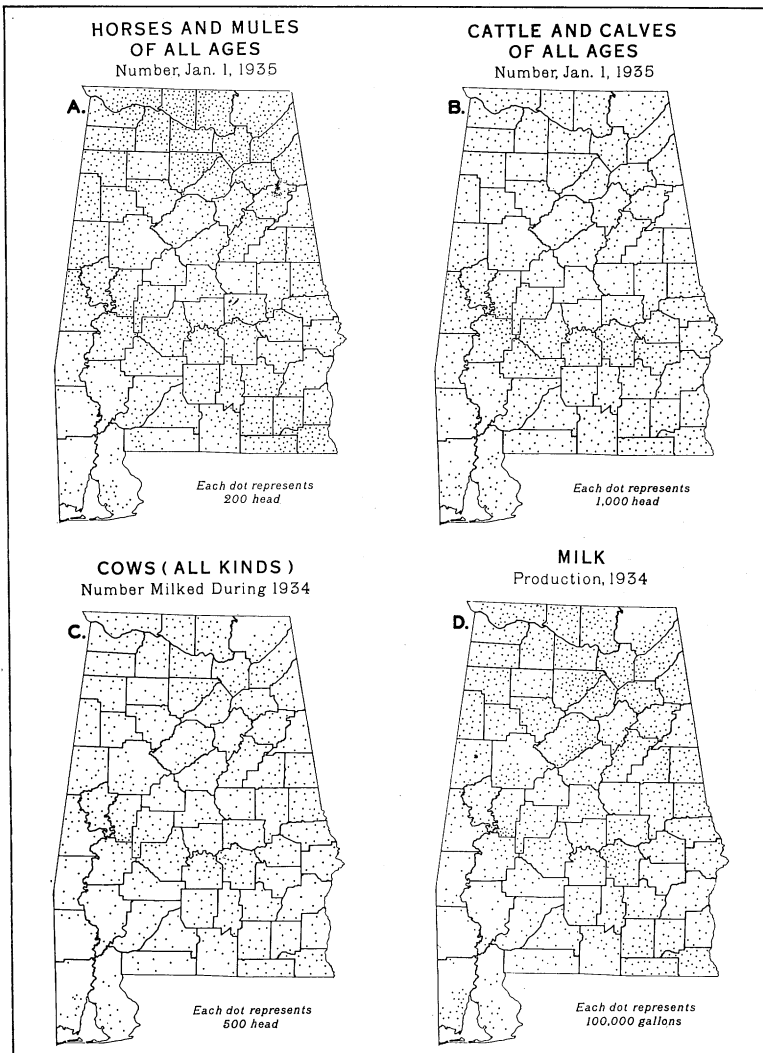


FIGURE 30.—DISTRIBUTION OF WORK STOCK, CATTLE, COWS, AND MILK PRODUCED

A—Horses and mules were distributed over Alabama largely in accordance with crop acreages. Fewer work animals were usually found in the regions of light soils because more acreage was handled per animal. B—Cattle, being kept mainly for home or local use, were distributed largely in accordance with rural population; the greater numbers of the Black Prairie Belt, however, were of much commercial importance. C—Except for greater concentration near cities and in the Black Prairie Belt, cows milked were distributed largely in accordance with rural population. D—Milk production was distributed only in a general way in accordance with the number of cows milked, since, with the exception of a few counties, the production per cow tended to be lower in the southern than in the northern part of the State.

Sheep and goats in Alabama are few in number (Figure 31C). Goats are somewhat more uniformly distributed over the State than sheep, but most of the commercial flocks of both

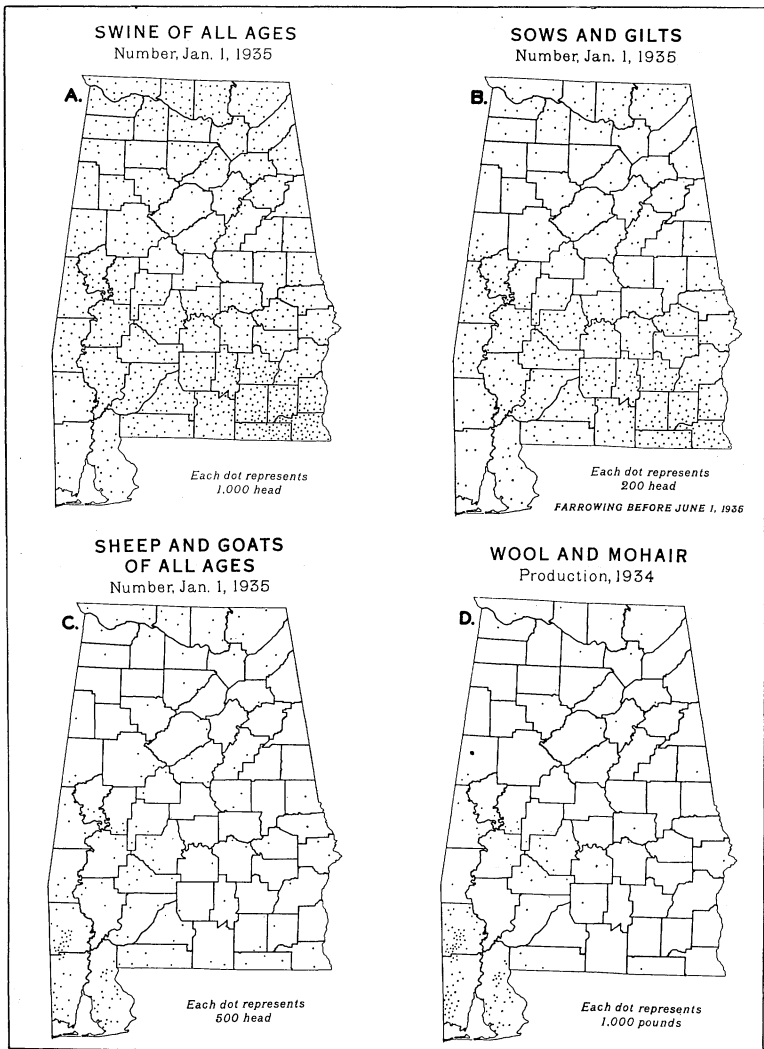


FIGURE 31.—DISTRIBUTION OF SWINE, SOWS AND GILTS, SHEEP AND GOATS, AND WOOL AND MOHAIR PRODUCED

A—Swine were relatively few in numbers in the area between the Black Prairie Belt and the Tennessee Valley, and in the thinly settled southwestern part of the State, and were relatively numerous in the southeastern peanut-producing area. B—The greatest concentration of sows and gilts was in southeastern Alabama and the least in the area between the Black Prairie Belt and the Tennessee Valley. C—Sheep and goats were widely and thinly distributed throughout most of the State. Some slight concentration occurred in the range areas of southwestern Alabama and in the Black Prairie Belt. D—Nearly all of the small clip of wool and mohair production was obtained from flocks of southwestern Alabama and the Black Prairie Belt.

tend to be concentrated in the Black Prairie Belt and in southwestern Alabama. Some sheep and goats of good quality are produced but many of the range flocks are poor in quality and inefficient as producers.

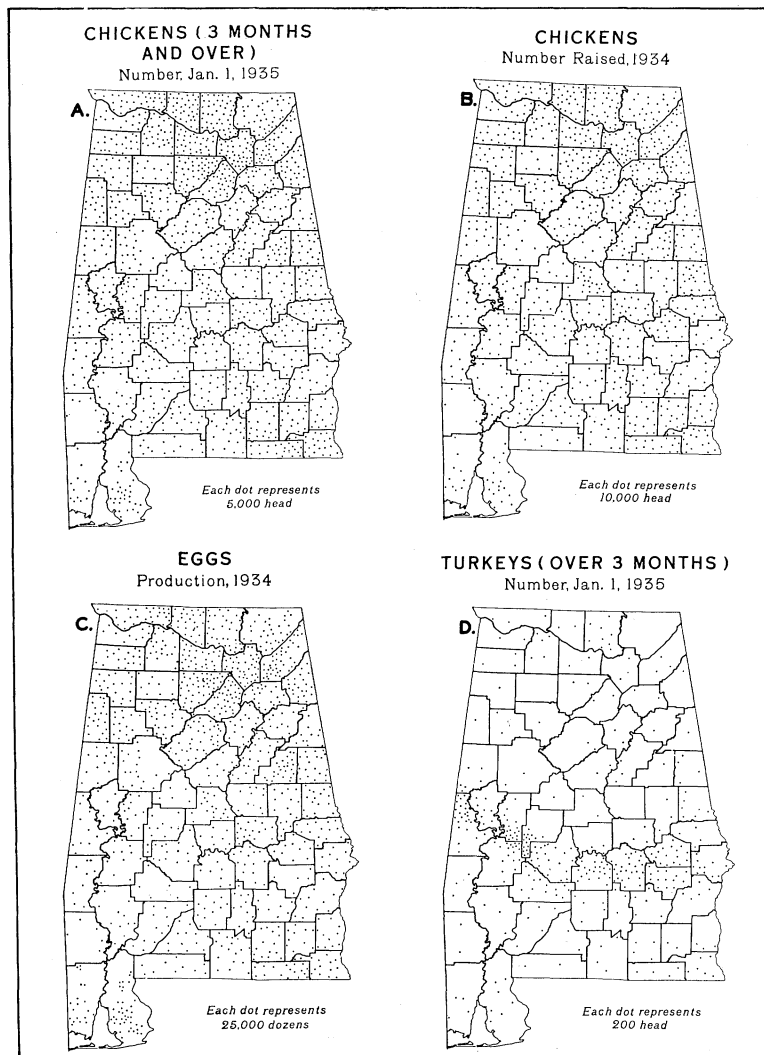


FIGURE 32.—DISTRIBUTION OF CHICKENS, EGGS PRODUCED, AND TURKEYS

A—Chicken numbers were distributed much in accordance with farm population except for slight concentrations in southern Baldwin County and Sand Mountain. B—Numbers of chickens raised were distributed much in accordance with numbers of chickens on farms. C—Egg production in 1934 was distributed largely in accordance with the distribution of chicken numbers on January 1, 1935. D—Although some turkeys were found in all parts of the State, turkey production was definitely associated with the Black Prairie Belt where a relatively large acreage of meadow and pasture exists.

Wool and mohair production was confined largely to the Black Prairie Belt and the three southwestern counties of Alabama (Figure 31D). The reported average clip per head was light and the quality poor.

Chickens were relatively few in and near the Black Prairie Belt where high proportions of farmers were colored and most were tenants (Figure 32A). They were relatively numerous in the southern part of Baldwin County and on much of Sand Mountain. The latter areas were farmed largely by white people and the percentage of tenancy was average or below.

Chicken and egg production areas of the State were very similar (Figures 32B and 32C). Concentration of neither was great. Larger proportions of the amount produced were reported sold from the Sand Mountain Area and the Gulf Counties than from other parts of the State.

Turkey production was reported on about one-sixth of the census farms in the Prairie Counties of Alabama. All other sections of Alabama reported some turkeys but the numbers per county were relatively small (Figure 32D).

DESCRIPTION OF FARMING AREAS

The discussion thus far has dealt mainly with the early history of Alabama's agriculture, and the physical, biological, social, and economic forces that have influenced its past and present agricultural development. The maps and charts herein presented picture these various forces and show the geographic distribution of population, land in farms, crops and livestock.

Differences in all of these factors formed the basis for delineating the different farming areas shown in Figure 33. Variations in physical factors such as soils, topography, elevation, and climate, which are relatively permanent, were given most consideration in this delineation but differences in other factors such as the proportion of total land area in farms, the proportion of farm land area in crops, the tenure, the relative importance of crop and livestock enterprises were sufficiently great within physically comparable areas to affect the location of the borders. On the basis of these considerations the State was divided into nine major farming areas, three of which were divided into sub-areas. Cotton occupied slightly more than 29 per cent of the harvested crop acreage for the State as a whole in 1934 (Table 2). Although there were considerable differences in the proportion of harvested crop acres in the various crops, as well as in the numbers of livestock per 100 harvested crop acres (Table 3), cotton was the most important farm cash enterprise in most of the areas and sub-areas. Corn, which is the most important feed and one of the most important foods, occupied more land in every area than any other crop. For the State, as a whole, it occupied slightly more than 50 per cent of the harvested cropland in 1934.

Area 1 — Tennessee and Limestone Valleys

Area 1 is composed of two sub-areas, 1a — the Tennessee Valley, and 1b — the Limestone Valleys (Figure 33). It is named for the limestone derived soil which covers much of the area and is above average in inherent fertility. The level lands were organized into plantations at an early date and many farms still maintain plantation characteristics although much of the land is now held in smaller units. Negro farmers are quite numerous on the larger holdings, but there are relatively few on the smaller units. The existence of heavy soils, reasonably level topography, and numerous large holdings of land have encouraged, to some extent, the use of tractors and other types of labor-saving farm implements in this area.

The **Tennessee Valley, Sub-area (1a)**, is situated in the Tennessee River Basin. In Alabama it starts as a gently rolling valley of moderate width between the Cumberland Plateau in Jackson County on the northwest and the Sand Mountain Plateau on the southeast. As it curves westward it broadens and flattens out into a relatively wide valley about midway of the State only

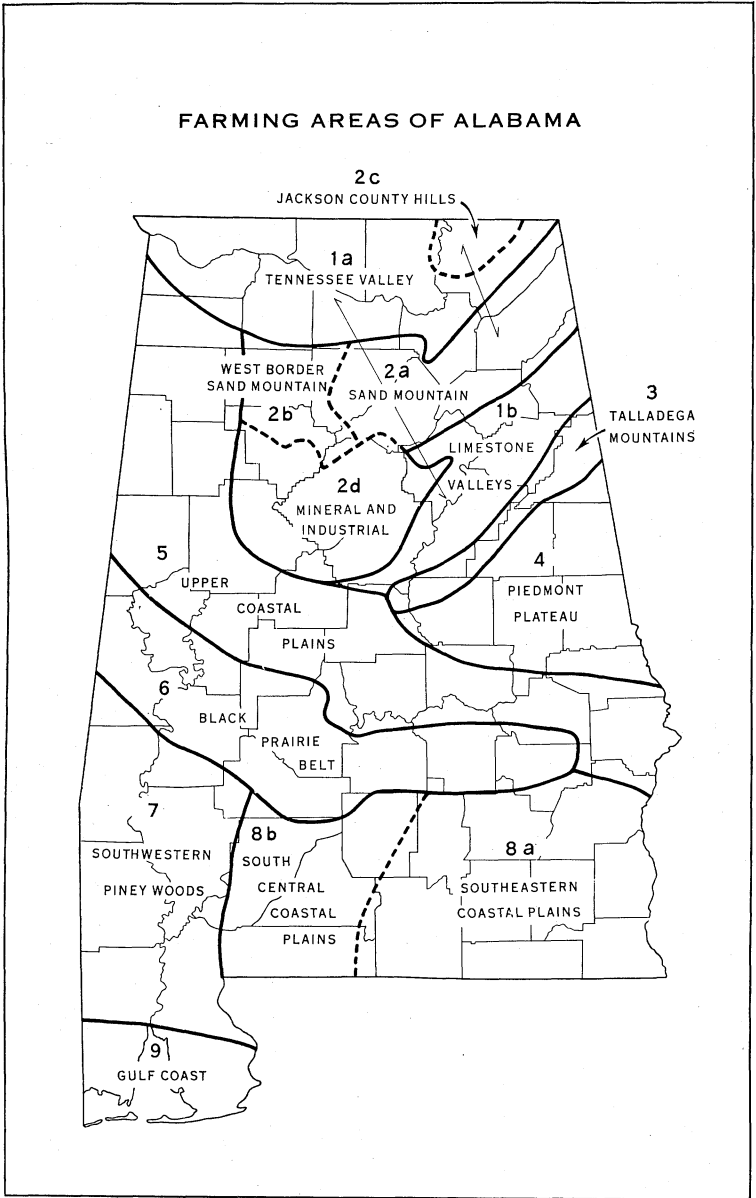


FIGURE 33.—FARMING AREAS OF ALABAMA

Variations in soil, topographic, and climatic conditions are largely responsible for differences in the various farming regions.

TABLE 2.—Per Cent of Harvested Crop Acres Various Crops, by Areas, Alabama, 1934¹.

Area	Cotton	Corn for all purposes	All hay and forage	Oats	Irish potatoes	Sweet potatoes	Vegetables for sale	Sugar cane	Peanuts ² alone and inter-planted	Orchards and nuts
1a Tennessee Valley	33.1	45.8	16.2	0.6	0.6	0.5	0.2	0.0	0.4	0.7
1b Limestone Valleys	30.5	48.0	16.0	1.8	0.3	0.9	0.4	0.0	0.6	0.8
2a Sand Mountain	28.6	51.3	12.5	1.1	1.0	1.3	0.7	0.0	0.8	1.5
2b Jackson County Hills	17.2	64.2	15.8	0.3	0.4	0.3	0.0	0.0	0.2	0.7
2c Mineral and Industrial	16.6	63.2	11.3	1.7	0.5	3.0	1.9	0.0	1.2	1.8
2d West Border Sand Mountain	25.7	54.8	10.8	1.5	0.8	1.6	1.0	0.0	1.1	1.5
3 Talladega Mountains	25.5	53.7	12.6	2.8	0.4	1.3	0.4	0.1	0.5	1.7
4 Piedmont Plateau	32.4	52.8	5.1	4.5	0.2	1.4	0.3	0.1	0.9	1.4
5 Upper Coastal Plain	31.9	53.0	8.8	2.2	0.2	1.7	0.6	0.3	2.0	1.2
6 Black Prairie Belt	34.3	42.5	14.9	1.1	0.0	2.3	0.3	0.3	2.6	0.9
7 Southwest Piney Woods	22.6	61.1	5.8	0.8	0.4	3.1	0.5	1.2	8.0	1.9
8a Southeastern Coastal Plain	25.8	49.0	16.8	0.7	0.1	1.2	0.5	0.8	34.7	0.9
8b South Central Coastal Plain	27.8	58.9	5.6	1.4	0.5	2.0	0.3	1.2	13.1	1.2
9 Gulf Coast	6.1	40.8	19.2	0.1	12.1	5.0	14.6	0.8	1.5	22.5
All areas	29.4	50.4	12.5	1.5	0.5	1.5	0.6	0.4	8.3	1.3

¹The data of this table do not add to exactly 100 per cent of the harvested crop land in any area since some crops are omitted and two or more crops are harvested each year from some of the crop land in each area.

²Estimated from county data since no minor civil division data were available.

TABLE 3.—Number of Livestock and Animal Units per 100 Harvested Crop Acres by Farming Areas, Alabama, January 1, 1935.

Area	Horses and mules all ages	Cattle all ages	Cows, heifers milked during 1934	Swine all ages	Sows and gilts	Sheep and goats	Chickens over 3 months old	Turkeys over 3 month old	All animal units
1a Tennessee Valley	6.1	10.3	4.7	8.8	0.8	0.8	106.0	0.5	18.1
1b Limestone Valleys	5.4	10.5	5.1	6.7	0.5	0.7	99.7	0.6	17.2
2a Sand Mountain	5.7	10.6	5.3	5.6	0.2	0.4	124.6	0.3	17.6
2b Jackson County Hills	6.7	16.1	4.6	23.3	4.3	3.8	170.6	0.2	27.5
2c Mineral and Industrial	6.7	19.2	9.8	11.8	1.1	1.5	161.1	0.4	27.9
2d West Border, Sand Mountain	5.8	12.2	5.6	6.2	0.4	0.4	114.2	0.3	19.0
3 Talladega Mountains	5.6	14.8	6.9	7.4	0.5	0.8	132.2	0.5	21.7
4 Piedmont Plateau	4.8	14.4	6.1	6.8	0.6	0.4	97.3	0.9	20.0
5 Upper Coastal Plain	5.1	14.6	5.6	9.6	1.1	0.6	88.6	0.9	21.0
6 Black Prairie Belt	6.0	32.1	7.7	13.9	2.6	2.2	74.0	4.2	38.5
7 Southwest Piney Woods	5.4	30.1	6.5	28.8	4.5	10.8	115.6	1.4	40.4
8a Southeastern Coastal Plain	3.4	10.4	3.1	19.0	2.4	0.4	59.8	0.6	16.9
8b South Central Coastal Plain	4.4	17.8	4.5	19.7	2.8	2.2	81.5	0.6	25.1
9 Gulf Coast	5.7	32.3	10.5	14.0	1.7	13.1	222.5	1.5	41.4
All areas	5.1	15.5	5.4	12.3	1.5	1.4	93.6	1.0	22.5

to narrow down somewhat between broken hills near the north-western corner.

In 1934, cotton, corn, and hay crops together occupied 95 per cent of the harvested crop acreage; oats, Irish potatoes, sweet potatoes, and miscellaneous minor crops comprised the remaining 5 per cent (Table 2). Tree fruits, which are grown principally for home use, occupied less than 1 per cent of the cropland. The proportions of harvested cropland in cotton, hay, and Irish potatoes exceeded the State averages, while the proportions of cropland in other crops were below.

Numbers of work stock and poultry per 100 harvested crop acres were above the State averages, but numbers of all other classes of livestock as well as the number of animal units per 100 harvested crop acres were below average (Table 3).

Yields of cotton and corn were relatively high in this area. Average corn yields were not sufficiently high, however, to bring returns comparable to those from cotton. This fact has been of major importance in the persistence of cotton as the highly favored cash crop. This area was one of the first in the State to be developed for cotton production. Moreover, the weight of custom, of organization of plantations for cotton production, of financing habits, and familiarity with production methods also tend to influence the preference for cotton production.

With fair treatment much of the area will produce excellent pasture and forage crops. For this reason it is looked upon as a very important potential livestock area. It is, therefore, an area possessing unusual possibilities for diversification which may be acted upon if the comparative advantage in cotton production declines sufficiently.

Colored farmers are much more numerous on the lower level lands than on the rougher transition lands on the margin of the area, probably due to the fact that the holdings in the more level sections are larger and more generally operated with tenants. For the area as a whole, however, white farmers predominate.

The Limestone Valleys, Sub-area (1b) consists of a series of limestone valleys of moderate width lying between wooded hills and ridges. It is somewhat more broken and has a higher altitude than that of Sub-area 1a. It also has a slightly longer growing season, probably more variability in soil texture and plant food and slightly lower yields of both cotton and corn. However, crops and production practices are quite similar in the two sub-areas. The proportions of cropland in cotton and hay are slightly below, while the proportions of cropland in corn, oats, sweet potatoes, and vegetables for sale are above those in Sub-area 1a. This greater emphasis on feed crops and vegetables for sale, as well as cows milked, probably reflects the closer proximity of farms in Sub-area 1b to more favorable local markets in relation to total productive capacities.

Many colored farmers may be found in the older plantation sections of Talladega County but in general the proportion of colored farm operators is less than in Sub-area 1a.

Area 2 — Sand Mountain

The **Sand Mountain area** includes most of the Appalachian Mountain areas in Alabama. The topography varies from rugged mountains to gently rolling plateaus. The soils are largely sandy being derived chiefly from acid shales and sandstone. Deep sands, however, are not common and the water holding capacity of the soil is fairly high. Nearly all soils of the area are exceptionally responsive to good treatment. Commercial fertilizers, compost, stable manure, and green manures bring quick and favorable responses in increased crop yields. Pastures are usually poor. Native pastures are not naturally productive, but lend themselves to improvement by means of fertilization, seeding, and other good treatment. The area varies so much in topography and nearness to markets that it has been divided into four sub-areas, all of which have similar production advantages from the standpoint of soil but have other important varying characteristics.

The **Sand Mountain** proper, **Sub-area 2a**, occupies the larger mountain plateaus and extends westward from the Alabama-Georgia State line slightly more than half way across the State. The area has an elevation ranging from 500 to well over 1,000 feet and consists largely of stretches of gently rolling to rolling land well suited for careful cultivation.

Farms in the area tend to be small, and, as a rule, farmers are self-sufficient in food and feed production. Cotton, corn, and hay crops occupied 92 percent of the harvested crop acreage. Oats, sweet potatoes, Irish potatoes, and vegetables for sale occupied most of the remaining 8 per cent. Fruit trees, principally apples and peaches, occupied 1.5 per cent of the cropland. The proportion of harvested cropland in cotton was slightly below and that of corn slightly above the State average.

Cotton yields were higher in this than in any other area of the State and feed crop yields were above average. Cotton was the most important cash crop but the acreage was somewhat limited by the feed and food crops necessary to maintain the existing degree of self-sufficiency.

With the exception of poultry, livestock was kept largely for home use. Sales of poultry and poultry products were of considerable importance.

Farmers of the area are white. As a rule they are industrious and thrifty and have been able to take advantage of nearby markets to dispose of their small surpluses of dairy products, fruits and vegetables.

Sub-area 2b, the Jackson County Hills area, occupies about half of Jackson County and a small part of Madison County. This sub-area is much rougher than Sub-area 2a and much of the land is heavily wooded and not used for farming. The soils generally are responsive to good treatment, but the acreage of cropland per farm is small and the small irregular fields tend toward inefficient use of man and mule labor. This results in a self-sufficing type of agriculture. The acreage of cotton was relatively small and that of feed crops large. As a consequence the number of livestock per 100 harvested crop acres was relatively large.

Sub-area 2c, the Mineral and Industrial area, is generally rugged in topography but includes sections that are comparable in farming capacity to Sub-area 2a. It also contains some narrow limestone valleys that are more or less similar to Sub-area 1a. The sandy lands are responsive to fertilizers and the limestone soils produce good pastures and feed crops. A large proportion of the sub-area is in woodland, much of which is owned by mining and industrial interests.

The type of farming is definitely influenced by the proximity of local markets. Cotton was relatively unimportant in 1934 as compared with feed crops, sweet and Irish potatoes, vegetables, fruits, and livestock and livestock products. Fruits, vegetables, and livestock are produced to help supply the demand of Birmingham and other local markets. Cotton and corn yields were above average but the demand for other products gave them a comparative advantage over cotton.

Sub-area 2d, the West Border of Sand Mountain, is physically quite similar to Sand Mountain proper except in topography. The topography is generally quite rough and the proportion of the area in cultivation is much less than farther east. However, in 1934 the use of land for crops and livestock was quite comparable to that of Sand Mountain (Tables 2 and 3).

Area 3 — Talladega Mountains

The **Talladega Mountain area** is a small, narrow, mountainous belt lying between the Limestone Valleys, (Sub-area 1b), and the Piedmont Plateau. It is rough and rugged, and, for this reason, is of little agricultural importance. Most of the area is covered with timber and a large proportion is now included in the Talladega National Forest. Soils and topography limit farming to small areas in which the land surface is level enough to be cultivated. Slightly more than one-fourth of the harvested crop acreage is devoted to cotton but a self-sufficing type of agriculture is the general rule where farming is practiced. The proportion of cropland in food and feed crops is generally above the State average. Poultry appears to be the most important class of livestock kept and the number per 100 acres of harvested cropland was considerably above the State average in 1934.

Area 4 — Piedmont Plateau

The Piedmont Plateau is a rolling area containing much land of questionable topographic adaptability for cultivation. A considerable proportion of land that formerly was cultivated has been discarded from crop production because of severe erosion. The top soils are generally considered strong and productive where erosion can be prevented and a good cropping system is followed. Erosion control is difficult in many parts of the area because the small amount of level land increases the tendency to cultivate the steeper slopes, the relatively impervious subsoil tends to increase the run-off, and the proportion of cultivated land in row crops is high. Much of the rougher sections is in woods. The farm population of the area has declined slightly during recent years.

Cotton, corn, and oats were the most important crops. Oats were relatively more important in this area than in any other part of the State in 1934. Hay crops occupied a minor place in the cropping system, and pulled fodder, oats, and fall and winter pasturage furnished by crop residues and woodland browse have largely taken their place. Cattle, produced largely on pasture and browse, and poultry were of slightly more importance than other classes of livestock but the returns from all livestock were quite small.

Area 5 — Upper Coastal Plain

The Upper Coastal Plain area extends the entire width of the State and lies south and west of the areas previously described. It is quite variable as to topography. In general, it is gently rolling to rolling, but includes some sections that are quite level as well as some that are rugged and hilly with only a small proportion of the land in farms. In the rougher sections land that is cultivated is mostly in small "patchy" fields.

Soils of the area are extremely variable as to type and texture. They are largely sandy, but stiff red and gray clay soils occur in some sections. The strongest soils occur in the river terraces and flood plains that cut across the area. On the whole this area approximated rather closely the State average in proportion of land devoted to various crops and in relative importance of various kinds of livestock in 1934. Cotton, corn, and oats, however, occupied considerably more than the average proportion of the harvested cropland, while hay and some of the food crops occupied less.

Local differences in marketing advantages, in part-time farming opportunities, in soil type as well as in topography, are reflected in the different types of farming followed in different parts of the area. The population is largely white in the upper and northwestern part, but colored farmers are numerous where the area borders on the Black Prairie Belt.

Area 6 — The Black Prairie Belt

The Black Prairie Belt or more briefly the "Black Belt" was developed rapidly after the introduction of cotton and is characterized by large holdings originally organized for extensive cotton production with slaves. Prior to the advent of the boll weevil this was the leading cotton producing section of the State but the heavy soil prevents cotton getting an early start in the spring and otherwise works against effective weevil control. Moreover, the gradual encroachment of Bermuda and Johnson Grass, both of which are difficult to eradicate when once established on heavy soil, has greatly lessened the acreage of tilled land and correspondingly increased the acreage of meadow and plowable pasture.

The area is nearly level to gently rolling and is underlaid by a soft, chalky limestone which occasionally outcrops in ridges, and in other sections has been exposed by erosion. The true prairie soils belong to the Houston and Bell series, range in color from gray to black, and normally have a high lime content. Throughout the Belt, and usually on the higher elevations, occur areas of reddish-gray to red soils that are of later geological formation and distinctly acid in nature. These areas, as well as the bottom land, were originally heavily timbered. The area is divided by river terrace and bottom lands along the Alabama, Tombigbee, and Black Warrior rivers. These terrace and bottom lands, when properly drained, are highly productive but the bottom lands are subject to overflow during periods of high water.

Nearly all soils in the Black Prairie Belt are naturally adapted to the growing of grasses and various legumes which make the area well suited to pasturage and hay production. Grasses and other pasture plants grow fairly well without care but proper treatment results in good pastures that provide grazing for nine months, and during mild winters may be grazed for the entire year. This area has a larger proportion of farm land in plowable pasture than any of the others.

The spread of Bermuda and Johnson grass together with the ravages of the boll weevil has forced the abandonment of some of the most productive land for cotton production and resulted in a decided shift from cotton to livestock in many sections. However, cotton still occupies an important place in the agriculture of this area, due largely to the fact that the plantations were originally organized for specialized cotton production and most of the farming is still done by colored tenants and croppers. In 1934 cotton occupied a larger proportion of the harvested cropland in this area than in any other area of the State. Plowable pasture is not included as cropland, hence the proportion of potential cropland in cotton is considerably less than indicated in Table 2. The proportion of harvested cropland in corn is considerably below the State average due to the larger acreage in hay and pasture.

The natural adaptability of the Black Prairie Belt for the production of hay and pasturage makes it the outstanding potential livestock area of the State. Beef cattle are produced largely on pasture and considerable dairying is carried on with relatively extensive methods. The numbers of hogs, sheep, and goats per 100 acres of harvested cropland were above the State averages, and turkeys were considerably more important than in any other area.

Area 7 — Southwest Piney Woods

The Southwest Piney Woods area varies in topography from typical flatwoods in most of Washington County to very rough and rugged hills in Clarke County. The elevation does not exceed 500 feet above sea level. The soils vary widely in productivity but good farming areas are few, are generally far apart and small in extent. This area has the least density of farm population as well as of total population, of any in the State except the higher and more rugged Talladega Mountains. Woodland in various stages of growth covers most of the area. Considerable stretches of cut-over land have been systematically burned for the supposed benefit that burning gives to early spring grazing, and to the detriment of young tree growth. A considerable proportion of the land is held in large units by lumber interests.

Corn occupied 61 per cent and cotton about 23 per cent of the harvested cropland in 1934. The hay acreage was relatively small and the sweet potato and peanut acreage relatively large. Rainfall distribution and mild winters tend to increase the boll weevil hazard in this area. Because of the limited area of harvested cropland, livestock numbers per 100 acres of harvested cropland were relatively large. The quality of all classes of livestock, however, was generally poor, and there appeared to be little incentive to improve it under existing range conditions.

Area 8 — Southeastern and South-Central Coastal Plain

The Southeastern and South-Central Coastal Plain area includes the greater part of the section of Alabama commonly known as the Lower Coastal Plain. The soils of the area are quite variable in quality. Some stretches of land are as productive as any in the State, and some are nearly pure sand. Heavy soils particularly of the Susquehanna group occur occasionally, but in their present condition are seldom first class farm land. Open winters and heavy rainfall in June, July, and August aid boll weevil development and fall rains are likely to handicap cotton picking more frequently than in areas farther north.

The Southeastern Coastal Plain, Sub-area 8a, often referred to as the Peanut or Wiregrass area, is for the most part a nearly level to rolling plain with irregular topography on the northern border. Moreover, the north central part of the area is penetrated by a range of hills having an elevation of 500 feet or more. The principal crops of the area are cotton, corn, hay, and peanuts. The proportion of harvested cropland occupied by cotton and corn was below the State average in 1934, but that of hay and particularly peanuts was far above the State average. Peanuts occupied nearly 35 per cent of the harvested crop acreage, and to a considerable extent this crop has displaced cotton as a money crop and corn as a feed crop. The shift to peanuts occurred soon after the coming of the boll weevil and was made in an effort to provide a cash crop to take the place of cotton. Peanut hay, a by-product of peanuts harvested for market, usually eliminates the necessity of growing other hay crops on peanut-producing farms. However, since the vines from peanuts harvested for market are usually saved for hay there is a duplication of the reported acreage of peanuts and hay. Corn usually is interplanted with velvet beans most of which are grazed after the corn is harvested; or corn, peanuts, and velvet beans are grown together and all grazed with hogs or cattle. A considerable acreage of watermelons for sale is grown in Houston and Geneva Counties.

Hogs are the most important commercial livestock, and are marketed from practically all peanut-producing farms. Considerable numbers of range hogs are found in some parts of the area and there is considerable free ranging after crops are harvested, frequently to the detriment of winter crops that are not fenced. Practically all of the hogs, however, are fattened on peanuts. All other classes of livestock are grown largely for home use.

Sub-area 8b, the South-Central Coastal Plain, is quite similar to Sub-area 8a in respect to climate and soil, but in general has a slightly rougher topography. A larger proportion of the land is in forest, which in the past, at least, has provided range for considerable numbers of cattle and hogs. The total population, as well as the rural farm population, is less dense than in Sub-area 8a, and more farms are operated on a self-sufficing basis. Cotton, corn, and peanuts are the principal crops grown. Some sections are producing vegetables and strawberries for sale, but the total acreage of these crops is relatively small. Cotton suffers from the same climatic disadvantages as in Sub-area 8a. Peanuts are being grown in increasing quantities, both for feed and for sale. Hogs are increasing in importance and range cattle are produced in considerable numbers.

Area 9 — The Gulf Coast

The Gulf Coast area has a nearly level land surface with an elevation usually ranging from sea level to 100 feet. Most soils are fair to good but deep sands, which are practically useless except for timber production, occur rather extensively in some sections. Much is uncleared, or in second growth timber and semi-wasteland which supports a poor quality of range cattle, hogs, and sheep. Normally, heavy rainfalls during June, July, and August makes cotton production extremely risky while mild winters and a long growing season favor the production of vegetables and Irish and sweet potatoes for the early market. As a consequence, this group of crops occupied about 32 per cent of the harvested cropland in 1934. Two or more crops are frequently grown on the same land during the season, especially where the first crop is heavily fertilized and the second crop is likely to benefit from the residual effects of the fertilizer. Rather extensive groves of hardy citrus fruits have been set out, especially in Mobile County, but, as a rule, these have not been highly successful. There is also a rather heavy concentration of pecan trees. Chickens and eggs are produced on an intensive basis in parts of the area and the sale of poultry and poultry products adds materially to the farm income. The farmers are white for the most part, and the proportion of farmers who are tenants is relatively small.