

# SOIL SURVEY OF RABUN COUNTY, GEORGIA.

By DAVID D. LONG, of the Georgia State College of Agriculture.

## DESCRIPTION OF THE AREA.

Rabun County is situated in the northeastern corner of Georgia. On the north it joins with North Carolina and on the east with South Carolina. The county line on the east is well defined by the Chattooga River. The line between North Carolina and Georgia is well established at a number of points, but in some places is not so definite. The western and southern boundaries of the county are fairly well determined where they follow crests of mountains, but at some intervening points the lines are not so well defined, and in the northwestern corner of the county the line between Towns and Rabun Counties is indefinite. Rabun County is very irregular in shape, and comprises an area, according to planimeter measurements, of 371 square miles, or 237,440 acres.

Rabun County lies wholly within the Appalachian Mountain Province, and between 1,000 and 4,288 feet elevation. Its topography is typically mountainous, abounding in mountain forms which distinguish the region from other parts of the State. The highest mountains are spoken of as the Blue Ridge or the backbone of the mountain system. The Blue Ridge extends along the western boundary of the county and has a general elevation ranging between 3,000 and 4,000 feet above sea level, but attains an elevation of 4,288 feet at its highest point in this section of the county. At the northwestern corner of the county the Blue Ridge bends sharply southeast to Clayton and then northeastward to the North Carolina line, making, as a whole, a U-shaped loop. Northeast of Clayton, on Rabun Bald, the Blue Ridge attains its highest elevation in Georgia.

From the Blue Ridge mountains extend in all directions and practically cover the county. These secondary mountains do not attain as high elevations as the Blue Ridge, their crests ranging from 2,000 to 3,500 feet above sea level. The highest are in the western part of the county. South and east of the Blue Ridge the elevations rapidly decrease and the most prominent mountains, with a few local exceptions, range in height from 1,500 to 2,600 feet. Along the southern boundary of the county the Tallulah Mountains drop from 3,209 feet to 2,060 feet, the summit of Hickory Nut Mountain near Tallulah Falls.

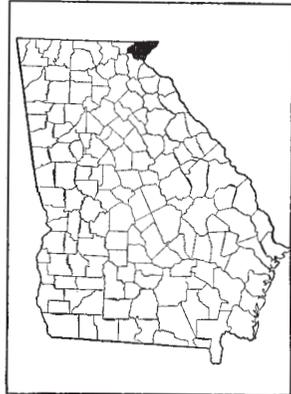


FIG. 35.—Sketch map showing location of the Rabun County area, Georgia.

The mountains are typically rugged, with steep sides which are broken by ravines. Precipitous cliffs, gorges, rock masses, and other minor details of the mountainous regions of the eastern part of the United States occur. All the mountains are narrow crested and the sky line is irregular. There are a few high mountain valleys, more or less rounded shoulders, and less precipitous slopes scattered throughout the region.

The smoothest topography is found along the stream valleys, chief of which is the Tennessee River Valley in the northern part of the county. This valley is surrounded by the precipitous heights of the Blue Ridge. In the vicinities of Clayton, Tiger, Wiley, and Tallulah Falls there are appreciable areas of rolling to hilly lands adjoining the stream valleys. (Pl. XVIII, fig. 1.)

The county is drained by an intricate system of swift-flowing streams. The Tallulah River and its tributaries drain the western and southern parts of the county, the Chattooga River and its tributaries the eastern part, and the Tennessee River, which flows northward into North Carolina, the northern part. The streams offer many opportunities for the development of water power.

Rabun County was organized as a separate political unit in 1819. Settlement within the territory began in the latter part of the eighteenth century. The settlers came chiefly from North Carolina and Virginia, with some from South Carolina. The population has fluctuated somewhat in the last 30 years. In 1890 it was 5,608; in 1900, 6,285; in 1910, 5,562; and in 1920, 5,746. The density of the population is 15.2 per square mile. Many are leaving the county to go to other parts of the State, where more land is available for farming. Other factors that tend to decrease the population are the utilization of the bottom lands for water-power storage reservoirs and the purchase of the mountain lands by the Government for forestry. The greater part of the present population of the county is confined to a belt a few miles wide along the railroad.

Clayton, the county seat, is centrally located and is the chief trading point of the county. Its population in 1920 was 677. Other trading points are Tallulah Falls, Tiger, Mountain City, and Dillard.

The Tallulah Falls Railway, connecting with the main line of the Southern Railway at Cornelia, passes through the central part of the county and extends to Franklin, N. C. This line affords the only railroad transportation available to the county.

The public-road system of the county is becoming less extensive each year, as many roads in the remote sections of the county are abandoned. The roads are not surfaced and are difficult to travel in wet seasons, especially during the winter months. The rural mail delivery service extends to the more thickly settled parts of the county.

#### CLIMATE.

The climate of Rabun County is characterized by long summers and short, moderately open winters, with an abundance of rainfall well distributed throughout the year.

The winter months have a range of temperature from  $-5^{\circ}$  F. to  $75^{\circ}$  F. Warm spells of a few days duration are followed by rains,

after which the weather turns cold and remains so for several days. Snowfalls of 2 to 6 inches have occurred.

The mean summer temperature is 73.5° F., with a range from 42° to 99° F. The cool nights, together with the invigorating mountain air, make the summer climate delightful. The county is an important summer resort and hundreds of tourists visit it during July and August. Numerous settlements are composed almost entirely of summer residents, and there are several camps for boys and girls.

The rainfall of the county is heavier than anywhere else in the United States, except a few places on the Pacific coast. The average annual precipitation is 69.65 inches, while in the wettest year on record (1906) it was 91.55 inches. The rainfall is well distributed throughout the year, the greatest amount falling during the summer months. The lightest rainfall occurs during the fall months, which is favorable for the harvesting of crops. Heavy fogs are common in the Tennessee Valley.

The average date of the last killing frost in spring is April 15, and of the first in the fall, October 19. This gives an average growing season of 186 days. The latest killing frost in the spring occurred on May 10, and the earliest in the fall, on October 1.

The table below, giving the normal monthly, seasonal, and annual temperature and precipitation, is compiled from the records of the Weather Bureau station at Clayton:

*Normal monthly, seasonal, and annual temperature and precipitation at Clayton.*

[Elevation, 2,100 feet.]

Month.	Temperature.			Precipitation.		
	Mean.	Absolute maximum.	Absolute minimum.	Mean.	Total amount for the driest year (1894).	Total amount for the wettest year (1906).
	° F.	° F.	° F.	Inches.	Inches.	Inches.
December.....	40.8	75	1	6.74	8.19	7.70
January.....	40.4	75	-1	5.49	5.70	10.98
February.....	40.8	74	-5	6.45	6.53	1.65
Winter.....	40.7	75	-5	18.68	20.42	20.33
March.....	49.6	89	8	6.68	2.48	10.36
April.....	56.7	91	23	5.56	2.66	3.01
May.....	65.9	94	20	4.56	2.52	2.84
Spring.....	57.4	94	8	16.80	7.66	16.21
June.....	71.8	99	42	5.80	2.31	5.63
July.....	74.6	98	49	8.15	7.29	14.50
August.....	74.0	95	47	7.02	2.99	10.84
Summer.....	73.5	99	42	20.97	12.59	30.97
September.....	68.7	93	36	5.05	1.98	13.72
October.....	58.1	89	21	4.45	2.95	6.12
November.....	48.2	79	14	3.70	.66	4.20
Fall.....	58.3	93	14	13.20	5.59	24.04
Year.....	57.5	99	-5	69.65	46.26	91.55

## AGRICULTURE.

From the earliest development of the county agriculture has been the chief industry. The income, however, has not been solely from agriculture, as forest products—lumber and cross-ties—have been the source of a large proportion of it.

The bench and cove lands were the first to be utilized by the early settlers in the production of crops which were necessarily for self-sustenance. Later the bottom lands were cleared and drained, and still later the smoothest portions of the mountain slopes, mountain valleys, and coves were reclaimed for farming. In this period the timber was burned, as there were no facilities for marketing lumber.

Within the last 20 years the Tallulah Falls Railway was extended from Tallulah Falls through the county to Franklin, N. C., and this, in combination with other factors, has brought about a readjustment of conditions. Large tracts of forest land have been acquired by lumber companies. Recently a large proportion of the county has been acquired by the United States Government for its forest reserve. The development of water power at Tallulah Falls also has required large tracts of bottom lands near Lakemont and Mount Zion Church. As a result of these several changes the farming interests have been shifted from local areas all over the county to a central region which lies within a few miles on each side of the railroad. There are many abandoned places scattered throughout the county, some of which are marked only by fallen chimneys and the remnants of home orchards.

Rabun County is one of the few counties of the State in which no cotton is grown. It is said that in the history of the county only one bale has been produced. The present-day agriculture is centered about subsistence crops, of which a small surplus is sold.

Corn is the chief crop. According to the census of 1920 it was grown for grain in 1919 on 7,848 acres, with a production of 142,366 bushels. In 1909 corn occupied 9,251 acres, with production 126,419 bushels. In 1899 the area in corn was 4,000 acres greater than in 1909.

Rye is the next important crop, with an acreage ranging from about 500 to 1,000 acres. In 1919, according to the census, it was grown on 1,189 acres, and in 1909 on 736 acres. The average yield ranges from 4 to 6 bushels per acre.

Wheat, oats, cowpeas, red clover, and soy beans are grown to a small extent and are utilized on the farms. Sorgho is grown in small patches for making sirup.

Potatoes were grown in 1919 on 229 acres, yielding 11,491 bushels, and sweet potatoes on 125 acres, yielding 10,561 bushels. Other vegetables occupied 112 acres.

The apples produced in the county are noted for their quality, and are a source of considerable income. They are usually hauled by farmers to the lower country, where they are sold in retail quantities. Most of the apples produced in the county are from home orchards. Some promising young commercial orchards have been established. These are situated mainly on steep mountain sides, which greatly increases the cost of production. The census of 1920 reports 58,492 apple trees of bearing age in the county, while in 1909 there were 38,191 trees. The orchards are generally well managed,

being cultivated, pruned, and trimmed according to the standards of commercial growers. A large number of varieties are grown, chief of which are Yates, Winesap, Arkansas Black, Ben Davis, Shockley, Grimes (Grimes Golden), and York Imperial.

Improved methods are generally practiced in the production of the various crops. Land for corn is plowed with 2-horse plows, chiefly in the spring or late winter, especially on the bottom lands, where most of the crop is produced. The corn is usually planted during the month of April, is cultivated several times, and harvested in November and December. The leaves are pulled in the latter part of August for fodder, although this plan is not always followed. The crop is used on the farms for feed and for human consumption, being ground into meal by local mills.

Rye is either seeded broadcast or drilled in, generally on disked or plowed land, during August and September, but part of the crop is seeded in the cornfields either broadcast or drilled in between the rows. Part of the crop is used on the farms and part is shipped from the county for seed. Oats are handled in about the same manner as rye, but are generally sown during March and April, less than 5 per cent being fall sown. The same general methods are used in the production of wheat, except that it is sown after the first frost, on account of the Hessian fly.

The Toxaway loam is recognized as the most valuable soil in the county. The natural fertility and favorable topography in comparison with other types, make it especially desirable. The other better soils are those that are less rough and rugged, the topography being the chief factor in the valuation of the soils for agriculture in this region.

The crops are rotated more or less, although no well-recognized rotation has been established. A small grain usually follows corn and in turn is followed by cowpeas for hay. On many farms corn and a small grain are alternated as often as practicable.

The equipment on the best farms consists of 2-horse plows, two or more harrows, a mower, binder, reaper, cultivators, and lighter implements, such as sweeps and scrapes. The work stock consists chiefly of mules and brood mares. On the smaller farms the implements are not as varied and are chiefly of a lighter type. Some farms are equipped with silos.

Hogs and cattle constitute the source of a considerable part of the farm income in the county. The cattle and hogs are allowed to run on the open range, and in years of heavy mast the hogs generally fatten readily. According to the census of 1920 there were 7,032 hogs and 4,531 cattle in the county. A number of farmers are establishing pastures on the smoother slopes of the mountain sides and also are feeding their cattle. Most of the cattle are sold unfinished. The stock is being improved to some degree by the introduction of purebred sires, chiefly of the Shorthorn breed. The general type of hogs has been greatly improved within the last few years. For purebred stock and for crossing the Duroc-Jersey is favored.

Commercial fertilizers were used in 1919 on 550 farms, or nearly three-fourths of the farms of the county. The use of fertilizers has greatly increased with each decade. According to the 1920 census, a total of \$21,921 was expended in 1919, chiefly for ready-mixed

goods. The predominant grade is a 10-2-2<sup>1</sup> mixture, which is used on all soils at the rate of 200 to 400 pounds per acre. A mixture of cottonseed meal and acid phosphate was used during the war period. Some nitrate of soda is applied as a top-dressing on wheat, rye, and oats.

Expenditures for labor in 1919 amounted to \$32,554 on 193 farms reporting this class of expenditure. The farm labor is drawn chiefly from the native white population, and the labor supply is about adequate to the needs. Day laborers are paid an average of \$1.50 a day, and laborers by the month \$30 to \$35, in addition to house rent and fuel.

The census of 1920 reports a total of 745 farms in the county, with an average size of 97.3 acres. The average area of improved land per farm is given as 26.2 acres.

According to the census of 1900 nearly 70 per cent of the farms of the county are operated by owners. Most of the tenant farms are operated upon a share basis. Except in the Tennessee Valley, the prevailing division between owner and operator is half of the farm products when the owner furnishes the implements and work stock. In the Tennessee Valley, because of the improvements on the farms and the better quality of the soil, the tenant receives only one-third of the products. If the operator furnishes the work stock and implements, he receives two-thirds and in the Tennessee Valley half of the products.

The range in land values is wide. In the remote sections of rough broken mountains the value is low, while near the railroad and in the vicinities of towns the bottom lands range up to \$100 an acre. The average assessed value of the farm land is reported by the census as \$21.99 an acre.

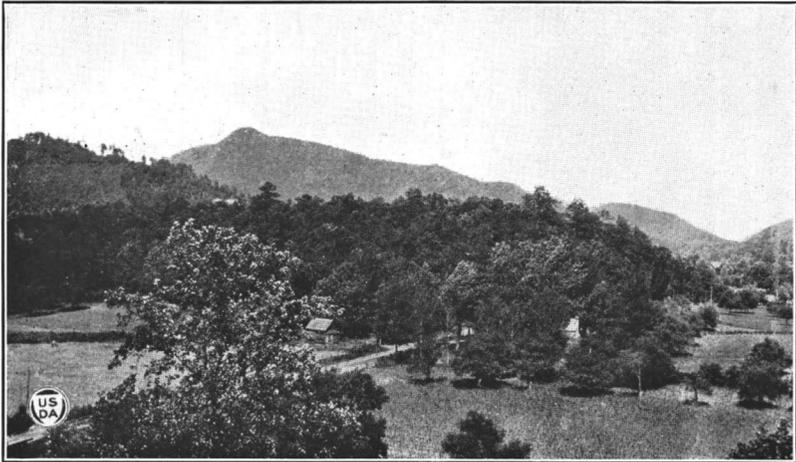
#### SOILS.<sup>2</sup>

Rabun County lies within the Appalachian Mountain system and embraces a part of the Blue Ridge Range. Considering the roughness of the surface, which consists principally of mountain ranges with steep, fairly smooth slopes, the soils for the most part are comparatively uniform. Practically all the county, with the exception of some of the valley land and first bottoms, is forested, and much of the original growth is standing.

The soils of Rabun County are prevailingly light in color, ranging from light brown or grayish brown to reddish brown or red. Practically all of these soils, except the Burton stony loam and Toxaway loam, are low in organic matter. The forests of hardwoods on the mountains have not favored the accumulation of any great amount of vegetable matter in the soil, except in the first inch or two. This superficial covering contains considerable vegetable mold, but it has not become thoroughly incorporated with the soil. The dark-colored to black soils of the county occupy a relatively small acreage. The

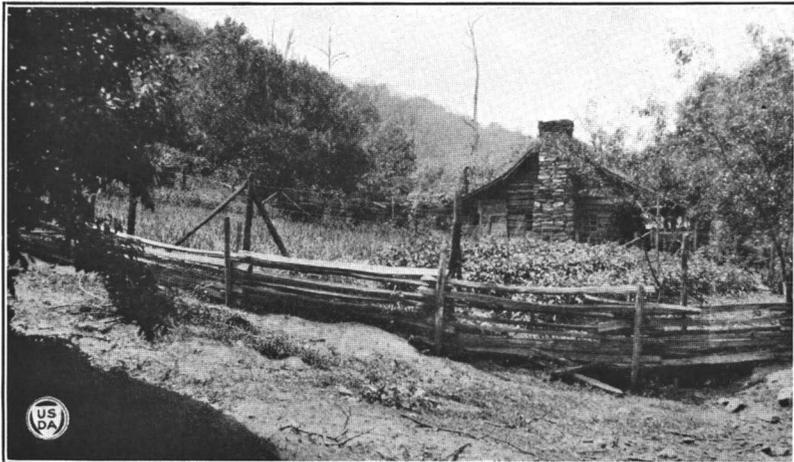
<sup>1</sup> Percentages respectively of phosphoric acid, nitrogen, and potash.

<sup>2</sup> Rabun County adjoins Habersham County—surveyed in 1913—on the south, and the soils of these two counties do not join in every place along the boundary. The Ashe stony loam of Rabun County is mapped against Porters stony loam of Habersham County; the Porters loam of Rabun is mapped against Porters clay loam and Porters sandy loam of Habersham County; and the Burton stony loam is mapped against Porters black loam. These differences in the mapping are due to a better understanding of the soils and to changes in classification since Habersham County was surveyed.



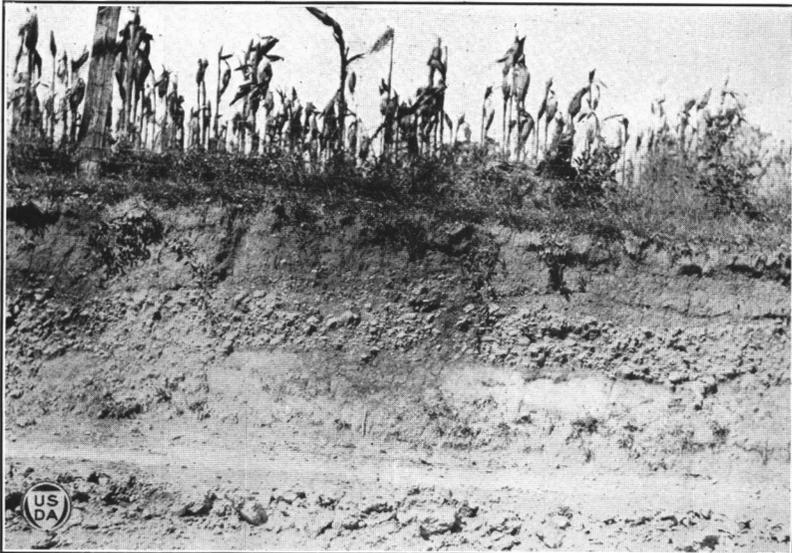
S. 10887.

FIG. 1.—VIEW OF VALLEY AND MOUNTAINS NEAR CLAYTON.



S. 10885.

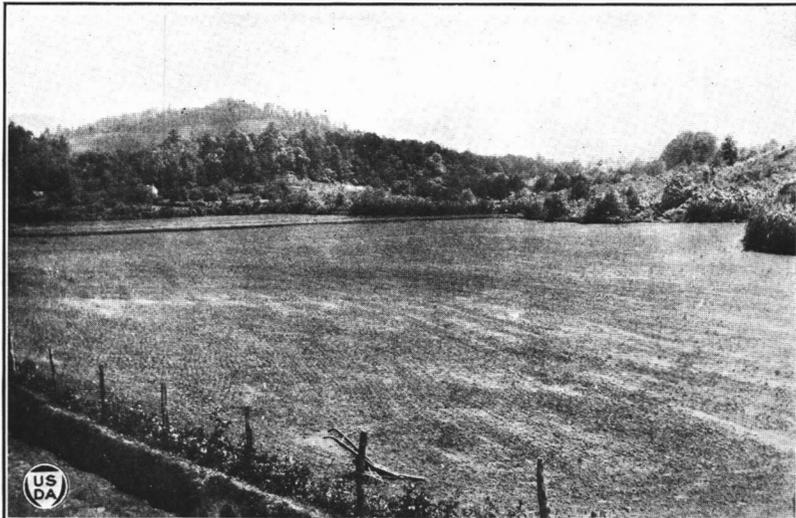
FIG. 2.—A TYPICAL MOUNTAIN HOME IN RABUN COUNTY.



S. 10729.

FIG. 1.—ROADSIDE CUT SHOWING GRAVELLY STRATUM IN THE SUBSOIL OF THE CECIL CLAY LOAM, COLLUVIAL PHASE.

As a first step in harvesting, the tops and leaves have been removed from the corn shown in the upper part of the picture.



S. 10794.

FIG. 2.—TOPOGRAPHY OF THE TOXAWAY LOAM.

Porters soils on mountains in the background.

color of these soils is due to the presence of organic matter, which has been formed through the growth and decay of ferns, mosses, and other vegetation in coves or in shaded parts of some of the higher mountains, where the conditions were favorable for its accumulation in the soil.

A general characteristic of the soils of this county is the absence of free carbonates; that is, there are no calcareous soils in the area. Lime and other carbonates have not accumulated in the soil-forming process, although the original rocks from which these soils are derived contain some calcium. The absence of carbonates in the soil is due in large measure to the climatic conditions, particularly the rainfall and temperature, together with excellent drainage. As a rule the soils are not strongly acid, but they respond readily to the application of lime.

The soils of the county have for the most part a mellow, friable structure, and can easily be worked into good tilth. They are capable of absorbing considerable rainfall and storing it for the crops, and they respond readily to the application of commercial fertilizers and manures. In chemical composition, or content of plant-food elements, they are similar to corresponding types in the Piedmont Plateau section; that is, most of the soils are rather high in potash. The soil containing the largest proportion of lime is the dark-red soil in the western part of the county, which has been mapped as Davidson clay loam. This soil is derived from the dark-colored basic rocks which carry a higher percentage of lime than the acidic rocks giving rise to the Porters soils. The Burton stony loam is derived from the same kind of rock as the Porters, but it contains large quantities of vegetable matter, which gives it a black color in contrast to the brown color of the Porters. The Habersham and the Hanceville soils are derived from quartzite and sandstone. They have a lower percentage of potash than the Porters soils and are perhaps naturally the least fertile soils in the county. The Toxaway loam differs from the Congaree fine sandy loam primarily in the content of organic matter, but there is also a wide agricultural difference between the two soils. The small areas of Cecil clay loam mapped in this mountainous region are not materially different from the Cecil clay loam of the Piedmont Plateau. The areas of Ashe soils are similar to the Porters soils, except that they are lighter in the color of both soil and subsoil.

Rabun County is underlain by complex rock formations, which, through the natural forces of weathering, produce soils of divergent character. The formations are of igneous, metamorphic igneous, crystalline and semicrystalline rocks of great age, which are very much folded and faulted. The three broad divisions of the upland soils of the county are developed through the weathering of three groups of rocks, which influence both the physical and chemical qualities of the soils derived from them. Other factors make further divisions necessary, but the underlying rocks chiefly determine the types of upland soils. The crystalline rocks give two broad groups, light-colored acidic and dark-colored basic. The third group consists of a semicrystalline quartzite.

The soils of the county are grouped into soil series, which consist of soils that, from a genetic and physical standpoint, have all points

save texture in common. The types in each series differ from one another in texture, or relative content of coarse and fine soil particles, such as sand, silt, and clay. The soil type is the unit of mapping.

The types of the most extensive and important soil group of the county are derived from the light-colored acidic rocks of the Carolina gneiss formation. Within this formation there are granites of various textures ranging from fine to coarse and porphyritic. Banded granitic gneiss and biotitic schist are most extensive; and injection gneiss occurs in many places. From these rocks the Porters, Cecil, Appling, Ashe, and Burton series are derived.

The types in the Porters series are characterized by light-brown to reddish-brown surface soils carrying an appreciable amount of organic matter. The subsoil is a yellowish-brown to reddish-brown or light-red, friable clay or clay loam. The members of this series are derived from granite, gneiss, and hornblende schist. Only one type, the Porters loam, is mapped in this county.

The soils of the Cecil series differ from those of the Porters in that the surface soils range from gray to red, and the subsoil is a stiff red clay. These soils are developed on the smoother parts of the uplands or foothills. The Cecil clay loam and the Cecil clay loam, colluvial phase, occur in rather small areas. The colluvial phase differs from the main type in that it represents material which has been carried down from mountain positions by surface wash and deposited at the base of the mountains. The material is more friable than the typical soil and contains semirounded quartz and gneiss fragments.

The soils of the Ashe series are characterized by brownish-gray to brown soils and a yellow to reddish-yellow sandy clay subsoil. The series normally is developed at the highest elevations, where disintegration has proceeded faster than decomposition. This series typically has a rough mountainous topography. The stony loam occupies the higher positions and contains much stone. The sandy loam is developed at lower elevations and is less stony.

The Appling series comprises types with gray to yellowish-gray surface soils, a subsurface layer of pale-yellow to reddish-yellow material, and a subsoil of mottled light-red and yellow, firm, friable clay. In poorly drained situations gray mottlings may appear in the subsoil. One type, the Appling sandy loam, is developed in this county.

The Burton series includes types with black or very dark-gray surface soils, resting in most places on bedrock, but underlain in some places by a very dark brown or black subsoil. The series obtains its color chiefly from the accumulation of organic matter. It is developed mainly on extremely high elevations and in coves, generally of northern exposure. The Burton stony loam is mapped in Rabun County.

The second broad group of upland soils consists of those derived from the dark-colored basic rocks, high in hornblende or augite and, compared with the preceding group, low in silica.

The soils from this group of rocks are normally lower in potash and higher in lime than those of the series already described. In the present survey but one example occurs, the Davidson clay loam.

The Davidson series includes types with dark-brown to reddish-brown surface soils and a dark brownish red to dark-red subsoil.

The third group of upland soils is derived from quartzite, which occurs chiefly in the southern part of the county. Two series of soils are derived from this formation, the Hanceville and Habersham.

The Hanceville series includes types with brown to reddish-brown surface soils and a light-red to bright-red, friable sandy clay subsoil. The series is developed in rough mountainous regions. Only the Hanceville loam is mapped in Rabun County.

The types of the Habersham series are distinguished from those of the Hanceville series by their grayish-brown to brown surface soils and yellowish, friable sandy clay subsoil, which in only a few places has a reddish cast or is streaked with red. The series occurs in rough mountainous sections, and includes but few areas of smooth land. The Habersham stony sandy loam is mapped in the present survey.

The alluvial soils of the county are composed of material washed from the upland soils. Two series are mapped, the Congaree and Toxaway.

The Congaree series is represented by the Congaree fine sandy loam which has a grayish-brown to light-brown surface soil and a yellowish-brown to reddish-brown, friable sandy clay subsoil.

The Toxaway loam represents the Toxaway series, which is characterized by very dark brown to black surface soils, underlain by a subsoil of similar colors. This type is the most extensive alluvial soil and the most productive soil in the county.

On account of the rough and mountainous topography of the county, the soils could not be classified and mapped with as great detail as in smoother areas, except at an expense which would not be commensurate with the economic value of the land. Consequently in many cases the mapping of an area as a type really means that that type is the predominant soil within that area.

The soil types are described in greater detail in subsequent pages of this report. Their distribution is shown on the accompanying soil map. The table below gives the actual and relative extent of the soils mapped.

*Areas of different soils.*

Soil.	Acres.	Per cent.	Soil.	Acres.	Per cent.
Porters loam.....	168,960	71.2	Burton stony loam.....	3,584	1.5
Cecil clay loam.....	12,992	5.8	Habersham stony sandy loam.....	3,328	1.4
Colluvial phase.....	768		Congaree fine sandy loam.....	1,472	.6
Ashe stony loam.....	13,312	5.6	Appling sandy loam.....	1,408	.6
Ashe sandy loam.....	8,512	3.6	Rock outcrop.....	768	.3
Hanceville loam.....	8,320	3.5			
Toxaway loam.....	7,680	3.2	Total.....	237,440	.....
Davidson clay loam.....	6,336	2.7			

**PORTERS LOAM.**

In virgin areas the surface soil of the Porters loam consists of an upper layer, 1 to 3 inches thick, of a grayish-brown to brown loam heavily charged with vegetable mold, a subsurface layer of grayish-yellow to brownish-yellow, friable loam or clay loam, typically extending to a depth of 6 to 10 inches, and a subsoil layer of reddish-brown

or reddish-yellow, friable clay loam or clay. In many places the surface soil is a friable, reddish-brown to red clay loam or sandy clay loam extending to a depth of about 6 inches, and underlain by a subsoil of heavy red clay. In other places the subsoil begins as a light sandy clay and quickly passes into a reddish-yellow sandy clay or clay, which extends to a depth of about 20 inches. Throughout a large part of the area the subsoil does not continue to 3 feet, but grades above that depth into the disintegrated rock from which the soil material is derived.

Included in this type are small areas of Burton stony loam, Ashe sandy loam, and heavy areas of reddish-brown clay loam, which, had they been large enough, would have been mapped as Porters clay loam. Owing to the rough topography and the inaccessibility of such areas, extremely close separation of these soils was not deemed essential for practical purposes. In many places the Porters loam carries a relatively high percentage of sand, which gives it a granular structure and somewhat sandy texture.

The Porters loam is by far the most extensive type in the county. It is developed in all parts of the county and covers practically all the mountain ranges and slopes with the exception of those areas mapped as Burton, Ashe, and Davidson. Some of the largest and most typical areas occur on River, Glassie, Powell, Chestnut Knob, Rainey, Duncan, Wall, and Rock Mountains. The topography of the Porters loam is decidedly mountainous, and little of the land is suitable for agriculture. Some of the lower slopes, however, and also some of the saddles in the mountains, have a fairly smooth surface and could be cultivated. Much of the type is suited only for forestry. Some of the smoother slopes may be used for the production of fruits, particularly apples. Most of this type lies at elevations between 1,500 and 5,000 feet above sea level, and at these altitudes locations favorable for apple orchards can be found.

Practically none of the Porters loam has been cleared and farmed. The land is covered with a heavy growth of oaks, chiefly of the post, red, black, white, and chestnut species, together with shortleaf pine, some hickory and chestnut, and a little white pine and hemlock. Chestnut is the most abundant in the northern part of the county. The chief present use of this land is as open range for cattle and hogs. Considerable areas have been purchased by the Government for its Appalachian Forest Reserve.

Land of this type sells from \$5 to \$20 an acre, and in some particularly favorable situations, near the towns and railroad, at a much higher price.

This soil is naturally fertile and would be productive if the topography did not preclude its use for farm crops. The growing of apples, grapes, and other fruits, the seeding of the land to grasses for pasturage, and the cultivation of the lower and smoother slopes can be profitably accomplished. The rougher mountainous areas should remain in forest.

#### CECIL CLAY LOAM.

The surface soil of the Cecil clay loam is a brownish-red, friable clay to sandy clay loam, with an average depth of 7 inches. The subsoil is a heavy, friable, somewhat stiff red clay, more or less plas-

tic when wet. The subsoil throughout most of the areas continues without much change to a depth of 3 feet, but in places it grades into decomposed rock material. Stones are found here and there, but not in sufficient numbers to produce a stony type. There are no masses of bedrock exposed, as in the mountainous areas of the Porters loam. In some places, chiefly at the base of Tiger Mountain and south of Persimmon Church, the upper 3 or 4 inches of the surface material approaches a loam.

Areas of the Cecil clay loam are mapped chiefly in the central part of the county, following more or less closely the belt traversed by the railroad. The most important areas lie in the vicinities of Tiger, Wiley, Clayton, Rabun Gap, and Mountain City. Smaller areas are scattered throughout the county.

This type occurs chiefly in the gaps and on the smooth slopes and shoulders of the mountains. The topography is undulating to rolling and is favorable for general farming. Improved implements can be used on all the areas, but in places the surface is too rolling for the successful use of tractors. The drainage is good.

Practically all the type has been cleared of its native forest growth and is used in the production of the general crops of the county. Next to the bottom lands, this soil is the most generally used. Corn, the most important crop, yields ordinarily about 20 bushels per acre. Fertilizer is applied at the rate of 200 pounds per acre. Rye averages about 9 or 10 bushels per acre, oats about 15 to 18 bushels. The highest yields of these crops are generally twice the stated average yields, but these high yields are obtained only on farms where the soil has been improved with stable manure and through rotations and other improved methods. Soybeans, cowpeas, red clover, sorghum, and late vegetables have been produced with success. Apple orchards on this soil show good growth.

Land of this type is held at prices ranging from \$40 to \$100 an acre, depending upon the location and improvements.

This soil is strong and productive, but must be handled with care. The heavy nature of the soil requires the use of heavy work stock and implements for the best preparation of the land. It should be plowed within a narrow range of moisture conditions, as plowing when too wet results in the formation of intractable clods. Organic matter, which is urgently needed, could be supplied by turning under green-manure crops. The land should be protected against erosion. The soil is well suited to the production of general farm crops, especially small grains and grasses. Apples and peaches have been produced successfully on this soil.

*Cecil clay loam, colluvial phase.*—The surface soil of the colluvial phase of the Cecil clay loam is a heavy, friable, brownish-red to reddish-brown clay loam, with an average depth of about 7 inches. The subsoil consists mainly of a friable, red, heavy clay, which extends to a depth of 3 feet or more. At depths varying from 15 to 30 inches the subsoil generally contains a stratum of rounded and semi-rounded gravel and stones ranging from 6 to 7 inches in diameter down to small gravel, the average being about  $1\frac{1}{2}$  inches. (Pl. XIX, fig. 1.) Similar stones are found on the surface in places.

This phase has a different origin from any other soil in the county. From the position of the stony stratum and the slightly different soil

strata which locally occur, and the valley position of the phase, it appears probable that it has been accumulated in part as stream deposits and in part as colluvial wash. The material has been transported from soils derived through the weathering of the light-colored acidic rocks.

The Cecil clay loam, colluvial phase, is confined to the Tennessee Valley. The largest area is mapped at Dillard; smaller areas occur in this vicinity, and a number of important areas lie on the north side of Wolf Fork. The areas occupy positions at the base of slopes. They have an undulating to gently rolling topography and good drainage.

The phase originally supported a heavy growth of various oaks, shortleaf pine, some white pine, chestnut, hickory, and hemlock, but at the present time all of it is cleared and under cultivation. It comprises some of the most important farming areas in the county. The general farm crops are produced with success. Corn is the chief crop and yields from 20 to 35 bushels or more per acre, with the use of 200 pounds of commercial fertilizer. Rye averages about 9 bushels and oats about 16 bushels per acre.

Land values range from \$60 to \$100 an acre, according to the location and improvements.

This soil is adapted to the general farm crops, and is especially suited to the production of small grain, grass, and forage crops.

#### ASHE STONY LOAM.

The surface soil of the Ashe stony loam consists of a brownish-gray to brown, mellow, friable loam, containing considerable decomposed vegetable matter. The subsoil, which begins at a depth of about 5 inches, consists in the upper part of yellow, friable, mellow, heavy sandy loam, normally changing at an average depth of about 18 inches into a yellow or yellowish-red, friable, light sandy clay. The type has a large proportion of rock at the surface, which gives it a decidedly stony character. Most of the rock consists of outcrops, some of which are large enough to class as Rock outcrop.

Throughout the areas of this type there are included areas of other soils that were not separated, owing to the rough and broken topography and inaccessibility. Among the inclusions are the Porters loam and the Burton stony loam, which is typically developed in the coves. There are also included areas of the Ashe sandy loam.

The Ashe stony loam is mapped in rather large and continuous areas in the northwestern part of the county in the vicinity of the headwaters of Persimmon Creek and Coleman River, and in the northeastern part of the county, where a large area extends from near Clayton northeastward beyond Rabun Bald. The type occurs throughout the roughest and most rugged parts of the Blue Ridge and generally gives way to other types as the mountains of lower elevations are approached. In many places the land is so stony and the topography so rough that the areas might be classed as Rough stony land. The topography precludes the use of this type for agriculture. The drainage is good to excessive.

The price of land of this type ranges from about \$5 to \$7.50 an acre. The value is generally based upon the growth of oaks, hickory,

chestnut, and poplar, and the accessibility of the areas. On some of the highest points the trees are gnarled and stunted. The chief use of this land is for forestry.

#### ASHE SANDY LOAM.

The surface soil of the Ashe sandy loam is a brownish-gray to light-brown sandy loam, passing at a depth of about 3 inches into a yellowish-gray material of about the same texture, extending to an average depth of 5 or 6 inches. The subsoil begins as a yellow, friable sandy loam and passes at an average depth of 24 inches into a friable, yellow, heavy sandy loam to light sandy clay, which continues to a depth of 36 inches or grades at shallower depths into decomposed rock material. The color in places is a reddish yellow. Stones of various sizes and some rock outcrop appear throughout the type.

The Ashe sandy loam is developed in a rather large area bordering the North Carolina line. Smaller areas are more or less scattered throughout the county. An important area lies in the western part south of Persimmon Church.

The Ashe sandy loam has a mountainous topography. It occurs mainly on the slopes, although in places it occupies the crests of ridges and mountain ranges. In general the topography is so rough and steep as to preclude the use of this soil for general farming.

Very little of the type is cleared of the native growth, which is similar to that on the Porters loam. Much of the Ashe sandy loam can be used for pasture or for the production of apples, particularly where the land is near lines of transportation. When this land is cleared and seeded to grasses excellent pasturage is obtained, and in some cases the native grasses furnish good pasturage in the open range. The rougher areas should remain in forest.

Land of this type in its natural condition generally sells for \$5 to \$15 an acre.

The table below gives the results of mechanical analyses of samples of the soil and subsoil of the Ashe sandy loam:

*Mechanical analyses of Ashe sandy loam.*

Number.	Description.	Fine gravel.	Coarse sand.	Medium sand.	Fine sand.	Very fine sand.	Silt.	Clay.
		<i>Per cent.</i>						
256509.....	Soil.....	3.9	11.4	8.1	33.6	10.0	18.1	14.8
256510.....	Subsoil.....	4.2	7.7	7.8	33.2	10.4	15.1	16.6

#### APPLING SANDY LOAM.

The surface soil of the Appling sandy loam is a friable yellowish-gray or gray loamy sand to light sandy loam, which, becoming more yellowish in the lower part, extends to an average depth of 7 inches. The subsoil typically is a yellow to reddish-yellow, friable, heavy sandy loam, typically becoming heavier with depth and passing into a light sandy clay. In places the subsoil is mottled with streaks and blotches of red. In the Tennessee Valley the type differs in that the soil has an ashy-gray color and the subsoil is a mottled yellow and gray. The material here is somewhat indurated.

Areas of this soil, which are small, are scattered throughout the entire county. The largest lie near Mountain City and in the Apple Valley.

The type has an undulating to rolling topography. It occupies valley positions, coves, and smooth slopes, and is well drained. All the areas can be farmed, but with more or less difficulty in the most rolling parts.

Practically all the type is cleared and used for farming. The yields of the various crops are about the average of the county. Near the towns land values are as high as \$60 an acre.

#### DAVIDSON CLAY LOAM.

In the Davidson clay loam the soil has a surface layer of 1 to 3 inches of dark-brown loam, composed chiefly of vegetable mold. Below this the material is a dark-brown to reddish-brown heavy loam to clay loam, which continues to an average depth of 6 inches. The subsoil is a reddish-brown, friable clay loam to clay, which may extend to a depth of 3 feet or more or may pass into partly decomposed rock material at any depth within the 3-foot soil profile. In a few places the subsoil is a dark-red or maroon-red heavy clay. The type as mapped includes small areas of the Porters loam.

The Davidson clay loam is derived through the weathering of dark-colored basic rocks with small inclusions of light-colored acidic rocks. The prevailing formations consist of hornblende schist, with some diorite or diabase.

This type occurs chiefly in a wide belt west of the Burton Reservoir and extending from near the Habersham County line northeastward to a point about 2 miles northwest of Persimmon Church. Smaller areas are scattered over the county, mainly in the western part. Numerous areas of small extent are not shown on the map on account of their relative unimportance. These are derived from very narrow intrusions of the contributing rocks.

The type has the rough and rugged topography characteristic of the mountains of the western part of the county. It is developed chiefly on steep mountain slopes. The topography in general prevents the use of the type for farming. About 2.5 per cent of the land is less rugged, the surface here being undulating to rolling or hilly. These areas, which comprise coves and the bases of slopes, could be farmed with some degree of success, but the areas in most places are not large enough to warrant establishing farms. The largest areas having this topography have just been covered by the water in the Burton storage basin.

Practically all of this type is in forest, in which various species of oak, including chestnut oak, are predominant. Hickory, shortleaf pine, chestnut, poplar, and some white pine and hemlock also are included. A scant growth of native grasses provides some grazing for cattle on the open range.

In the cultivated areas good returns are generally obtained. Corn is the chief crop and averages about 15 to 18 bushels per acre without the use of fertilizer. Rye averages about 9 bushels per acre.

Land values for this type range from about \$5 an acre in the more remote and rougher sections to as much as \$40 an acre where the topography is more suitable for farming.

The soil is naturally strong and fertile, but owing to the topography its chief use should be forestry.

#### BURTON STONY LOAM.

The surface soil of the Burton stony loam is a black, rich, mellow friable loam, containing relatively large quantities of organic matter. The soil normally rests upon bedrock, but in a few places is underlain by a dark-brown, friable sandy loam, which becomes lighter in color with increasing depth. The dark-colored upper layer is generally about 8 inches thick but locally it attains a thickness of 18 inches and in a few spots extends to 36 inches.

The type appears to be developed entirely on steep, rocky mountain sides, which are almost continually wet from springs, or at the higher elevations, as on Rabun Bald. The areas are decidedly rough and stony, with conspicuous outcrops of bedrock. In a few situations, such as shoulders of mountains and narrow crests of ridges, the soil could be farmed, but such areas are small. A few scattered areas of this type occurring in coves are not mapped on account of their small extent.

The Burton stony loam is mapped in the western and northern parts of the county, the largest areas being in the southwestern corner and in the vicinity of Rabun Bald. The topography precludes the use of this type for agriculture.

The type is forested mainly with oaks, hickory, pine, chestnut, and poplar. The trees on this type grow large and are readily distinguished from the trees on the other mountain types. Since the soil is generally moist it is favorable for the growth of ferns, rhododendron, and mountain laurel. Land values on the type are low. The chief use of this soil is for pasture, especially in the coves, and for forestry.

#### HANCEVILLE LOAM.

The Hanceville loam has a typical surface veneer of 1 to 3 inches of light-brown to grayish-brown loam composed chiefly of vegetable mold. Below this, to an average depth of 6 inches, the soil is a friable reddish-brown loam to sandy clay loam. The subsoil is a red to dark-red, friable sandy clay, which normally extends to a depth of 3 feet or more but in places grades into the parent rock within the 3-foot profile. Rocks are common in local areas. When this type is cultivated the dark-colored surface veneer soon disappears and the soil becomes a brownish-red loam.

In places throughout the areas of this type the surface soil is more sandy. In other places the type as mapped includes areas of the Habersham stony sandy loam. Around the margins of the areas the soil grades toward the Porters loam, and in many places it is difficult to establish definite boundaries between these two types. The Hanceville loam is derived from beds of massive quartzite, and the sandy character of the rock produces a more sandy subsoil than that of the Porters loam.

The Hanceville loam has a mountainous topography, but contains a small proportion of smooth lower slopes that can be cultivated. The greater part of the type, however, is too rough and broken for farming. The surface relief affords good drainage.

This type occupies extensive areas in the southern part of the county, the largest being between Wiley and Tallulah Falls.

The forest growth consists chiefly of oaks and hickory, about one-third shortleaf pine, and some tulip poplar, white pine, and hemlock. A few small areas are cleared. These are used chiefly for corn and forage crops. Corn averages about 12 to 15 bushels per acre, with the use of 200 pounds of commercial fertilizer. Apple trees set out about the farmsteads show good growth, although they receive little attention. This soil would be very suitable for commercial apple production, where sites with good location and favorable topography can be obtained. Land values on this type average about \$12 an acre.

#### HABERSHAM STONY SANDY LOAM.

The surface soil of the Habersham stony sandy loam has an average depth of 7 inches and consists of a friable, yellowish-gray sandy loam, which becomes yellower in the lower part. The subsoil typically begins as a yellow, friable sandy loam, and gradually becomes heavier and redder with increasing depth, until at an average depth of 15 inches it passes into a mottled red and yellow or reddish-yellow, friable sandy clay. This material either continues to a depth of 36 inches or rests upon the parent rock within that depth; in many places it grades through partly decomposed rock before the consolidated rock is reached. Large masses of the bedrock are exposed, which give a decidedly stony or rocky character to the type. In places the rock outcrops are so numerous that the areas might be classed as Rough stony land, especially on the steep mountain slopes. In many places the surface is entirely covered with smaller loose stones, which make stony land of a different character from that mentioned above.

This type includes areas that are much less stony and are representative of the Habersham sandy loam. There are also included areas of the Hanceville sandy loam, and other areas in which the subsoil continues a bright yellow and represents the Dekalb sandy loam.

The Habersham stony sandy loam is derived chiefly through the weathering of massive beds of the Tallulah Falls quartzite, which is composed chiefly of quartz, but in places apparently comes from micaceous schist.

This type is developed in the southern part of the county in large areas north and northeast of Tallulah Falls. It is confined practically to this section of the county.

The topography is distinctly mountainous, although as a whole it is not as rugged as in the Blue Ridge region. The slopes are steep and broken. A few areas on the shoulders of the mountains, crests of narrow ridges, and gentle slopes have a smoother topography and are suited to farming and orcharding. The drainage is good to excessive.

The greater part of this type is covered with its native forest of oaks and pine. Only a very small proportion is cleared and cultivated. One small apple orchard was noted, in which trees were well cared for and showed good development. Corn produces from 10 to 20 bushels per acre with ordinary fertilization.

Land values range from \$7 to \$20 an acre, depending upon the location, topography, and improvements.

The rough land of this type, which includes most of it, should be used for forestry. The smoother areas could be used in the growing of orchard fruits and truck crops, wherever available markets warrant their production in commercial quantities.

#### CONGAREE FINE SANDY LOAM.

The surface soil of the Congaree fine sandy loam varies from a gray slightly loamy fine sand to a brown loamy fine sand or light fine sandy loam. The depth ranges from 6 to 10 inches but averages about 7 inches. The subsoil is a reddish-yellow to slightly brownish yellow loamy fine sand, which grades into a friable fine sandy loam at depths varying from 12 to 30 inches. In places the subsoil grades into a brownish-red or brown sandy loam to light sandy clay. Generally the subsoil material is more or less stratified.

The type is a recent-alluvial soil which has been deposited during times of overflow. New material is added by each overflow, and in some cases the profile of the type is greatly altered by floods.

The Congaree fine sandy loam is not extensive. The largest and most important areas are along the Tallulah River. Another area of importance lies along Stekoa Creek northeast of Bovard.

The type has a smooth surface. It occupies the first bottoms of streams and is subject to overflow, but during normal stages of water it is well drained and overflow water remains on the surface only a short time.

The greater part of this type is cleared and is used chiefly in the production of corn. Some of the more sandy areas are not used. The type inherently is not very productive and the yields are generally low. Corn yields ordinarily about 12 to 15 bushels per acre and rye 8 or 9 bushels. Land of this type is usually sold in conjunction with the adjoining uplands. The Congaree fine sandy loam is well suited to the production of melons and early vegetables.

#### TOXAWAY LOAM.

The surface soil of the Toxaway loam is a dark-brown to black loam containing a relatively high proportion of fine sand. It is usually about 8 inches deep. There is little difference between the soil and subsoil, either in color or texture. In most places, however, the subsoil is slightly heavier, approximating a silt loam. Most of the type is stratified to some extent with materials of different colors and textures, but such differences are not pronounced. In a number of places the type is a jet-black silt loam from the surface down to 36 inches. In other places it becomes more brownish and approaches the characteristics of the Congaree soils. The most extensive and important variation is along Wolf Fork and the Tennessee River, where the soil has a higher percentage of silt than typical. The type contains little or no gravel or stones.

The Toxaway loam is an alluvial soil, composed of materials carried from the surrounding mountainous areas to the valleys and deposited in the flood plains of the streams during times of overflow. The dark color of the material is due to the large quantity of organic matter present, much of which has been brought from the mountains, particularly from the coves. At many points the land is enriched

with each overflow, while in a few places the deposits consist chiefly of fine sand, which renders the land less fertile.

This type is mapped along almost every stream of the county at some point or other. It is most extensive in the Tennessee Valley, where it is developed in wide areas along the Tennessee River, with extensions along Betty Creek and Wolf Fork. Other important areas lie along Persimmon, Tiger, Chechero, and Warwoman Creeks.

This type, occupying the first bottoms, has a smooth, nearly level surface. (Pl. XIX, fig. 2.) Over most of it there is sufficient slope to insure good drainage, but in a few places the fields are artificially drained. The type is subject to overflow, but does not remain flooded long on account of the great fall of the streams.

Practically all the type has been cleared and used in the production of the various crops of the region. It is the most fertile land of the county, and the most prosperous and best equipped farms are located in part on this type. Corn, the chief crop, produces from 25 to 65 bushels per acre, with the use of 200 pounds of commercial fertilizer, the average yield being about 35 bushels. Rye ordinarily yields about 15 to 18 bushels per acre. Cowpeas, soy beans, cabbage, and potatoes give good returns.

Land values on this type are the highest in the county, ranging from \$100 to \$500 an acre, the price depending upon improvements and location.

The Toxaway loam is a naturally strong and fertile soil—one of the most fertile soils in the State. It is well suited to the growing of grain, forage crops, and truck crops.

#### ROCK OUTCROP.

Rock outcrop comprises areas in which rock masses are exposed at the surface, and which support no growth except an occasional tree from between crevices of the rocks or lichens and mosses in small areas. One of the largest areas of this kind is mapped in the southeastern corner of the county, on the Rabun County side of the Tallulah gorge. This area differs from the others in that it consists chiefly of rough stony land in which Rock outcrop occupies about 60 per cent of the surface. Other areas of Rock outcrop generally have a smooth surface. Prominent among these are Raven Rock, Cedar Cliff, Hanging Rock, and Rock Mountain. Most of these rocks are granite or granitic gneiss. Areas of Rock outcrop have no agricultural value.

#### SUMMARY.

Rabun County is situated in the northeastern corner of Georgia. On the north it joins with North Carolina and on the east with South Carolina. It comprises an area of 371 square miles, or 237,440 acres.

The county lies within the Appalachian Mountain Province and has a rough mountainous topography. A large part of the county has an elevation of more than 4,000 feet above sea level.

The greater part of the county is drained by the Chattooga and Tallulah Rivers, which belong to the Savannah River system. In the northern part of the county the drainage is carried by the headwaters of the Tennessee River.

The county has suffered a decrease in population owing largely to the absorption of lands by the Government in its forest reserve and the development of storage basins in the valleys by water-power development companies. In 1920 the population was 5,746, or an average of 15.2 per square mile. Clayton is the county seat and most important town.

The climate of the county is characterized by long, delightful summers and moderately open winters. The average annual precipitation is 69.65 inches.

The agricultural activities of the county are confined chiefly to level bottom lands and rolling to undulating foothills. No cotton is produced in the county. Corn, rye, apples, and vegetables are the chief crops. Hogs and cattle pasture on the open range.

The soils of the county are chiefly upland mountainous types which are derived through the weathering of light-colored acidic and dark-colored basic crystalline rocks and quartzite. With a few exceptions, the upland types have a rough, rugged, mountainous topography and are not suited to agriculture.

The Porters loam is the most extensive type. It affords good grazing when cleared, but in general is best adapted to forestry. Smooth shoulders and slopes of the mountains could be utilized for orchards.

The Cecil clay loam and the colluvial phase of the Cecil clay loam are well suited to general farming, and produce good yields of the common farm crops.

The Ashe stony loam and Ashe sandy loam are mountainous types which are too rough for farming.

The Appling sandy loam is developed at the base of slopes and is suitable for farming, but is not so productive as the Cecil soils.

The Davidson clay loam is derived from dark-colored basic rocks and is a strong soil, but in only a few small areas is the topography favorable to farming.

The Burton stony loam is a black upland soil type. It is very rich in organic matter, but the topography prevents its use for crop production.

The Hanceville loam is derived from quartzite and has a subsoil of red, friable, sandy clay. The topography is mountainous. The smoother areas could be utilized for apple and peach orchards.

The Habersham stony sandy loam, also derived from quartzite, has a yellowish to reddish-yellow subsoil. The stones and the rough topography preclude the use of most of the type for farming. Smoother areas could be used for peach orchards.

The Congaree fine sandy loam is an alluvial soil of small extent. It is a good soil for the production of melons and other truck crops.

The Toxaway loam is a black bottom-land type. It is the most productive soil in the county, and forms part of the most prosperous farms.



# Accessibility Statement

---

The Natural Resources Conservation Service (NRCS) is committed to making its information accessible to all of its customers and employees. If you are experiencing accessibility issues and need assistance, please contact our Helpdesk by phone at (800) 457-3642 or by e-mail at [ServiceDesk-FTC@ftc.usda.gov](mailto:ServiceDesk-FTC@ftc.usda.gov). For assistance with publications that include maps, graphs, or similar forms of information, you may also wish to contact our State or local office. You can locate the correct office and phone number at <http://offices.sc.egov.usda.gov/locator/app>.

The USDA Target Center can convert USDA information and documents into alternative formats, including Braille, large print, video description, diskette, and audiotape. For more information, visit the TARGET Center's Web site (<http://www.targetcenter.dm.usda.gov/>) or call (202) 720-2600 (Voice/TTY).

## **Nondiscrimination Policy**

The U.S. Department of Agriculture (USDA) prohibits discrimination against its customers, employees, and applicants for employment on the basis of race, color, national origin, age, disability, sex, gender identity, religion, reprisal, and where applicable, political beliefs, marital status, familial or parental status, sexual orientation, whether all or part of an individual's income is derived from any public assistance program, or protected genetic information. The Department prohibits discrimination in employment or in any program or activity conducted or funded by the Department. (Not all prohibited bases apply to all programs and/or employment activities.)

## **To File an Employment Complaint**

If you wish to file an employment complaint, you must contact your agency's EEO Counselor ([http://directives.sc.egov.usda.gov/33081\\_wba](http://directives.sc.egov.usda.gov/33081_wba)) within 45 days of the date of the alleged discriminatory act, event, or personnel action. Additional information can be found online at [http://www.ascr.usda.gov/complaint\\_filing\\_file.html](http://www.ascr.usda.gov/complaint_filing_file.html).

## **To File a Program Complaint**

If you wish to file a Civil Rights program complaint of discrimination, complete the USDA Program Discrimination Complaint Form, found online at [http://www.ascr.usda.gov/complaint\\_filing\\_cust.html](http://www.ascr.usda.gov/complaint_filing_cust.html) or at any USDA office, or call (866) 632-9992 to request the form. You may also write a letter containing all of the information requested in the form. Send your completed complaint form or letter by mail to

U.S. Department of Agriculture; Director, Office of Adjudication; 1400 Independence Avenue, S.W.; Washington, D.C. 20250-9419; by fax to (202) 690-7442; or by email to [program.intake@usda.gov](mailto:program.intake@usda.gov).

**Persons with Disabilities**

If you are deaf, are hard of hearing, or have speech disabilities and you wish to file either an EEO or program complaint, please contact USDA through the Federal Relay Service at (800) 877-8339 or (800) 845-6136 (in Spanish).

If you have other disabilities and wish to file a program complaint, please see the contact information above. If you require alternative means of communication for program information (e.g., Braille, large print, audiotape, etc.), please contact USDA's TARGET Center at (202) 720-2600 (voice and TDD).