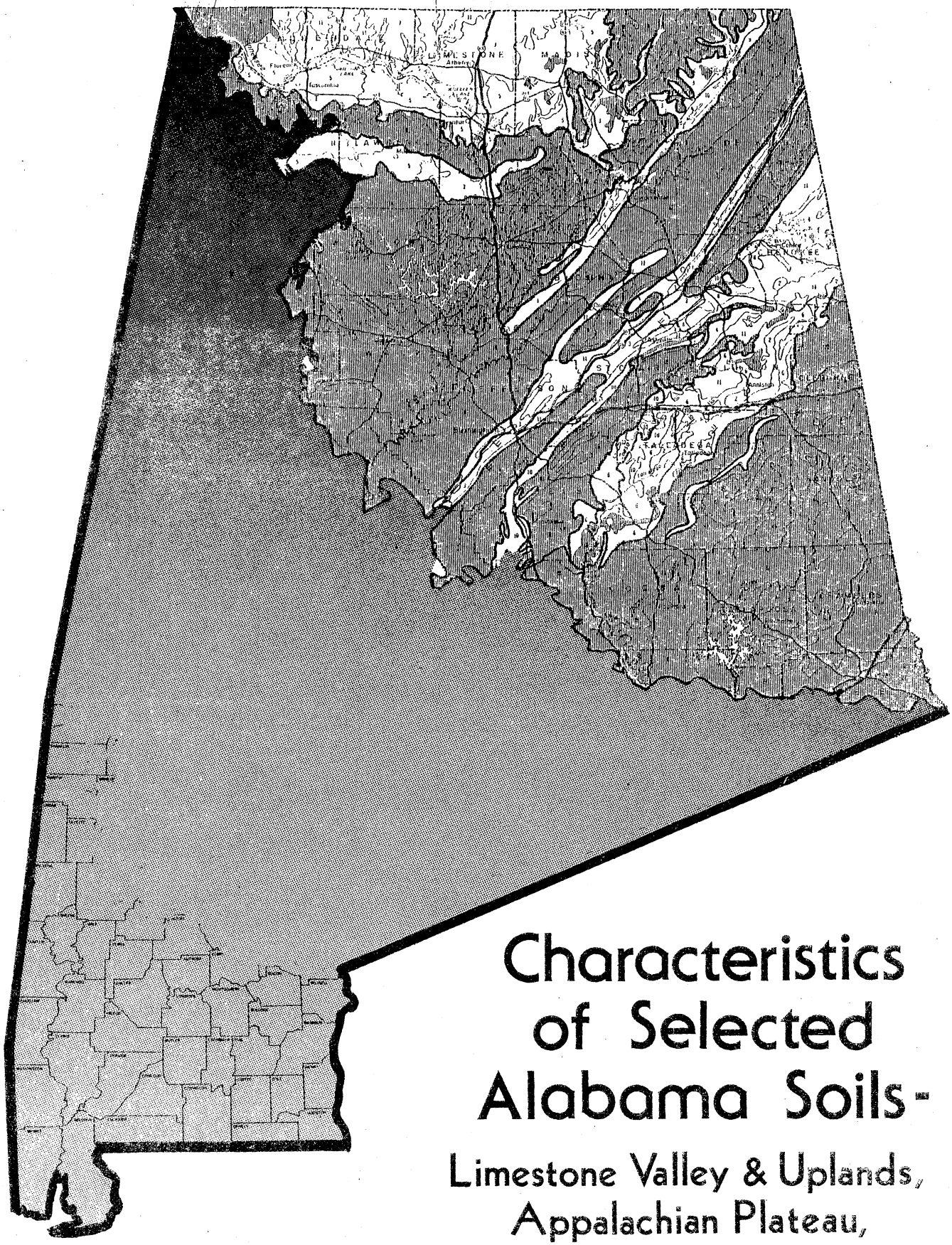

Characteristics of Selected Alabama Soils-

Limestone Valley & Uplands, Appalachian Plateau, and Piedmont Plateau

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Information contained herein is available to all regardless of race, color, or national origin.

CHARACTERISTICS OF SELECTED ALABAMA SOILS: LIMESTONE VALLEYS AND UPLANDS, APPALACHIAN PLATEAU AND PIEDMONT PLATEAU

B. F. Hajek[1]

This report contains data obtained in support of the soil survey program in Alabama. The data consist of pedon descriptions and laboratory characterization tables. Pedons were described and sampled by soil survey party members. Usually the description and laboratory data were obtained to aid correlation at the series level. In a few instances morphological data were needed for other purposes. The laboratory data usually consisted of only those determinations needed to classify the pedon. These include pH, exchange capacity, exchangeable cations, base saturation and particle size distribution. Mineralogy of the determinant size fraction was determined if mineralogical family placement was in doubt.

All data compiled in this report have been used in conducting the Alabama soil survey program, however, no published set of soil characterization data has been issued.

[1/] Associate Professor of Soils, Agronomy and Soils Department, Auburn University.

METHODS

Morphological characteristics were described according to procedures outlined in the Soil Survey Manual (Soil Survey Staff, 1951). All colors reported are for moist soil.

Physical

Samples were air dried, ground, and passed through a 2-mm sieve and stored in cardboard boxes. Particle-size distribution was determined by the pipette method (Soil Survey Staff, 1967). Percentages of the various fractions were calculated on the basis of oven dry weight.

Chemical

Soil pH was determined on a 1:1 soil-water suspension. Cation exchange capacity, exchangeable bases, and percent base saturation were determined by the procedure of Hajek et al. (1972).

Mineralogical

Mineralogy of the sand and coarse silt fraction was quantified by grain count using a binocular microscope.

Separate samples of clay fractions (<2 m) were saturated with Mg and K when needed to place clayey soils in mineralogical families. Magnesium samples were analyzed by x-ray diffraction and thermal methods. Potassium clays were x-rayed after heating (Jackson 1956). Placement of clayey soils into families was based on results of mineralogical, chemical, and in some cases surface area analyses.

REFERENCES

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Jackson, M. L. 1956. Soil chemical analysis - advanced course. Pub. by the author. Dept. of Soils, Univ. of Wisconsin. Madison, Wis.

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SERIES INDEX

Series	Classification	Page	County
NSD	Hapludults	184	Clay
NSD	Paleudults	186	Cleburne
NSD	Hapludalfs	188	Cleburne
NSD	Hapludults	190	Cleburne
NSD	Hapludults	192	Cleburne
NSD	Paleudults	194	Lauderdale
NSD	Haplumbrepts	196	Lauderdale
NSD	Hapludults	198	Lee

*Taxadjunct
**Variant

GEOGRAPHICAL INDEX

CLASSIFICATION INDEX

ALFISOLS - Aqualfs

Ochraqualfs

ALFISOLS - Udalfs

Hapludalfs

Plinthic Paleudults
- Fine-loamy, siliceous, thermic
  - Holston* — 96

Rhodic Paleudults
- Fine-loamy, siliceous, thermic
  - NSD — 168
  - NSD — 178
- Clayey, kaolinitic, thermic
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Typic Rhodudults
- Clayey, kaolinitic, thermic
  - Gwinnett — 72
  - Gwinnett (oxidic) — 74
  - Hiwassee — 82-88
  - Hiwassee (oxidic) — 84-86

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*Taxadjunct
**Variant

Descriptions of Pedons

and

Laboratory Data

ALBERTVILLE SILT LOAM S70 Al-5-1-(1-5)

CLASSIFICATION: Typic Hapludults, clayey, mixed, thermic.

LOCATION: Blount County, site no. 3 on 2u-60, NW ¼ NW ¼ sec 32 T12S RIE

USE AND NATIVE VEGETATION: Present use sericea pasture. Native vegetation is presumed to have been woodland.

PARENT ROCK OR REGOLITH: Interbedded acid shale and sandstone.

DRAINAGE AND PERMEABILITY: Moderately well to well. Permeability moderately slow to slow.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Yellowish-brown (10YR5/4) silt loam; weak fine granular structure; very friable; many fine roots; few small quartz gravel; few thin shale fragments; strongly acid; abrupt smooth boundary.
B21t	6-15"	Brownish-yellow (10YR6/6) silty clay loam; weak fine subangular blocky structure; friable; few fine roots; few small quartz gravel; few thin shale fragments; very strongly acid; clear wavy boundary.
B22t	15-22"	Strong-brown (7.5YR5/6) silty clay; moderate medium subangular blocky structures; firm; few fine roots; few thin flat weathered shale fragments; patchy clay film on most peds; very strongly acid; gradual wavy boundary.
B23t	22-34"	Strong brown (7.5YR5/6) silty clay; with common prominent yellowish brown (10YR5/8) and red (10YR4/8) mottles and few common distinct yellowish-red (5YR5/6) mottles; moderate medium subangular blocky structure; firm; common clay film on red faces; few small flat weathered shale fragments; very strongly acid; clear wavy boundary.
B3t	34-47"	Yellow (10YR7/6) silty clay, with common medium distinct strong browm (7.5YR5/8), common fine faint yellowish brown (10YR5/8), and white (N/8) mottles; medium subangular blocky structure with evidence of platy structure; firm; few clay skins on faces of peds; few small flat shale fragments; very strongly acid; gradual wavy boundary.
R	47-66"	Horizontally bedded shale.

Albertville silt loam (SOIL SERIES)

S70 Al-5-1-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.1	5.42	3.20	1.65	.48	.09	40.95
B21t	6-15"	5.0	9.04	6.40	1.81	.73	.10	29.20
B22t	15-22"	4.8	12.96	10.64	1.84	.43	.05	17.90
B23t	22-34"	5.0	11.87	11.12	.13	.57	.05	6.31
B3t	34-47"	5.0	12.17	10.72	.61	.79	.05	11.91
R	47-66"							

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	19.1	71.4	9.5
B21t	10.5	58.8	30.7
B22t	8.6	50.5	40.9
B23t	2.8	46.7	50.5
B3t	6.5	45.1	48.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B22t			35	kaolinite			

ALLEN FINE SANDY LOAM S71 Al-5-5-(1-5)

CLASSIFICATION: Typic Paleudults fine-loamy, siliceous, thermic

LOCATION: Blount County, NE¼, SE¼ Sec 35 T13S R1W, Photo GP-5V-49

USE AND NATIVE VEGETATION: Present use is row crops. Native vegetation is presumed to have been pines and mixed hardwoods.

PARENT ROCK OR REGOLITH: Limestone and sandstone, regolith is alluvium or collium underlain by limestone, sandstone or shale or residuum of these rocks.

DRAINAGE AND PERMEABILITY: Well drained, moderate permeability, runoff is medium.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox, 11/15/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Dark brown (7.5YR 4/4) loam; weak medium granular structure; very friable; few quartz gravel on surface; few sandstone and quartz pebbles and sandstone fragments; few fine roots; common worm casts; mixing of lower horizon by insects and worms; strongly acid; abrupt smooth boundary.
B21t	7-21"	Yellowish red (5YR 4/6) loam; moderate medium subangular blocky structure; friable; few patchy clay films on some faces of peds; common worm channels filled with material from horizon above; few fine roots; few sandstone and quartz pebbles; few sandstone fragments; strongly acid; clear smooth boundary.
B22t	21-50"	Yellowish red (5YR 4/6) loam; moderate medium subangular blocky structure; friable; few fine roots; few patchy clay films on some faces of peds; few sandstone and quartz pebbles; very strongly acid; clear smooth boundary.
B23t	50-70"	Yellowish red (5YR 5/6); sandy loam; moderate medium and coarse subangular blocky structure; few medium distinct strong brown (7.5YR 5/6) mottles; continuous red (2.5YR 4/6) clay films on some faces of peds; few sandstone pebbles and cobbles; few quartz pebbles; very strongly acid; clear smooth boundary.
B24t	70-88"	Red (2.5YR 4/6) sandy clay loam; weak medium subangular blocky structure; friable; common medium distinct yellowish red (5YR 5/6), few medium distinct strong brown (7.5YR 5/6) mottles; few clay films on faces of some peds; common sandstone fragments; extremely acid.

Allen fine sandy loam (SOIL SERIES)

S71 Al-5-5-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.5	5.16	3.04	6.60	0.46	0.06	41.1
B21t	7-21"	5.1	5.97	3.68	1.84	0.41	0.04	38.4
B22t	21-50"	4.9	6.40	4.40	1.50	0.48	0.03	31.3
B23t	50-70"	4.6	4.67	4.24	0.37	0.05	0.01	9.2
B24t	70-88"	4.4	5.66	5.36	0.24	0.05	0.01	5.3

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	50.5	34.0	15.5
B21t	42.5	37.3	20.2
B22t	40.1	38.8	21.1
B23t	56.3	26.0	17.7
B24t	49.0	25.8	25.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

ALLEN COBBLY LOAM S72 Al-15-11-(1-3)

CLASSIFICATION: Typic Paleudults, fine-loamy, siliceous thermic

LOCATION: Cleburne County, Alabama. One mile northwest of Borden Springs (Sec. T12S, R11E). Photo CPK-1EE-194.

USE AND NATIVE VEGETATION: Deciduous and coniferous forest, present and past.

PARENT ROCK OR REGOLITH: Old sandstone colluvium

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, J. S. Austin, 8/24/72

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Dark brown (10YR3/3) cobbly loam; moderate medium granular structure; friable; common fine, medium and large roots; 20 percent, by volume, sandstone cobbles (2); very strongly acid; clear wavy boundary.
B21t	5-36"	Yellowish red (5YR5/6) clay loam; weak medium subangular blocky structure; friable; common fine, medium and large roots; few fine root pores; patchy clay films; 20 percent, by volume, sandstone cobbles (2); very strongly acid; gradual smooth boundary.
B22t	36-60"	Mottled strong browm (7.5YR5/6), yellowish red (5YR5/6) and red (2.5YR4/6) clay loam; weak medium and coarse subangular blocky structure; firm; few fine roots; patchy clay films and some thin continuous films; 40 percent, by volume, sandstone cobbles (2); very strongly acid.

Allen cobbly loam
(SOIL SERIES)

S72 A1-15-11-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-5"	5.9	7.36	6.00	0.82	0.38	0.16	18.56
B21t	5-36"	4.90	7.59	7.12	0.18	0.19	0.09	6.22
B22t	36-50"	4.90	7.05	6.80	0.16	0.04	0.04	3.55

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	44.5	40.4	15.1
B21t	37.8	30.2	32.0
B22t	49.0	20.5	30.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

ANNISTON GRAVELLY LOAM S67 Al-10-4-(1-4)

CLASSIFICATION: Rhodic Paleudults, clayey, kaolinitic, thermic

LOCATION: Cherokee County, SW¼, NE¼ of Sec. 10; R11E; T12S. About 1½ mile E of Salem Ch. on southern footslope of Indian Mt. Photo GT-10-35 (1937 Flight)

USE AND NATIVE VEGETATION: Woodland, mixed pine and hardwood

PARENT ROCK OR REGOLITH: Sandstone

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: J. E. Boman, 4/19/67

HORIZON	DEPTH	DESCRIPTION
01	½-0"	Shallow covering of pine straw, oak leaves and twigs.
Ap	0-3"	Dark reddish brown (5YR3/4) gravelly loam; weak fine granular structure; very friable; common fine roots; 10-15% sandstone fragments and iron concretions up to 2 inches in diameter; strongly to very strongly acid; abrupt smooth boundary.
B1	3-14"	Dark red (2.5YR3/6) clay loam; weak fine subangular blocky structure; very friable; some bridging and coating of sand grains, otherwise no indication of illuvial clay; common fine roots; common fine pores, occasional small iron concretions; strongly to very strongly acid; clear wavy boundary.
B21t	14-29"	Dark red (2.5YR3/6) clay, moderate medium subangular blocky structure, friable, thin patchy clay films on most ped faces, few fine and coarse roots, few fine pores; occasional iron concretions up to 1 inch in diameter; there are some ped faces with spots of blackish iron cotaings; very strongly acid; gradual wavy boundary.
B22t	29-74"	Dark red (10R3/6) clay; moderate, medium and coarse subangular blocky structure; friable; thick continuous clay films on most ped faces; few fine pores; 5% of horizon is small iron concretions; very strongly acid; gradual wavy boundary.
B23t	74-82"	Dark red (10R3/6) clay; moderate medium and coarse subangular blocky structure, friable to firm; thick clay films on most ped faces; few fine pores; 30-50% of horizon is iron concretions up to 6 inches in diameter; very strongly acid.

Anniston gravelly loam
(SOIL SERIES)

S67 A1-10-4-(1-4)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n
			meq/100 g					%

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
B1	20.6	43.3	36.1
B21t	21.4	35.7	42.9
B22t	20.1	27.9	52.0
B23t	30.6	15.1	54.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

ANNISTON CLAY LOAM S69 Al-10-9-(1-4)

CLASSIFICATION: Rhodic Paleudults, clayey, kaolinitic, thermic

LOCATION: Cherokee County, Ala. SW¼; NE¼; NW¼; Sec. 5; T9S; R9E. About 1 mile SE of Hopewell Church. Photograph GT-2CC-200.

USE AND NATIVE VEGETATION: Present use is idle cropland. Native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Sandstone

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 10/21/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Dark red (2.5YR3/6) clay loam; weak fine granular structure; friable; many fine roots; few rounded sandstone cobbles and gravels; strongly acid; clear smooth boundary.
B1	7-15"	Dark red (2.5YR3/6) clay loam; weak medium subangular blocky structure; friable; few fine roots; clay bridges and coatings on sand grains; very strongly acid; gradual wavy boundary.
B21t	15-24"	Dark reddish brown (2.5YR3/4) clay loam; weak medium subangular blocky structure; friable; few fine roots; clay bridges and coatings on sand grains; very strongly acid; gradual wavy boundary.
B22t	24-65"	Dark red (10YR3/6) clay; moderate fine and medium angular blocky structure; firm; very thin patchy clay film; very strongly acid.

Anniston clay loam (SOIL SERIES)

S69 Al-10-9-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.2	7.82	5.12	1.92	0.52	0.26	35
B1	7-15"	4.8	7.57	5.84	1.20	0.43	0.10	23
B21t	15-24"	5.0	7.75	6.08	0.92	0.68	0.07	22
B22t	24-65"	4.7	8.09	6.64	0.53	0.84	0.08	18

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	38.2	34.3	27.5
B1	26.0	39.3	34.7
B21t	24.7	36.4	38.9
B22t	--	--	47.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

Armour silt loam (SOIL SERIES)

S70 A1-39-3-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-8"	5.1	7.01	3.84	2.64	.41	.12	45.22
B1	8-17"	5.4	11.56	3.76	7.25	.46	.09	67.47
B21t	17-27"	5.2	8.86	3.60	4.75	.41	.10	59.36
B22t	27-35"	5.0	5.79	4.00	2.39	.32	.08	41.08
B3t	35-42"	5.1	10.01	6.88	2.75	.30	.08	45.49
C	42-66"	5.1	6.21	3.20	2.68	.22	.11	48.47

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	11.1	69.6	19.3
B1	8.0	65.2	26.8
B21t	11.8	63.2	25.0
B22t	15.7	61.4	22.9
B3t	15.3	54.2	30.5
C	57.1	18.5	24.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

Bewleyville silt loam
(SOIL SERIES)

S75-Al-83-1-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	6.0	8.65	3.36	4.37	0.66	0.25	61.17
B21t	7-15"	5.6	7.62	3.12	3.52	0.85	0.12	59.09
B22t	15-33"	5.6	8.05	3.52	3.42	1.01	0.09	56.29
B23t	33-41"	4.8	7.78	5.28	1.43	0.99	0.07	32.17
B24t	41-64"	4.7	7.17	6.24	0.31	0.54	0.07	13.08
B25t	64-84"	4.6	7.31	6.48	0.26	0.51	0.05	11.46

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	12.0	67.6	20.4
B21t	7.0	62.8	30.2
B22t	7.9	57.4	34.7
B23t	10.1	50.8	39.1
B24t	10.7	40.8	48.5
B25	9.8	35.6	54.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

BEWLEYVILLE SILT LOAM

S75 Al-83-1-(1-6)

CLASSIFICATION: Fine-silty, siliceous, thermic Typic Paleudults.

LOCATION: NE¼; SW¼; Sec. 20; T3S; R5W west of Athens, 1¼ mile south of U.S. 72 on Zehner Road and 130' south of Jct. of Grubbs and Zehner Roads on west road bank.

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation was hardwoods.

POSITION: Upland

DRAINAGE AND PERMEABILITY: Well drained - moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen, 10-9-75 and 9-18-74

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Brown (7.5YR 4/4) silt loam; weak medium granular structure; friable; common fine roots, compact in lower 2 inches; medium acid, abrupt smooth boundary.
B21t	7-15"	Reddish brown (5YR 4/4) silty clay loam; weak medium subangular blocky structure; friable; few fine roots, few patchy clay films, few worm casts; strongly acid; clear smooth boundary.
B22t	15-33"	Yellowish red (5YR 4/6) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots, continuous clay films on faces of some peds, few fine black concretions; very strongly acid; gradual smooth boundary.
B23t	33-41"	Dark red (2.5YR 3/6) silty clay loam, with few fine distinct strong brown mottles; strong medium subangular blocky structure; friable; few chert fragments, continuous clay films on faces of most peds, few fine black concretions; very strongly acid, gradual smooth boundary.
B24t	41-64"	Dark red (2.5YR 3/6) silty clay loam, with few coarse distinct strong brown (7.5YR 5/6) mottles; strong medium subangular blocky structure; friable; few chert fragments, continuous clay films on faces of most peds, common fine and medium black concretions; very strongly acid; gradual smooth boundary.
B25t	64-84"	Dark red (2.5YR 3/6) clay; strong medium subangular blocky structure; firm; few chert fragments; continuous clay films on faces of most peds, few fine and medium black and brown concretions; very strongly acid.

Bodine cherty silt loam (SOIL SERIES)

S71-A1-5-9-(1-7) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-2"	6.0	7.61	3.12	3.82	0.61	0.06	59.0
A2	2-9"	5.3	3.93	2.80	1.04	0.06	0.03	28.7
B1	9-14"	5.2	6.42	3.68	2.04	0.68	0.02	42.6
B21t	14-22"	4.7	5.91	5.36	0.49	0.04	0.01	9.3
B22t	22-38"	4.7	5.69	5.20	0.37	0.11	0.01	8.7
B23t	38-60"	4.7	4.96	4.64	0.28	0.03	0.01	6.5
B3t	60-84"	4.6	5.43	5.12	0.28	0.02	0.01	5.7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	32.2	52.2	15.6
A2	23.8	59.4	16.8
B1	24.6	46.3	29.1
B21t	24.2	49.8	26.0
B22t	43.9	18.9	37.2
B23t	43.0	19.9	37.1
B3t	38.2	23.4	38.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 m %	<0.2 m Mineralogy	Free Iron % Fe_2O_3

No data obtained

BODINE CHERTY SILT LOAM S71 Al-5-9-(1-7)

CLASSIFICATION: Typic Paleudults, loamy-skeletal, siliceous, thermic

LOCATION: Blount County, SW¼, NE¼, Sec 14 T14S R1W, Photo GP-6V-47

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation is presumed to have been mixed hardwoods and pines.

PARENT ROCK OR REGOLITH: Bodine - formed mostly in residuum weathered from very cherty limestone

DRAINAGE AND PERMEABILITY: Well drained, rapid permeability, runoff is medium.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. F. Fox, 11/30/71

HORIZON	DEPTH	DESCRIPTION
A1	0-2"	Dark grayish brown (10YR 4/2) cherty silt loam; weak medium granular structure; friable; common fine roots; many angular 1/8 to 1½ inches in size chert fragments; medium acid; abrupt smooth boundary.
A2	2-9"	Pale brown (10YR 6/3) cherty silt loam; weak medium subangular blocky structure; friable; few fine roots; common angular chert fragments 1/8 to 1 inch in size; strongly acid; clear smooth boundary.
B1	9-14"	Yellowish brown (10YR 5/6) cherty clay loam; weak medium subangular blocky structure; friable; few fine roots; 40 percent angular chert fragments ranging in size from ¼ to 2 inches; very strongly acid; clear smooth boundary.
B21t	14-22"	Strong brown (7.5YR 5/6) cherty loam; weak medium subangular blocky structure; friable; few fine patchy clay films on faces of some peds; 50 percent angular chert fragments ranging in size from ¼ to 2 inches: very strongly acid; gradual wavy boundary.
B22t	22-38"	Yellowish red (5YR 5/6) very cherty clay loam; moderate medium subangular blocky structure; common medium distinct strong brown (7.5YR 5/6) mottles; few fine roots; clay films on faces of some peds; also clay films on some chert fragments; 75 percent angular chert fragments ranging in size from ¼ to 3 inches; very strongly acid; gradual wavy boundary.
B23t	38-60"	Mottled brownish yellow (10YR 6/6) and yellowish red (5YR 5/6) very cherty clay loam; moderate medium subangular blocky structure; friable; clay films on faces of some peds and chert fragments; 75 percent chert fragments ranging in size from ¼ to 12 inches; very strongly acid; gradual wavy boundary.
B3t	60-84"	Brownish yellow (1oYR 6/6) very cherty clay loam; weak medium subangular blocky structure; firable; 75 percent chert fragment; ranging from ½ to 12 inches in size; clay films on faces of some peds and chert fragments; red (2.5YR 4/8) stains on some chart fragments; a few veins of white (N/8) clay about 1 inch wide; very strongly acid.

Bomar silt loam
(SOIL SERIES)

S69 Al-10-16-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	6.0	8.72	3.84	4.20	0.43	0.25	56
B21t	7-18"	4.6	10.55	6.80	3.32	0.33	0.10	36
B22t	18-33"	4.5	11.74	9.92	1.40	0.34	0.08	16
Bx1	33-75"	4.4	11.04	10.16	0.64	0.17	0.07	8
B3	75-100"	4.3	8.36	8.00	0.19	0.08	0.09	4

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	13.2	63.5	23.3
B21t	10.8	53.6	35.6
B-2t	8.2	46.2	45.6
Bx1	11.3	45.4	43.3
B3	24.6	44.8	30.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 m %	<0.2 m Mineralogy	Free Iron % Fe_2O_3

No data obtained

BOMAR SILT LOAM S69 Al-10-16-(1-5)

CLASSIFICATION: Typic Fragiudults, clayey, mixed, thermic

LOCATION: Cherokee County, NW¼, NW¼, Sec. 3; T11S; R9E. About 2 miles south of Centre. Photograph GT-2CC-168

USE AND NATIVE VEGETATION: Cropland is present use; native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Alluvium from sandstone, shale, and chert uplands.

DRAINAGE AND PERMEABILITY: Moderately well drained with moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 11/5/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Brown (10YR4/3) silt loam; weak fine granular structure; very friable; few fine roots; medium acid; clear smooth boundary.
B21t	7-18"	Yellowish brown (10YR5/6) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; very thin patchy clay film; very strongly acid; clear wavy boundary.
B22t	18-33"	Yellowish brown (10YR5/6) silty clay with common medium distinct yellowish red and light yellowish brown mottles; moderate medium subangular blocky structure; friable; very thin patchy clay film; very strongly acid; clear wavy boundary.
Bx	33-75"	Mottled strong brown (7.5YR5/6), yellowish brown (10YR5/6) and light gray (10YR7/2) silty clay; platy and moderate medium subangular blocky structure; slightly compact and brittle; very thin patchy clay film; extremely acid; clear irregular boundary.
C	75-100"	Mottled brownish yellow (10YR6/6), light gray (10YR7/2+7/1), and light yellowish brown (2.5Y6/4) clay loam; weak medium subangular blocky structure; friable; extremely acid.

Bomar silt loam (SOIL SERIES)

S69 Al-10-17-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	4.6	10.08	8.40	1.16	0.24	0.28	17
B21t	5-18"	4.6	10.88	8.88	1.62	0.26	0.12	18
B22t	18-27"	4.6	10.10	8.80	0.85	0.35	0.10	13
Bx1	27-52"	4.6	8.51	7.52	0.53	0.36	0.10	12
C	52-95"	4.6	6.64	5.44	0.60	0.51	0.09	18

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
B21t	6.2	47.9	45.9
B22t	6.5	49.7	43.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

BOMAR SILT LOAM S69 Al-10-17-(1-5)

CLASSIFICATION: Typic Fragiudults, clayey, mixed, thermic

LOCATION: Cherokee County, NE¼, SW¼, Sec. 3; T11S; R9E. About 3 miles south of Centre. Photograph GT-2CC-168

USE AND NATIVE VEGETATION: Cropland is present use; native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Alluvium from sandstone, chert and shale uplands.

DRAINAGE AND PERMEABILITY: Moderately well drained with moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 11/5/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Brown (7.5YR4/4) silt loam; weak fine granular structure; very friable; few fine roots; very strongly acid; clear smooth boundary.
B21t	5-18"	Yellowish red (5YR5/6) silty clay; moderate medium angular blocky structure; friable; very thin patchy clay film; very strongly acid; gradual wavy boundary.
B22t	18-27"	Yellowish brown (10YR5/6) silty clay; with common medium distinct yellowish red and reddish yellow mottles; moderate medium angular blocky structure; friable; very thin patchy clay film; very strongly acid; clear irregular boundary.
Bx	27-52"	Mottled yellowish red (5YR4/6), strong brown (7.5YR5/6), yellowish brown (10YR5/6), and light gray (10YR7/2) silty clay; weak platy and moderate medium subangular blocky structure; slightly brittle and compact; few brown and black concretions; very thin patchy clay film; very strongly acid; gradual wavy boundary.
C	52-95"	Mottled yellowish red (5YR5/6), yellowish brown (7.5YR5/8) yellow (10YR7/6), and light brownish gray (10YR6/2) sandy loam; massive; very friable; very strongly acid.

Brilliant shaly sandy loam
(SOIL SERIES)

S74 A1-93-3-(1-2)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
C1	0-7"	7.10	4.51	0.56	1.93	1.89	0.12	87.59
C2	7-72"	8.20	5.75	0.32	2.54	2.73	0.15	94.43

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
C1	58.2	30.0	11.8
C2	47.7	39.1	13.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
C2		mixed					

BRILLIANT SHALY SANDY LOAM S74 Al-93-3-(1-2)

CLASSIFICATION: Typic Udorthents; loamy-skeletal, mixed, nonacid, thermic family.

LOCATION: Marion County, Alabama. 4.5 miles south of junction of U. S. Hwy 278 and Ala. Hway. 233, 200 feet east of Ala. Hwy 233. SW4, SE4, Sec. 4, T12S, R11W. Photo. BQD-6EE-78

USE AND NATIVE VEGETATION: Idle

PARENT ROCK OR REGOLITH: Interbedded sandstone and shale

DRAINAGE AND PERMEABILITY: Well drained. Moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: J. A. Cotton and B. C. Fox, 6/6/74, 6/7/74

HORIZON	DEPTH	DESCRIPTION
C1	0-7"	Very dark gray (5Y3/1) very shaly sandy loam; massive; friable; 75 percent fragments consisting mainly of soft shale with fine and medium platy structure and few soft sandstone fragments ranging in size from 1/8 inch to 60 inches in diameter; neutral; clear wavy boundary.
C2	7-72"	Dark gray (5Y3.5/1) very shaly structureless, massive; friable; 75 percent fragments consisting mainly of soft shale with fine and medium platy structure and few soft sandstone; fragments range in size from 1/8 to 60 inches in diameter; moderately alkaline.

Cheaha stony silt loam
(SOIL SERIES)

S73-A1-15-20-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-4"	4.2	8.83	8.48	0.20	0.05	0.10	4.03
B21t	4-23"	4.5	6.30	6.08	0.12	0.03	0.06	3.50
B22t	23-35"	5.0	7.99	7.68	0.16	0.10	0.05	3.97

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	33.4	52.2	14.4
B21t	31.4	50.3	18.3
B22t	31.3	40.8	27.9

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

CHEAHA STONY SILT LOAM S73-Al-15-20-(1-3)

CLASSIFICATION: Typic Hapludults; fine-loamy, mixed, thermic.

LOCATION: Cleburne County, Alabama. Approximately ½ mile southeast of Cheaha Park (SE¼, SE¼, Sec. 9, T18S, R8E). Photo CPK-2EE-176.

USE AND NATIVE VEGETATION: Virginia pine and oak forest at present. Deciduous forest in past.

PARENT ROCK OR REGOLITH: Cheaha sandstone

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, 7/20/73

HORIZON	DEPTH	DESCRIPTION
A1	0-4"	Dark brown (10YR 3/3) stony silt loam; moderate medium granular structure; friable; 20 percent sandstone cobblestones; many fine, medium, and large roots; strongly acid; clear wavy boundary.
B21t	4-23"	Yellowish brown (10YR 5/6) silt loam; moderate medium subangular blocky structure; friable; 15 percent sandstone cobblestones; common fine, medium, and large roots; common fine root pores; thin continuous clay films on ped surfaces; very strongly acid; gradual irregular boundary.
B22t	23-35"	Strong brown (7.5YR 5/8) clay loam; weak medium subangular blocky structure; friable; 15 percent sandstone cobblestones; few fine and medium roots; common fine root pores; thin discontinuous clay films on ped surfaces; very strongly acid; abrupt irregular boundary.
R	35-50"	Hard sandstone bedrock.

Chewacla silty clay loam
(SOIL SERIES)

S70 A1-10-20-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n
			meq/100 g					%

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	3.2	67.8	29.0
B1	11.1	70.4	18.5
B2	21.8	58.5	19.7
B3g	19.1	56.9	24.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

CHEWACLA SILTY CLAY LOAM S70 Al-10-20-(1-5)

CLASSIFICATION: Fluvaquentic Dystrochrepts, fine-loamy, mixed thermic.

LOCATION: Cherokee County, SW¼; NW¼; Sec. 34; R10E; T8S. About 1.5 miles SW of Watson Chapel Church. Photograph GT-2CC-104.

USE AND NATIVE VEGETATION: Woodland is present use. Trees are mixed hardwood.

PARENT ROCK OR REGOLITH: Alluvium from sandstone, chert, and shale uplands.

DRAINAGE AND PERMEABILITY: Moderately well to somewhat poorly drained with moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 8/19/70

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Brown (10YR4/3) silty clay loam; weak fine granular and weak medium subangular blocky structure; friable; many fine and medium roots; strongly acid; gradual wavy boundary.
B	5-18"	Brown (10YR4/3) silt loam with few fine faint dark brown mottles; weak medium subangular blocky structure; friable; few fine and medium roots; medium acid; gradual wavy boundary.
B2	18-29"	Brown (10YR4/3) silt loam with few medium faint yellowish brown and grayish brown mottles; weak medium subangular blocky structure; very friable; few fine roots; few small black concretions and stains; medium acid; gradual wavy boundary.
B3g	29-35"	Grayish brown (10YR5/2) silt loam with common medium distinct yellowish brown and light yellowish brown mottles; weak medium subangular blocky structure; friable; few fine roots; common small black concretions and stains; medium acid; gradual wavy boundary.
C	35-62"	Mottled grayish brown (10YR5/2) and yellowish brown (10YR5/4, 5/6) stratified loam and silty clay loam massive; very friable; few fine roots; common small black concretions and stains.

Chewacla silty clay loam (SOIL SERIES)

S70 A1-10-20-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	3.2	67.8	29.0
B1	11.1	70.4	18.5
B2	21.8	58.5	19.7
B3g	19.1	56.9	24.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

CHEWACLA TAXADJUNCT LOAM S70 Al-10-21-(1-5)

CLASSIFICATION: Fluaquentic Dystrochrepts, coarse-loamy, mixed, thermic.

LOCATION: Cherokee County, Alabama. NW¼; NE¼; NE¼; Sec. 29; T12S; R10E. About 1.0 miles N. of Calhoun County Line. Photograph GT-1CC-222.

USE AND NATIVE VEGETATION: Cropland is present use. Mixed hardwood trees.

PARENT ROCK OR REGOLITH: Alluvium from chert, shale, and sandstone uplands.

DRAINAGE AND PERMEABILITY: Moderately well to somewhat poorly drained with moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery and H. B. Neal, 8/21/70

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Dark brown (10YR3/3) loam; weak fine granular structure; friable; few fine to medium roots; medium acid; clear smooth boundary.
B21	5-17"	Dark brown (10YR3/3) silty clay loam; weak medium subangular blocky structure; friable; few fine to medium roots; medium acid; gradual wavy boundary.
B22	17-28"	Grayish brown (10YR5/2) loam with common medium distinct dark brown and dark yellowish brown mottles; weak medium subangular blocky structure; friable; few fine roots; medium acid; gradual wavy boundary.
B23	28-39"	Mottled grayish brown (10YR5/2); dark yellowish brown (10YR4/4), and brown (10YR5/3 and 7.5YR4/4) loam; weak medium subangular blocky structure; friable; slightly acid; gradual wavy boundary.
B1b	39-48"	Brown (7.5YR4/4) sandy clay loam with common medium distinct yellowish brown (10YR5/4), dark brown (10YR3/3), and grayish brown (10YR5/2) mottles; weak medium subangular blocky structure; friable; slightly acid; gradual wavy boundary.
B2b	48-60"	Yellowish red (5YR4/8) sandy clay loam; moderate medium subangular blocky structure; friable.

REMARKS: This is just slightly out of range of Chewacla because of clay content. Included in Chewacla in mapping.

Choccolocco silt loam
(SOIL SERIES)

S74-Al-55-1-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.4	10.94	4.15	5.42	1.26	0.09	62.00
B21t	7-28"	4.8	10.39	7.04	2.78	0.49	0.07	32.30
B22t	28-39"	4.7	7.88	6.64	1.04	0.13	0.07	15.83
B31	39-49"	4.8	16.21	6.64	0.51	8.98	0.07	59.04
B32	49-54"	4.5	7.30	6.80	0.36	0.04	0.08	6.89
C	54-82"	4.5	5.75	5.28	0.34	0.05	0.07	8.23

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	12.7	62.6	24.7
B21t	7.4	61.3	31.3
B22t	28.0	47.0	25.0
B31	30.5	47.7	21.8
B32	33.0	46.4	20.6
C	50.6	31.8	17.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3
B21t	90	Siliceous					

CHOCCOLOCCO SILT LOAM S74-Al. 55-1-(1-6)

CLASSIFICATION: Typic Hapludults; fine-silty, mixed, thermic.

LOCATION: Etowah County, NE¼ or NE¼ of SE¼, Sec. 18, T 12 S, R 6 E

USE AND NATIVE VEGETATION: Present use is pasture and hay. Native vegetation was a hardwood forest.

PARENT ROCK OR REGOLITH: Stratified alluvial sediments from limestone, cherty limestone, shale, and sandstone.

POSITION: Nearly level low stream terraces.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. B. Neal 5-21-74 and 5-22-74

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Brown (10YR 4/3) silt loam, weak fine granular structure; very friable; many fine roots, slightly acid; clear smooth boundary.
B21t	7-28"	Strong brown (7.5YR 5/6) silty clay loam; moderate medium subangular blocky structure; friable; few fine roots; very thin patchy clay films; medium acid; gradual wavy boundary.
B22t	28-39"	Strong brown (7.5YR 5/6) clay loam with common medium distinct dark brown (7.5YR 4/2) and few fine distinct very pale brown (10YR 7/3) mottles; moderate medium subangular blocky structure; friable ; few fine to medium roots; very thin patchy clay films, strongly acid; gradual wavy boundary.
B31	39-49"	Strong brown (7.5YR 5/6) loam with common medium distinct very pale brown (10YR 7/3) mottles; weak fine subangular blocky structure; friable; clay bridges and coatings on sand grains; strongly acid; gradual wavy boundary.
B32	49-54"	Mottled brownish yellow (10YR 6/8), very pale brown (10YR 7/2), light gray (10YR 7/1), strong brown (7.5YR 5/6), and dark brown (7.5YR 4/2) loam; weak fine subangular blocky structure; friable; clay bridges and coatings on sand grains; very strongly acid; gradual wavy boundary.
C	54-82"	Mottled brownish yellow (10YR 6/8), very pale brown (10YR 7/3), light gray (10YR 7/1), and brown (7.5YR 5/4) loam; structureless; very friable; very strongly acid.

Conasauga silt loam (SOIL SERIES)

S69 A1-10-5-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-3"	4.4	15.54	14.96	0.34	0.14	0.10	4
B1	3-7"	4.4	15.13	14.16	0.73	0.14	0.10	6
B21t	7-30"	4.6	13.75	5.84	7.08	0.73	0.10	58
B22t	30-42"	4.9	33.33	7.60	24.96	0.63	0.14	77

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	22.9	66.2	10.9
B21t	5.8	45.6	48.6
B22t	11.1	6.3	82.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

CONASAUGA SILT LOAM S69 Al-10-5-(1-4)

CLASSIFICATION: Typic Hapludalfs, fine, mixed, thermic

LOCATION: Cherokee County, Alabama. SE¼ of SE¼ of Sec. 29; T10S; R8E. Approximately one west of Weiss Dam on Photograph GT-2CC-274.

PARENT ROCK OR REGOLITH: Shale

DRAINAGE AND PERMEABILITY: Well drained and slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 9/2/69

HORIZON	DEPTH	DESCRIPTION
A1	0-3"	Light yellowish brown (10YR6/4) silt loam; weak fine granular structure; very friable; many fine roots; extremely acid; clear smooth boundary.
B1	3-7"	Brownish yellow (10YR6/6) silt loam; weak medium subangular blocky structure; friable; few medium roots; very thin patchy clay films; extremely acid; gradual wavy boundary.
B21t	7-30"	Strong brown (7.5YR5/6) silty clay; strong medium angular blocky structure; firm; few fine roots; very thin patchy clay films; 10 percent small shale fragments; very strongly acid; gradual wavy boundary.
B22t	30-42"	Yellowish brown (10YR5/6) clay with few fine faint light yellowish brown and strong brown mottles; strong medium angular blocky structure; firm; very thin patchy clay film; 20 percent small shale fragments; very strongly acid; clear wavy boundary.
R	42"	Shale-very strongly acid.

REMARKS: The solum thickness is 2 inches too thick for Conasauga.

Conasauga silt loam (SOIL SERIES)

S69 Al-10-14-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A2	1-4"	4.3	9.15	7.52	1.16	0.35	0.12	18
B1	4-10"	4.7	12.16	7.12	4.02	0.89	0.13	42
B21t	10-19"	4.8	--	8.80	6.72	--	0.12	--
B22t	19-30"	5.0	22.15	8.00	12.36	1.65	0.14	64

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A2	20.1	61.2	18.7
B1	18.2	54.7	27.1
B21t	12.6	49.5	37.9
B22t	10.3	45.4	44.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

CONASAUGA SILT LOAM S69 Al-10-14-(1-4)

CLASSIFICATION: Typic Hapludalfs, fine, mixed, thermic

LOCATION: Cherokee County. SE¼; SW¼; NW¼; Sec. 25; T9S; R12E. Photograph GT-1CC-154

USE AND NATIVE VEGETATION: Present use is woodland; native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Shale

DRAINAGE AND PERMEABILITY: Moderately well drained with slow permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 11/3/69

HORIZON	DEPTH	DESCRIPTION
A1	0-1"	Dark yellowish brown (10YR4/4) silt loam; weak fine granular structure; very friable; many fine roots; extremely acid; clear wavy boundary.
A2	1-4"	Brown (10YR5/3) silt loam; weak fine granular structure; very friable; few medium roots; extremely acid; clear wavy boundary.
B1	4-10"	Brownish yellow (10YR6/6) silty clay loam; weak medium subangular blocky structure; friable; few medium and fine roots; very strongly acid; gradual wavy boundary.
B21t	10-19"	Yellowish brown (10YR5/6) silty clay loam with common medium distinct brown and very pale brown mottles; strong medium angular blocky structure; firm; few medium roots; very strongly acid; gradual wavy boundary.
B22t	19-30"	Yellowish brown (10YR5/6) silty clay with common medium distinct strong brown and light gray mottles, strong medium angular blocky structure; firm; 20 percent small shale fragments; very strongly acid; clear irregular boundary.
R	30"	Shale

REMARKS: Al horizon, 0 to 1 inches thick, was not sampled.

Davidson loam (SOIL SERIES) | S70-A1-14-2-(1-2) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A 1	0-6"	5.2	8.15	5.28	1.57	.82	.18	35.2
B2t	15-24"	5.1	6.88	5.60	.26	.94	.08	18.6
B2t	60-65"	5.5	6.23	4.88	.67	.62	.06	22.0

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	32.7	32.3	35.0
B2t	21.5	22.3	56.2
B2t	30.7	19.2	50.1

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t[1/] (15-24")			35	Kaolinite			8.63
			24	Gibbsite			

DAVIDSON LOAM S70-Al-14-2-(1-2)

CLASSIFICATION: Rhodic Paleudults, clayey, kaolinitic, thermic.

LOCATION: Clay County, Alabama: NE¼ SE¼ Sec. 3 T20S R7E; 3/4 mile southeast of Pleasant Grove Church.

USE AND NATIVE VEGETATION: Mixed oak forest with a few pine.

PARENT ROCK OR REGOLITH: Hornblende gneiss

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, 5/8/70

HORIZON	DEPTH	DESCRIPTION
A	0-6"	Dark reddish brown (2.5YR 2/4) loam; moderate medium granular structure; friable; many fine and medium, few large roots; slightly acid; clear smooth boundary.
B2t	6-65"	Dark red (10R 3/6) clay; moderate fine and medium subangular blocky structure; friable; common fine and medium roots to 24 inches, few below: few 2-5mm manganese concretions; thin clay films on ped faces; slightly acid.

B2t sample from 15 to 24 inches and 60-65 inches depth.

Decatur clay loam
(SOIL SERIES)

S67 Al-10-3-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n
			meq/100 g					%

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	31.5	32.7	35.8
B1t	18.7	30.7	50.6
B21t	19.7	25.5	54.8
B22t	22.7	23.8	53.5
B23t	28.0	22.8	49.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

DECATUR CLAY LOAM S67 Al-10-3-(1-5)

CLASSIFICATION: Rhodic Paledults, clayey, kaolinitic, thermic

LOCATION: Cherokee County, Alabama. SW¼ of SE¼; Sec. 3 R10E; T12S. About 4½ miles SW of Rock Run. Photo GT-12-48 (1937 Flight)

USE AND NATIVE VEGETATION: Present use is woodland (once cultivated). Native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Cherty limestone

DRAINAGE AND PERMEABILITY: Well drained, moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: J. E. Boman, 10/31/66

HORIZON	DEPTH	DESCRIPTION
Ap	0-3"	Dark reddish brown (2.5YR3/4) with about 1/3 of color dark red (2.5YR3/6) clay loam; moderate medium granular structure; very friable; many fine roots; few small black concretions; strongly to very strongly acid; clear smooth boundary.
B1t	3-9"	Dark red (2.5YR3/6) clay; weak medium subangular blocky structure; very friable; few thin patchy clay films on some ped faces; common fine roots; few fine pores; few uncoated sand grains; few small black concretions; strongly to very strongly acid; gradual wavy boundary.
B21t	9-27"	Dark red (2.5YR3/6), clay; weak medium and coarse subangular blocky structure; very friable; common thin patchy clay films on ped faces; common fine roots; few fine pores; few uncoated sand grains; few small black concretions; common small soft iron concretions or spots; very strongly acid; gradual wavy boundary.
B22t	27-48"	Dark red (2.5YR3/6), clay; weak to moderate, medium and coarse subangular blocky structure; friable; thin continuous clay films on ped faces; few fine pores; few uncoated sand grains; few small black concretions; few small soft iron concretions or spots; very strongly acid; gradual wavy boundary.
B23t	48-84"	Dark red (2.5YR3/6), clay; moderate medium and coarse subangular blocky structure; friable to firm; thick continuous clay films on ped faces; few fine pores; few to common uncoated sand grains; few small black concretions; an occasional small soft piece of yellowish chert is present; strongly to very strongly acid.

Decatur silt loam (SOIL SERIES)

S71-Al-5-6-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	6.1	9.88	3.68	5.14	0.97	0.09	62.7
B21t	6-26"	6.1	12.52	4.64	6.66	1.15	0.08	63.0
B22t	26-56"	5.0	9.58	7.12	1.92	0.44	0.10	25.7
B23t	56-84"	5.0	9.43	7.76	1.32	0.29	0.06	17.7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	26.8	49.3	23.9
B21t	18.0	32.7	49.3
B22t	19.1	35.2	45.7
B23t	18.2	33.0	48.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3
B21t			>50	kaolinite			

DECATUR SILT LOAM S71 Al-5-6-(1-4)

CLASSIFICATION: Rhodic Paleudults, clayey, kaolinitic, thermic.

LOCATION: Blount County, 2.3 mile NE of Summit on county road 25 NW¼ SW¼ Sec 29 T9S R2E, Photo GP-5V-144

USE AND NATIVE VEGETATION: Present use pasture and row crops. Native vegetation is presumed to have been pines and mixed hardwoods.

PARENT ROCK OR REGOLITH: Residuum weathered from limestone and chert.

DRAINAGE AND PERMEABILITY: Well drained, medium runoff, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox, 11/29/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Reddish brown (5YR3/3) silt loam; weak medium granular structure; friable; common fine roots; few worm casts; few fine and medium concretions; few quartz and chert pebbles slightly acid; abrupt smooth boundary.
B21t	6-26"	Dark red (2.5YR3/6) clay; strong medium angular blocky structure; firm; few fine and medium black concretions; nearly continuous dusky red (10R3/4) clay films on faces on some peds; few black coatings on some peds; few fine roots; slightly acid; clear smooth boundary.
B22t	26-56"	Dark red (2.5YR3/6) clay, moderate medium angular blocky structure; few fine roots; firm; nearly continuous dark reddish brown (2.4YR3/4) clay films on faces of most peds; few fine and medium black concretions; very strongly acid; gradual smooth boundary.
B23t	56-84"	Dark red (2.5YR3/6) clay; moderate fine and medium angular blocky structure; firm; few black concretions; nearly continuous dark reddish brown (2.5YR3/4) clay films on faces of most peds; few quartz pebbles; very strongly acid.

Dewey silty clay loam
(SOIL SERIES)

S72 A1-39-20-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n
			meq/100 g					%

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	20.2	52.1	27.7
B1	17.1	48.3	34.6
B21t	19.4	40.6	40.0
B22t	15.6	39.0	45.4
B23t	14.9	30.5	54.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

DEWEY SILTY CLAY LOAM S72 Al-39-20-(1-5)

CLASSIFICATION: Typic Paleudults; clayey, kaolinitic, thermic family

LOCATION: Lauderdale County, 1¼ mile NE 3/4 mile W of Jacksonburg in NE¼, SW¼, Sec. 3, T2S, R11W.

USE AND NATIVE VEGETATION: Present use is crops. Native vegetation presumed to have been mixed hardwoods.

PARENT ROCK OR REGOLITH: Limestone

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: Hoyt Sherard, 4/20/72, 4/24/72

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Dark reddish brown (5YR3/4) silty clay loam; weak fine granular structure; many fine roots; slightly acid; clear smooth boundary (4 to 8 inches thick).
B1	7-12"	Red (2.5YR4/8) silty clay loam; weak fine subangular blocky structure; common fine roots; few patchy clay films on most ped faces; medium acid; gradual smooth boundary (4 to 10 inches thick).
B21t	12-26"	Dark red (2.5YR3/6) silty clay loam; weak medium subangular blocky structure; firm; common thin patchy clay films on most ped faces; common chert fragments, ½ to 2 inches in size; few fine roots; medium acid; gradual smooth boundary (10 to 20 inches thick).
B22t	26-44"	Dark red (2.5YR3/6) clay; few fine distinct light reddish brown (5YR6/3) splotches; moderate medium subangular blocky structure; firm; common thin clay films on most ped faces; common chert fragments, ½ to 2 inches in size; strongly acid; gradual smooth boundary (16 to 24 inches thick).
B23t	44-66"	Red (2.5YR4/8) clay; few fine distinct light reddish brown (5YR6/3) mottles; moderate medium subangular blocky structure; firm; common thin patchy clay films on most ped faces; common chert fragments, ½ to 2 inches in size; strongly acid (1 to 3 feet thick).

Dickson silt loam
(SOIL SERIES)

S70 A1-39-2-(1-7)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-1"	5.1	5.64	3.76	1.16	.36	.36	33.33
A2	1-7"	4.8	5.02	4.32	.36	.13	.21	13.94
B1	7-11"	4.9	4.60	4.08	.16	.18	.18	11.30
B2	11-25"	4.7	6.51	5.60	.32	.43	.16	13.97
A'2	25-32"	4.9	7.91	7.12	.13	.58	.08	9.98
B'x	32-44"	4.9	6.62	5.84	.06	.67	.05	11.78
IIB'2t	44-72"	4.9	11.25	10.40	.10	.70	.05	7.55

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	7.8	80.6	11.6
A2	6.4	81.1	12.5
B1	5.4	79.4	15.2
B2	4.8	73.4	21.8
A'2x	5.2	70.7	24.1
B'x	6.3	65.4	28.3
IIB'2t	10.3	42.1	47.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

DICKSON SILT LOAM S70 Al-39-2-(1-7)

CLASSIFICATION: Glossic Fragiudults, fine-silty, siliceous, thermic family.

LOCATION: Lauderdale County, Alabama, 9 mi. S. of Tenn. State line on west side of U.S. 43 in SE¼, SE¼, S6, T1S, R8W.

USE AND NATIVE VEGETATION: Present use woods. Native vegetation is oaks, hickories, and gums.

PARENT ROCK OR REGOLITH: Cherty limestones

DRAINAGE AND PERMEABILITY: Moderately well drained. Permeability is moderate in upper part of the solum and slow in fragipan.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: Hoyt Sherard, 5/7/70, 7/7/70

HORIZON	DEPTH	DESCRIPTION
A1	0-1"	Dark grayish brown (10YR4/2) silt loam; weak fine granular structure; very friable; many roots; abrupt smooth boundary (0 to 2 inches thick).
A2	1-7"	Grayish brown (10YR5/3) silt loam; weak fine granular structure; friable; many roots; strongly acid; gradual smooth boundary (4-9 inches thick).
B1	7-11"	Yellowish brown (10YR5/4) silt loam; fine and medium subangular blocky structure; friable; common roots; few chert fragment; ¼ to 1 inch in size, strongly acid; gradual smooth boundary (0 to 7 inches thick).
B2	11-25"	Yellowish brown (10YR5/6) silt loam or loam; fine and medium subangular blocky structure; friable; few roots; few chert fragments; ¼ to 1 inch in size; strongly acid; clear smooth boundary (10 to 15 inches thick).
A'2X	25-32"	Pale brown (10YR6/3) silt loam, common fine distinct grayish brown (10YR5/3) mottles and dark grayish brown (10YR4/2) coatings on some peds; fine and medium subangular blocky structure with some moderate medium platy structure; friable; slightly brittle; strongly acid; gradual smooth boundary (3 to 7 inches thick).
B'X	32-44"	Yellowish brown (10YR5/4)silty clay loam; common fine and medium distinct dark brown (10YR4/3) and yellowish red (5YR4/6) mottles; moderate medium and fine subangular blocky structure breaking from moderate medium platy structure; brittle and firm; thin patchy clay films on most peds; few chert fragments, ¼ to 1 inch in size; strongly acid; gradual smooth boundary (8 to 15 inches thick).
IIB'2t	44-72"	Dark red (2.5YR3/6) silty clay, many fine to medium distinct grayish (brown) (10YR5/2) and yellowish brown (10YR5/4) mottles; moderate medium subangular blocky structure; firm; thin patchy clay films on most peds; 5 to 10 percent chert fragments up to 2 inches in size; strongly acid (several feet thick).

Dickson silt loam
(SOIL SERIES)

S70 A1-39-7-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.3	6.15	3.44	2.04	.46	.21	44.06
B2	5-21"	5.0	7.22	4.64	2.00	.49	.09	35.73
A'2x	21-26"	4.8	8.23	6.16	1.13	.71	.05	25.15
B'x	26-36"	4.7	11.36	10.48	.26	.56	.06	7.74
IIB'2t	36-62"	4.6	11.20	10.56	.10	.49	.05	5.71

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	8.2	73.8	18.0
B2	5.5	69.9	24.6
A'2x	5.8	68.3	25.9
B'x	4.7	59.6	35.7
IIB'2t	6.6	49.5	43.9

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

DICKSON SILT LOAM S70 Al-39-7-(1-5)

CLASSIFICATION: Glossic Fragiudults, fine-silty, siliceous, thermic family

LOCATION: Lauderdale County, Alabama, 1 1/8 miles southeast of Anderson in SW¼, NW¼, Sec. 35, T1S, R7W.

USE AND NATIVE VEGETATION: Present use is crops. Native vegetation includes oaks, hickories, and gums.

PARENT ROCK OR REGOLITH: Cherty limestones.

DRAINAGE AND PERMEABILITY: Moderately well drained. Permeability is moderate in upper part of the solum and slow in the fragipan.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: Hoyt Sherard

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Brown (10YR5/3) silt loam; weak medium granular structure; very friable; common fine roots; few chert fragments, ¼ to 1 inch in size; strongly acid; clear smooth boundary (3 to 8 inches thick).
B2	5-21"	Yellowish brown (10YR5/6)silt loam, fine and medium subangular blocky structure; friable; few small roots; few chert fragments, ¼ to 1 inch in size; strongly acid; gradual smooth boundary (12 to 18 inches thick).
A'2X	21-26"	Pale brown (10YR6/5) silt loam, common fine distinct grayish brown (10YR5/2) mottles and dark grayish brown (10YR4/2) coating on some ped faces; fine and medium subangular blocky structure; friable; slightly brittle; few chert fragments, ¼ to 1 inch in size; strongly acid; gradual smooth boundary (4 to 8 inches thick).
B'X	26-36"	Yellowish brown (10YR5/4) silty clay loam; common fine and medium dark grayish brown (10YR4/2) and yellowish red (5YR4/6) mottles; moderate medium and fine subangular blocky structure breaking from moderate medium platy structure; brittle, firm; thin patchy clay films on most ped faces; few chert fragments; ¼ to 1 inch in size; strongly acid; abrupt smooth boundary (8 to 16 inches thick).
IIB'2t	36-62"	Yellowish red (5YR5/8) silty clay with many fine and medium distinct pale brown (10YR6/3) and grayish brown (10YR5/2) mottles; moderately medium sub-angular blocky structure; firm; thin patchy clay films on most ped faces; 5 to 10 percent chert fragments; ½ to 2 inches in size; strongly acid. (several feet thick).

Durham silt loam (SOIL SERIES)

S69-A1-14-4-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.1	3.79	2.72	0.85	0.12	0.10	28
B21t	6-20"	4.9	6.83	5.04	1.44	0.25	0.10	26
B22t	20-32"	4.8	9.79	8.80	0.50	0.39	0.10	10
B23t	32-56"	4.5	12.95	12.56	0.12	0.15	0.12	3

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	37.9	53.9	8.2
B21t	31.2	42.8	26.0
B22t	22.6	38.6	38.8
B23t	24.1	47.5	28.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

DURHAM SILT LOAM S69-Al-14-4-(1-5)

CLASSIFICATION: Typic Hapludults, fine-loamy, siliceous thermic family.

LOCATION: Southwestern Clay County, 3/4 mile southeast of Hollins Church of of Christ, ¼ mile south of U.S. 280, 50 feet southwest of unpaved road junction, NW¼ NW¼ Sec. 20, T22S R5E.

USE AND NATIVE VEGETATION: Present use is idle cropland. Native vegetation was probably oak-hickory-pine forest.

PARENT ROCK OR REGOLITH: Talladega slate (a more easily weathered phase of).

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr. December 1, 1969 and June 17, 1969.

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Yellowish brown (10YR 5/4) silt loam; weak medium granular structure; very friable; few fine and medium roots; medium acid; abrupt smooth boundary.
B21t	6-20"	Yellowish brown (10YR 5/6) loam; moderate coarse and medium subangular blocky structure; friable; thin continuous clay films on coarse peds and discontinuous films on smaller peds; few fine and medium roots; strongly acid; diffuse smooth boundary.
B22t	20-32"	Yellowish brown (10YR 5/6) clay loam with few medium distinct red and few medium faint strong brown mottles; moderate coarse, medium and fine subangular blocky structure; friable; patchy clay films on ped faces; few fine and medium roots; strongly acid; gradual smooth boundary.
B23t	32-56"	Mottled brownish yellow (10YR 6/6), reddish yellow (7.5YR 5/6), yellow (10YR 7/6) and red (2.5YR 4/6) clay loam; weak medium subangular blocky structure; friable; patchy clay films; few small lenses of slightly plastic clay; 5 percent angular quartz gravel, less than ¼ inch diameter; few fine roots; strongly acid; gradual smooth boundary.
C	56-68"	Mottled brownish yellow, very pale brown, and red silty clay loam; strongly acid.

Ellisville silty clay loam (SOIL SERIES)

S69 Al-10-1-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.5	11.76	4.88	5.76	0.94	0.18	59
B1	6-14"	5.4	11.70	5.20	5.10	1.24	0.16	56
B21	14-29"	5.3	16.07	5.84	8.88	1.25	0.10	64
B22	29-52"	5.2	14.05	5.52	6.96	1.48	0.09	61
B3	52-72"	4.9	10.09	5.68	2.97	1.36	0.08	44

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	2.8	67.7	29.5
B1	1.8	71.6	26.6
B21	4.1	62.1	33.8
B22	9.3	58.9	31.8
B3	24.6	50.2	25.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

ELLISVILLE SILTY CLAY LOAM S69 Al-10-1-(1-5)

CLASSIFICATION: Dystric Fluventic Eutrochrepts fine-silty, mixed, thermic family.

LOCATION: Cherokee County, Ala. SE¼; NW¼; Sec. 34; T10S; R9E; Approximately 30 feet west of Terrapin Creek bridge on Hokes Bluff Road. 50 yards NE of the creek. Photograph GT-2CC-168.

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation was hardwood.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 8/20/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark yellowish brown (10YR3/4) silty clay loam; weak fine granular structure; very friable; common fine roots; strongly acid; clear smooth boundary.
B1	6-14"	Dark brown (10YR3/3) silt loam; weak fine granular and weak medium subangular blocky structure; very friable; few fine roots; strongly acid; gradual wavy boundary.
B21	14-29"	Brown (10YR4/3) silt clay loam; weak and moderate medium subangular blocky structure; friable; few medium roots; strongly acid; gradual wavy boundary.
B22	29-52"	Dark yellowish brown (10YR4/4) silty clay loam; weak and moderate; medium subangular blocky structure; friable; few medium roots; strongly acid; gradual wavy boundary.
B3	52-75"	Dark yellowish brown (10YR4/4) loam with common medium distinct light yellowish brown and brown mottles; weak medium subangular blocky structure; very friable; very strongly acid.

Ellisville silt loam
(SOIL SERIES)

S71 A1-5-4-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.1	8.81	4.40	3.40	0.98	0.03	50.1
B1	6-12"	5.7	9.46	3.92	4.44	1.09	0.01	58.6
B21	12-29"	5.8	15.57	4.48	9.39	1.69	0.02	71.2
B22	29-43"	5.1	13.76	6.08	6.83	0.84	0.01	55.8
B3	43-53"	5.1	9.97	4.64	4.74	0.58	0.01	53.5
IIC	53-65"	5.3	3.35	1.60	1.60	0.15	0.01	52.3

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	3.9	79.2	16.9
B1	3.0	79.2	17.8
B21	6.8	71.3	21.9
B22	22.6	54.0	23.4
B3	42.3	51.9	4.8
IIC	84.0	11.5	4.9

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

ELLISVILLE SILT LOAM S71 Al-5-4-(1-6)

CLASSIFICATION: Dystric Fluventic Eutrochrepts, fine-silty, mixed, thermic family.

LOCATION: Blount County, NE¼, NW¼ Sec 12 T13S R1W, GP-6V-54

USE AND NATIVE VEGETATION: Present use is row crops. Native vegetation is presumed to have been mixed hardwoods.

PARENT ROCK OR REGOLITH: Silty aluvium

DRAINAGE AND PERMEABILITY: Well drained, moderate permeability, slow runoff.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox 10/18/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark brown (10YR 4/3) silt loam; weak granular structure; friable; few fine roots, strongly acid; clear smooth boundary.
B1	6-12"	Dark yellowish brown (10YR 4/4); silt loam; weak medium and coarse subangular blocky structure; friable; few fine roots, few worm casts; medium acid; clear smooth boundary.
B21	12-29"	Dark brown (10YR 4/3) silt loam; weak fine and medium subangular blocky structure; friable; few fine roots; few worm casts; few charcoal pieces; few patchy clay films on some faces of peds; medium acid; clear smooth bounday.
B22	29-43"	Dark brown (10YR 3/3) silt loam; weak fine and medium subangular blocky structure; friable; few fine roots; few pieces of charcoal; few worm casts; few patchy clay films on some faces of peds; strongly acid; clear smooth boundary.
B3	43-53"	Dark brown (10YR 4/3) silt loam; weak medium subangular blocky structure; friable; few charcoal pieces; few fine roots; strongly acid; clear smooth boundary.
IIC	53-65"	Dark brown (10YR 4/3) loamy sand; structureless; friable; few fine roots, few pieces of charcoal; very wet; strongly acid.

Emory silty clay loam (SOIL SERIES)

S70 A1-39-5-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.3	12.21	5.20	5.75	.63	.63	57.41
A1	6-20"	5.3	11.12	5.20	4.75	.71	.46	53.23
Ab	20-34"	5.5	9.44	4.48	4.00	.63	.33	52.54
B2b	34-50"	5.6	11.69	3.44	7.25	.79	.21	70.57

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	4.8	63.4	31.8
A1	2.1	63.1	34.8
Ab	5.3	72.9	21.8
B2b	4.9	63.6	31.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
A1			48	kaolinite			

EMORY SILTY CLAY LOAM S70 Al-39-5-(1-4)

CLASSIFICATION: Fluventic Umbric Dystrochrepts, fine-silty, siliceous, thermic.

LOCATION: Lauderdale County, 3 miles south and ½ mile east of Oakland

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation is presumed to have been hardwoods, such as white, water, willow and red oaks, gum, hickory and elm.

PARENT ROCK OR REGOLITH: Alluvium from mainly limestone origin soils

DRAINAGE AND PERMEABILITY: Well drained. Runoff is slow, permeability is moderate.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: Hoyt Sherard, 5/20/70, 8/14/70

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark reddish brown (2.5YR3/4)silty clay loam; weak fine granular structure; friable; common fine roots; medium acid; gradual smooth boundary (5 to 10 inches thick).
A1	6-20"	Dark reddish brown (2.5YR3/4) silty clay loam; weak fine and medium granular structure, and weak fine subangular blocky structure; friable; few fine roots; medium acid; gradual smooth boundary (12 to 24 inches thick).
Ab	20-34"	Very dusky red (2.5YR2/2) silt loam; few fine faint reddish brown (5YR4/3) mottles; weak fine granular structure; few fine dark brown concretions; medium acid; gradual smooth boundary (6 to 14 inches thick).
B2b	34-50"	Yellowish red (2.5YR4/6) silty clay loam weak fine subangular blocky structure; firm, sticky, plastic; common fine dark brown concretions; medium acid.

REMARKS: Included in Grasmere in mapping.

Firestone gravelly silt loam
(SOIL SERIES)

S69 A1-10-6-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-5"	5.0	10.55		4.02	0.50	0.19	45
B1	5-9"	4.6	12.28		3.60	0.92	0.16	38
B2t	9-23"	4.7	28.19		8.40	1.25	0.14	35
B3t	23-32"	4.6	27.04		12.00	1.86	0.14	52
C	32-36"	4.8	24.58		14.64	1.75	0.11	67

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	11.2	70.2	18.6
B1	1.7	68.5	29.8
B2t	1.2	28.6	70.2
B3t	3.1	40.6	56.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

FIRESTONE GRAVELLY SILT LOAM S69 Al-10-6-(1-5)

CLASSIFICATION: Typic Hapludalfs, very fine, mixed, thermic

LOCATION: Cherokee County, SW¼, SW¼; Sec. 4; T-1S; R9E. About ¼ miles east of Mt. Olive Church. Photograph GT-2CC-168

USE AND NATIVE VEGETATION: Present use is woodland; native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Shale

DRAINAGE AND PERMEABILITY: Well drained and slow permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 1/21/69

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Light olive brown (2.5Y5/4) gravelly silt loam; weak fine granular structure; friable; many fine and medium roots; very strongly acid; clear smooth boundary.
B1	5-9"	Reddish yellow (7.5YR6/8) silty clay loam; weak medium subangular blocky structure; friable; few fine roots; very strongly acid; gradual wavy boundary.
B2t	9-23"	Reddish yellow (5YR6/8) clay, with few fine distinct yellow mottles; moderate to strong medium angular blocky structure; firm; few medium roots; common thin clay films, very strongly acid; gradual wavy boundary.
B3t	23-32"	Yellowish red (5YR5/8) silty clay, with common fine distinct yellow mottles; weak medium angular blocky structure; firm; few thin clay films; 10 percent shale fragments; very strongly acid; gradual wavy boundary.
C	32-36"	Mottled red, yellow and gray silty clay loam; rock structure; firm; very strongly acid; clear irregular boundary.
R	36"	Shale bedrock

Firestone silt loam
(SOIL SERIES)

S69 A1-10-8-(1-4)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-3"	5.5	17.31	6.00	10.44	0.68	0.19	65
B21t	3-11"	4.5	32.78	13.60	18.12	0.88	0.18	59
B22t	11-25"	4.8	42.12	14.24	26.88	0.84	0.16	66
C	25-33"	6.1	13.11	5.52	6.33	1.16	0.10	58

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	18.0	54.5	17.9
B21t	29.1	5.8	65.1
B22t	2.7	26.3	71.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

FIRESTONE SILT LOAM S69 Al-10-8-(1-4)

CLASSIFICATION: Typic Hapludalfs, very-fine, mixed, thermic

LOCATION: Cherokee County. NE¼; SW¼; Sec. 16; T10S; R8E. About 4½ miles NW of Weiss Dam. Photograph GT-2CC-258

USE AND NATIVE VEGETATION: Idle at present; native vegetation was hardwood and Red Cedar.

PARENT ROCK OR REGOLITH: Limestone

DRAINAGE AND PERMEABILITY: Well drained and slow permeability.

HORIZON	DEPTH	DESCRIPTION
A1	0-3"	Brown (10YR4/3) silt loam; weak fine granular structure; very friable; few fine roots; strongly acid; clear smooth boundary.
B21t	3-11"	Strong brown (7.5YR5/8) clay; strong fine angular blocky structure; very firm; few fine and medium roots; continuous thin clay films; very strongly acid; gradual wavy boundary.
B22t	11-25"	Yellowish red (5YR5/6) clay with common medium distinct yellowish brown mottles; strong coarse angular blocky structure; very firm; continuous thin clay film; few slickensides; very strongly acid; gradual wavy boundary.
C	25-33"	Yellowish brown (10YR5/8) clay; massive; very firm; few slickensides; moderately alkaline; clear irregular boundary.
R	33"	Limestone bedrock

REMARKS: Underlying bedrock is limestone instead of shale. This was included in Firestone in mapping.

Fruithurst loam (SOIL SERIES)

S72-Al-15-9-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A12	2-5"	4.8	5.51	5.12	0.22	0.07	0.09	7.0
B1	5-13"	5.1	5.01	4.56	0.24	0.09	0.12	8.9
B22t	13-28"	5.1	7.54	6.96	0.18	0.22	0.17	7.6
B23t	28-36"	5.2	8.73	8.16	0.16	0.23	0.18	6.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A12	43.3	44.3	12.4
B1	37.8	47.2	15.0
B22t	23.6	41.1	35.3
B23t	20.4	42.5	37.1

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

FRUITHURST LOAM S72-Al-15-9-(1-6)

CLASSIFICATION: Typic Hapludults, fine-loamy, mixed, thermic.

LOCATION: Cleburne County, Alabama. Approximately 1 mile west - northwest of Antioch Church (NW¼, SQ¼, Sec. 8, T16S, R12E). Photo CPK-2EE-94

USE AND NATIVE VEGETATION: Conferous and deciduous forest, present and past.

PARENT ROCK OR REGOLITH: Talladega slate

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, 9-13-72

HORIZON	DEPTH	DESCRIPTION
01	2-0"	Hardwood and pine leaf residue.
A11	0-2"	Very dark grayish brown (10YR 3/2) loam; weak medium granular structure; friable; many fine, medium and large roots; 10 percent, by volume, white quartz gravel; very strongly acid; clear wavy boundary.
A12	2-5"	Brown (10YR 4/3) loam; weak medium granular structure; friable; many fine, medium and large roots; 10 percent, by volume, white quartz gravel; medium acid; clear wavy boundary.
B1	5-13"	Yellowish brown (10YR 5/4) loam; weak medium subangular blocky structure; friable; common fine and medium roots; common root pores; 10 percent, by volume white quartz gravel; thin continuous clay films; strongly acid; gradual wavy boundary.
B22t	13-28"	Strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure friable; common root pores; 10 percent, by volume, white quartz gravel; thin continuous clay films; strongly acid; gradual wavy boundary.
B23t	28-36"	Yellowish red (5YR 5/6) clay loam with streak of strong brown (7.5YR 5/6) and red (2.5YR 5/6); strong medium subangular blocky structure; friable; 10 percent, by volume, white quartz gravel; moderate thick continuous clay films; strongly acid; gradual wavy boundary.
R	36-50"	Soft, highly weathered Talladega slate with 10 percent clay lenses and few white quartz stringers.

Fruithurst loam (SOIL SERIES)

S73-Al-15-19-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-5"	5.0	6.76	5.76	0.69	0.13	0.18	14.8
B1	5-10"	4.7	6.27	5.68	0.42	0.10	0.07	9.4
B21t	10-18"	4.8	7.46	6.80	0.44	0.13	0.09	8.9
B22t	18-29"	4.9	7.97	7.36	0.32	0.16	0.13	7.7
B23t	29-39"	4.9	8.64	8.08	0.25	0.20	0.11	6.5
C	39-50"	4.8	6.20	5.92	0.14	0.08	0.06	4.5

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	49.6	41.1	9.3
B1	47.6	41.5	10.9
B21t	31.2	46.4	22.4
B22t	32.1	44.4	23.5
B23t	39.8	37.5	22.7
C	56.4	33.2	10.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	90	quartz					

FRUITHURST LOAM

S73-Al-15-19-(1-6)

CLASSIFICATION: Typic Hapludults, fine loamy, mixed, thermic

LOCATION: Cleburne County, Alabama. Approximately 2 miles north-northeast of Arbocoochee (NW¼, SE¼, Sec. 29, T16S, R11E) Photo CPK-1EE-226.

USE AND NATIVE VEGETATION: Young pine forest at present. Mixed coniferous and deciduous forest in past.

PARENT ROCK OR REGOLITH: Talladega slate.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, 7-20-73

HORIZON	DEPTH	DESCRIPTION
01	1-0"	Pine leaf residue
A1	0-5"	Dark yellowish brown (10YR 4/4) loam, weak medium granular structure; friable; many fine and medium and few large roots; 5 percent quartz and slate fragments; strongly acid; clear smooth boundary.
B1	5-10"	Yellowish brown (10YR 5/4) loam; weak medium subangular blocky structure; friable; common fine and medium roots; very strongly acid; gradual wavy boundary.
B21t	10-18"	Yellowish brown (10YR 5/6) loam; moderate medium subangular blocky structure; friable; common fine and medium roots; common fine root pores; thin continuous clay films on ped surfaces; very strongly acid; diffuse wavy boundary.
B22t	18-29"	Strong brown (7.5YR 5/6) loam ; moderate medium subangular blocky structure; friable; few fine and medium roots; common fine root pores; thin continuous clay films on ped surfaces; very strongly acid; gradual irregular boundary.
B23t	29-39"	Yellowish red (5YR 5/6) loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common fine root pores; thin continuous clay films on ped surfaces; thin lenses with relict rock structure; very stongly acid; gradual irregular boundary.
C	39-50"	highly weathered slate with relict rock structure.

REMARKS: This is type location of series.

Fullerton cherty loam (SOIL SERIES)

S70 A1-5-5-(1-7) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-10"	5.6	5.15	2.88	2.00	.24	.03	44.07
A2	10-17"	5.1	4.82	3.68	1.03	.08	.03	23.65
B1t	17-23"	4.9	6.76	5.60	.97	.15	.04	17.15
B21t	23-39"	5.0	12.04	10.80	.29	.90	.05	10.29
B22t	39-51"	5.1	12.07	11.04	.13	.85	.05	8.53
B23t	51-63"	5.0	11.61	11.04	.13	.39	.05	4.90
B24t	63-70"	4.9	11.13	10.72	.10	.27	.04	3.68

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	37.0	48.0	15.0
A2	23.2	59.7	17.1
B1t	20.2	56.8	23.0
B21t	12.1	32.5	55.4
B22t	12.8	27.3	59.9
B23t	12.0	30.3	57.7
B24t	21.0	28.3	50.7

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B1t							
B21t				55		kaolinite	

FULLERTON CHERTY LOAM S70 Al-5-5-(1-7)

CLASSIFICATION: Typic Paleudults; clayey, kaolinitic, thermic

LOCATION: Blount County, 9/10 mile north from old Hwy 75 and inland lake road intersection, NE¼, NE¼ sec. 11 T13 1Y R1E

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation is presumed to have been hardwood.

PARENT ROCK OR REGOLITH: The regolith is residum from limestone which is commonly cherty.

DRAINAGE AND PERMEABILITY: Well drained; permeability is moderate.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew

HORIZON	DEPTH	DESCRIPTION
Ap	0-10"	Yellowish-brown (10YR5/4) cherty loam; weak fine granular structure; friable; abundant roots, medium acid; about 15% chert fragments mostly less than 2.5 cm in diameter; abrupt smooth boundary.
A2	10-17"	Light yellowish-brown (10YR6/4) cherty silt loam; moderate medium granular structure; friable; many roots; about 10% chert fragments mostly less than 1 cm in diameter; strongly acid; gradual wavy boundary.
B1t	17-23"	Yellowish red (5YR5/6) cherty silt loam; weak fine subangular blocky structure; firm; few fine roots about 10% chert fragments mostly 1 cm to 2 cm in diameter; very strongly acid; gradual wavy boundary.
B21t	23-39"	Red (2.5YR4/6) cherty clay; moderate medium subangular blocky structure breaking to fine blocky; firm; sticky, plastic; nearly continuous clay films on most ped faces; common roots; 10% chert fragments mostly less than 1 cm in diameter; very strongly acid; gradual wavy boundary.
B22t	39-51"	Red (2.5YR4/6) cherty clay; moderate coarse subangular blocky structure breaking to strong medium and fine blocky; firm; sticky, plastic; very thin to thin continuous clay films on most ped faces; 25% chert fragments; mostly less than 5 cm in diameter; strongly acid; gradual wavy boundary.
B23t	51-63"	Red (2.5YR4/6) cherty clay; few fine distinct yellowish-brown mottles; (10YR5/8) strong medium angular blocky structure; firm; sticky, plastic; thin continuous clay film on all ped faces; clay films are on some chert fragments; 30 to 35% chert fragments; very strongly acid; gradual wavy boundary.
B24t	63-70"	Red (2.5YR4/6) cherty clay; common medium distinct yellowish-brown (10YR5/4 + 5/8) mottles; moderate medium and fine angular blocky structure; firm; thin continuous clay films; 30% chert fragments; very strongly acid, gradual wavy boundary.

Gaylesville silt clay loam (SOIL SERIES)

S69 A1-10-4-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-3"	4.1	11.64	10.32	0.34	0.80	0.18	11
B21t	3-14"	4.3	9.80	7.92	0.50	1.30	0.08	19
B22t	14-22"	4.2	13.42	11.20	1.30	0.85	0.07	17
B23t	22-33"	4.2	15.81	10.00	3.16	2.57	0.08	37
B24t	33-72"	4.4	17.02	7.76	7.08	2.10	0.08	54

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	3.7	61.5	34.8
B21t	6.8	64.1	29.1
B22t	7.1	50.6	42.3
B23t	7.4	50.0	42.6
B24t	6.6	45.7	47.7

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

GAYLESVILLE SILTY CLAY LOAM S69 Al-10-4-(1-5)

CLASSIFICATION: Aeric Ochraqualfs, fine, fixed, thermic

LOCATION: Cherokee County. NE¼, SW¼, Sec. 3; T11S; R9E, About 3 miles south of Centre. Photograph GT-2CC-168

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation was hardwood timber.

PARENT ROCK OR REGOLITH: Alluvium from shale, chert, and sandstone uplands.

DRAINAGE AND PERMEABILITY: Poorly drained, moderate to slow permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 13/13/68

HORIZON	DEPTH	DESCRIPTION
A1	0-3"	Light olive brown (2.5Y5/4) silty clay loam; weak fine granular structure; friable; many fine roots; extremely acid; clear smooth boundary.
B21t	3-14"	Mottled light gray (2.5Y7/2), strong brown (7.5YR5/6), and yellowish red (5YR4/6) silty clay loam; moderate medium angular blocky structure; firm; few fine roots; very thin patchy clay film; extremely acid; gradual wavy boundary.
B22t	14-22"	Mottled yellowish brown (10YR5/6) and light gray (2.5Y7/2) silty clay; moderate medium angular blocky structure; firm; few fine and medium roots; very thin patchy clay films; extremely acid; gradual wavy boundary.
B23t	22-33"	Mottled brownish yellow (10YR6/6), and light gray (10YR7/2) silty clay; strong medium angular blocky structure; firm; very thin patchy clay films; extremely acid; gradual wavy boundary.
B24t	33-72"	Light gray (10YR7/1) silty clay with common medium distinct yellowish red and brownish yellow mottles; strong medium angular blocky structure; firm; extremely acid.

GROVER sandy loam (SOIL SERIES)

S69 A1-14-1-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A	0-7"	5.0	5.68	4.96	0.37	0.22	0.13	13
B21t	10-28"	5.0	7.10	6.24	0.19	0.54	0.13	12
B22t	28-39"	5.0	6.22	5.68	0.14	0.28	0.12	9
B3	39-60"	5.0	6.08	5.60	0.12	0.24	0.12	8
C	60-110"	4.9	5.01	4.64	0.12	0.14	0.11	7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	60.0	22.5	17.5
B21t	41.1	26.8	32.1
B22t	45.7	28.1	26.2
B3	56.6	17.4	26.0
C	67.2	16.4	16.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t			55	Kaolinite			
			2	Gibbsite			

GROVER SANDY LOAM S69-Al-14-1-(1-6)

CLASSIFICATION: Typic Hapludults: fine loamy, micaeous, thermic family.

LOCATION: 3/4 mile north of Mount Moriah Church on east road bank, NE ¼ NE¼ Sec. 29 T21S R8E. Clay County

USE AND NATIVE VEGETATION: Mixed hardwood and pine forest. Native vegetation was probably the same.

PARENT ROCK OR REGOLITH: Pinkneyville granite.

DRAINAGE AND PERMEABILITY: Well drained and moerate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr., 10/24/69

HORIZON	DEPTH	DESCRIPTION
A	0-7"	Dark grayish brown (10YR 4/2) sandy loam; weak fine granular structure; very friable; many fine and medium and common large roots; strongly acid; abrupt smooth boundary.
B1	7-10"	Yellowish brown (10YR 5/4) clay loam; weak fine and medium subangular blocky structure; friable; common fine and few medium and large roots; sand grains bridged and coated; A material in root channels: very strongly acid; clear wavy boundary.
B21t	10-28"	Strong brown (7.5YR 5/6) clay loam; moderate fine and medium subangular blocky structure; friable; common fine and few medium and large roots; few fine mica flakes; few partially weathered granite fragments less than 6 inches; nearly continuous clay film on ped faces; very strongly acid; gradual wavy boundary.
B22t	28-39"	Yellowish red (5YR 5/6) sandy clay loam with common medium distinct mottles of strong brown and light yellowish brown; weak to moderate medium and coarse subangular blocky structure; friable; few fine and medium roots; few fine mica flakes; patchy clay film on ped faces; very strongly acid; gradual wavy boundary.
B3	39-60"	Mottled yellowish red (5YR 5/6), strong brown (7.5YR 5/6) and light yellowish brown (10YR 6/4) sandy clay loam; weak medium and coarse subangular blocky structure, friable; few fine and medium roots; common fine and medium mica flakes; few highly weathered granite fragments; very thin coatings on coarse ped faces; very strongly acid; clear irregular boundary.
C	60-110"	Mottled brown (7.5YR 5/4) and yellowish brown (10YR 5/4) sandy loam; massive; very friable; many fine mica flakes; same yellow and yellowish red colors at 80-90 inches.

Grover sandy loam
(SOIL SERIES)

S70-A1-14-3-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.1	3.99	2.72	.90	.30	.07	31.8
B21t	5-18"	5.2	6.07	4.32	1.20	.50	.05	28.8
B22t	18-27"	5.4	3.33	2.88	.16	.24	.05	13.5
B23t	27-42"	5.6	3.46	2.96	.19	.22	.09	14.4
C	42-65"	5.3	4.25	3.84	.16	.14	.11	9.64

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	57.4	24.6	18.0
B21t	37.7	26.7	35.6
B22t	57.0	16.6	26.4
B23t	41.4	23.5	35.1
C	43.6	24.0	32.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	45	Quartz					
	52	Mica					
	3	Other					

GROVER SANDY LOAM S70-Al-14-3-(1-5)

CLASSIFICATION: Typic Hapludults; fine-loamy, micaceous thermic family.

LOCATION: Clay County 1¼ miles north of Mt. Moriah Church, near Bluff Springs, SE¼, SE¼, Sec. 20, T21S, R8E.

USE AND NATIVE VEGETATION: Idle cropland. Native vegetation was oak-hickory forest.

PARENT ROCK OR REGOLITH: Pinkneyville granite.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr. May 8, 1970.

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Dark yellowish brown (10YR 4/4) sandy loam; moderate, medium granular structure; friable; common fine roots; common very fine mica flakes; strongly acid; abrupt smooth boundary.
B21t	5-18"	Strong brown (7.5YR 5/6) clay loam; moderate medium subangular blocky structure; friable; few fine roots; common very fine mica flakes; thin patchy clay films; strongly acid; clear smooth boundary.
B22t	18-27"	Strong brown (7.5YR 5/6) sandy clay loam with few medium distinct red mottles; weak medium and coarse subangular blocky structure; friable; patchy clay films on coarse ped faces; common very fine mica flakes; strongly acid; gradual smooth boundary.
B23t	27-42"	Strong brown (7.5YR 5/6) clay loam with few medium distinct red and reddish yellow mottles; weak coarse subangular blocky structure; friable; common very fine mica flakes; strongly acid; gradual smooth boundary.
C	42-65"	Red (2.5YR 4/8) clay loam with common medium distinct brownish yellow mottles; common fine mica flakes; strongly acid.

REMARKS: Included with Grover in mapping. Solum too thick.

Gwinnett gravelly sandy loam
(SOIL SERIES)

S73 Al-41-1-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			----------meq/100 g----------					
Ap	0-6"	4.9	4.08	3.20	0.46	0.27	0.14	21.6
B2t	6-28"	5.3	7.50	5.76	0.44	1.12	0.18	23.3
C	28-50"	5.25	4.90	4.48	0.14	0.14	0.14	8.7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	71.8	16.4	11.8
B2t	22.7	18.6	58.7
C	72.8	14.1	13.1

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t			52	kaolinite			
			20	gibbsite			

GWINNETT GRAVELLY SANDY LOAM S73 Al-41-1-(1-3)

CLASSIFICATION: Typic Rhodudults; clayey, kaolinitic, thermic

LOCATION: Lee County, Alabama, (3 miles northeast of Opelika) SW¼ SW¼ Sec. 34 T20N R27E

USE AND NATIVE VEGETATION: Present use is pine forest (old cropland). Native vegetation is presumed to have been mixed hardwood and pine forest.

PARENT ROCK OR REGOLITH: Hornblende schist

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt, 9/24/73

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark red (2.5YR3/6) gravelly sandy loam; weak fine granular structure; very friable; common fine roots; 10 percent angular fragments less than 2 inches; strongly acid; abrupt smooth boundary.
B2t	6-28"	Dark red (2.5YR3/6) clay; moderate medium sub-angular blocky structure; firm, few angular quartz and schist fragments; patchy clay films on faces of peds; strongly acid; clear wavy boundary.
C	28-50"	Mixed dark red (2.5YR3/6) and multi-colored soft weathered rock that crushes to sandy loam texture.

Gwinnett silty clay loam
(SOIL SERIES)

S73-Al-15-16-(1-4)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A	0-4"	5.2	11.91	8.16	1.95	1.59	0.21	31.5
B2t	4-22"	5.1	7.38	6.88	0.30	0.16	0.04	6.8
B3	22-36"	5.1	7.52	7.28	0.14	0.07	0.03	3.2
C	36-44"	5.1	5.82	5.60	0.14	0.04	0.04	3.8

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	18.4	49.9	31.7
B2t	14.4	34.9	50.7
B3	25.1	37.7	37.2
C	62.4	33.2	4.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3
B2t			7.6	gibbsite			11.4%
			70	kaolinite			

GWINNETT SILTY CLAY LOAM S73-Al-15-16-(1-4)

CLASSIFICATION: Typic Rhodudults, clayey, kaolinitic (oxidic), thermic.

LOCATION: Cleburne County, Alabama. Approximately ½ mile north of Micaville (SE¼, NE¼, Sec. 36, T17S, R10E). Photo CPK-2EE-4.

USE AND NATIVE VEGETATION: Young growth pine plantation at present. Mixed coniferous-deciduous forest in past.

PARENT ROCK OR REGOLITH: Basic rock (Hornblende schist)

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and F. L. Gilbert, July 11, 1973.

HORIZON	DEPTH	DESCRIPTION
A1	0-4"	Dark reddish brown (5YR 3/4) silty clay loam; moderate medium granular structure; friable; 10 percent quartz and schist fragments; common fine and medium roots; medium acid; clear smooth boundary.
B2t	4-22"	Dark red (2.5YR 3/6) clay; moderate fine and medium subangular blocky structure; friable; 5 percent quartz and schist fragments; common fine and medium roots; thin continuous clay films on ped surfaces; medium acid; diffuse wavy boundary.
B3	22-36"	Red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; 5 percent quartz and schist fragments; few fine and medium roots; thin discontinuous clay films on ped surfaces; medium acid; gradual wavy boundary.
C	36-44"	Reddish yellow (5YR 6/6) highly weathered schist with relict rock structure and black manganese accumulations.
R	44-50"	Slightly weathered schist.

Hamblen loam (SOIL SERIES)

S71 Al-5-2-(1-7) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.2	7.76	4.16	3.08	0.51	0.01	46.4
B1	6-10"	5.8	8.73	3.12	4.94	0.66	0.01	64.2
B21	10-20"	6.0	9.34	3.20	5.64	0.49	0.01	65.7
B22	20-25"	5.2	9.13	4.08	4.84	0.20	0.01	55.3
B23	25-40"	5.2	8.84	4.72	3.94	0.16	0.02	46.6
B3g	40-53"	4.9	7.83	5.92	1.76	0.14	0.02	24.4
Cg	53-65"	4.8	9.03	6.80	2.06	0.15	0.02	24.7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	43.1	34.8	12.1
B1	41.3	44.9	13.8
B21	38.1	43.5	18.4
B22	36.6	44.0	19.4
B23	38.1	43.6	18.3
B3g	32.2	46.2	21.6
Cg	28.9	47.6	23.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

HAMBLEN LOAM S71 Al-5-2-(1-7)

CLASSIFICATION: Fluvaquentic Eutrochrepts,fine-loamy, siliceous, thermic family

LOCATION: Blount County, approximately 2.1 mile SW of Remlap and 0.15 mile SE of Ala 75, SE¼ NW¼ Sec 26 T14S R1E, GP-5V-45.

USE AND NATIVE VEGETATION: Present use is hay meadow of mixed grasses. Native vegetation is presumed to have been mixed hardwoods.

PARENT ROCK OR REGOLITH: Loamy alluvium

DRAINAGE AND PERMEABILITY: Moderately well drained with slow run off. Moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox, 11/4/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark brown (10YR4/3) loam; weak fine granular structure; friable; common fine roots, fine black concretions; few sandstone pebbles; strongly acid; clear smooth boundary.
B1	6-10"	Dark brown (10YR4/3) loam; weak medium subangular blocky structure; friable; few fine roots; few fine black concretions; few worm and insect channels; medium acid; clear smooth boundary.
B21	10-20"	Dark yellowish brown (10YR4/4) loam; few fine faint yellowish brown (10YR5/6) mottles; weak medium subangular blocky structure; friable; few fine roots; common fine and medium black concretions; few worm and insect channels; medium acid; shear smooth boundary.
B22	20-25"	Yellowish brown (10YR5/4) loam; common medium distinct light brownish gray (10YR6/2) mottles; weak medium subangular blocky structure; friable; few fine roots, common medium and large black and brown concretions; black coatings on some peds; few fine pores; strongly acid; clear smooth boundary.
B23	25-40"	Mottled light grayish brown (10YR6/2), yellowish brown (10YR5/6), and pale brown (10YR6/3) loam; weak medium subangular blocky structure; friable; few fine roots; common fine and medium black and brown concretions; black coatings on some peds; few fine pores; strongly acid; gradual wavy boundary.
B3g	40-53"	Light gray (10YR7/2) loam, common medium distinct yellowish brown (10YR5/6) and dark yellowish brown (10YR4/4) mottles; weak coarse subangular blocky structure; friable; common medium and large black and brown concretions; black coatings on some peds; very strongly acid; gradual smooth boundary.
Cg	53-65"	Light gray (10YR7/1) loam; common medium distinct yellowish brown (10YR5/6) and dark yellowish brown (10YR4/4) mottles; massive; firm; few fine black concretions; few chert fragments; very strongly acid.

Hartsells Taxadjunct fine sandy loam (SOIL SERIES)

S70 A1-5-6-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-8"	4.8	3.73	2.40	.97	.13	.23	35.65
B21t	8-22"	4.9	6.08	4.40	1.39	.14	.15	27.63
B22t	22-35"	4.7	3.12	2.40	.55	.09	.08	23.07
B3	35-41"	4.6	3.24	2.48	.61	.08	.07	23.45

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	65.9	26.3	7.8
B21t	47.7	36.6	15.7
B22t	60.6	31.2	8.2
B3	71.0	19.2	9.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	>95	quartz					

HARTSELLS TAXADJUNCT FINE SANDY LOAM S70 Al-5-6-(1-4)

CLASSIFICATION: Typic Hapludults, coarse-loamy, siliceous, thermic

LOCATION: Blount County, NW1/4 NE1/4 Sec. 18 T11SR3E, photo GV-5V-48

USE AND NATIVE VEGETATION: Present use cropland, native vegetation is presumed to have been woodland.

PARENT ROCK OR REGOLITH: Regolith consists of moderately coarse to medium textured materials, with acid hard sandstone with thin strata of shale or siltstone in places.

DRAINAGE AND PERMEABILITY: Well drained; medium runoff, permeability moderately rapid.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew, 5/4/70, 10/14/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-8"	Brown (10YR4/3) fine sandy loam; weak fine granular structure; very friable, many fine roots, 5-10% by volume of 1/4 - 1/2" angular sandstone fragments; very strongly acid; clear smooth boundary.
B21t	8-22"	Strong brown (7.5YR5/6) loam; weak-moderate medium subangular blocky structure; friable; few fine roots; few fine sandstone fragments, thin clay film on faces of peds; very strongly acid; gradual smooth boundary.
B22t	22-35"	Yellowish brown (10YR5/8) sandy loam; weak; moderate medium subangular blocky structure; friable; few fine roots, thin patchy clay films; 5-10% by volume 1/2 - 1" angular sandstone fragments; very strongly acid; gradual smooth boundary.
B3	35-41"	Yellowish brown (10YR5/6) sandy loam; weak medium subangular blocky structure; common medium distinct strong brown (7.5YR5/8), yellowish red (5YR5/8) mottles; texture coarsens with increasing depth, 15-20% by volume 1/2 - 1" angular sandstone fragments; very friable; very strongly acid; abrupt boundary.
R	41"	Acid sandstone.

REMARKS: This is a taxadjunct to the Hartsells series because the control-rectin is coarse-loamy and solum is 1" too thick. Included in Hartsells in mapping.

Hartsells loam
(SOIL SERIES)

S71 A1-5-3-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-4"	4.4	5.94	5.12	0.67	0.11	0.04	13.8
A2	4-10"	4.7	3.49	3.20	0.28	0.00	0.01	8.2
B21t	10-19"	4.8	4.91	4.16	0.56	0.18	0.01	15.3
B22t	19-33"	5.1	10.03	9.04	0.67	0.31	0.01	9.9
B3	33-37"	4.7	8.53	8.32	0.19	0.01	0.01	2.5

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	48.6	41.8	9.6
A2	42.1	47.4	10.5
B21t	34.6	43.4	22.0
B22t	25.5	34.5	40.0
B3	49.9	19.0	21.1

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

HARTSELLS LOAM S71 Al-5-3-(1-5)

CLASSIFICATION: Typic Hapludults, fine-loamy, siliceous, thermic family

LOCATION: Blount County, 0.3 mile N of New Hope Methodist Church, 40 feet W of road, NW¼, NW¼ Sec 12 T14S R1E, Photo GP-5V-184

USE AND NATIVE VEGETATION: Present use is woodland, native vegetation is presumed to have been mixed hardwoods and pines.

PARENT ROCK OR REGOLITH: Sandstone. Regolith consists of moderately coarse to medium textured materials, from acid sandstone with thin strata of shale or siltstone in places.

DRAINAGE AND PERMEABILITY: Well drained, medium runoff, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox, 9/13/71

HORIZON	DEPTH	DESCRIPTION
A1	0-4"	Dark grayish brown (10YR 4/2) loam; weak medium granular structure; very friable; common fine and medium roots; 5 percent sandstone pebbles and fragments; few worm casts; very strongly acid; abrupt smooth boundary.
A2	4-10"	Yellowish brown (10YR 5/4) loam; weak medium subangular blocky structure; very friable; few fine roots; few sandstone pebbles and fragments; few worm casts; very strongly acid; clear smooth boundary.
B21t	10-19"	Yellowish brown (10YR 5/6) loam; moderate medium subangular structure; friable; few fine roots; few sandstone pebbles; few worm casts; patchy clay films on faces of some peds; very strongly acid; clear smooth boundary.
B22t	19-33"	Strong brown (7.5YR 5/6) clay loam; dark brown (7.5YR 4/4), reddish brown (5YR 4/4) mottles; moderate medium subangular blocky structure; friable; few sandstone fragments; few reddish pebbles; few patchy clay films on faces of some peds; strongly acid; clear smooth boundary.
B3	33-37"	2 inches of soft sandstone rock underlain by 2 inches of: Yellowish brown (10YR 5/6) loam weak medium subangular blocky structure; friable; patchy clay films on faces of some peds; very strongly acid; abrupt boundary.
R	37"	Sandstone bedrock.

Hiwassee clay (SOIL SERIES)

S68-Al-14-2-(1-3) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	4.9	9.31	7.84	0.73	0.59	0.15	16
B21t	5-35"	5.2	8.22	7.28	0.34	0.54	0.06	11
B22t	35-65"	5.2	7.06	6.80	0.12	0.07	0.07	4

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	21.2	26.8	52.0
B21t	9.0	28.2	62.8
B22t	25.3	38.2	36.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t			27	Kaolinite			13.85
			10	Gibbsite			
B22t							15.13

HIWASSEE CLAY S68-Al-14-2-(1-3)

CLASSIFICATION: Typic Rhodudults, clayey, kaolinitic, thermic.

LOCATION: Clay County, Alabama: SE¼ SE¼ Sec. 33 T19S R8E; 1.5 miles northwest of Olive Branch Church.

USE AND NATIVE VEGETATION: Pine forest with some hardwoods. Native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Hornblende Gneiss

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr. January 27, 1970 and June 4, 1968.

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Dark reddish brown (2.5YR 3/4) clay; moderate fine granular structure; friable, many fine and few medium roots; 10 percent angular quartz fragments less than 3 inches in diameter; very strongly acid; clear smooth boundary.
B21t	5-35"	Dark red (2.5YR 3/6) clay; moderate to strong medium subangular blocky structure; firm; few fine and medium roots in upper 10 inches; few fine "mica-like" flakes; thin continuous clay film; strongly acid; diffuse wavy boundary.
B22t	35-65"	Red (2.5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; common to many "mica-like" flakes; very thin patchy clay film; strongly acid.

Hiwassee clay loam (SOIL SERIES)

S72-Al-15-7-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.4	7.21	4.40	1.95	0.72	0.14	38.9
B21t	6-52"	5.0	8.32	5.60	0.70	1.97	0.05	32.7
B22t	52-97"	5.0	7.94	7.68	0.14	0.07	0.05	3.3
C	97-130"	4.9	7.11	6.88	0.14	0.05	0.04	3.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	27.1	41.0	31.9
B21t	10.8	33.0	56.2
B22t	16.6	44.1	39.3
C	19.9	54.3	25.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3
B21t			65	kaolinite			10.7
			4.7	gibbsite			

HIWASSEE CLAY LOAM S72-Al-15-7-(1-4)

CLASSIFICATION: Typic Rhodudults; clayey, kaolinitic (oxidic), thermic.

LOCATION: Cleburne County, Alabama. Approximately 1½ miles south-southwest of Hurricane Church (SW¼, NW¼ Sec. 16, T17S, R11E.) Photo 1EE-232.

USE AND NATIVE VEGETATION: Loblolly Pine plantation at present. Mixed coniferous and decidusou forest in past.

PARENT ROCK OR REGOLITH: Hornblende schist.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, August 23, 1972.

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark reddish brown (2.5YR 3/4) clay loam; moderate medium granular structure; friable; common fine, medium and large roots; 10 percent, by volume, angular quartz gravel; slightly acid; clear smooth boundary.
B21t	6-52"	Dark red (2.5YR 3/6) clay; moderate fine and medium subangular blocky structure; friable; common fine and medium roots; few fine root pores; moderately thick continuous clay films; medium acid; diffuse smooth boundary.
B22t	52-97"	Red (2.5YR 4/6) silty clay loam moderate medium subangular blocky structure; firable; few fine roots; thin continuous films with a few moderately thick films; medium acid; gradual wavy boundary.
C	97-130"	Mottled yellowish red (5YR 5/6) and reddish yellow (7.5YR 6/6) silt loam; black manganese accumulations.

Hiwassee clay loam (SOIL SERIES)

S73-Al-15-15-(1-3) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A 1	0-3"	5.3	5.72	3.44	1.35	0.79	0.14	39.9
B2t	3-51"	5.2	5.73	5.20	0.24	0.25	0.04	9.3
C	51-57"	5.0	3.82	3.60	0.15	0.04	0.03	5.8

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A 1	32.4	34.0	33.6
B2t	22.2	25.6	52.2
C	48.6	21.1	30.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t			53.4	kaolinite			8.4

HIWASSEE CLAY LOAM S73-Al-15-15-(1-3)

CLASSIFICATION: Typic Rhodudults; clayey kaolinitic (oxidic), thermic

LOCATION: Cleburne County, Alabama. Approximately 1½ miles northeast of Micaville (SE¼, NE¼, Sec. 31, T17S, R11e). Photo CPK-1EE-234.

USE AND NATIVE VEGETATION: Young growth pine plantation at present. Mixed forest in past.

PARENT ROCK OR REGOLITH: Basic rock (Hornblende schist)

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and F. L. Gilbert, July 11, 1973.

HORIZON	DEPTH	DESCRIPTION
A 1	0-3"	Dark reddish brown (2.5YR 3/4) clay loam, moderate medium granular structure; friable; 10 percent quartz and schist fragments; common fine and medium roots; medium acid; clear wavy boundary.
B2t	3-51"	Dark red (10R 3/6) clay; moderate fine and medium subangular blocky structure; friable; 10 percent quartz and schist fragments; few fine and medium roots; thin continuous clay films on ped surfaces; common fine root pores; strongly acid; diffuse wavy boundary.
C	51-57"	Multicolored gravelly loam; strongly acid.

Hiwassee sandy loam (SOIL SERIES)

S75 Al-41-2-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-4"	5.1	7.32	2.88	4.00	0.40	0.04	60.7
B21t	4-26"	5.6	6.43	3.60	2.28	0.47	0.07	44.1
B22t	26-48"	5.1	4.70	4.00	0.36	0.28	0.05	14.9
C	48-80"	5.1	4.87	4.64	0.06	0.06	0.11	4.8

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	76.4	14.4	9.2
B21t	35.9	18.1	46.0
B22t	42.0	25.0	33.0
C	46.5	27.0	26.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t			55	kaolinite			
			10	gibbsite			

HIWASSEE SANDY LOAM S75 Al-41-2-(1-4)

CLASSIFICATION: Typic Rhodudults, clayey, kaolinitic, thermic

LOCATION: Lee County, Ala., (4 miles N-NE of Opelika) NE¼ SW¼ Sec. 21 T20N R27E

USE AND NATIVE VEGETATION: Present use is idle pasture. Native vegetation is presumed to have been mixed hardwood and pine forest.

PARENT ROCK OR REGOLITH: Hornblende schist

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt, R. Hoyum, 9/24/73

HORIZON	DEPTH	DESCRIPTION
Ap	0-4"	Dark reddish brown (2.5YR3/4) sandy loam; moderate fine granular structure; very friable; many fine roots; 5 percent angular fragments less than 2 inches; medium acid; abrupt smooth boundary.
B21t	4-26"	Dark red (2.5YR3/6) clay; moderate medium subangular blocky structure; firm; few fine mica flakes, thin clay films on faces of peds, strongly acid; gradual smooth boundary.
B22t	26-48"	Dark red (2.5YR3/6) clay loam; moderate fine and medium subangular blocky structure; firm; common fine mica flakes; thin clay films on faces of peds; strongly acid; gradual wavy boundary.
C	48-80"	Red (2.5YR4/6) silt loam; massive; friable; many fine mica flakes; very strongly acid.

Holston loam (SOIL SERIES)

S69 Al-10-19-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	6.0	4.50	2.40	1.48	0.36	0.26	47
B21t	7-25"	4.6	6.81	4.08	2.26	0.31	0.16	40
B22t	25-50"	4.5	9.12	7.76	0.60	0.66	0.10	15
B23t	50-72"	4.7	9.17	8.72	0.16	0.18	0.11	5

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	47.0	42.6	10.4
B21t	33.9	44.1	22.0
B22t	31.9	34.1	34.0
B23t	40.3	17.5	42.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

HOLSTON LOAM S69 Al-10-19-(1-4)

CLASSIFICATION: Typic Paleudulys; fine-loamy; siliceous, thermic

LOCATION: Cherokee County SE¼; NW¼; NE¼; Sec. 10; T10S; R9E. Photograph GT-2CC-172

USE AND NATIVE VEGETATION: Present use is cropland; native vegetation was mixed hardwood and pines.

PARENT ROCK OR REGOLITH: Alluvium from sandstone, chert and shale uplands.

DRAINAGE AND PERMEABILITY: Well drained with moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 11/21/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Yellowish brown (10YR5/4) loam; weak fine granular structure; very friable; few fine roots; medium acid; clear smooth boundary.
B21t	7-25"	Yellowish brown (10YR5/6) loam; weak and moderate medium subangular blocky structure; friable; few fine roots; clay bridges and coatings on most sand grains; very strongly acid; gradual wavy boundary.
B22t	25-50"	Yellowish brown (10YR5/8) clay loam with common medium distinct yellow, brownish yellow and yellowish red mottles; also a few light gray clean sand pockets; moderate medium subangular blocky structure; friable; few fine mica flakes; very thin patchy clay films; slightly compact and brittle; very strongly acid; gradual wavy boundary.
B23t	50-72"	Mottled red (2.5YR4/6), yellowish red (5YR4/8), strong brown (7.5YR5/6), and brown (10YR5/3) clay; moderate medium subangular blocky structure; friable; few fine mica flakes; very thin patchy clay films; very strongly acid.

Holston loam (SOIL SERIES)

S72 A1-15-2-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
B21t	4-23"	4.9	6.30	4.96	0.68	0.57	0.09	21.3

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
B21t	33.8	42.4	23.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

HOLSTON LOAM S72 Al-15-2-(1-5)

CLASSIFICATION: Typic Paleudults, fine loamy, siliceous, thermic family

LOCATION: Cleburne County, Alabama. Approximately ¼ mile west of Palestine (Sec. 35, T12S, R11E). Photo CPK-1EE-124.

USE AND NATIVE VEGETATION: Present use is Virginia Pine plantation. Native vegetation was mixed forest.

PARENT ROCK OR REGOLITH: Slate or slate and sandstone colluvium.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, J. S. Austin, 8/31/72

HORIZON	DEPTH	DESCRIPTION
A1	0-4"	Dark brown (10YR3/3) loam; weak medium granular structure; friable; common fine and medium roots; common fine root pores; 10 percent, by volume, rounded quartz and sandstone gravel less than 3 inches in diameter; common worm casts; medium acid; clear wavy boundary.
B21t	4-23"	Brown (7.5YR4/4) loam; weak medium subangular blocky structure; friable; few fine and medium roots; common root pores; thin patchy clay films; 10 percent, by volume, rounded quartz and sandstone gravelless than 3 inches in diameter; medium acid; gradual wavy boundary.
B22t	23-68"	Mottled strong brown (7.5YR5/6), yellowish red (5YR5/6) and yellowish brown (10YR5/6) clay loam; moderate medium subangular blocky structure; friable; common root pores; continuous clay films; 10 percent, by volume, rounded quartz and sandstone gravel less than 3 inches in diameter; strongly acid; diffuse wavy boundary.
C	68-110"	Mottled red (2.5YR5/6), yellowish red (5YR5/6), and strong brown (7.5YR5/6) loam.
R	110-115"	Soft, highly weathered Talladega slate.

Holston loam (SOIL SERIES)

S72 A1-15-3-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.6	4.85	2.88	1.00	0.76	0.20	40.6
B21t	5-20"	5.5	5.43	3.36	1.82	0.20	0.05	38.1
B22t	20-33"	4.8	6.55	5.60	0.78	0.12	0.05	14.6
B23t	33-65"	4.7	7.47	7.20	0.05	0.17	0.05	3.6

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	43.6	48.4	8.0
B21t	31.9	48.9	19.2
B22t	36.2	41.2	22.6
B23t	31.2	38.0	30.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

HOLSTON LOAM S72 Al-15-3-(1-4)

CLASSIFICATION: Typic Paleudults, fine-loamy, siliceous, thermic family

LOCATION: Cleburne County, Alabama. Approximately 3/4 mile southeast of Oak Grove Church. (Sec. 6, T16S, R12E) Photo CPK-1EE-96

USE AND NATIVE VEGETATION: Present use is pasture. Native vegetation was decidious forest.

PARENT ROCK OR REGOLITH: Old Alluvium from Tallapoosa River

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, 8/15/72

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Dark brown (10YR4/3) loam, weak medium granular structure; friable; common fine and medium roots; slightly acid; clear smooth boundary.
B21t	5-20"	Light olive brown (2.5Y5/4) loam; moderate medium subangular blocky structure; friable; few fine roots with common fine root pores; clay bridgings between grains; slightly acid; diffuse smooth boundary.
B22t	20-33"	Light olive brown (2.5Y5/6) loam; moderate medium and coarse subangular blocky structure; friable; few fine roots; common fine root pores; clay bridgings between grains; strongly acid; gradual smooth boundary.
B23t	33-65"	Mottled yellowish brown (10YR5/6 & 5/4), strong brown (7.5YR5/6), yellowish red (5YR5/6), and very pale brown (10YR7/3) clay loam; moderate medium and coarse subangular blocky structure; friable; thin clay coatings on ped faces; strongly acid.

Holston Variant fine sandy loam (SOIL SERIES)

574-A1-55-6-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.7	4.54	1.92	1.81	0.67	0.12	57.75
B21t	6-13"	4.8	5.64	4.48	0.88	0.21	0.07	20.66
B22t	13-24"	4.7	6.28	5.20	0.87	0.14	0.06	17.25
B24t	32-70"	4.6	7.97	7.44	0.40	0.07	0.05	6.69

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	43.3	51.4	5.3
B21t	26.2	55.7	18.1
B22t	24.2	53.4	22.4
B23t	31.5	47.1	21.4
B24t	31.0	40.2	28.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B22t	95+	siliceous					
B21t	95+	siliceous					

HOLSTON VARIANT FINE SANDY LOAM S74 Al. 55-6-(1-5)

CLASSIFICATION: Plinthic Paleudults; fine-loamy, siliceous, thermic.

LOCATION: Etowah County: NE¼ of SW¼, Sec. 35, T 11 S, R 7 E

USE AND NATIVE VEGETATION: Present use is grassland. Native vegetation was hardwood forest.

PARENT ROCK OR REGOLITH: Alluvium from sandstone and shale uplands.

POSITION: Gently sloping uplands.

DRAINAGE AND PERMEABILITY: Moderately well drained, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 9-26-74, 3-23-74

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Brown (10YR 5/3) fine sandy loam; weak fine granular structure; very friable; many fine roots; 3 percent small gravel; strongly acid; abrupt smooth boundary.
B21t	6-13"	Light yellowish brown (10YR 6/4) silt loam; moderate very fine subangular blocky structure; friable; common very fine roots; 3 percent small gravel; very strongly acid, clear smooth boundary.
B22t	13-24"	Light yellowish brown (10YR 6/4) silt loam with many medium distinct strong brown and few fine distinct very pale brown mottles; moderate fine subangular and angular blocky structure; friable in about 70 percent and brittle in about 30 percent of the matrix; few fine roots; 2 percent small gravel; very strongly acid; gradual smooth boundary.
B23t	24-37"	Mottled very pale brown (10YR 7/3), brownish yellow (10YR 6/6) and strong brown (7.5YR 5/6) loam; moderate fine subangular blocky and angular blocky structure; firm; 3 percent red plinthite nodules; very strongly acid; diffuse smooth boundary.
B24t	32-70"	Mottled red (2.5YR 4/6) grading to strong brown (7.5YR 5/6) next to light brownish gray (10YR 6/2) vertical seams, clay loam; moderate fine and medium subangular blocky structure; firm in 75 percent and compact and brittle in 25 percent of the matrix; 25 percent red plinthite nodules; medium acid.

Iredell gravelly loam (SOIL SERIES)

S70-Al-14-1-(1-3) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-7"	6.0	---	3.52	4.02	--	0.06	>54
B2t	7-29"	6.4	---	4.00	15.48	--	0.12	>70
R	29"	7.3	---	2.16	9.00	--	0.06	>70

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	45.8	41.8	12.4
B2t	8.1	35.7	56.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t				Montmorillonite			
				Kaolinite			

IREDELL GRAVELLY LOAM S70-Al-14-1-(1-3)

CLASSIFICATION: Typic Hapludalfs, fine, montmorillonitic, thermic family.

LOCATION: Clay County, Alabama; 3½ miles northeast of Hollins, Northside of highway, NE¼, Sec. 11, T22S, R5E.

USE AND NATIVE VEGETATION: Presently loblolly pines 20 to 30 years old are growing in an old field. Native vegetation was small hardwood forest with limestone adapted trees such as haw and crabapple.

PARENT ROCK OR REGOLITH: Hillabee schist.

DRAINAGE AND PERMEABILITY: Well drained and slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, Jr., 1-30-70

HORIZON	DEPTH	DESCRIPTION
A1	0-7"	Dark brown (10YR 3/3) gravelly loam; weak, medium granular structure; friable; 20 percent quartz gravel, less than 2 inches in diameter; common fine and medium roots; medium acid; clear wavy boundary.
B2t	7-29"	Yellowish brown (10YR 5/6, with ped surfaces of 10YR 5/4) clay; moderate coarse and medium angular blocky structure; very plastic and very sticky when wet; few soft schist fragments; moderately thick, continuous clay coatings and pressure faces on coarse ped faces and thinner coatings on smaller peds; very soft, black, shot-like concretions, 1 to 5 millimeters in diameter; few fine and medium roots; slightly acid; gradual irregular boundary.
R	29"	Soft, partially weathered Hillabee schist.

Iredell sandy loam
(SOIL SERIES)

S74-81-2-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.3	5.74	3.36	1.44	0.92	0.03	41.48
B21t	7-12"	5.3	17.13	5.12	4.40	7.57	0.04	70.11
B22t	12-24"	5.5	20.39	5.60	4.21	10.51	0.07	72.53
B3	24-34"	5.5	22.94	6.40	5.86	10.62	0.06	72.10
C	34-40"	5.2	23.40	6.56	6.38	10.39	0.07	71.97

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	61.6	31.5	6.9
B21t	10.1	23.0	66.9
B22t	13.6	39.3	47.1
B3	11.9	37.9	50.2
C	32.4	38.8	28.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

IREDELL SANDY LOAM S74-Al-81-2-(1-5)

CLASSIFICATION: Typic Hapludalfs fine, montmorillonitic, thermic

LOCATION: Lee County, Alabama; 1.5 miles NW of Goat Rock Dam, NE¼ SE¼ Sec. 23 T19N R29E

USE AND NATIVE VEGETATION: Pine forest. Native vegetation is presumed to have been mixed hardwood and pine forest.

PARENT ROCK OR REGOLITH: Hornblende Schist

DRAINAGE AND PERMEABILITY: Moderate well to somewhat poorly drained and slow permeability.

SAMPLES COLLECTED AND DESCRIBED BY: R. B. McNutt, M. Tuck, R. Royum and R. W. Stevens, August 13, 1974 and R. B. McNutt, January 15, 1974

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Dark grayish brown (2.5Y 4/2) sandy loam, weak fine granular structure; very friable; few fine roots; medium acid; abrupt smooth boundary.
B21t	7-12"	Yellowish brown (10YR 5/6) clay; moderate medium angular blocky structure; firm; plastic and sticky; slightly acid; clear smooth boundary.
B22t	12-24"	Light olive brown (2.5Y 5/4) clay; moderate medium angular blocky structure; firm; plastic and sticky; neutral; clear smooth boundary.
B3	24-34"	Light olive brown (2.5Y 5/4) clay loam; moderate medium angular blocky structure; firm; some thin lenses of saprolite; neutral; abrupt wavy boundary.
C	34-40"	Multicolored soft saprolite.

REMARKS: Not correlated in county because of small acreage.

Leadvale silt loam (SOIL SERIES)

S70 A1-5-8-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-4"	5.9	7.80	3.52	3.25	.73	.30	54.87
B1	4-16"	4.7	7.82	5.60	1.81	.33	.08	28.38
B2t	16-24"	5.0	8.20	5.76	1.87	.48	.09	29.75
Bx	24-42"	4.8	11.56	10.48	.65	.38	.05	9.34

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	20.9	58.9	20.2
B1	15.3	56.7	28.0
B2 t	14.8	54.5	30.7
Bx	22.7	44.7	32.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3
B1	>95	quartz					

LEADVALE SILT LOAM S70 A1-5-8-(1-4)

CLASSIFICATION: Typic Fragiudults, fine-silty, siliceous, thermic.

LOCATION: Blount County, Site 6 Photo 2-V-58, SW 1/4 SE 1/4, Sec. 18, T12S, R1E.

USE AND NATIVE VEGETATION: Present use is pasture. Native vegetation is presumed to have been woodland.

PARENT ROCK OR REGOLITH: The regolith is from alluvium and colluvium washed from upland sandstone and shale soils.

DRAINAGE AND PERMEABILITY: Runoff medium to slow; permeability moderate above fragipan, slow in fragipan.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew, 4/30/70, 4/20/67

HORIZON	DEPTH	DESCRIPTION
Ap	0-4"	Dark grayish brown (10YR4/2) silt loam weak fine granular structure; friable; many fine roots, few worm cast; strongly acid; abrupt smooth boundary.
B1	4-16"	Olive yellow (2.5Y6/6) silty clay loam; weak medium subangular blocky structure; friable; few fine roots, very thin patchy clay film; strongly acid, clear wavy boundary.
B2 t	16-24"	Olive (2.5Y5/4) silty clay loam; moderate subangular blocky structure; friable; few fine roots, thin patchy clay film, few soft brown concentrations; few fine distinct strong brown (7.5YR5/6), few fine faint pale brown (10YR6/3) mottles; strongly acid; clear wavy boundary.
B x	24-42"	Strong brown (7.5YR5/6), light gray (10YR7/1), light olive brown (2.5Y5/4) mottles;silty clay loam; moderate medium subangular blocky structure; hard, firm, very compact and brittle; many thin patchy clay films on ped faces; few black concretions; few small pebbles; very strongly acid.

Leesburg gravelly sandy loam (SOIL SERIES)

574-A1-55-5-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.4	4.29	2.72	1.25	0.18	0.13	36.60
B1	6-10"	4.8	4.69	3.92	0.52	0.11	0.13	16.47
B21t	10-23"	4.7	5.91	5.20	0.48	0.09	0.12	12.01
B22t	23-30"	4.8	7.17	5.76	1.04	0.21	0.14	19.69
B23t	30-45"	4.8	7.13	6.08	0.72	0.23	0.09	14.81
B3	45-60"	4.7	6.52	6.08	0.25	0.08	0.10	6.83

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	44.2	49.2	6.6
B1	38.1	47.0	14.9
B21t	29.4	48.1	22.5
B22t	29,3	46.8	24.9
B23t	30.5	42.7	26.8
B3	32.6	42.2	25.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	%	.02-2mm Mineralogy	%	<2µm Mineralogy	%	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	90+	Siliceous					
	10%	Sandstone fragments with med. and stony iron coating.					

LEESBURG GRAVELLY SANDY LOAM S74AL-55-5-(1-6)

CLASSIFICATION: Typic Paleudults, fine-loamy siliceous, thermic.

LOCATION: Etowah County, NE¼, NE¼, Sec. 24, T 12E, R 6 E.

USE AND NATIVE VEGETATION: Idle cropland. Native vegetation was hardwood forest.

PARENT ROCK OR REGOLITH: Alluvial from sandstone, shale, and limestone uplands.

POSITION: Gently sloping to moderately steep high terraces.

DRAINAGE AND PERMEABILITY: Well drained, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, W. V. Anderson, 8-26-74. C. F. Montgomery, 6-20-74

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Brown (10YR 4/3) gravelly sandy loam; weak fine granular structure; very friable; strongly acid; 75 percent gravel on surface and 25 percent gravel in horizon; few fine and medium roots; strongly acid; clear smooth boundary.
B1	6-10"	Yellowish brown (10YR 5/6) gravelly loam; weak medium subangular blocky structure; friable; few fine and medium roots; 20 percent gravel; clay bridgings and coatings on sand grains; very strongly acid; gradual wavy boundary.
B21t	10-23"	Yellowish brown (10YR 5/6) gravelly loam with common medium distinct strong brown mottles; moderate medium subangular blocky structure; friable; few fine and medium roots; 25 percent gravel; very thin patchy clay film; very strongly acid; gradual wavy boundary.
B22t	23-30"	Strong brown (7.5YR 5/6) gravelly loam with few fine distinct yellowish brown (10YR 5/6) and light yellowish brown (10YR 6/4) mottles; strong medium subangular blocky structure; friable; few fine and medium roots; 25 percent gravel; very thin patchy clay film; very strongly acid; gradual wavy boundary.
B23t	30-45"	Mottled pale brown (10YR 6/3), yellowish brown (10YR 5/8), strong brown (7.5YR 5/6), yellowish red (5YR 5/6) and red (2.5YR 4/6) gravelly loam; strong medium subangular blocky structure; firm; 35 to 40 percent gravel; very thin patchy clay films, very strongly acid; gradual wavy boundary.
B3	45-60"	Mottled strong brown (7.5YR 5/8), red (2.5YR 4/8), yellowish red (5YR 5/8), brownish yellow (10YR 6/6), and light gray (10YR 7/2) gravelly loam; moderate medium subangular blocky structure; firm; 25 percent gravel; very thin patchy clay films; very strongly acid.

Louisa gravelly sandy loam (Taxadjunct) — S73 A1-15-21-(1-3)
(SOIL SERIES) — (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-4"	4.5	6.17	5.84	0.16	0.05	0.11	5.38
B1	4-13"	4.9	3.68	3.52	0.08	0.02	0.05	4.42
B2	13-19"	4.8	3.51	3.36	0.08	0.02	0.04	4.28

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	64.8	26.4	8.8
B1	57.0	33.2	9.8
B2	49.9	36.1	14.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2	28	mica					

LOUISA GRAVELLY SANDY LOAM (TAXADJUNCT) S73 Al-15-21-(1-3)

CLASSIFICATION: Ruptic Ultic Dystrochrepts, loamy, siliceous, thermic, shallow

LOCATION: Cleburne County, Alabama. Approximately 3 miles northeast of Micaville (SE¼, NW¼, Sec. 28, T17S, R11E). Photo CPK-1EE-234.

USE AND NATIVE VEGETATION: Mixed coniferous and deciduous forest, present and past.

PARENT ROCK OR REGOLITH: Mica schist

DRAINAGE AND PERMEABILITY: Well drained and moderately rapid permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, 12/3/73

HORIZON	DEPTH	DESCRIPTION
01	1-0"	Partially decomposed oak leaf litter.
A1	0-4"	Dark brown (10YR4/3) gravelly sandy loam; weak medium granular structure; very friable; many fine and medium and few large roots; common fine mica flakes; strongly acid; clear wavy boundary.
B1	4-13"	Dark yellowish brown (10YR4/4) gravelly sandy loam; weak medium subangular blocky structure; very friable; common fine and medium roots; many fine root pores; common fine mica flakes; strongly acid; clear wavy boundary.
B2	13-19"	Dark brown (7.5YR4/4) gravelly loam; weak medium subangular blocky structure; friable; common fine and medium roots; many fine root pores; common fine mica flakes; strongly acid; clear irregular boundary.
C	19-25"	Moderately weathered, fragmented mica schist.

REMARKS: Less than 40% by weight of mica.

Madison gravelly fine sandy loam (SOIL SERIES)

S68-Al-14-1-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.1	5.96	4.80	0.79	0.22	0.15	19
B21t	5-12"	5.1	6.28	4.56	1.33	0.26	0.13	27
B22t	12-28"	5.3	7.89	5.68	1.80	0.32	0.09	28
B3	28-40"	5.1	6.09	5.68	0.14	0.17	0.10	7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	58.3	26.5	15.2
B21t	40.4	29.5	30.1
B22t	35.4	17.2	47.4
B3	45.9	14.9	39.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3
B22t			30	Kaolinite			7.28
			20	Gibbsite			
B3							7.14

MADISON GRAVELLY FINE SANDY LOAM S68-Al-14-1-(1-5)

CLASSIFICATION: Typic Hapludults; clayey, kaolinitic, thermic family.

LOCATION: Clay County, Alabama; SW¼, SW¼ Sec. 8 T18S R9E; 3/4 mile north of Goodhope Baptist Church.

USE AND NATIVE VEGETATION: Loblolly pine forest (old field). Native vegetation was mixed hardwood forest with some pine.

PARENT ROCK OR REGOLITH: Mica schist.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr. December 1, 1969 and June 19, 1968.

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Brown (10YR 4/3) gravelly fine sandy loam; weak fine granular structure; very friable; common fine roots; few mica flakes; 20 percent angular quartz and schist fragments mostly less than 3 inches in diameter; strongly acid; abrupt smooth boundary.
B21t	5-12"	Yellowish red (5YR 4/6) clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common mica flakes; 5 percent angular fragments less than ¼ inch in diameter; very thin patchy clay films; strongly acid; clear smooth boundary.
B22t	12-28"	Red (2.5YR 4/6) clay; moderate to strong medium subangular blocky structure; friable; many mica flakes; 5 percent angular fragments less than ¼ inch in diameter; thin clay films on most ped faces; strongly acid; gradual wavy boundary.
B3	28-40"	Red (2.5YR 4/6) clay loam; weak fine and medium subangular blocky structure; friable; many mica flakes; 10 percent angular fragments less than one inch in diameter; strongly acid; gradual wavy boundary.

Madison gravelly sandy loam (SOIL SERIES)

S69-Al-14-5-(1-3) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-4"	4.6	5.30	4.56	0.56	0.09	0.09	14
B21t	4-21"	5.1	6.84	4.88	1.68	0.19	0.09	29
B22t	21-33"	5.0	6.45	6.00	0.19	0.16	0.10	7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	63.0	18.4	18.6
B21t	33.0	22.2	44.8
B22t	27.1	24.3	48.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t							7.85
B22t							9.78

MADISON GRAVELLY SANDY LOAM S69-Al-14-5-(1-4)

CLASSIFICATION: Typic Hapludults; clayey, kaolinitic, thermic family

LOCATION: Clay County, Alabama: SW¼ SE¼ Sec. 27 T20S R8E; .4 mile north of G. M. Pruitt Dairy Barn.

USE AND NATIVE VEGETATION: Pasture of Bermudagrass, crabgrass and sedge. Native vegetation was mixed hardwood with some pine.

PARENT ROCK OR REGOLITH: Mica schist.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr. December 2, 1969.

HORIZON	DEPTH	DESCRIPTION
Ap	0-4"	Dark brown (7.5YR 4/4) gravelly sandy loam; weak medium granular structure; very friable; common fine roots; common fine mica flakes; 15-20 percent schist fragments mostly less than ½ inch; very strongly acid; abrupt smooth boundary.
B21t	4-21"	Red (2.5YR 4/8) clay; moderate fine and medium subangular blocky structure; friable; few fine roots; common fine and medium mica flakes; patchy to continuous clay films; strongly acid; gradual smooth boundary.
B22t	21-33"	Red (2.5YR 4/6) clay; weak fine and medium subangular blocky structure; friable; few fine roots; common fine and medium mica flakes; patchy clay films; very strongly acid; clear irregular boundary.
R	33-53"	Highly weathered mica schist with original rock structure; few thin tongues of B22t extending downward 5-10".

Madison fine sandy loam (SOIL SERIES)

S73-A1-15-14-(1-2) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-5"	5.0	3.12	2.64	0.35	0.07	0.06	15.4
B2t	5-38"	5.2	7.09	6.08	0.62	0.34	0.05	14.3

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	62.9	28.9	8.2
B2t	33.1	22.5	44.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t			15	Gibbsite			7.7%
			19	Kaolinite			

MADISON GRAVELLY FINE SANDY LOAM S73-Al-15-14-(1-2)

CLASSIFICATION: Typic Hapludults; clayey, kaolinitic (oxidic), thermic

LOCATION: Cleburne County, Alabama. Approximately 2¼ miles NE of Micaville (NW¼, SE¼, Sec. 29, T17S, R11E). Photo CPK-1EE-234.

USE AND NATIVE VEGETATION: Coniferous forest at present. Mixed forest in past.

PARENT ROCK OR REGOLITH: Mica Schist

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, September 6, 1972

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Dark yellowish brown (10YR 4/4) gravelly fine sandy loam; weak medium granular structure; friable; common fine and medium roots; common fine mica flakes; 10 percent, by volume, angular schist fragments less than 3 inches in diameter, and 10 percent, 3 to 6 inch schist fragments; medium acid; clear smooth boundary.
B2t	5-38"	Red (2.5YR 4/6) clay; moderate fine and medium subangular blocky structure; friable; few fine roots; common root pores; thin continuous clay coatings on ped faces; common fine mica flakes; 10 percent, by volume, angular schist fragments; medium acid; clear irregular boundary.
R	38-80"	Slightly weathered mica schist; difficult to cut; 10 percent thin clay lenses.

McQueen Taxadjunct silt loam
(SOIL SERIES)

S69 Al-10-3-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n
			meq/100 g					%
Ap	0-7"	4.8	6.83	4.08	2.12	0.35	0.28	40
B21t	7-15"	4.9	9.59	6.00	2.97	0.46	0.16	37
B22t	15-22:	4.7	9.43	6.32	2.56	0.43	0.12	33
B23t	22-48"	4.7	9.24	6.16	1.96	1.00	0.12	33
B3t	48-66"	4.9	8.44	4.20	1.28	1.83	0.13	38
C	66-84"	5.0	7.78	4.64	0.98	2.01	0.15	40

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	31.3	50.7	18.0
B21t	16.3	46.6	37.1
B22t	15.9	48.3	35.8
B23t	8.3	54.5	37.2
B3t	33.3	39.1	27.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

McQUEEN TAXADJUNCT SILT LOAM S69 Al-10-3-(1-6)

CLASSIFICATION: Ultic Hapludalfs, fine, mixed, thermic

LOCATION: Cherokee County, Al. NW¼, SE¼, Sec. 28; T10S, R9E. About 1½ miles SW of Centre, Al., and ¼ mile NE of Coosa River Bridge. Photograph GT-2CC-170.

USE AND NATIVE VEGETATION: Present use is cropland, and native vegetation was hardwood forest.

PARENT ROCK OR REGOLITH: Alluvium from shale, chert, and sandstone uplands.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. B. Neal, L. A. Dungan, 8/21/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Dark yellowish brown (10YR4/4) silt loam; weak fine and medium granular structure; very friable; many fine roots; very strongly acid; clear smooth boundary.
B21t	7-15"	Strong brown (7.5YR5/6) silty clay loam; moderate medium angular blocky structure; firm; few fine roots; very thin patchy clay film; very strongly acid, gradual wavy boundary.
B22t	15-22"	Strong brown (7.5YR5/6) silty clay loam with common medium distinct yellow and brown mottles; moderate medium subangular blocky structure; firm; common very thin clay film; few manganese stains; many small mica flakes; very strongly acid; gradual wavy boundary.
B23t	22-48"	Strong brown (7.5YR5/6) silty clay loam with common medium distinct yellow and brown mottles; moderate medium subangular blocky structure; firm; common very thin clay film; few manganese stains; very strongly acid; gradual wavy boundary.
B3t	48-66"	Strong brown (7.5YR5/6) clay loam with common medium distinct yellow and brown, and gray mottles; weak medium subangular blocky structure; friable; few manganese stains; many small mica flakes; very strongly acid; clear wavy boundary.
C	66-84"	Strong brown (7.5YR5/6) loam with common medium distinct yellow and gray mottles; massive; friable; very strongly acid; many small mica flakes.

REMARKS: Included with McQueen in mapping.

Mecklenburg gravelly loam (SOIL SERIES)

S69-Al-14-3-(1-2) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	6.3	11.35	3.52	6.48	0.83	0.52	69
B2t	6-45"	6.3	10.53	5.04	4.74	0.66	0.09	52

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	33.9	43.4	22.7
B2t	14.1	29.9	56.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2µm %	<0.2µm Mineralogy	Free Iron % Fe_2O_3
B2t			45	Kaolinite			
			0	Gibbsite			

MECKLENBURG GRAVELLY LOAM S69-Al-14-3-(1-3)

CLASSIFICATION: Ultic Hapludalfs, fine, mixed, thermic.

LOCATION: Clay County, Alabama; NW¼ SW¼ Sec. 7 T21S R7E; 3/4 mile SE Oak Hill Church, 2.4 miles NW of Millerville.

USE AND NATIVE VEGETATION: Cropland, grain sorghum. Native vegetation was mixed hardwoods with some pine.

PARENT ROCK OR REGOLITH: Hillabee Chloritic schist.

DRAINAGE AND PERMEABILITY: Well drained and slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr. November 25, 1969.

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark reddish brown (5YR 3/4) gravelly loam; moderate medium granular structure; friable; few to common fine roots; 15 percent quartz fragments mostly less than one inch; slightly acid; abrupt smooth boundary.
B2t	6-45"	Red (2.5YR 4/6) clay; weak fine subangular blocky structure; friable; few fine roots; patchy clay film; at 40-45" fragments of partially weathered bedrock occupies 30 percent by volume; slightly acid; gradual irregular boundary.
R	45"	Hillabee schist bedrock.

Mecklenburg loam
(SOIL SERIES)

S73-Al-15-17-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.8	8.09	3.92	2.48	1.59	0.10	51.6
B21t	5-11"	6.0	9.01	4.32	2.60	2.05	0.04	52.1
B22t	11-25"	6.0	13.56	5.28	4.15	4.10	0.03	61.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	29.6	56.2	14.2
B21t	32.7	47.4	19.9
B22t	28.2	42.8	24.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

MECKLENBURG LOAM S73-Al-15-17-(1-3)

CLASSIFICATION: Typic Hapludalfs; fine-loamy, mixed, thermic

LOCATION: Cleburne County, Alabama. Approximately ¼ mile north of Chulafinnee Creek beside Alabama Highway 9 (Sec. 19, T17S, R10E). Photo CPK-3EE-28.

USE AND NATIVE VEGETATION: Idle cropland at present. Decidous forest in past.

PARENT ROCK OR REGOLITH: Hillabee chlorite schist.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, July 5, 1973.

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Dark reddish brown (5YR 3/4) loam; moderate medium granular structure; friable; common fine roots; 10 percent schist fragments; slightly acid; clear smooth boundary.
B21t	5-11"	Yellowish red (5YR 4/6) loam ; moderate medium subangular blocky structure; friable; few fine roots; thin discontinuous clay films; neutral; gradual wavy boundary.
B22t	11-25"	Red (2.5YR 4/6) loam; moderate medium subangular blocky structure; friable; few fine roots; thin discontinuous clay films; neutral; gradual irregular boundary.
C	25-35"	Highly weathered schist with relict rock structure.
R	35-50"	Schist bedrock.

REMARKS: Included in Mecklenburg association, rolling in mapping.

Mecklenburg gravelly loam (Taxadjunct) — (SOIL SERIES)

S73 A1-15-22-(1-3) — (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-4"	5.5	13.49	4.72	6.00	2.62	0.15	65.03
B2t	4-24"	6.4	9.59	4.64	1.40	3.52	0.03	51.65

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	23.7	54.7	21.6
B2t	11.0	58.4	30.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	%	.02-2mm Mineralogy	%	<2μm Mineralogy	%	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

MECKLENBURG GRAVELLY SILT LOAM (Taxadjunct) S73 Al-15-22-(1-3)

CLASSIFICATION: Ultic Hapludalfs, fine silty, mixed, thermic

LOCATION: Cleburne County, Alabama. South of U.S. Highway 431 near Chulafinnee (SE¼, NW¼, Sec. 13 T17S, R9E). Photo CPK-3EE-38.

USE AND NATIVE VEGETATION: Mixed coniferous and deciduous forest at present. Deciduous forest in past.

PARENT ROCK OR REGOLITH: Hillabee chlorite schist

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, 11/5/73

HORIZON	DEPTH	DESCRIPTION
A1	0-4"	Reddish brown (5YR4/4)silt loam; moderate medium granular structure; friable; many fine and medium roots; 15 percent schist fragments; slightly acid; clear wavy boundary.
B2t	4-24"	Red (2.5YR4/6) silty clay loam; moderate medium subangular blocky structure; friable; few fine and medium roots; common fine root pores; few weathered schist fragments; moderately thick continuous clay films on ped surfaces; slightly acid; gradual irregular boundary.
C	24-60"	Weathered chlorite schist saprolite.

Mecklenburg loam (SOIL SERIES)

S74 A1-81-3-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.7	4.12	2.96	0.78	0.34	0.04	28.16
B21t	7-21"	5.5	8.64	5.04	1.61	1.94	0.05	41.66
B22t	21-29"	6.4	7.48	3.68	1.34	2.42	0.05	50.81
B3	29-41"	6.7	6.61	2.96	1.08	2.48	0.09	55.19
C	41-45"	7.0	5.69	2.32	0.68	2.57	0.12	59.26

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	24.2	66.6	9.2
B21t	9.0	46.4	44.6
B22t	10.5	46.7	42.8
B3	17.2	44.8	38.0
C	15.5	50.1	34.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

MECKLENBURG LOAM S74 Al-81-3-(1-5)

CLASSIFICATION: Ultic Hapludalfs, fine, mixed, thermic

LOCATION: Lee County, Alabama; 1 mile northwest of Goat Rock Dam
SW¼ SW¼ Sec. 24 T19N R29E

USE AND NATIVE VEGETATION: Pine forest. Native vegetation is presumed to have been mixed hardwood and pine forest.

PARENT ROCK OR REGOLITH: Hornblende Schist

DRAINAGE AND PERMEABILITY: Well drained and slow permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt, M. Tuck, R. Hoyum, R. W. Stevens, 8/14/74, 1/15/74

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Brown (10YR5/4) loam, weak medium granular structure; friable; few fine roots, medium acid, abrupt smooth boundary.
B21t	7-21"	Red (10R4/6) clay; moderate medium subangular blocky structure; firm; medium acid; clear smooth boundary.
B22t	21-29"	Red (10R4/6) clay with common fine distinct mottles of yellowish red; moderate medium subangular blocky structure; firm; medium acid; clear smooth boundary.
B3	29-41"	Red (2.5YR4/6) clay loam with common medium distinct mottles of yellowish red and strong brown; weak medium subangular blocky structure; friable; slightly acid; clear smooth boundary.
C	41-45"	Red (2.5YR4/6), yellowish red (5YR5/6) and strong brown (7.5YR6/6) sandy loam; rock controlled structure; slightly acid.

REMARKS: Will be correlated as a taxadjunct to Mecklenburg - Solum slightly too thick and textures too silty; small acreage unit.

Mountview silt loam (SOIL SERIES)

S75 Al. 83-2 (1-7) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	4.8	5.53	4.16	0.99	0.25	0.12	24.84
B1	6-10"	4.8	5.11	4.08	0.76	0.16	0.11	20.20
B21t	10-20"	4.8	5.94	4.56	1.04	0.27	0.06	23.23
B22t	20-25"	4.6	7.25	5.84	0.93	0.41	0.07	19.54
II B23t	25.36"	4.8	7.34	6.72	0.22	0.34	0.05	8.54
II B24t	36-56"	4.7	7.74	7.36	0.12	0.20	0.05	5.00
II B25t	56-84"	4.6	8.04	7.76	0.12	0.11	0.03	3.55

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	12.1	73.9	14.0
B1	14.5	72.1	13.4
B21t	12.2	66.1	21.7
B22t	12.1	61.7	26.2
IIB23t	9.5	54.8	35.7
IIB24t	9.8	49.1	41.1
IIB25	12.2	41.4	46.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

MOUNTVIEW SILT LOAM S75 Al. 83-2 (1-7)

CLASSIFICATION: Fine-silty, siliceous, thermic family of Typic Paleudults.

LOCATION: Limestone County, Alabama, SW¼, SW¼ Sec. 12; T3S; R5W.
0.25 mile west of intersection of Lucas Ferry Road and U.S.-72 (Athens) on north bank of U.S. 72. Photo HJ-3A-81

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation was hardwoods.

POSITION: Upland

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen, 10-14-75

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Brown (10YR 5/3) silt loam; weak medium granular structure; friable; common fine roots; few pebbles; strongly acid; abrupt smooth boundary.
B1	6-10"	Yellowish brown (10YR 5/4) silt loam; weak medium subangular blocky structure; friable; few fine roots; few pebbles; slightly compact; very strongly acid; clear smooth boundary.
B21t	10-20"	Yellowish brown (10YR 5/6) silt loam; moderate medium subangular blocky structure; friable; few fine roots; patchy clay films on faces of some peds; few fine black concretions; few chert fragments; very strongly acid; gradual smooth boundary.
B22t	20-25"	Strong brown (7.5YR 5/6) silt loam; moderate medium subangular blocky structure; friable; few fine roots, patchy clay films on some peds; few fine black concretions; very strongly acid; clear wavy boundary.
IIB23t	25-36"	Red (2.5YR 4/6) silty clay loam, with pockets of brown (7.5 YR 4/4), dark yellowish brown (10YR 4/4) and pale brown (10YR 6/3); moderate medium subangular blocky structure; friable; about 20% of mass firm brittle; few fine roots; common fine black concretions; continuous clay films on faces of some peds that have slightly lower values than ped interiors; very strongly acid; gradual wavy boundary.
IIB24t	36-56"	Red (2.5YR 4/8) silty clay, with veins and pockets of strong brown (7.5 YR 5/6) and light gray (10YR 7/1); moderate medium subangular blocky structure; firm; common medium and fine concretions; few chert fragments, continuous clay films on faces of some peds that have slightly lower values than ped interiors; very strongly acid; gradual smooth boundary.
IIB25t	56-84"	Red (2.5YR 4/8) silty clay, with many medium and large light gray (10YR 7/1) and strong brown (7.5YR 5/6) mottles; moderate medium subangular blocky structure; firm; common black concretions, continuous clay films on some ped faces; very strongly acid.

Nella gravelly loam (SOIL SERIES)

574-A1-55-2-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A	0-5"	5.4	16.50	6.88	7.08	2.01	0.51	58.31
B1	5-9"	4.8	5.21	4.80	0.19	0.04	0.17	8.01
B21t	9-20"	4.8	5.55	5.12	0.19	0.07	0.16	7.81
B22t	20-65"	4.7	6.12	5.68	0.16	0.15	0.12	7.19

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	47.2	44.6	8.2
B1	44.3	38.1	17.6
B21t	32.3	45.5	22.2
B22t	36.0	38.3	25.7

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3
B21t	95+	Quartz and aggregates forming sandstone pieces.					

NELLA GRAVELLY LOAM S74A1. 55-2(1-4

CLASSIFICATION: Typic Paleudults; fine-loamy, siliceous, thermic.

LOCATION: Etowah County: SW¼ of SW¼, Sec. 28, T 12 S, R 6 E

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation was hardwood forest.

PARENT ROCK OR REGOLITH: Sandstone and shale.

POSITION: Gently sloping to sloping uplands.

DRAINAGE AND PERMEABILITY: Well drained, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 5-29-79.

HORIZON	DEPTH	DESCRIPTION
A	0-5"	Dark brown (7.5YR 3/2) gravelly loam; weak fine granular structure; very friable; 45 percent sandstone gravel; many fine roots; medium acid; clear wavy boundary.
B1	5-9"	Mixed reddish brown (5YR 4/4) and yellowish red (5YR 4/6) gravelly loam; weak medium subangular blocky structure; friable; 15 percent sandstone fragments; few fine and medium roots; clay bridges and coatings on sand grains; very strongly acid; gradual wavy boundary.
B21t	9-20"	Yellowish red (5YR 4/6) gravelly loam; moderate medium subangular blocky structure; friable; 20 percent sandstone fragments with about 2 percent over 3 inches in size; few fine and medium roots; clay bridges and coatings on sand grains and very thin patchy clay films; extremely acid; gradual wavy boundary.
B22t	20-65"	Yellowish red (5YR 4/8) gravelly loam with few very dark brown stains; moderate medium subangular blocky structure; 10 percent sandstone fragments with about 2 percent over 3 inches in size; few medium roots; clay bridges and coatings on sand grains and very thin patchy clay films; extremely acid.

Ochlockonee loamy fine sand
(SOIL SERIES)

S72-Al-15-10-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-9"	5.2	3.02	2.72	0.18	0.07	0.05	9.9
C1	9-20"	5.0	3.04	2.88	0.10	0.02	0.04	5.3
C2	20-37"	5.1	2.50	2.24	0.12	0.08	0.05	10.2
C3	37-80"	5.0	3.27	2.96	0.18	0.09	0.04	9.5

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	81.1	10.8	8.1
C1	74.6	17.8	7.6
C2	71.3	21.0	7.7
C3	67.9	21.8	10.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

OCHLOCKONEE LOAMY FINE SAND S72-Al-15-10-(1-5)

CLASSIFICATION: Typic Udifluvents, coarse-loamy, siliceous, acid, thermic family

LOCATION: Cleburne County, Alabama. Two miles south of Muscadine (SW¼, NW¼, Sec. 21, T15S, R12E.) Photo CPK-1EE-60.

USE AND NATIVE VEGETATION: Deciduous forest, present and past.

PRESENT ROCK OR REGOLITH: Recently deposited alluvium from Tallapoosa River.

DRAINAGE AND PERMEABILITY: Well drained-moderately rapid permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, August 7, 1972

HORIZON	DEPTH	DESCRIPTION
A1	0-9"	Brown (10YR 4/3) loamy fine sand; weak granular structure; loose; many fine, medium and large roots; few fine root pores; many fine mic flakes; slightly acid; gradual wavy boundary.
C1	9-20"	Dark yellowish brown (10YR 4/4) fine sandy loam single grained; loose; common fine and medium roots; few fine root pores; many fine mica flakes; medium acid; gradual wavy boundary.
C2	20-37"	Brown (7.5YR 4/4) fine sandy loam; few fine faint mottles of yellowish brown (10YR 5/4); single grained; loose; common fine and medium roots, few fine root pores; many fine mica flakes; medium acid; diffuse wavy boundary.
C3	37-80"	Strong brown (7.5YR 5/6) fine sandy loam; few fine faint mottles of pale brown (10YR 6/3); single grained; very friable; few fine and medium roots; common fine root pores; many fine mica flakes; strongly acid.
C4	80-104"	Mottled reddish yellow (7.5YR 6/6) and light yellowish brown (10YR 6/4) fine sandy loam; single grained; very friable

Pacoletgravelly sandy loam
(SOIL SERIES)

S74 Al-81-1-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A	0-6"	5.0	5.65	4.40	0.77	0.34	0.13	22.08
B1	6-11"	5.1	5.00	3.76	0.75	0.40	0.08	24.74
B2t	11-23"	5.5	5.73	4.00	1.21	0.43	0.08	30.15
B3	23-33"	5.4	4.40	3.76	0.41	0.19	0.05	14.54
C	33-40"	5.2	3.26	2.80	0.28	0.16	0.03	14.22

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	59.1	25.2	15.7
B1	45.4	19.2	35.4
B2t	41.5	15.3	43.2
B3	51.5	16.8	31.7
C	67.1	13.9	19.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

PACOLET GRAVELLY SANDY LOAM S74 Al-81-1-(1-5)

CLASSIFICATION: Typic Hapludults, clayey, kaolinitic, thermic

LOCATION: Lee County, Alabama; 6.2 miles NE of Opelika
SE¼ NE¼ Sec. 25 T20N R27E

USE AND NATIVE VEGETATION: Pine Forest. Native vegetation is presumed to have been mixed hardwood and pine forest.

PARENT ROCK OR REGOLITH: Mica Schist

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt, M. Tuck, R. Hoyum, R. W. Stevens, 8/13/74, 3/5/74

HORIZON	DEPTH	DESCRIPTION
A	0-6"	Brown (10YR4/3) gravelly sandy loam; weak fine granular structure; very friable; common fine roots; 10 to 15 percent angular fragments less than one inch; common mica flakes; medium acid; abrupt smooth boundary.
B1	6-11"	Yellowish red (5YR5/6) clay loam; weak medium subangular blocky structure; friable; thin patchy clay film on ped faces; few fine roots; common mica flakes; strongly acid; clear smooth boundary.
B2t	11-23"	Red (2.5YR5/6) clay; moderate medium subangular blocky structure; friable; nearly continuous clay film on ped faces; common mica flakes; strongly acid; gradual wavy boundary.
B3	23-33"	Red (5YR5/6) sandy loam; weak medium subangular blocky structure; very friable; thin patchy clay film on ped faces; many mica flakes; strongly acid; gradual wavy boundary.
C	33-40"	Soft multi-colored mica schist.

Riverview silty clay loam
(SOIL SERIES)

S70-Al-14-4-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6	5.0	9.14	5.52	2.68	.85	.09	39.60
C1	6-30	5.6	6.16	3.20	2.42	.49	.05	48.05
C2	30-41	5.3	7.34	5.12	1.84	.34	.04	30.24
C3	41-61	5.1	5.56	4.00	1.07	.32	.17	28.05

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	9.3	62.8	27.9
C1	33.2	45.4	21.4
C2	19.9	57.7	22.4
C3	35.5	26.7	17.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

RIVERVIEW SILTY CLAY LOAM S70-Al-14-4-(1-5)

CLASSIFICATION: Fluventic Dystrochrepts, fine-loamy, mixed, thermic.

LOCATION: Clay County, Alabama; NE¼ NE¼ Sec. 20 T18S R9E; 1 3/4 miles NW of Delta on Ketchepedrakee Creek.

USE AND NATIVE VEGETATION: Coastal Bermuda for hay. Native vegetation was mixed bottom-land hardwoods of gum, poplar and oak.

PARENT ROCK OR REGOLITH: Alluvial sediments

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, May 13, 1970

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Brown (7.5YR 4/4) silty clay loam; weak fine granular structure; friable; common fine roots; few fine mica flakes; strongly acid; clear smooth boundary.
C1	6-30"	Reddish brown (5YR 4/4) loam; massive; friable; few fine roots; common to many fine mica flakes; few thin to very thin of sandy loam; slightly acid; gradual smooth boundary.
C2	30-41"	Brown (10YR 4/3) silt loam; massive; friable; common fine mica flakes; slightly acid; gradual smooth boundary.
C3	41-61"	Brown (10YR 4/3) silt loam with few to common fine distinct mottles of grayish brown; massive; friable; common fine mica flakes; medium acid, gradual smooth boundary.
C4	61-65"	Mottled gray (10YR 6/1) dark grayish brown (10YR 4/2) and yellowish brown (10YR 5/6) loam; massive; friable; common to many fine mica flakes; strongly acid.

Riverview loam (SOIL SERIES)

S73-Al-15-12-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-10"	4.5	6.24	5.84	0.27	0.06	0.07	6.4
B2	10-39"	4.6	6.75	6.32	0.35	0.03	0.05	6.4
C1	39-52"	4.7	3.61	3.28	0.25	0.03	0.05	9.1
C2	52-64"	4.6	3.70	3.44	0.19	0.02	0.05	7.0

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	40.1	44.9	15.0
B2	27.8	53.4	18.8
C1	56.3	30.1	13.6
C2	63.5	25.3	11.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 m %	< 0.2 m Mineralogy	Free Iron % Fe_2O_3

No data obtained

RIVERVIEW LOAM S73-Al-15-12-(1-4)

CLASSIFICATION: Fluventic Dystrochrepts, fine-loamy, mixed thermic.

LOCATION: Cleburne County Alabama. Approximately 3 miles SW of Borden Springs, near Terrapin Creek (NW¼, SW¼, Sec. 8 T13S, R11E). Photo CPK-1EE-204.

USE AND NATIVE VEGETATION: Deciduous forest, past and present.

PARENT ROCK OR REGOLITH: Recently deposited alluvium.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, July 20, 1972

HORIZON	DEPTH	DESCRIPTION
A1	0-10"	Brown (10YR 4/3) loam; weak medium granular structure; friable; common fine and medium roots; many fine root pores; strongly acid; gradual smooth boundary.
B2	10-39"	Brown (7.5YR 4/4) silt loam; weak medium subangular blocky structure; friable; few fine and medium roots; many fine root pores; strongly acid; gradual smooth boundary.
C1	39-52"	Brown (7.5YR 4/4) sandy loam; few medium distinct yellowish brown (10YR 5/4) mottles; friable; strongly acid; gradual smooth boundary.
C2	52-64"	Brown (7.5YR 4/4) sandy loam; few medium distinct yellowish brown (10YR 5/4) mottles; strongly acid; gradual smooth boundary.
C3	64-71"	Mottled olive (5Y 5/4) and yellowish brown (10YR 5/4) silt loam.

Spadra fine sandy loam
(SOIL SERIES)

S71 Al-5-1-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.5	4.22	2.40	1.56	0.25	0.01	43.1
B21t	5-22"	5.0	6.88	4.88	1.74	0.25	0.01	29.1
B22t	22-31"	5.1	5.87	4.48	1.18	0.20	0.01	23.6
B23t	31-46"	5.1	5.02	4.08	0.79	0.14	0.01	18.7
B3	46-63"	4.8	4.21	3.76	0.37	0.07	0.01	10.7
C	63-75"	4.7	4.77	4.24	0.44	0.08	0.01	11.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	57.1	32.7	10.2
B21t	40.7	33.4	25.9
B22t	46.2	33.4	20.4
B23t	48.2	35.4	16.4
B3	49.2	28.6	22.2
C	54.5	33.3	12.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2μm %	<0.2μm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

SPADRA FINE SANDY LOAM S71 Al-5-1-(1-6)

CLASSIFICATION: Typic Hapludults, fine-loamy, siliceous, thermic family.

LOCATION: Blount county, NE¼, NW¼ Sec 30 T13S R1E, Photo GP-2V-66

USE AND NATIVE VEGETATION: Present use is hay and pasture. Native vegetation is presumed to have been mixed hardwoods and pines.

PARENT ROCK OR REGOLITH: Alluvium from soils underlain mainly by sandstone and shale.

DRAINAGE AND PERMEABILITY: Well drained with medium to rapid runoff, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. B. Bowen and B. C. Fox, 11/5/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Dark yellowish brown (10YR 4/4) fine sandy loam; weak medium granular structure; very friable; common fine roots; few sandstone pebbles; few fine mica flakes; strongly acid; abrupt smooth boundary.
B21t	5-22"	Yellowish red (5YR 5/6) loam; moderate medium subangular blocky structure; clay films on faces of peds; few fine roots; few sandstone pebbles, few black coatings on some peds; few fine mica flakes; very strongly acid; clear smooth bounday.
B22t	22-31"	Yellowish red (5YR 5/6) loam; weak medium subangular blocky structure; friable; few patchy clay films on some faces of peds; few black coatings on some peds; few fine roots; few fine mica flakes; strongly acid; clear smooth boundary.
B23t	31-46"	Strong brown (7.5YR 5/6) loam; weak medium subangular blocky structure; friable; few patchy clay films on some faces of peds; few black coatings on some peds; few fine roots; few fine mica flakes; strongly acid; clear smooth boundary.
B3	46-63"	Yellowish brown (10YR 5/6) loam; weak medium subangular blocky structure, friable; few fine roots; few black coatings on some peds; few fine mica flakes; very strongly acid; clear smooth boundary.
C	63-75"	Dark yellowish brown (10YR 4/4) sandy loam; massive; very strongly acid.

State loam (SOIL SERIES)

S73-Al-15-13-(2-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A12	2-6"	4.9	6.35	5.04	1.06	0.18	0.07	20.6
B21t	6-27"	4.7	5.81	5.20	0.42	0.14	0.05	10.5
B22t	27-40"	4.7	6.99	6.48	0.30	0.16	0.05	7.3
B3	40-55"	4.5	9.54	8.72	0.32	0.44	0.06	8.6

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A12	47.2	40.4	12.5
B21t	31.8	49.0	19.2
B22t	13.3	63.9	22.8
B3	16.7	51.9	31.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	90	quartz					

STATE LOAM S73-A1-15-13-(2-5)

CLASSIFICATION: Typic Hapludults; fine-loamy, mixed, thermic.

LOCATION: Cleburne County, Alabama. Approximately ¼ mile east of Pine Glen recreation area near Shoal Creek (SE¼, NW¼, Sec. 16 T1SS, R10E). Photo CPK-4EE-24.

USE AND NATIVE VEGETATION: Deciduous and coniferous forest at present. Deciduous forest in past.

PARENT ROCK OR REGOLITH: Intermediate age alluvium.

DRAINAGE AND PERMEABILITY: Well drained and moerately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, 7-21-72

HORIZON	DEPTH	DESCRIPTION
A11	0-2"	Brown (10YR 4/3) loam; weak medium granular structure; very friable; many fine and medium and few large roots; common fine root pores; strongly acid; gradual smooth boundary.
A12	2-6"	Dark yellowish brown (10YR 4/4) loam; weak medium granular structure; very friable; many fine and medium and few large roots; common fine root pores; strongly acid; clear smooth boundary.
B21t	6-27"	Yellowish brown (10YR 5/6) loam; moderate, medium subangular blocky structure; friable; common fine root pores; thin patchy clay films; strongly acid; gradual wavy boundary.
B22t	27-40"	Mottled yellowish brown (10YR 5/6), strong brown (7.5YR 5/6), and light yellowish brown (10YR 6/4) silt loam; moderate coarse and medium subangular blocky structure; friable; common fine and medium roots; common fine root pores; thin patchy clay films on coarse peds ; very strongly acid; gradual wavy boundary.
B3	40-55"	Mottled yellowish brown (10YR 5/6 & 5/4) silty clay loam; weak coarse subangular blocky structure; firm; very strongly acid; gradual wavy boundary.
C	55-60"	Mottled yellowish brown (10YR 5/6 & 5/4) sandy loam; friable; very strongly acid.

Sylacauga silt loam
(SOIL SERIES)

S72-Al-15-4-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.0	7.13	5.84	0.90	0.31	0.08	18.1
B21t	7-16"	4.7	6.66	5.60	0.68	0.31	0.07	15.9
B22t	16-65"	5.0	9.57	8.24	0.38	0.89	0.07	13.9

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	23.6	56.8	19.6
B21t	28.1	44.4	27.5
B22t	21.8	45.0	33.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

SYLACAUGA SILT LOAM S72-Al-15-4-(1-3)

CLASSIFICATION: Aeric Ochraquults; fine-loamy, mixed, thermic family

LOCATION: Cleburne County, Alabama. Approximately 1½ miles northwest of Lecta, near junction of Verdin Creek and the Tallapoosa River. (Sec. 26, T16S, R11E). Photo CPK-1EE-148.

USE AND NATIVE VEGETATION: Present use is pasture. Native vegetation was deciduous forest.

PARENT ROCK OR REGOLITH: Old Alluvium from the Tallapoosa River.

DRAINAGE AND PERMEABILITY: Somewhat poorly drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, 8-10-72

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Dark yellowish brown (10YR 4/4) silt loam with few reddish brown (5YR 4/4) mottles; moderate medium granular structure; friable common fine and medium roots; many fine root pores; medium acid; clear smooth boundary.
B21t	7-16"	Mottled light brownish gray (10YR 6/2) and yellowish brown (10YR 5/6) clay loam; moderate medium subangular blocky structure; friable; common fine and medium roots; many fine root pores; moderately thick clay coatings; strongly acid; gradual smooth boundary.
B22t	16-65"	Mottled gray (10YR 6/1) and yellowish brown (10YR 5/6) clay loam; moderate angular blocky and prismatic structure; firm; few fine roots; many fine root pores; moderately thick brown (7.5YR 5/4) clay coatings on ped surfaces; strongly acid.

REMARKS: Correlated as Sylacauga.

Tallapoosa silt loam (Taxadjunct) — (SOIL SERIES)

S73-Al-15-8-(1-3) — (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A	0-4"	4.7	9.37	8.32	0.74	0.15	0.16	11.2
B2	4-13"	4.6	7.47	7.04	0.20	0.08	0.15	5.8
C	13-19"	4.9	5.79	5.20	0.20	0.20	0.19	10.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	12.8	65.3	21.9
B2	14.6	60.6	24.8
C	43.1	29.9	27.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

TALLAPOOSA SILT LOAM (Taxadjunct) S72-Al-15-8-(1-3)

CLASSIFICATION: Ochreptic Hapludults, loamy, mixed, thermic, shallow.

LOCATION: Cleburne County, Alabama. Approximately 2½ miles north of Five Points (SE¼, SW¼, Sec. 26, T16S, R9E). Photo CPK-2EE-112.

USE AND NATIVE VEGETATION: Loblolly Pine plantation at present. Mixed forest in past.

PARENT ROCK OR REGOLITH: Talladega slate

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, September 9, 1972.

HORIZON	DEPTH	DESCRIPTION
01	1-0"	Hardwood leaf residue.
A	0-4"	Dark yellowish brown (10YR 4/4) silt loam; moderate medium granular structure; friable; common fine, medium and large roots; medium acid; clear smooth boundary.
B2	4-13"	Strong brown (7.5YR 5/6) silt loam; moderate medium subangular blocky structure; friable; common fine, medium and large roots; common root pores; thin patchy clay films; 20 percent, by volume, soft slate fragments; strongly acid; clear irregular boundary.
C	13-19"	Soft slate with yellowish red (5YR 5/6) clay loam in cracks.
R	19-40"	Moderately hard slate.

REMARKS: Mineralogy is mixed rather than micaceous (not supported by lab data).

Tatum loam
(SOIL SERIES)

S72 A1-15-6-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-5"	4.9	5.22	4.56	0.36	0.16	0.14	12.6
B2 t	5-26"	4.9	7.10	6.56	0.14	0.33	0.07	7.6
C	26-50"	5.0	2.19	1.84	0.09	0.20	0.06	16.0

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	46.1	41.8	12.1
B2 t	19.7	43.6	36.7
C	50.6	40.9	8.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

TATUM LOAM S72 Al-15-6-(1-3)

CLASSIFICATION: Typic Hapludults, clayey, mixed, thermic family

LOCATION: Cleburne County, Alabama. Approximately 1 mile north of Five-Points (NE¼, SE¼, Sec. 27, T16S, R9E). Photo CPK-2EE-134

USE AND NATIVE VEGETATION: Deciduous and coniferous forest, present and past.

PARENT ROCK OR REGOLITH: Talladega slate

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, J. S. Austin, 9/19/72

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Dark yellowish brown (10YR4/4) loam; weak medium granular structure; friable; common fine, medium and large roots; 10 percent, by volume, quartz and slate fragments less than 2 inches in diameter; strongly acid; clear smooth boundary.
B2t	5-26"	Red (2.5YR4/6) silty clay loam; moderate medium sub-angular blocky structure; friable; few fine and medium roots; common root pores; 10 percent, by volume, soft highly weathered slate fragments; moderately thick continuous clay films; strongly acid; gradual wavy boundary.
C	26-50"	Soft, highly weathered Talladega slate.

Townley loam (SOIL SERIES)

574-A1-55-7-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.3	9.75	4.08	4.45	0.72	0.49	58.18
B21t	7-12"	4.9	11.77	7.36	3.30	0.88	0.23	37.49
B22t	12-23"	4.6	14.02	11.60	1.49	0.69	0.24	17.29
B23t	23-30"	4.8	12.06	8.80	2.31	0.75	0.20	27.08
B3	30-50"	4.6	11.06	10.00	0.62	0.18	0.25	9.61

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	21.0	52.5	26.5
B21t	9.0	39.9	51.1
B22t	3.4	42.3	54.3
B23t	9.6	37.4	53.0
B3	7.5	53.7	38.8

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
45		Kaolinite					

TOWNLEY LOAM S74 Al. 55-7-(1-5)

CLASSIFICATION: Typic Hapludults; clayey, mixed thermic

LOCATION: Etowah County; SW¼ of NE¼ of Sec. 16, T12S, R3E

USE AND NATIVE VEGETATION: Home site; native vegetation was hardwood forest

PARENT ROCK OR REGOLITH: Shale

POSITION: Gently sloping to sloping uplands

DRAINAGE AND PERMEABILITY: Well drained, slow permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. B. Neal 7-73, W. V. Anderson 10-74

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Brown (7.5YR 5/4) loam; weak fine granular structure; very friable; many fine roots; slightly acid; clear smooth boundary.
B21t	7-12"	Yellowish-red (5YR 5/8) silty clay with few medium distinct brownish yellow (10YR 6/6) mottles; moderate medium subangular blocky structure; firm; few fine roots; very thin patchy clay films; strongly acid; gradual wavy boundary.
B22t	12-23"	Yellowish-red (5YR 5/6)silty clay with common medium distinct strong-brown (7.5YR 5/8), red (2.5YR 4/8) and yellowish brown (10YR 5/6) mottles; moderate medium subangular blocky structure; firm; 15 percent shale fragments; very thin patchy clay films; very strongly acid; gradual wavy boundary.
B23t	23-30"	Mottled yellowish-brown (10YR 5/6), very pale brown (10YR 7/3), red (2.5YR 4/6) and strong brown (7.5YR 5/6) clay; moderate medium subangular blocky structure; firm; 20 percent shale fragments; very thin patchy clay films; very strongly acid; gradual wavy boundary.
B3	30-50"	Mottled light gray (10YR 7/2), red (2.5YR 4/6), yellowish-brown (10YR 5/6) and strong brown (7.5YR 5/6) silty clay loam; moderate medium subangular blocky structure; firm; 40 percent shale fragments; very strongly acid; gradual irregular boundary.
R	50"	Shale bedrock

Townley shaly silt loam
(SOIL SERIES)

S74 A1-93-4-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-2"	4.5	14.44	13.36	0.71	0.12	0.23	7.51
A2	2-9"	4.6	6.11	5.92	0.06	0.03	0.10	3.25
B21t	9-19"	4.7	11.34	10.72	0.16	0.35	0.11	5.53
B22t	19-26"	4.7	10.80	10.32	0.10	0.28	0.09	4.51
C	26-31"	4.8	11.07	10.08	0.18	0.74	0.05	9.02
R	31-40"	4.7	9.47	9.20	0.06	0.11	0.09	2.86

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	32.5	54.9	12.6
A2	30.8	52.6	16.6
B21t	7.3	44.0	48.7
B22t	2.2	55.5	42.3
C	2.4	57.7	39.9
R	11.3	53.3	35.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t			35	Kaolinite			

TOWNLEY SHALY SILT LOAM S74 Al-93-4-(1-6)

CLASSIFICATION: Typic Hapludults; clayey, mixed thermic

LOCATION: Marion County, Alabama. 5 miles east of Haleys. NW¼ SE¼ Sec. 1, T11S, R11W. BQD-6EE-18

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation is presumed to have been mixed hardwoods and pine.

PARENT ROCK OR REGOLITH: Clayey residium weathered from interbedded sandstone and shale.

DRAINAGE AND PERMEABILITY: Well drained and slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: J. A. Cotton and B. C. Fox, 6/10/74

HORIZON	DEPTH	DESCRIPTION
A1	0-2"	Dark gray (10YR4/1) haly silt loam; weak fine granular structure; friable; many fine and medium roots; 20 percent shale fragments by volume ¼ to 1 inch in diameter; very strongly acid; clear smooth boundary.
A2	2-9"	Yellowish brown (10YR5/4) shaly silt loam; weak fine granular structure; friable; many fine roots; 20 percent shale fragments by volume; very strongly acid; clear smooth boundary.
B21t	9-19"	Yellowish red (5YR5/8) silt loam; moderate fine and medium subangular blocky structure; friable; many thin clay films on surface of peds; few fine roots; few shale fragments; very strongly acid; gradual smooth boundary.
B22t	19-26"	Yellowish red (5YR5/8) silty clay; common medium distinct red (2.5YR4/6) and light gray (10YR7/2) mottles; moderate fine and medium subangular blocky structure; many thin clay films on surface of peds; few fine roots; few shale fragments; very strongly acid; gradual wavy boundary.
C	26-31"	Mottled light gray (10YR7/2), strong brown (7.5YR5/6), yellowish red (5YR4/8), and red (2.5YR4/6) partially weathered shale; silt loam; platy rock structure; friable; few clay films between plates; very strongly acid; gradual wavy boundary.
R	31-40"	Mottled light gray (10YR7/2), strong brown (7.5YR5/6), yellowish red (5YR4/8), and red (2.5YR4/6), weathered shale, silty clay loam; very strongly acid.

Waynesboro silt loam (SOIL SERIES)

S74-al-55-3-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-9"	6.1	6.92	1.76	3.17	1.56	0.42	74.58
B1	9-12"	5.0	8.15	4.96	2.34	0.62	0.22	39.18
B21t	12-23"	4.7	8.61	6.16	1.92	0.41	0.11	28.48
B22t	23-55"	4.6	8.25	5.92	1.40	0.47	0.18	28.26

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	34.4	53.0	12.6
B1	18.9	52.7	28.4
B2t	18.0	46.4	35.6
B22t	22.5	29.9	47.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

WAYNESBORO SILT LOAM S74 Al. 55-3-(1-4)

CLASSIFICATION: Typic Paleudult; clayey kaolinitic, thermic.

LOCATION: Etowah County, SW¼ of SE¼, Sec. 36, T 12 S, R 6 E

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation was hardwood forest.

PARENT ROCK OR REGOLITH: Alluvial from sandstone, shale, and limestone uplands.

POSITION: Gently sloping to moderately steep high terraces.

DRAINAGE AND PERMEABILITY: Well drained, moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 3-24-74.

HORIZON	DEPTH	DESCRIPTION
Ap	0-9"	Dark yellowish brown (10YR 4/4) silt loam; weak fine granular structure; very friable; slightly acid; clear smooth boundary.
B1	9-12"	Strong brown (7.5YR 5/6) silty clay loam; weak medium subangular blocky structure; friable; clay bridges and coatings on sand grains; slightly acid; gradual wavy boundary.
B21t	12-23"	Yellowish red (5YR 5/8) silty clay loam with common medium distinct strong brown mottles; weak medium subangular blocky structure; friable; very thin patchy clay films; very strongly acid; gradual wavy boundary.
B22t	23-55"	Mottled yellowish red (5YR 5/6), red (2.5YR 4/6) and brownish yellow (10YR 6/6) clay; moderate medium subangular blocky structure; firm; very thin patchy clay films; extremely acid.

Wynnville fine sandy loam (SOIL SERIES)

S71 A1-5-7-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.2	3.60	2.64	0.76	0.12	0.08	26.7
B2	7-23"	5.4	5.92	2.80	2.56	0.54	0.02	52.7
A'2&B'x1	23-33"	4.8	5.18	3.92	0.79	0.46	0.01	24.3
B'x2	33-48"	4.8	4.22	3.20	0.67	0.34	0.01	24.2
B'2t	48-70"	4.8	5.98	4.48	0.92	0.57	0.01	25.0

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	52.4	37.4	10.2
B2	46.4	34.1	19.5
A'2&B'x1	51.8	30.8	17.4
B'x2	56.3	32.7	11.0
B'2t	48.6	32.4	19.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

WYNNVILLE FINE SANDY LOAM S71 Al-5-7-(1-5)

CLASSIFICATION: Glossic Fragiudults, fine-loamy, siliceous, thermic family

LOCATION: Blount County, SE¼ NE¼ Sec 7 T11S R1E, Photo GP-5V-153

USE AND NATIVE VEGETATION: Present use is row crops. Native vegetation is presumed to have been mixed hardwoods.

PARENT ROCK OR REGOLITH: Sandstone

DRAINAGE AND PERMEABILITY: Moderately well drained, permeability moderate above fragipan, slow in fragipan.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox, 11/22/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Yellowish brown (10YR5/4) fine sandy loam; weak medium granular structure; very friable; common fine roots; strongly acid; abrupt smooth boundary.
B2	7-23"	Yellowish brown (10YR5/6) loam; weak medium subangular blocky structure; friable; few roots; few sandstone pebbles; few worm casts; few fine black concretions; strongly acid; clear smooth boundary.
A'2&B'x1	23-33"	Light gray (10YR7/2) loam (A'2) in pockets, discontinuous bands, and vertical cracks; weak medium granular structure; friable; and yellowish brown (10YR5/6) loam (B'x1) with common medium distinct yellowish red (5YR5/6) mottles; weak coarse platy structure parting to fine and medium subangular blocky structure; firm and brittle; discontinuous clay films on faces of some peds; few sandstone fragments; light gray coatings on faces of some peds; few fine roots in vertical cracks; very strongly acid; clear irregular boundary.
B'x2	33-48"	Mottled yellowish brown (10YR5/6) red (5YR5/6) and light gray (10YR7/2) sandy clay loam; weak coarse platy structure parting to moderate medium subangular blocky structure; firm and brittle; continuous clay films on faces of some peds; few sandstone fragments, few vesicular pores; vertical cracks filled with light gray material; very strongly acid; gradual smooth boundary.
B'2t	48-70"	Strong brown (7.5YR5/6) sandy clay loam; with few fine faint (5YR5/6) mottles; weak medium subangular blocky structure; friable; patchy clay films on faces of some peds; few sandstone fragments; vertical cracks filled with light gray material; very strongly acid.

NSD fine sandy loam (SOIL SERIES)

S70-A1-5-2-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-11"	5.3	2.13	1.60	.36	.12	.05	24.88
B1	11-17"	5.4	2.14	1.44	.45	.20	.05	32.71
B21t	17-32"	5.1	4.88	3.44	.58	.37	.09	21.31
B22t	32-42"	5.2	5.38	3.84	.97	.46	.11	28.62
B23t	42-56"	5.1	5.16	4.72	.13	.26	.05	8.52
B24t	56-70"	5.2	4.16	3.76	.13	.22	.05	9.61

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	67.4	27.0	5.6
B1	62.8	29.2	8.0
B21t	52.8	32.0	15.2
B22t	55.6	24.2	20.2
B23t	55.5	21.8	22.7
B24t	62.4	20.0	17.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	≤0.2 µm %	≤0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	>90	quartz					
	< 2	mica					

NSD FINE SANDY LOAM S70 Al- 5-2-(1-6)

CLASSIFICATION: Typic Paleudults, coarse-loamy, siliceous, thermic.

LOCATION: Blount County SE 1/4, NW 1/4 T11S R2E

USE AND NATIVE VEGETATION: Present use is woodland, native vegetation is presumed to have been woodland.

PARENT ROCK AND REGOLITH: The regolith is loamy alluvium that has sloughed or washed from adjacent steep mountain sides.

DRAINAGE AND PERMEABILITY: Well drained with medium to rapid runoff: moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew, May 16, 1970 and May 18, 1970

HORIZON	DEPTH	DESCRIPTION
Ap	0-11"	Yellowish brown (10YR 5/6) fine sandy loam; weak fine granular structure; very friable; many fine roots; few small sandstone fragments ¼-½ inches in diameter; strongly acid; gradual wavy boundary.
B1	11-17"	Brown (7.5YR 5/4) sandy loam; weak fine angular blocky structure; friable; many fine roots; few small sandstone fragements ¼-½ inches in diameter; strongly acid; gradual wavy boundary.
B21t	17-32"	Yellowish red (5YR 5/6) sandy loam; weak fine angular blocky structure; friable; reddish yellow (7.5YR 6/6) few fine distinct mottles; few fine roots, few small sandstone fragments ¼-½ inches in diameter; strongly acid; gradual wavy boundary.
B22t	32-42"	Yellowish red (5YR 4/8) sandy clay loam; moderate medium sub-angular blocky structure; friable; few fine roots, few small sandstone fragments ¼-½ inches in diameter; clay film on some ped faces; some coating and bridging on sand grains; strongly acid; gradual wavy boundary.
B23t	42-56"	Red (2.5YR 4/6) sandy clay loam; moderate medium subangular; blocky structure friable; few fine roots; few small sandstone fragments ¼-½ inches in diameter; strongly acid; gradual wavy boundary.
B24t	56-70"	Red (2.5YR 4/6) sandy loam; weak medium sub-angular blocky; structure friable; reddish-yellow (7.5 YR 6/6) common medium distinct mottles; strongly acid.

REMARKS: Was included in Allen in mapping.

NSD loam (SOIL SERIES)

S70 A1-5-3-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-7"	5.2	6.80	4.16	1.62	.94	.08	38.82
C1	7-18"	4.7	7.25	6.40	.42	.38	.05	11.72
C2	18-38"	5.0	6.58	5.20	.61	.71	.06	20.97
C3g	38-45"	5.2	6.42	4.08	1.45	.83	.06	36.44

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	31.4	49.0	19.6
C1	9.3	74.2	16.4
C2	40.6	43.4	16.0
C3g	36.3	46.7	17.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2µm %	< 0.2µm Mineralogy	Free Iron % Fe_2O_3
C2	>90	quartz					
	4-6	mica					

NSD LOAM S70 Al-5-3-(1-4)

CLASSIFICATION: Aquic Udifluvents, coarse-loamy, mixed, acid, thermic.

LOCATION: Blount County, 3 miles south of Cleveland, NE¼ NE¼, Section 31 T12S RIE

USE AND NATIVE VEGETATION: Present use is woodland, native vegetation is presumed to have been mixed hardwoods.

PARENT ROCK OR REGOLITH: Thick loamy alluvial sediments.

DRAINAGE AND PERMEABILITY: Moderately well to somewhat poorly drained, slow runoff, permeability moderately rapid.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew

HORIZON	DEPTH	DESCRIPTION
Ap	0-7"	Brown (10YR5/3) loam; weak fine granular structure; very friable; few fine roots; strongly acid; abrupt smooth boundary.
C_1	7-18"	Yellowish brown (10YR5/4) silt loam; few fine faint dark brown mottles; weak fine granular structure, very friable; few fine roots; very strongly acid; clear smooth boundary.
C_2	18-38"	Pale brown (10YR6/3) loam; common medium distinct grayish brown (10YR5/2) and yellowish brown (10YR5/4) mottles; massive; 5% mica flakes; very strongly acid; gradual wavy boundary.
C3g	38-45"	Gray (10YR5/1) loam, mottled with yellowish brown (7.5YR5/6); mottles are many, common distinct; massive; thin horizontal bedding planes; very friable; many mica flakes, strongly acid.

REMARKS: Not correlated because of small acreage. Included with Hamblen in mapping.

NSD silt loam
(SOIL SERIES)

S70 A1-5-4-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-4"	5.9	12.56	2.96	8.00	1.55	.05	76.43
B21t	4-13"	4.9	21.22	12.40	7.25	1.42	.15	41.56
B22t	13-24"	5.0	18.49	12.64	4.75	1.00	.10	31.63
B23t	24-52"	5.0	17.08	12.56	3.25	1.16	.11	26.46
C	52-54"	7.4	20.18	2.16	17.75	.24	.03	89.29

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	18.0	68.4	13.6
B21t	8.4	38.5	53.1
B22t	8.7	33.7	57.6
B23t	10.1	36.8	53.1
C	10.7	50.9	38.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2μm %	<0.2μm Mineralogy	Free Iron % Fe_2O_3
B21t		>50 montmorillonite					

NSD SILT LOAM S70 A1-5-4-(1-5)

CLASSIFICATION: Vertic Hapludalfs; fine, montmorillonitic, thermic.

LOCATION: Blount County, 1-1/2 miles NE of Bangor, NE¼ SE¼, Sec. 14 T12S R2W

USE AND NATIVE VEGETATION: Present use is pasture. Native vegetation is presumed to have been cedar and hardwood.

PARENT ROCK OR REGOLITH: Regolith is residuum derived chiefly from argillaceous limestone.

DRAINAGE AND PERMEABILITY: Moderately well to somewhat poorly drained; very slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew, 5/4/70, 4/13/67

HORIZON	DEPTH	DESCRIPTION
Ap	0-4"	Brown (10YR4/3) silt loam, weak fine granular structure; friable; many fine roots; cracks on surface 2-5 mm wide and about 8-12" apart. Medium acid. Clear smooth boundary.
B21t	4-13"	Strong brown (7.5YR5/6) clay; moderate medium subangular blocky structure; firm, and plastic; common very thin patchy clay films on ped faces, common fine roots; very strongly acid; clear smooth boundary.
B22t	13-24"	Strong brown (7.5YR5/6) clay; moderate medium subangular blocky structure; firm and plastic; few fine distinct light yellowish brown, yellowish-red (10YR6/4 & 5YR4/6) mottles. Common very thin patchy clay films, mostly in pores and protected areas on ped faces; few fine roots; very strongly acid; gradual smooth boundary.
B23t	24-52"	Yellowish-brown (10YR5/6) clay; moderate subangular blocky structure; very firm and plastic; few fine distinct light gray (10YR6/1 & 7/1) mottles; common very thin clay films and also common pressure faces; few Mn concentrations; strongly acid; gradual wavy boundary.
C	52-54"	Reddish brown (2.5YR5/4) silty clay loam; massive; very firm and plastic; many medium distinct light gray (5YR7/2) mottles; few slickenslides, many pressure faces; mildly alkaline.
R	54+"	Limestone bedrock

NSD cherty silt loam (SOIL SERIES)

S70 A1-5-9-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-5"	5.5	8.06	4.64	3.07	.23	.12	42.43
A2	5-14"	5.0	2.69	1.92	.55	.20	.02	28.62
B2	14-19"	5.1	3.58	2.48	.65	.43	.02	30.72
A'2+Bx1	19-26"	5.1	3.53	2.56	.48	.46	.03	27.47
Bx2	26-52"	5.0	4.82	3.52	.55	.72	.03	26.97
Bx3	52-70"	5.0	2.99	1.68	.68	.60	.03	43.81

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	36.4	51.0	12.6
A2	38.1	50.0	11.9
B2	31.7	51.4	16.9
A'2+Bx1	34.1	48.3	17.6
Bx2	45.4	35.8	18.8
Bx3	49.5	31.3	19.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	%	.02-2mm Mineralogy	%	<2μm Mineralogy	%	<0.2 μm Mineralogy	Free Iron % Fe_2O_3
B2	50	clear quartz					
	50	chert fragments					

NSD CHERTY SILT LOAM S70 Al-5-9-(1-6)

CLASSIFICATION: Loamy-skeletal, siliceous, thermic family of Glossic Fragiudults

LOCATION: Blount Co., 660 yds. east from the intersection of Old Hwy 75 and Inland Lake Road SW ¼, SE¼, Sec. 11 T13S, R1E

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation is presumed to have been hardwoods.

PARENT ROCK OR REGOLITH: The regolith is residuum from limestone which is commonly cherty.

DRAINAGE AND PERMEABILITY: Somewhat poorly to moderately well drained. Permeability is very slow in the fragipan.

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Black (10YR 2/1) cherty silt loam; weak fine granular structure; very friable; many fine roots; 40-50% chert fragments on surface and throughout the horizon; strongly acid; abrupt smooth boundary.
A2	5-14"	Very pale brown (10YR 7/3) cherty silt loam; weak fine granular structure; very friable; few fine roots; many chert fragments; very strongly acid; abrupt smooth boundary.
B 2	14-19"	Pale brown (10YR 6/3) cherty silt loam; many medium mottles of yellowish brown (10YR 5/6) and light yellowish brown (10YR 6/4); weak medium subangular blocky structure; friable; few fine roots; 50% chert fragments; few dark brown and black concretions; strongly acid; gradual wavy boundary.
A'2+Bx1	19-26"	Mottled light gray (2.5YR 7/3) very cherty silt loam; common medium fine pale yellow (2.5YR 7/4) and yellowish-brown (10YR 5/8) mottles; moderate medium subangular blocky structure; very brittle throughout; 55 percent chert fragments; strongly acid; gradual wavy boundary.
Bx2	26-52"	Mottled red (2.5YR 5/6), light gray (2.5YR 7/2) and gray 2.5Y 6/2) very cherty loam; gray and light gray mottles appear as small pockets, thin ped coatings, and vertical streaks up to 2.5 cm wide, some of which extend throughout; weak medium subangular blocky structure; brittle and firm; very thin patchy clay films in common fine vesicular pores; few clean fine and very fine sand grains; 65%, chert fragments; very strongly acid; gradual wavy boundary.
Bx3	52-70"	Mottled light gray (2.5Y 7/2), strong brown (7.5 YR 5/6), dark yellowish brown (10YR 4/4), and red (2.5YR 5/6); cherty loam; weak, medium subangular blocky structure; brittle, firm; very thin patchy clay films; common fine vesicular pores; 50 percent chert fragments; very strongly acid.

REMARKS: Sampled as Paraloma; not correlated because of small acreage. Included with Bodine in mapping.

NSD sandy loam
(SOIL SERIES)

S70-A1-5-10-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-4"	4.9	2.79	2.16	.84	.10	.05	22.58
A2	4-10"	5.5	3.50	2.08	1.29	.10	.03	40.57
B2t	10-20"	5.0	6.21	4.80	1.26	.11	.04	22.70
Bx1	20-49"	4.8	5.11	4.08	.74	.25	.04	20.15
Bx2	49-65"	5.0	7.69	7.36	.13	.17	.03	4.29

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	56.0	38.7	5.3
A2	41.2	47.8	11.0
B2t	41.7	41.0	17.3
Bx1	47.1	38.1	14.8
Bx2	41.6	25.8	32.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t	>95	quartz					

NSD SANDY LOAM S70-Al-5-10-(1-5)

CLASSIFICATION: Typic Fragiudults, coarse-loamy, siliceous, thermic

LOCATION: Blount county, SQ¼; SW¼; Sec. 23; T9S; R1E; 2¼ miles NW of Summit. %V-212

USE AND NATIVE VEGETATION: Present use is pasture. Native vegetation is presumed to have been oak, hickory, pine.

PARENT ROCK OR REGOLITH: The regolith is from loess mantled residuum from sandstone, siltstone and shales.

DRAINAGE AND PERMEABILITY: Moderately well drained; permeability moderate in upper solum; slow in lower.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew, 5-4-70 and 7-23-69

HORIZON	DEPTH	DESCRIPTION
Ap	0-4"	Brown (10YR 5/3) fine sandy loam, weak fine granular structure; friable; fine roots plentiful; few angular and broken sandstone fragments, 1/8-1/2" in diameter; very strongly acid; abrupt smooth boundary.
A2	4-10"	Yellowish brown (10YR 5/8) loam; weak fine granular structure, friable; many fine roots; few angular and broken sandstone fragments 1/8-1/2" in diameter; strongly acid; abrupt smooth boundary.
B2t	10-20"	Yellowish brown (10YR 5/4) loam; weak fine-medium subangular blocky structure; friable; few fine roots; few sandstone fragments 1/8-1/2" in diameter; very strongly acid; gradual wavy boundary.
Bx	20-49"	Brown (10YR 5/3), (7.5YR 5/4), yellowish brown (10YR 5/8), pale brown (10YR 6/3) mottled, loam; weak fine platy, weak fine subangular blocky structure; firm; vesicular; very compact in place; numerous clay films on ped faces; very strongly acid; clear irregular boundary.
Bx2	49-65"	Red (2.5YR 5/6) light gray (10YR 7/1), yellowish brown (10YR 5/4) mottles; clay loam; massive; friable; few sandstone fragments 1/8-1/2 inches in diameter; very strongly acid.
R	65"	

REMARKS: Included in Wynnville in mapping.

NSD loam (SOIL SERIES)

S70 A1-5-11-(1-4) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-10"	4.8	4.11	2.96	.90	.13	.12	27.98
B21t	10-26"	4.7	6.87	5.28	1.26	.25	.08	23.14
IIB21t	26-40"	4.8	9.04	7.60	.29	1.11	.04	15.92
IIB22t	40-50"	4.9	10.74	10.48	.13	.11	.02	2.42

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	44.7	46.2	9.1
B21t	35.7	43.8	20.5
IIB21t	29.4	20.3	44.0
IIB22t	32.0	16.6	51.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD LOAM S70 Al-5-11-(1-4)

CLASSIFICATION: Typic Paleudults, fine-loamy, siliceous, thermic.

LOCATION: Blount County, 3/4 mile south of Royal Church, 100 feet north of vacant farm house. SE1/4; NE 1/4; Sec. 26; T11S; R1E.

USE AND NATIVE VEGETATION: Present use is crop and hay land. Native vegetation is presumed to have been woodland.

PARENT ROCK OR REGOLITH: Regolith is residuum from relatively highly weathered sandstone rock.

DRAINAGE AND PERMEABILITY: Well drained with moderate run off. Moderate permeability in upper part of solum and moderately slow in the lower part.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: H. C. Buckelew, 4/18/67, 4/20/67

HORIZON	DEPTH	DESCRIPTION
Ap	0-10"	Dark yellowish brown (10YR4/4) loam; weak fine and medium granular structure; very friable; few fine roots; very strongly acid; smooth boundary (6-12" thick).
B21t	10-26"	Yellowish brown (10YR 5/6) loam; weak fine and medium subangular blocky structure; friable; few fine roots; sand grains coated with clay; very strongly acid; gradual smooth boundary. (6-16" thick).
IIB21t	26-40"	Mottled yellowish brown (10YR5/6), red (2.5YR4/6) and pale brown (10YR6/3), clay; moderate, fine and medium subangular blocky structure; friable, compact and brittle; Clay films on some peds; very strongly acid; clear irregular boundary. (8-13" thick).
IIB22t	40-50"	Red (10R4/6) clay; few fine, distinct, yellowish brown (10YR5/6) mottles; moderate, medium, subangular blocky structure; thin clay films on many peds on all faces; very strongly acid.

REMARKS: Not correlated because of small acreage. Included in Allen in mapping.

NSD silty clay loam (SOIL SERIES)

S71 A1-5-8-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	4.9	12.93	5.52	5.24	2.11	0.06	57.3
B21t	5-16"	4.8	26.84	20.40	5.04	1.36	0.04	24.0
B22t	16-26"	4.7	31.70	27.76	3.34	0.56	0.04	12.4
B23t	26-40"	4.8	30.74	25.12	4.74	0.53	0.04	17.5
B24t	40-52"	4.9	33.09	23.60	8.46	0.98	0.04	28.7
B3	52-58"	6.8	14.48	3.68	8.88	1.90	0.02	74.6

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	18.0	45.6	36.4
B21t	2.0	25.6	72.4
B22t	1.0	34.4	64.6
B23t	3.0	32.8	64.2
B24t	4.3	40.0	55.7
B3	1.7	41.0	57.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD SILTY CLAY LOAM S71 Al-5-8-(1-6)

CLASSIFICATION: Typic Hapludalfs, very fine, mixed, thermic family.

LOCATION: Blount County, approximately 0.4 mile NE of Remlap on old Ala. 75, 75 feet NW of road. NW¼ NE¼ Sec 13 T14S R1W, Photo GP-6V-47

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation is presumed to have been mixed hardwoods.

PARENT ROCK OR REGOLITH: Material weathered from limestone.

DRAINAGE AND PERMEABILITY: Well drained, rapid runoff, moderate to slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. D. Bowen and B. C. Fox, 11/30/71

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Brown (7.5YR 4/4) silty clay loam; weak coarse granular to moderate medium subangular blocky structure; firm; common fine roots; few chert fragments; many worm casts; very strongly acid; clear smooth boundary.
B21t	5-16"	Yellowish red (5YR 5/6) clay; strong medium and fine angular blocky structure; firm; few black concretions; continuous yellowish red (5YR 4/6) clay films on faces of peds; few fine and medium roots; very strongly acid; clear smooth boundary.
B22t	16-26"	Yellowish red (5YR 5/6) clay; moderate medium angular blocky structure; firm; common medium distinct yellowish brown (10YR 5/6) mottles; few black concretions; continuous clay films on faces of peds; few fine roots; strongly acid; clear smooth boundary.
B23t	26-40"	Yellowish red (5YR 5/6) clay; moderate medium angular blocky structure; firm; few medium distinct red (2.5YR 4/6), strong brown (7.5YR 5/6), light brownish gray (10YR 6/2) mottles; continuous clay films on faces of peds; few black concretions; few fine roots; very strongly acid; clear smooth boundary.
B24t	40-52"	Yellowish red (5YR 5/6) clay; moderate medium subangular blocky structure; firm; many medium distinct red (2.5YR 4/6), few medium distinct light brownish gray (2.5Y 6/2), common medium distinct yellowish brown (10YR 5/6) mottles; many black concretions; few roots; clay films on faces of peds; very strongly acid; clear smooth boundary.
B3	52-58"	Mottled light yellowish brown (2.5Y 6/4), brown (7.5YR 4/4), light olive gray (5Y 6/2) clay; massive; firm; few roots; few limestone concretions; neutral.
R	58"	Limestone bedrock.

REMARKS: Included in Remlap in mapping.

NSU gravelly loam (SOIL SERIES)

S67 A1-10-2-(1-9) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	41.4	38.9	19.7
A3	32.1	42.2	25.7
B1t	25.0	42.4	32.6
B21t	26.4	38.9	34.7
B22t	21.2	26.1	52.7
B23t	20.0	18.1	61.9
B24t	23.2	12.4	64.4
B25t	27.2	15.9	56.9
B26t	24.4	18.3	57.3

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2µm %	< 0.2µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD·GRAVELLY LOAM S67 Al-10-2-(1-9)

CLASSIFICATION: Rhodic Paleudults, fine-loamy, siliceous, thermic.

LOCATION: Cherokee County, Ala. SE¼; NE¼ of Sec. 10; R10E; T12S. About 3/4 mile NW of Lebanon Ch. Photo GT-12-48 (1937 Flight)

USE AND NATIVE VEGETATION: Woodland, mixed pine and hardwood

PARENT ROCK OR REGOLITH: Sandstone

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: J. E. Boman, 10/28/66

HORIZON	DEPTH	DESCRIPTION
01	½-0"	Shallow covering of leaves, twigs, and grass, which is only partly decomposed.
A1	0-3"	Dark reddish brown (5YR3/4 - 2.5YR3/4) gravelly loam; weak fine granular structure; very friable; many fine grass and tree roots; 15 percent rounded iron concretions 1/8-1/2 inch in diameter; very strongly acid; clear smooth boundary.
A3	3-8"	Dark reddish brown (2.5YR3/4) to dark red (2.5YR3/6) heavy loam; moderate medium granular to very weak fine subangular blocky structure; very friable; many fine roots; occasional small rounded iron concretions; very strongly acid; clear smooth boundary.
B1t	8-13"	Dark red (2.5YR3/6) clay loam; weak fine subangular blocky structure; very friable; few thin patchy clay films on some ped faces and root holes; common fine and coarse roots; common fine pores; common fine uncoated sand grains; occasional small iron concretions; very strongly acid; gradual wavy boundary.
B21t	13-29"	Dark red, (10R3/6) clay loam, weak medium and coarse subangular blocky structure, friable; thin patchy clay films; few coarse roots; common fine pores; common fine uncoated sand grains; occasional small iron concretions; very strongly acid; gradual wavy boundary.
B22t	29-41"	Dark red (10R3/6) clay, weak to moderate medium and coarse subangular blocky structure; friable; thin continuous clay films on ped faces; few coarse roots; few fine pores; common fine uncoated sand grains; occasional small iron concretion; strongly to very strongly acid; gradual wavy boundary.
B23t	41-60"	Dark red (10R3/6) clay; moderate medium and coarse subangular blocky structure; friable;thick clay films on ped faces; common very fine pores; few fine uncoated sand grains; occasional small iron concretion; strongly to very strongly acid; gradual wavy boundary.
B24t	60-84"	Dark red (10R3/6) clay; moderate, medium, angular blocky structure; friable to firm; thick wavy clay films on ped faces; few coarse pores; few fine uncoated sand grains; occasional small iron concretion; strongly acid; clear wavy boundary.
B25t	84-94"	Dark red (2.5YR3/6) clay; few medium prominent mottles reddish yellow (7.5 YR6/8); moderate medium subangular blocky structure; friable to firm; thick clay films on ped faces; few fine and coarse pores; common fine uncoated sand grains; occasional small iron concretion; strongly acid; gradual wavy boundary.
B26t	94-114"	Weak red (10R4/4) to red (10R4/6) clay, common medium prominent mottles of reddish yellow (7.5YR6/8); weak to moderate medium subangular blocky structure; firm; continuous clay films on ped faces; few coarse pores; common fine and medium uncoated sand grains; occasional small soft chert fragments; medium to strongly acid.

REMARKS: Combined with Fullerton in mapping.

NSD sandy loam (SOIL SERIES)

S69 A1-10-1-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					

No data obtained

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	52.6	40.3	7.1
B1	39.3	50.7	10.0
B21t	36.8	48.4	14.8
B22t	36.5	43.7	19.8
B23t	36.4	38.9	24.7
IIB24t	34.2	34.4	31.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD SANDY LOAM S69 Al-10-1-(1-6)

CLASSIFICATION: Typic Paleudults, coarse-loamy, siliceous, thermic

LOCATION: Cherokee County, Alabama, SW¼ of SE¼ of Sec. 13, R10E, T10S. About 1 mile east of Teller's Chapel Church.

PARENT ROCK OR REGOLITH: Alluvium from sandstone, chert, and shale, uplands.

DRAINAGE AND PERMEABILITY: Well drained with moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: J. E. Boman, 11/17/65

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Light olive brown (2.5Y5/4) to yellowish brown (10 YR5/4) sandy loam; weak fine granular structure; very friable; common fine grass roots; 3-5 percent water worn gravel up to ½ inch in diameter; strongly acid; abrupt smooth boundary.
B1	5-11"	Yellowish brown (10YR5/6) silt loam; some tonguing of Ap into this horizon; weak fine and medium subangular blocky structure; very friable; some bridging and coating of sand grains; few fine and coarse grass roots; less than 1 percent water worn gravel; strongly to very strongly acid; gradual wavy boundary.
B21t	11-29"	Yellowish brown (10YR5/8) loam; few fine mottles of pale brown which appear to be silt coatings; weak medium subangular blocky structure; very friable; common bridged and coated sand grains; few thin patchy clay films along root holes; few coarse grass roots; few fine pores; strongly to very strongly acid; gradual wavy boundary.
B22t	29-39"	Yellowish brown (10YR5/6) loam; few fine mottles of pale brown (10YR6/3) which appear to be silt coatings; weak medium subangular blocky structure; friable; common bridged and coated sand grains; few thin patchy clay films on ped faces; few coarse roots; common medium pores; less than 1 percent water worn gravel; strongly acid; gradual wavy boundary.
B23t	39-48"	Yellowish brown (10YR5/6) loam; common medium prominent mottles of strong brown and pale brown, and an occasional coarse prominent mottle of yellowish red; weak fine and medium subangular blocky structure; friable; common patchy clay films on ped faces; few fine pores; less than 1 percent water worn gravel; strongly to very strongly acid; clear smooth boundary.
IIB24t	48-60"+	Mottled yellowish brown (10YR5/6), light gray (10YR7/1), strong brown (7.5YR5/6), and red (2.5 YR4/8) clay loam; moderate medium subangular blocky structure; firm; common thick continuous clay films; less than 1 percent water worn gravel; very strongly acid.

REMARKS: Included in Holston in mapping.

NSD silty clay
(SOIL SERIES)

S69 A1-10-2-(1-6)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A11	0-3"	4.7	12.98	6.64	4.38	1.62	0.34	49
A12g	3-6"	4.7	9.86	5.44	3.36	0.79	0.27	45
B1g	6-14"	4.5	9.22	5.60	2.44	1.02	0.16	39
B21g	14-24"	4.2	12.52	8.72	2.56	1.16	0.08	30
B22g	24-48"	4.3	14.90	7.92	4.74	2.16	0.08	49
B23	48-78"	6.4	20.95	3.04	12.76	5.12	0.04	85

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A11	16.8	42.0	41.2
B1g	25.8	39.5	34.7
B21g	19.7	38.1	42.2
B22g	16.9	41.4	41.7
B23	13.0	36.0	51.0

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

NSD SILTY CLAY S69 Al-10-2-(1-6)

CLASSIFICATION: Typic Ochragualfs, fine mixed, thermic.

LOCATION: Cherokee County, Al. SE¼; SE¼; Sec. 33; T10S; R9E. Approximately one mile SE of junction of Terrapin Creek and Coosa River. Photograph GT-2CC-168.

USE AND NATIVE VEGETATION: Present use is woodland. Native vegetation was hardwood.

PARENT ROCK OR REGOLITH: Alluvium from shale, chert, and sandstone uplands.

DRAINAGE AND PERMEABILITY: Poorly drained and moderate to slow permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 8/20/69

HORIZON	DEPTH	DESCRIPTION
A11	0-3"	Mottled grayish brown (2.5Y4/2) and dark yellowish brown (10YR4/4) silty clay; weak fine granular structure; very friable; many fine and medium roots; strongly acid; gradual wavy boundary.
A12g	3-6"	Grayish brown (10YR6/2) silty clay loam with few fine faint brown mottles; weak fine granular structure; very friable; many fine and medium roots; very strongly acid; clear smooth boundary.
B1g	6-14"	Light gray (10YR6/1) clay loam with common medium distinct strong brown and brownish yellow mottles; weak medium subangular blocky structure; friable; few medium roots; 2 percent small chert fragments; very strongly acid; gradual wavy boundary.
B21g	14-24"	Mottled gray (10YR6/1 and 10YR5/1), yellowish brown (10YR5/6), and yellowish red (5YR4/6) clay; moderate medium angular blocky structure; firm; few medium roots; 2 percent small chert fragments; extremely acid; gradual wavy boundary.
B22g	24-48"	Gray (10YR5/1) silty clay with common coarse distinct yellowish brown (10YR5/6), and yellowish red (5YR4/8) mottles; strong medium angular blocky structure; firm; few medium roots; many silt coatings; 4 percent small chert fragments; extremely acid; gradual wavy boundary.
B23	48-78"	Light yellowish brown (2.5Y6/4) clay with common medium distinct light gray (10YR6/1), and yellowish brown (10YR5/6) mottles; massive; firm; 5 percent small chert fragments; slightly acid.

REMARKS: Included with Gaylesville in mapping.

NSD silt loam
(SOIL SERIES)

S69 A1-10-7-(1-4)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-3"	5.2	15.54	6.00	8.16	1.17	0.21	61
B21t	3-9"	5.0	21.51	8.96	11.04	1.35	0.16	58
B22t	9-21"	5.4	45.66	6.56	36.32	2.64	0.14	86
C	21-37"	6.8	19.42	4.00	11.76	3.61	0.05	79

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	10.4	63.1	26.5
B21t	5.7	48.1	46.2
B22t	4.4	35.4	60.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	2-0.2 µm %	2-0.2 µm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B22t	40	2:1 Exp mica kaolinite			47	2:1 Exp mica kaolinite	4.95
	24				22		
	30				25		

NSD SILT LOAM S69 Al-10-7-(1-4)

CLASSIFICATION: Vertic Hapludalfs, fine; montmorillonitic, thermic family

LOCATION: Cherokee County, Ala. SE¼, SE¼, Sec. 17; T10S; R8E. About 4 miles NE of Weiss Dam. Photograph GT-2CC-260

USE AND NATIVE VEGETATION: Idle field at present. Native vegetation is hardwood and red cedar.

PARENT ROCK OR REGOLITH: Limestone

DRAINAGE AND PERMEABILITY: Well drained and slow permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 10/20/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-3"	Brown (7.5YR4/4) silt loam; weak fine granular structure; friable; many fine roots; strongly acid; clear smooth boundary.
B21t	3-9"	Yellowish brown (10YR5/6) silty clay with few fine faint brownish yellow and strong brown mottles; strong medium angular blocky structure; firm; many fine roots; continuous thin clay films; very strongly acid; gradual wavy boundary.
B22t	9-21"	Yellowish brown (10YR5/8) clay; moderate medium angular blocky structure; firm; few fine and medium roots; continuous clay films; strongly acid; gradual wavy boundary.
C	21-37"	Light olive brown (2.5Y5/6) clay; massive; firm; few fine roots; 10 percent small shale and limestone fragments; neutral; clear irregular boundary.

REMARKS: Combined with Conasauga in mapping.

NSD sandy loam
(SOIL SERIES)

S69 A1-10-10-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-5"	5.2	6.19		1.40	0.32	0.15	30
B1	5-10"	4.8	6.84		0.82	0.09	0.09	15
B2t	10-30"	4.5	6.74		0.56	0.08	0.10	11

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	60.4	25.8	13.8
B1	53.1	23.3	23.6
B2t	52.0	23.5	24.5

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

NSD SANDY LOAM S69 Al-10-10-(1-3)

CLASSIFICATION: Humic Hapludults, fine-loamy, siliceous, thermic family

LOCATION: Cherokee County, Ala. NW¼, NE¼, NE¼, Sec. 33; T8S; R9E. About ten miles north of Centre. Photograph GT-2CC-180.

USE AND NATIVE VEGETATION: Present use cropland, native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Sandstone

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery and H. B. Neal, 10/21/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Very drak grayish brown (10YR3/2) sandy loam; weak fine granular structure; very friable; many fine roots; 5 percent small sandstone fragments; strongly acid; clear smooth boundary.
B1	5-10"	Dark brown (10YR3/3) sandy clay loam; weak medium subangular blocky structure; friable; many fine roots; 5 percent small sandstone fragments; very strongly acid; gradual wavy boundary.
B2t	10-30"	Brown (7.5YR4/4) sandy clay loam; weak medium subangular blocky structure; friable; many fine roots; 20 percent small sandstone fragments; clay bridges and coatings on sand grains; very strongly acid; abrupt irregular boundary.
R	30"	Acid sandstone.

REMARKS: Included in Hartsells in mapping.

NSD sandy loam (SOIL SERIES)

S69 Al-10-11-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-10"	6.9	7.93	1.20	5.76	0.60	0.37	85
B21t	10-24"	7.0	7.83	3.20	3.84	0.52	0.27	59
B22t	24-50"	6.5	6.18	2.32	3.16	0.44	0.26	62
B23t	50-74"	6.6	6.33	2.56	2.97	0.42	0.38	60
B3	74-100"	6.0	5.55	2.72	1.56	0.39	0.88	51

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	59.0	25.1	15.9
B21t	48.6	28.5	22.9
B22t	50.5	25.1	24.4
B23t	50.2	20.3	29.5
B3	59.4	14.4	26.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

NSD SANDY LOAM S69 Al-10-11-(1-5)

CLASSIFICATION: Rhodic Paleudalfs, fine-loamy, siliceous thermic family.

LOCATION: Cherokee County, Al. SE¼, NE¼, SW¼, NE¼, Sec. 12; T10S; R10E. About 9 miles NE of Centre. Photograph GT-1CC-152.

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation was mixed hardwood and pine.

PARENT ROCK OR REGOLITH: Alluvium from shale, chert and sandstone uplands.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, H. B. Neal, 10/2/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-10"	Dark reddish brown (5YR3/4) sandy loam; weak fine granular structure; very friable; many fine roots; neutral; clear smooth boundary.
B21t	10-24"	Yellowish red (25YR3/6) loam; weak medium subangular blocky structure; friable; few fine roots; bridges and coatings on sand grains; neutral; gradual wavy boundary.
B22t	24-50"	Yellowish red (25YR3/8) sandy clay loam; weak medium subangular blocky structure; friable; clay bridges and coatings on sand grains; slightly acid; gradual wavy boundary.
B23t	50-74"	Yellowish red (25YR4/6) sandy clay loam; weak medium subangular blocky structure; friable; clay bridges and coatings on sand grains; neutral; gradual wavy boundary.
B3	74-100"	Yellowish red (25YR5/6) sandy clay loam; massive; friable; clay bridges and coatings on sand grains; medium acid.

REMARKS: Not correlated because of small acreage. Included with Allen in mapping.

NSD silt loam
(SOIL SERIES)

S69 A1-10-12-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-8"	5.3	14.34	5.44	7.92	0.86	0.12	62
B1	8-18"	5.2	--	7.04	8.16	--	0.06	--
B21	18-24"	4.7	13.52	6.88	5.88	0.67	0.09	49
B22	24-40"	5.0	13.67	6.56	6.24	0.77	0.10	52
B3	40-58"	5.5	11.96	3.92	6.96	1.00	0.08	67

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	2.2	67.5	30.3
B1	4.9	59.4	35.7
B21	17.2	26.3	56.5
B22	18.9	48.9	32.2
B3	41.0	31.1	26.9

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

NSD SILT LOAM S69 Al-10-12-(1-5)

CLASSIFICATION: Aquic Hapludalfs, fine, mixed, thermic

LOCATION: Cherokee County, Alabama. NE¼, SE¼, Sec. 3; T11S; R9E. About 6 miles south of Centre, Alabama. Photograph GT-2CC-168

USE AND NATIVE VEGETATION: Present use is idle field, and native vegetation was hardwood forest.

PARENT ROCK OR REGOLITH: Alluvium from shale and chert upland.

DRAINAGE AND PERMEABILITY: Moderately well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, L. A. Dungan, 4/3/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-8"	Brown (10YR4/3) silt loam; weak fine granular and weak medium angular blocky structure; friable; few fine roots; strongly acid; clear smooth boundary.
B1	8-18"	Yellowish brown (10YR5/4) silty clay loam; weak fine granular and weak medium angular blocky structure, friable; few medium roots; patchy silt coatings; strongly acid; gradual wavy boundary.
B21	18-24"	Yellowish brown (10YR5/4) clay with common fine distinct light gray mottles; weak fine granular and weak medium angular blocky structure; friable; few medium roots; few soft mn. concretions; very strongly acid; gradual wavy boundary.
B22	24-40"	Mottled yellowish brown (10YR5/4) and light gray (10YR7/2) silty clay loam; moderate medium angular blocky structure; friable; few medium roots; very strongly acid; gradual wavy boundary.
B3	40-58"	Mottled yellowish brown (10YR5/4), yellow (10YR8/6) and light gray (2.5YN7/0) clay loam; weak medium angular blocky structure; friable; few medium roots; many small soft mn. concretions; strongly acid.

REMARKS: Probably included with Gaylesville in mapping.

NSD loam (SOIL SERIES)

S69 A1-10-15-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.8	9.95	5.12	3.84	0.62	0.37	49
B2	6-16"	5.9	10.80	5.20	4.74	0.65	0.21	52
Ab	16-19"	5.8	12.75	6.00	5.88	0.73	0.14	53
B1b	19-26"	5.9	12.11	5.76	5.52	0.72	0.12	52
B21tb	26-62"	5.1	9.70	5.60	3.17	0.84	0.09	42
B22tb	62-95"	5.0	11.20	6.80	2.97	1.33	0.10	39

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	29.7	48.9	21.4
B2	30.4	45.5	24.1
Ab	20.1	52.8	27.2
B1b	16.0	51.5	32.5
B21tb	17.1	45.1	37.8
B22tb	20.3	29.5	50.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD LOAM S69 Al-10-15-(1-6)

CLASSIFICATION: Rhodic Paleudalfs, fine-silty, siliceous, thermic.

LOCATION: Cherokee County, Al. NE¼, NE¼, Sec. 24; T12S; R9E. About 6 miles southwest of Ellisville. Photograph GT-2CC-148

USE AND NATIVE VEGETATION: Present use is idle; native vegetation was mixed hardwood and pines.

PARENT ROCK OR REGOLITH: Alluvium material from upland soils derived from cherty limestone.

DRAINAGE AND PERMEABILITY: Well drained with moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: C. F. Montgomery, 11/5/69

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark reddish brown (5YR3/3) loam; weak fine granular structure; very friable; few fine roots; 5 percent gravel; medium acid; clear smooth boundary.
B2	6-16"	Dark reddish brown (5YR5/3) loam; weak medium subangular blocky structure; very friable; few fine roots; 5 percent gravel, medium acid; gradual wavy boundary.
Ab	16-19"	Dark reddish brown (5YR3/2) silty clay loam, weak fine granular structure; very friable; few fine roots; medium acid; clear wavy boundary.
B1b	19-26"	Dark reddish brown (5YR3/4) silty clay loam; weak medium subangular blocky structure; friable; medium acid; gradual wavy boundary.
B21tb	26-62"	Dark red (2.5YR3/6) silty clay loam; moderate medium subangular blocky structure; friable; very thin patchy clay films;strongly acid; gradual wavy boundary.
B22tb	62-95"	Dark red (2.5YR3/6) clay; moderate medium subangular blocky structure; firm; very thin patchy clayfilms; 10 percent small black concretions; very strongly acid.

REMARKS: Included in Emory in mapping.

NSD gravelly loam
(SOIL SERIES)

S69-Al-14-6-(1-3)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A	0-6"	4.8	4.84	4.40	0.19	0.16	0.09	9
A2	6-18"	4.7	4.60	4.24	0.12	0.17	0.07	8
B22t	18-26"	4.8	4.67	4.24	0.14	0.23	0.06	9

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A	42.4	37.9	19.7
A2	47.7	37.7	14.6
B22t	38.6	39.2	22.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD GRAVELLY LOAM S69-Al-14-6-(1-3)

CLASSIFICATION: Typic Hapludults, fine-loamy, mixed thermic.

LOCATION: Clay County, Alabama: NE¼, Sec. 14 T20S R7E, 3 miles W-NW of Ashland.

USE AND NATIVE VEGETATION: Mixed hardwood forest with some pine.

PARENT ROCK OR REGOLITH: Mica schist, Quartz schist and Hornblende Gneiss.

DRAINAGE AND PERMEABILITY: Well drained and moderate to moderately rapid permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt and L. D. Spivey, Jr., February 5, 1969.

HORIZON	DEPTH	DESCRIPTION
A	0-6"	Brown (10YR 4/3) gravelly loam; weak fine granular structure; very friable; many fine and few medium roots; 15 percent angular fragments less than 2 inches in diameter: very strongly acid; clear smooth boundary.
A2	6-18"	Brown (7.5YR 4/4) loam, weak medium subangular blocky structure; friable; few fine and medium roots; sand bridged and coated with clay; few very thin patchy clay film; very strongly acid; gradual wavy boundary.
B2t	18-26"	Strong brown (7.5YR 5/6) loam; weak to moderate medium subangular blocky structure; friable; very thin patchy clay films, very strongly acid; clear wavy boundary.
	26"	Layer of loose rock.

NSD loam
(SOIL SERIES)

S72 A1-15-5-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			----------meq/100 g----------					
Ap	0-5"	4.8	4.50	3.84	0.36	0.23	0.07	14.7
B21t	5-25"	5.0	7.21	5.84	0.64	0.66	0.08	19.0
B22t	25-75"	4.9	7.34	7.04	0.14	0.08	0.08	4.1
C1	75-96"	4.9	6.58	6.40	0.09	0.04	0.05	2.7

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	52.3	30.5	17.2
B21t	42.5	23.9	33.6
B22t	31.9	23.0	45.1
C1	52.5	13.3	34.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t			>50	kaolinite			

NSD LOAM S72 Al-15-5-(1-5)

CLASSIFICATION: Typic Paleudults, fine-loamy, mixed thermic family.

LOCATION: Cleburne County, Alabama. Approximately 1¼ miles southeast of Tallapoosa River bridge on Alabama Highway 46 (SW¼, NE¼, Sec. 26, T16S, R11E). Photo CPK-1EE-148.

USE AND NATIVE VEGETATION: Present use is a Loblolly Pine plantation. Native vegetation was deciduous forest.

PARENT ROCK OR REGOLITH: Old alluvium from the Tallapoosa River.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, 8/16/72

HORIZON	DEPTH	DESCRIPTION
Ap	0-5"	Brown (7.5YR4/4) loam; moderate medium granular structure; friable; common fine and medium roots; medium acid; abrupt smooth boundary.
B21t	5-25"	Yellowish red (5YR4/6) clay; moderate fine sub-angular blocky structure; friable; few fine and medium roots; common fine root pores; thin continuous clay films; medium acid; clear wavy boundary.
B22t	25-75"	Dark red (10R3/6) clay with yellowish red (5YR4/6) mottles; strong fine and medium sub-angular blocky structure; friable; few fine roots; thick continuous clay films; strongly acid; gradual wavy boundary.
C1	75-96"	Red (2.5YR4/8) sandy clay loam with strong brown (7.5YR5/6) mottles; friable; strongly acid; gradual wavy boundary.
C2	96-110"	Red (2.5YR4/8) gravelly sandy clay loam with strong brown (7.5YR5/6) mottles; friable; strongly acid.

REMARKS: Included in Waynesboro in mapping; clay content of control section 1.4% less than clayey family.

NSD gravelly loam (SOIL SERIES)

S73-Al-15-18(1-2) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A 1	0-5"	6.2	8.95	3.28	3.12	2.46	0.09	63.4
B2t	5-24"	5.9	23.02	4.80	5.48	2.70	0.04	79.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A 1	56.1	36.4	7.5
B2t	23.7	37.2	39.1

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B2t			40	Kaolinite			3.8%

NSD GRAVELLY LOAM S73-Al-15-18-(1-2)

CLASSIFICATION: Typic Hapludalfs, fine, montmorillonitic, thermic.

LOCATION: Cleburne County, Alabama. 1 mile southwest of Hollis Cross Roads, ¼ mile east of Alabama highway 9 (NE¼, NE¼, Sec. 36, T17S, R9E). Photo CPK-3EE-36.

USE AND NATIVE VEGETATION: Idle cropland at present. Deciduous forest in past.

PARENT ROCK OR REGOLITH: Hillabee chlorite schist.

DRAINAGE AND PERMEABILITY: Well drained and slowly permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, July 5, 1973

HORIZON	DEPTH	DESCRIPTION
A1	0-5"	Dark brown (10YR 4/3) gravelly sandy loam, moderate medium granular structure; friable; common fine and medium roots; 20 percent schist fragments; neutral; clear smooth boundary.
B2t	5-24"	Yellowish brown (10YR 5/6) clay loam; moderate coarse angular blocky structure; firm; sticky; very plastic; yellowish brown (10YR 5/4) and light olive brown (2.5Y 5/4) coatings on ped surfaces; common black manganese accumulations; few fine and medium roots; neutral; gradual irregular boundary.
C	24-30"	Moderately weathered schist with relict rock structure.
R	30-50"	Schist bedrock.

REMARKS: Not correlated because of small acreage. Included in Mecklenburg association, rolling in mapping.

NSD fine sandy loam (SOIL SERIES)

S72-A1-15-1-(1-6) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-10"	6.0	5.49	3.04	2.04	0.34	0.06	44.6
B1	10-24"	6.3	2.99	2.08	0.71	0.16	0.04	30.4
B2t	24-40"	5.4	4.07	3.12	0.52	0.39	0.04	23.4
B3	40-64"	5.2	3.59	3.28	0.12	0.14	0.05	8.5
C1	64-100"	5.1	4.49	4.16	0.16	0.13	0.04	7.4

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	54.5	34.9	10.6
B1	56.5	30.8	12.7
B2t	46.1	37.0	16.9
B3	49.8	37.0	13.2
C1	57.8	30.8	11.4

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	< 0.2 µm %	< 0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

NSD FINE SANDY LOAM S72-Al-15-1-(1-6)

CLASSIFICATION: Typic Hapludults, coarse loamy, siliceous, thermic

LOCATION: Cleburne County, approximately ½ mile southeast of the Tallapoosa River bridge on Alabama Highway 46 (SW¼, SE¼, Sec. 22, T16S, R11E). Photo CPK-1EE-170.

USE AND NATIVE VEGETATION: Present use is pasture. Native vegetation was deciduous forest.

PARENT ROCK OR REGOLITH: Intermediate age alluvium from Tallapoosa River.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey and J. S. Austin, 8-17-72

HORIZON	DEPTH	DESCRIPTION
Ap	0-10"	Brown (10YR 4/3) fine sandy loam; weak medium granular structure; friable; common fine and medium roots; common fine mica flakes; neutral; clear wavy boundary.
B1	10-24"	Yellowish brown (10YR 5/6) fine sandy loam with few pale brown (10YR 6/3) mottles; weak coarse subangular blocky structure; (2) very friable; common fine and medium roots; common fine root pores; common fine mica flakes; neutral clear wavy boundary.
B2t	20-40"	Strong brown (7.5YR 5/6) loam; moderate medium and coarse subangular blocky structure; friable; few fine roots; common fine root pores; few patchy clay films with clay bridgings between grains; common fine mica flakes; medium acid; diffuse wavy boundary.
B3	40-64"	Yellowish brown (10YR 5/6) loam; weak medium and coarse subangular blocky structure; friable; few fine roots and root pores; clay bridgings between and grains; common fine mica flakes; strongly acid; gradual wavy boundary.
C1	64-100"	Mottled brown (7.5YR 4/4) and pale brown (10YR 6/3) fine sandy loam; structureless; (3) friable; common fine mica flakes; strongly acid; diffuse wavy boundary.
C2	100-140"	Mottled brown (7.5YR 4/4), yellowish brown (10YR 5/4), pale brown (10YR 6.3) and gray (10YR 6/1) fine sandy loam; common fine mica flakes; strongly acid.

REMARKS: Considered as State soils in mapping.

NSD loam
(SOIL SERIES)

S73 Al-15-23-(1-4)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-4"	6.1	24.14	4.08	4.00	15.77	0.29	83.10
B21t	4-24"	5.8	7.80	5.44	2.22	0.09	0.04	30.26
B22t	24-38"	5.6	7.86	6.00	0.38	1.45	0.03	23.71
C	38-65"	5.5	6.89	5.76	0.24	0.86	0.03	16.46

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	33.4	43.2	23.4
B21t	7.9	34.9	57.2
B22t	11.1	46.1	42.8
C	21.4	43.0	35.6

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3

No data obtained.

NSD LOAM S73 Al-15-23-(1-4)

CLASSIFICATION: Typic Hapludults, clayey, kaolinitic, thermic

LOCATION: Cleburne County, Alabama. Approximately 1½ miles southwest of Hollis Crossroads and ¼ miles southeast of Alabama Highway 9 (NW¼, NE¼, Sec. 36, T17S, R9E). Photo CPK-3EE-36.

USE AND NATIVE VEGETATION: Idle cropland at present. Deciduous forest in past.

PARENT ROCK OR REGOLITH: Hillabee chlorite schist.

DRAINAGE AND PERMEABILITY: Well drained and moderately permeable.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: L. D. Spivey, 12/3/73

HORIZON	DEPTH	DESCRIPTION
Ap	0-4"	Reddish brown (5YR4/4) loam; weak medium granular structure; friable; common fine and medium roots; 5 percent schist gravel; slightly acid; clear wavy boundary.
B21t	4-24"	Red (2.5YR4/6) clay; moderate medium subangular blocky structure; friable; few fine and medium roots; common fine root pores; thin continuous clay films on ped surfaces; slightly acid; gradual wavy boundary.
B22t	24-38"	Red (2.5YR4/6) silty clay; moderate medium subangular blocky structure; friable; few fine and medium roots; common fine root pores; thin continuous clay films on ped surfaces; slightly acid; gradual irregular boundary.
C	38-65"	Highly weathered chlorite schist saprolite.

NSD silt loam
(SOIL SERIES)

S70 A1-39-4-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-6"	5.5	4.84	2.40	1.87	0.36	0.21	50.41
B1	6-18"	5.6	10.18	2.88	6.50	.69	.11	71.70
B21t	18-41"	5.0	6.57	5.12	.29	1.07	.09	22.07
B22t	41-60"	5.0	7.64	6.08	.16	1.31	.09	20.41
B23t	60-75"	4.9	7.04	6.00	0.16	0.80	0.08	14.77

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	31.5	56.8	11.7
B1	1.73	57.9	24.8
B21t	2.07	48.1	31.2
B22t	1.87	32.0	49.3
B23t	21.3	30.5	48.2

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	< 0.2 μm %	< 0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD SILT LOAM S70 Al-39-4-(1-5)

CLASSIFICATION: Typic Paleudults; fine-loamy, siliceous, thermic.

LOCATION: Lauderdale County, 1 mile east, ½ mile south of St. Florian in SE¼, NE¼, Sec. 20, T2S, R11W.

USE AND NATIVE VEGETATION: Present use is cropland. Native vegetation is presumed to have been hardwoods such as oak species, hickory, gum, elm and black walnut.

PARENT ROCK OR REGOLITH: Limestone.

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: Hoyt Sherard, 5/19/70, 8/14/70

HORIZON	DEPTH	DESCRIPTION
Ap	0-6"	Dark reddish brown (5YR3/4) silt loam; weak fine granular structure; friable; many fine roots; slightly acid; clear smooth boundary (3 to 8 inches thick).
B1	6-18"	Yellowish red (5YR4/8) silty clay loam; moderate medium and fine subangular blocky structure; friable; common fine roots; few thin patchy clay films on faces of most peds; slightly acid; gradual smooth boundary (0 to 14 inches thick).
B21t	18-41"	Dark red (2.5YR3/6) clay; moderate medium subangular blocky structure; firm; common thin dark reddish brown (2.5YR3/4) clay films on faces of most peds; few small chert fragments; few fine roots; medium acid; gradual smooth boundary, (10 to 20 inches thick).
B22t	41-60"	Dark red (2.5Y3/6) clay, few fine distinct reddish brown (5YR5/4) splotches; moderate medium subangular blocky structure; firm; common thin clay films on most peds; few chert fragments; ¼ to 1 inch in size; medium acid; gradual smooth boundary (16 to 24 inches thick).
B23t	60-75"	Dark red (2.5YR3/6) clay; moderate medium subangular blocky structure; firm; few to common thin patchy clay films on most peds; common chert fragments, ¼ to 1 inch in size; medium acid (1 to 3 feet thick).

REMARKS: Included with Dewey in mapping.

NSD silt loam
(SOIL SERIES)

S70 A1-39-8-(1-5)
(SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
Ap	0-9"	5.9	9.61	3.20	5.75	.47	.19	66.70
A1	9-19"	5.4	9.42	5.12	4.00	.21	.09	45.64
B2	19-38"	4.8	6.99	5.76	1.07	.07	.09	17.59
C1	38-45"	4.8	4.59	4.00	.45	.06	.08	12.85
C2	45-54"	4.9	3.79	2.88	. 71	.11	.09	24.01

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
Ap	32.7	51.8	15.5
A1	11.0	65.2	23.8
B2	21.5	56.8	21.7
C1	58.1	28.9	13.0
C2	62.6	26.5	10.9

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2μm %	<2μm Mineralogy	<0.2 μm %	<0.2 μm Mineralogy	Free Iron % Fe_2O_3

No data obtained

NSD SILT LOAM S70 A1-39-8-(1-5)

CLASSIFICATION: Typic Haplumbrepts, fine-loamy, mixed, thermic.

LOCATION: Lauderdale County, 3/4 mile NW of Pruitton in NW¼, NE¼, Sec. 6, T1S, R10W.

USE AND NATIVE VEGETATION: About 90 percent in crops. Native vegetation includes maples, oaks, elm, sycamore, poplar, ash and hickory.

PARENT ROCK OR REGOLITH: Stream deposits

DRAINAGE AND PERMEABILITY: Well drained, but subject to overflow. Permeability is moderate to rapid.

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: Hoyt Sherard, 6/18/70, 8/14/70

HORIZON	DEPTH	DESCRIPTION
Ap	0-9"	Dark brown (10YR3/3) silt loam; weak fine granular structure; friable; many fine roots; few gravels, ¼ to 1 inch in size; neutral (lime applied 1 year ago); clear smooth boundary (6 to 10 inches thick).
A1	9-19"	Dark brown (7.5YR3/2) silt loam; weak, fine to medium granular structure; friable; common fine roots; few gravel, ¼ to 1 inch in size; strongly acid to slightly acid; gradual smooth boundary (10 to 24 inches thick).
B2	19-38"	Dark brown (10YR4/3) silt loam; weak fine granular structure; common fine roots; few gravel, ¼ to 1 inch in size; strongly to slightly acid; gradual smooth boundary (15 to 30 inches thick).
C1	38-45"	Brown (10YR5/3) fine sandy loam with few dark brown (10YR4/3) splotches; weak fine granular structure; very friable; few gravel, ¼ to 1 inch in size; strongly acid; gradual smooth boundary (0 to 12 inches thick).
C2	45-54"	Light yellowish brown (10YR6/4); gravelly sandy loam, common fine distinct very dark brown (10YR 2/2) splotches; massive; very friable; about 35 percent gravels, ¼ to 1 inch in size; strongly acid.

REMARKS: Included in Pruitton in mapping.

NSD sandy loam (SOIL SERIES)

S73 A1-41-5-(1-5) (SAMPLE NUMBER)

CHEMICAL DATA

Horizon	Depth Inches	pH H_2O 1:1	CEC	H	Ca	Mg	K	Base Sat'n %
			meq/100 g					
A1	0-3	4.6	7.55	5.28	1.46	0.57	0.24	30.1
B21t	4-25	5.5	5-90	4.88	0.26	0.65	0.10	17.3
B22t	25-51	5.3	4.36	3.60	0.12	0.49	0.15	17.6
C	51-84	4.9	2.86	2.00	0.16	0.52	0.18	30.2

PHYSICAL DATA

Horizon	Sand, mm Total 2.0-0.05	Silt, mm .05-.002	Clay, mm <.002
A1	46.2	45.9	7.9
B21t	30.8	38.4	30.8
B22t	24.8	52.7	22.5
C	50.2	43.7	6.1

PERCENT OF A FRACTION, MINERALOGY AND FREE IRON DATA

Horizon	.02-2mm %	.02-2mm Mineralogy	<2µm %	<2µm Mineralogy	<0.2 µm %	<0.2 µm Mineralogy	Free Iron % Fe_2O_3
B21t	40	mica	90	kaolinite			

NSD SANDY LOAM S73 Al-41-5-(1-5)

CLASSIFICATION: Typic Hapludults, fine-loamy, micaceous, thermic

LOCATION: Lee County, Alabama, 2.8 miles SW of Bartletts Ferry Dam. SW¼ SW¼ Section 15 T19N R29E

USE AND NATIVE VEGETATION: Present use is pine forest. Native vegetation is presumed to have been mixed hardwood and pine forest.

PARENT ROCK OR REGOLITH: Granite

DRAINAGE AND PERMEABILITY: Well drained and moderate permeability

SAMPLES COLLECTED AND PROFILE DESCRIBED BY: R. B. McNutt, R. A. Hoyum, 11/9/73

HORIZON	DEPTH	DESCRIPTION
A1	0-3"	Grayish brown (10YR5/2) sandy loam; weak medium granular structure; very friable; common fine roots; strongly acid; abrupt smooth boundary.
B1	3-4"	Yellowish red (5YR5/6) sandy clay loam; weak fine subangular blocky structure; friable; common fine roots; strongly acid; abrupt smooth boundary.
B21t	4-25"	Red (2.5YR4/6) clay; moderate medium subangular blocky structure; firm; few fine roots; nearly continuous clay films on faces of peds; very strongly acid; clear smooth boundary.
B22t	25-51"	Red (2.5YR5/6) clay loam; moderate medium subangular blocky structure; firm; clay films on faces of peds; very strongly acid; gradual smooth boundary.
C	51-84"	Mottled white (10YR8/2), light brownish gray (10YR6/2), and yellowish brown (10YR5/6) highly weathered granite, massive.

REMARKS: Sampled as Cecil, will not meet clay content requirement.