

United States Department of Agriculture



Natural Resources Conservation Service  
4407 Bland Road, Suite 117  
Raleigh, North Carolina 27609

Roy L. Vick, State Soil Scientist/MLRA Leader  
Phone: (919) 873-2141  
Fax: (919) 873-2157  
E-mail: roy.vick@nc.usda.gov

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**SUBJECT:** SOI-Soil Taxonomy Amendments-  
Rhodic Subgroup Revision

**DATE:** April 30 2010

**TO:** Craig Ditzler  
National Leader, Soil Survey  
Standards

**FILE CODE:** 430-11-12

The Mid-Atlantic MLRA Office is proposing revisions to the criteria for Rhodic subgroups in Alfisols. The changes that were made to the Ultisols order in the 8th Edition to The Keys to Soil Taxonomy are needed also for the Alfisols order. There are still soils that have historically been considered Rhodic, at least in part, fall outside the present criteria.

Attachment 1 is a list of soil series in Rhodic subgroups of Alfisols and the MLRA offices responsible. Attachment 2 is the proposed change in criteria that will meet our needs in the Mid-Atlantic region. Attachment 3 contains official series descriptions in which either the type location is outside the thickness and color requirements, or the range in characteristics includes soils in Typic subgroups.

My research shows that no other series in our region will inadvertently meet the proposed Rhodic subgroup criteria. Other MLRA regions may need to check that this is the case for other series under their responsibility.

We will be circulating this proposal for discussion at the South Regional Cooperative Soil Survey Conference. All of the affected series are covered by MOs in the South Region.

A handwritten signature in black ink that reads "Roy Vick".

Roy L. Vick  
State Soil Scientist/MLRA Leader

Attachments (3)



## Attachment 1

SERIES	MO	State type location	SOIL FAMILY
CORONACA	14	SC	FINE, KAOLINITIC, THERMIC RHODIC PALEUDALFS
CUMBERLAND	18	TN	FINE, MIXED, SEMIACTIVE, THERMIC RHODIC PALEUDALFS
ELLIJAY	18	NC	FINE, FERRUGINOUS, MESIC RHODIC KANHAPLUDALFS
FAYETTEVILLE	16	AR	FINE-LOAMY, MIXED, ACTIVE, THERMIC RHODIC PALEUDALFS
NACOGDOCHES	16	TX	FINE, KAOLINITIC, THERMIC RHODIC PALEUDALFS
PONTOTOC	9	TX	COARSE-LOAMY, MIXED, ACTIVE, THERMIC RHODIC PALEUSTALFS
SPIRES	9	TX	FINE, MIXED, ACTIVE, THERMIC RHODIC PALEUSTALFS
TADLOCK	15	AL	FINE, MIXED, SUBACTIVE, THERMIC RHODIC PALEUDALFS
TIFF	16	MO	CLAYEY-SKELETAL, KAOLINITIC, MESIC RHODIC PALEUDALFS

## Attachment 2

JEEI. Other Kandiualfs that have, in all subhorizons in the upper 400 75 cm of the kandic horizon or throughout the entire kandic horizon if less than 400 75 cm thick, more than 50 percent colors that have all of the following:

1. Hue of 2.5YR or redder; and
2. Value, moist, of 3 or less; and
3. Dry value no more than 1 unit higher than the moist value.

### **Rhodic Kandiualfs**

Jefd. Other Kanhapludalfs that have, in all subhorizons in the upper 400 50 cm of the kandic horizon or throughout the entire kandic horizon if less than 400 50 cm thick, more than 50 percent colors that have all of the following:

1. Hue of 2.5YR or redder; and
2. Value, moist, of 3 or less; and
3. Dry value no more than 1 unit higher than the moist value.

### **Rhodic Kanhapludalfs**

JEGT. Other Paleudalfs that have, in all subhorizons in the upper 400 75 cm of the argillic horizon or throughout the entire argillic horizon if less than 400 75 cm thick, more than 50 percent colors that have all of the following:

1. Hue of 2.5YR or redder; and
2. Value, moist, of 3 or less; and
3. Dry value no more than 1 unit higher than the moist value.

### **Rhodic Paleudalfs**

JCDI. Other Kandiustalfs that have, in all subhorizons in the upper 400 75 cm of the kandic horizon or throughout the entire kandic horizon if less than 400 75 cm thick, more than 50 percent colors that have all of the following:

1. Hue of 2.5YR or redder; and
2. Value, moist, of 3 or less; and
3. Dry value no more than 1 unit higher than the moist value.

### **Rhodic Kandiustalfs**

JCEE. Other Kanhaplustalfs that have, in all subhorizons in the upper 400 50 cm of the kandic horizon or throughout the entire kandic horizon if less than 400 50 cm thick, more than 50 percent colors that have all of the following:

1. Hue of 2.5YR or redder; and
2. Value, moist, of 3 or less; and
3. Dry value no more than 1 unit higher than the moist value.

### **Rhodic Kanhaplustalfs**

JCFR. Other Paleustalfs that have, in all subhorizons in the upper 400 75 cm of the argillic horizon or throughout the entire argillic horizon if less than 400 75 cm thick, more than 50 percent colors that have all of the following:

1. Hue of 2.5YR or redder; and
2. Value, moist, of 3 or less; and
3. Dry value no more than 1 unit higher than the moist value.

### **Rhodic Paleustalfs**

## Attachment 3

### CORONACA SERIES

The Coronaca series consists of deep, well drained, moderately well drained clayey soils that formed in material weathered mostly from hornblende, gabbro, or diorite of the Piedmont uplands. Slopes range from 2 to 15 percent.

TAXONOMIC CLASS: Fine, kaolinitic, thermic Rhodic Paleudalfs

TYPICAL PEDON: Coronaca sandy clay loam--cultivated.  
(Colors are for moist soil.)

Ap--0 to 6 inches; dark reddish brown (2.5YR 2/4) sandy clay loam; weak fine granular structure; friable; sticky; many fine roots; few fine dark colored concretions; 1 percent pebbles of quartz; neutral; abrupt smooth boundary. (4 to 8 inches thick)

***Bt1--6 to 25 inches; dusky red (10YR 3/3) clay; moderate medium subangular blocky structure; firm; very sticky; many prominent clay films on faces of peds; common fine roots; 1 percent pebbles of quartz; few fine dark colored concretions; few fine flakes of mica; slightly acid; gradual smooth boundary. (12 to 25 inches thick)***

***Bt2--25 to 44 inches; dark red (10R 3/6) clay; strong medium subangular blocky structure; firm; very sticky; many prominent clay films on faces of peds; 1 percent pebbles of quartz; few fine dark colored concretions; few fine flakes of mica; moderately acid; gradual smooth boundary. (10 to 24 inches thick)***

Bt3--44 to 62 inches; red (10R 4/6) clay; common, medium prominent yellowish brown (10YR 5/6) mottles; strong fine subangular blocky structure; firm; very sticky; many prominent clay films on faces of peds; 1 percent pebbles of quartz; few fine dark colored concretions; common fine flakes of mica; moderately acid; clear smooth boundary. (10 to 20 inches thick)

Bt4--62 to 81 inches; red (2.5YR 4/6) clay; many fine distinct brownish yellow (10YR 5/6) and few fine distinct very pale brown (10YR 7/3) mottles; weak fine subangular blocky structure; firm; sticky; common faint clay films on faces of some peds; 1 percent pebbles of quartz; few fine flakes of mica; 1 percent feldspar crystals; moderately acid; clear wavy boundary. (10 to 25 inches thick)

BC--81 to 97 inches; mottled red (2.5YR 4/6), white (10YR 8/2), light red (2.5YR 6/6), and reddish yellow (5YR 6/6) clay loam; weak fine subangular blocky structure; firm; slightly sticky; few faint clay films on faces of peds; few fine flakes of mica; 4 percent feldspar crystal; moderately acid.

TYPE LOCATION: Greenwood County, South Carolina; 5 miles north of Greenwood, 3 miles southeast of Cokesbury on Gary road, 30 feet east of Gary Road.

RANGE IN CHARACTERISTICS: Thickness of the solum is 60 to more than 99 inches. The soil is moderately acid to neutral throughout the profile. Dark colored concretions and flakes of mica are in the A horizon of some pedons and are in the B horizon of most pedons. Content of coarse fragments range to as much as 5 percent by volume in the upper part of the solum and to as much as 10 percent in the lower part of the solum.

The A horizon has hue of 10R to 5YR, value of 2 or 3, and chroma of 4 or 6. It is clay loam, sandy clay loam, or loam.

The upper part of the Bt horizon has hue of 10R or 2.5YR, value of 3, and chroma of 3 to 6. ***The lower part of the Bt horizon, below the series control section, has hue of 10R or 2.5YR, value of 3 or 4,*** and chroma of 6 or 8. Mottles in shades of red, brown, or yellow are in the lower part of the B2t horizon of most pedons. The Bt horizon is clay. Some pedons have thin horizons of clay loam.

The BC horizon has hue of 10R or 2.5YR, value of 3 to 5, and chroma of 6 or 8, commonly with mottles in shades of red, brown, or yellow. It is clay loam, silty clay loam, or clay.

## CUMBERLAND SERIES

The Cumberland series is a member of the fine, mixed, thermic family of Rhodic Paleudalfs. These soils have dark reddish brown silt loam A horizons and dark red clay B horizons.

TAXONOMIC CLASS: Fine, mixed, semiactive thermic Rhodic Paleudalfs

TYPICAL PEDON: Cumberland silt loam - pasture.  
(Colors are for moist soil unless otherwise stated.)

Ap-- 0-8 inches, dark reddish brown (5YR 3/4) silt loam; moderate medium granular structure; friable; many fine roots and pores; few fine black and dark brown concretions; medium acid; abrupt smooth boundary. (5 to 10 inches thick)

B1-- 8-14 inches, dark reddish brown (2.5YR 3/4) silty clay loam; moderate medium subangular blocky structure; friable; common fine roots and pores; thin patchy clay films; common fine dark concretions; medium acid; clear smooth boundary. (4 to 9 inches thick)

**B21t -- 14-27 inches, dark red (2.5YR 3/6) clay; moderate medium subangular blocky structure; firm; common fine roots; thick patchy clay films; common fine dark concretions; strongly acid; diffuse smooth boundary. (12 to 20 inches thick)**

**B22t -- 27-40 inches, dark red (2.5YR 3/6) clay; moderate medium and fine subangular blocky structure; firm; few fine roots and pores; thin continuous clay films; many fine dark concretions; strongly acid; gradual smooth boundary. (12 to 20 inches thick)**

**B23t -- 40-48 inches, dark red (2.5YR 3/6) clay; moderate medium angular and subangular blocky structure; firm; few fine roots and pores; thin continuous clay films; many fine dark concretions; strongly acid; gradual smooth boundary. (6 to 12 inches thick)**

**NOTE: If B1 (BA) is upper part of argillic horizon, this pedon is still borderline.**

B24t -- 48-64 inches, mottled red (2.5YR 4/6) and strong brown (7.5YR 5/6) clay; weak coarse angular blocky structure; very firm and very plastic; few fine roots and pores; thin continuous clay films; few fine fragments of chert; strongly acid.

TYPE LOCATION: Rutherford County, Tennessee; 3 miles north of Murfreesboro, 1 mile north of Murfreesboro Airport on U. S. Highway 231, then east on gravel road (forming north boundary of Alsup farm) for 1/4 mile, then 100 feet south of gravel road.

RANGE IN CHARACTERISTICS: The thickness of the solum and depth to bedrock exceed 60 inches. Amount of angular fragments of chert or of rounded gravel ranges from none to about 10 percent or rarely 15 percent by volume in each horizon. Dark colored concretions range from few to common in each horizon. The soil is strongly acid or medium except the surface layer where limed and the layer in the lower part of the solum which ranges through slightly acid.

The A horizon is dark reddish brown (5YR 3/2, 3/3, 3/4; 2.5YR 3/4, 2/4) silt loam or loam. It ranges to dark red (2.5YR 3/6; 10YR 3/6) silty clay loam or clay loam where severely eroded.

The B1 horizon is dark reddish brown (2.5YR 3/4), dusky red (10YR 3/3, 3/4), or dark red (2.5YR 3/6; 10YR 3/6) clay loam or silty clay loam. The B21t through B23t horizons are dark red (2.5YR 3/6; 10R 3/6), dark reddish brown (2.5YR 3/4), or dusky red (10R 3/3, 3/4) clay, clay loam, or silty clay loam marginal to clay. ***The dark red, dusky red or dark reddish brown colors extend to depths greater than 40 inches.*** The B24t horizon is firm or very firm clay or clay loam which is variable in color. In addition, to the colors given for the B21t to B23t horizons it includes red (2.5YR 4/6, 4/8; 10R 4/6, 4/8) and yellowish red (5YR 4/6, 4/8, 5/6, 5/8) or mottled brown, yellow, and red. Average clay content of the upper 20 inches of the B horizon ranges between about 35 and 60 percent. Clay content increases as depth increases.

## ELLIJAY SERIES

The Ellijay series consists of very deep, well drained, moderately permeable soils on intermountain ridges and side slopes in the Southern Appalachian Mountains. These soils formed mainly in materials weathered from ultra mafic crystalline rocks which contain minerals such as olivine, serpentine, and talc. Near the type location, the mean annual temperature is about 56 degrees F., and the mean annual precipitation is about 55 inches. Slope ranges from 2 to 70 percent.

TAXONOMIC CLASS: Fine, ferruginous, mesic Rhodic Kanhapludalfs

TYPICAL PEDON: Ellijay silty clay loam on a 12 percent east facing side slope at an elevation of 2,128 feet -- forested. (Colors are for moist soil unless otherwise stated.)

A--0 to 4 inches; dusky red (10R 3/4) silty clay loam, red (10R4/6) dry; moderate fine granular structure; very friable; many fine and coarse roots; 5 percent gravel, cobbles, and stones; strongly acid; gradual wavy boundary. (3 to 8 inches thick)

Bt1--4 to 15 inches; dark red (10R 3/6) clay; moderate medium subangular blocky structure; friable; sticky, slightly plastic; many fine and coarse roots; 5 percent gravel, cobbles, and stones in a line at the base of this horizon; strongly acid; gradual wavy boundary.

Bt2--15 to 34 inches; dark red (10R 3/6) clay; moderate medium subangular blocky structure; friable; sticky, slightly plastic; common fine and coarse roots; 5 percent gravel, cobbles, and stones; medium acid; gradual wavy boundary. ***(Combined thickness of the Bt horizon is 15 to 45 inches.)***

***NOTE: If BC is still part of the argillic horizon, soils with thin Bt horizons can have value of 4 to 6 within the upper meter of the argillic horizon.***

BC--34 to 52 inches; dark red (2.5YR 3/6) loam; weak medium subangular blocky structure; very friable; few fine and medium roots; 5 percent gravel, cobbles, and stones; medium acid; clear wavy boundary. (0 to 25 inches thick)

C1--52 to 59 inches; mottled yellowish red (5YR 5/6), reddish yellow (7.5YR 6/8), and brownish yellow (10YR 6/6) saprolite that has a clay loam texture; massive; very friable; few fine roots; 5 percent gravel, cobbles, and stones; few black concretions; slightly acid; gradual wavy boundary.

C2--59 to 70 inches; mottled strong brown (7.5YR 5/8), yellowish red (5YR 5/8), and very pale brown (10YR 7/4) saprolite that has a loam texture; massive; very friable; 5 percent gravel, cobbles, and stones; few black concretions; slightly acid.

TYPE LOCATION: Jackson County, North Carolina; 3.5 miles southeast of Sylva on NC 107; 1.9 miles southwest on NC 116; 0.2 mile southeast of Webster on State Road 1346; 50 feet west of road in woods.

RANGE IN CHARACTERISTICS: Solum thickness ranges from 30 to 60 inches. Depth to bedrock is greater than 60 inches. Reaction in the A horizon ranges from very strongly acid to medium acid, unless limed. The Bt, BC, and C

horizons range from strongly acid to neutral. There is a substantial imbalance between exchangeable calcium and magnesium in the Bt, BC, and C horizons, unless it has been corrected by liming. Content of mica flakes ranges from none to common. Content of rock fragments ranges from 0 to 35 percent in the A horizon and from 0 to 15 percent in the lower horizons. Rock fragments are dominantly gravel, but cobbles and stones are in some pedons.

The A horizon has hue of 10R to 7.5YR, value of 3, and chroma of 2 to 6. It is loam, fine sandy loam, silty clay loam, or clay loam in the fine- earth fraction.

Thin AB or BA horizons, where present, have hue of 10R to 5YR, value of 3, and chroma of 4 or 6. They are silty clay loam or clay loam.

The Bt horizon has hue of 10R or 2.5YR, value of 3, and chroma of 4 or 6. The dry color value is 4. It is typically clay, but may include silty clay loam or clay loam.

***The BC or CB horizons, where present, have hue of 10R to 5YR, value of 3 to 6, and chroma of 4 to 8. They are loam, clay loam, or silty clay loam.***

The C horizon is multicolored or mottled in shades of red, yellow, or brown, and is saprolite that has textures of loam, clay loam, fine sandy loam, or sandy loam.

## NACOGDOCHES SERIES

The Nacogdoches series consists of deep, well drained, moderately slowly permeable soils that formed in thick marine sediments high in glauconite. These soils are on gently to strongly sloping uplands. Slope is dominantly less than 8 percent but ranges up to 15 percent.

TAXONOMIC CLASS: Fine, kaolinitic, thermic Rhodic Paleudalfs

TYPICAL PEDON: Nacogdoches fine sandy loam, on a smooth 3 percent slope, in pasture. (Colors are for moist soil unless otherwise stated.)

Ap--0 to 6 inches; dark reddish brown (5YR 3/4) fine sandy loam, reddish brown (5YR 4/4) dry; very weak subangular blocky structure; slightly hard, very friable; many fine roots; common fine angular fragments of ironstone; medium acid; gradual smooth boundary. (4 to 10 inches thick)

B21t--6 to 30 inches; dark red (10R 3/6) clay, same color dry; moderate medium and fine angular and subangular blocky structure; very hard, friable; common fine roots; common fine pores; thin continuous clay films; common fine angular fragments of ironstone; strongly acid; diffuse wavy boundary. (15 to 40 inches thick)

B22t--30 to 70 inches; dark red (2.5YR 3/6) clay, red (2.5YR 4/6) dry; weak and moderate medium subangular blocky structure; very hard, friable; few fine roots; common fine and very fine pores; common thin discontinuous clay films; few fine angular fragments of ironstone; 20 to 30 percent by volume of yellowish brown partially weathered brittle fragments of glauconitic material less than 1 inch across the long axis; very strongly acid; diffuse smooth boundary. (20 to 60 inches thick)

B3--70 to 100 inches; stratified red (2.5YR 4/6) clay and partially weathered olive yellow (5Y 6/6) glauconitic material; weak medium subangular blocky structure and massive; very hard, friable; patchy clay films and few thick clay or iron flows in clayey part; glauconitic material is brittle and contains shell fossils; strongly acid.

TYPE LOCATION: Nacogdoches County, Texas; about 20 miles east of Nacogdoches; from the intersection of Farm Road 95 and State Highway 21 in Chireno; 1.4 miles east on State Highway 21, and 400feet north; 350 feet west of fence.

RANGE IN CHARACTERISTICS: Solum thickness is 60 to more than 100 inches. The base saturation ranges from 35 to 60 percent at 72 inches below the soil surface.

The A horizon is very dusky red (10YR 2/2; 2.5YR 2/2), dusky red (10R 3/2, 3/3, 3/4; 2.5 YR 3/2), dark red (10R 3/6; 2.5YR 3/6), or dark reddish brown (2.5YR 3/4; 5YR 2/2, 3/2, 3/3, 3/4). Where chromas are 3 or less, the horizon is less than 6 inches thick. It is fine sandy loam, sandy clay loam, or clay loam or gravelly phases of these textures. The A horizon ranges from strongly through slightly acid.

**The B<sub>2t</sub> horizon is dark red (10R 3/6; 2.5YR 3/6) in the upper 40 inches. Color below this depth and including the B<sub>3</sub> horizon is dark red (10R 3/6; 2.5YR 3/6) or red (10R 4/6, 4/8; 2.5YR 4/6, 4/8).** The B horizon has a clay content of 40 to 60 percent and contains more than 25 percent sand. The clay fraction is dominated by tabular halloysite. Coarse fragments, dominantly ironstone, range from few to about 15 percent by volume throughout the B<sub>t</sub> horizon. The B<sub>t</sub> horizon is very strongly acid or strongly acid.

The C horizon, where encountered within 100 inches, is weathered glauconitic sandstone and greensand materials. Some pedons contain marine shells. The C horizon ranges from strongly acid through mildly alkaline.

## PONTOTOC SERIES

The Pontotoc series consists of very deep, well drained, moderately permeable soils that formed in thick beds of red sandstone. These soils are on nearly level to moderately sloping uplands. Slopes range from 0 to 8 percent.

TAXONOMIC CLASS: Coarse-loamy, mixed, active, thermic Rhodic Paleustalfs

TYPICAL PEDON: Pontotoc fine sandy loam--cultivated. (Colors are for dry soil unless otherwise stated.)

Ap--0 to 5 inches; dark reddish brown (2.5YR 3/4) fine sandy loam, dark reddish brown (2.5YR 3/4) moist; weak fine granular structure; slightly hard, very friable; slightly acid; abrupt smooth boundary. (4 to 6 inches thick)

A--5 to 10 inches; dark reddish brown (2.5YR 3/4) fine sandy loam, dark reddish brown (2.5YR 3/4) moist; weak fine granular and subangular blocky structure; slightly hard, very friable; few roots; common fine and medium pores; slightly acid; diffuse smooth boundary. (3 to 8 inches thick)

B<sub>t1</sub>--10 to 21 inches; dark reddish brown (2.5YR 3/4) fine sandy loam, dark reddish brown (2.5YR 3/4) moist; weak fine subangular blocky structure; slightly hard, very friable; few roots; few fine and medium pores; few patchy clay films; slightly acid; diffuse smooth boundary. (5 to 14 inches thick)

B<sub>t2</sub>--21 to 33 inches; dark red (2.5YR 3/6) fine sandy loam, dark red (2.5YR 3/6) moist; weak fine subangular blocky structure; hard, friable; few roots; common fine and medium pores; clay films in pores; slightly acid; diffuse smooth boundary. (5 to 14 inches thick)

B<sub>t3</sub>--33 to 67 inches; dark red (2.5YR 3/6) sandy clay loam, dark red (2.5YR 3/6) moist; weak fine subangular blocky structure; hard, friable; few fine pores; patchy clay films in pores; few roots; slightly acid; clear irregular boundary. (18 to 45 inches thick)

Cr--67 to 70 inches; red weakly cemented sandstone bedrock.

TYPE LOCATION: Mason County, Texas. About 1 mile west of Mason, Texas. From the court house in Mason 0.8 mile north on U.S. Highway 87, 0.6 mile west and northwest on county road, 0.4 mile west on private road to field boundary, 350 yards west in cultivated field.

RANGE IN CHARACTERISTICS: Solum thickness is 60 to 80 inches over sandstone. Sandstone cobbles and pebbles range from 0 to about 10 percent throughout. The reaction is slightly acid or neutral.

The A horizon has hue of 2.5YR or 5YR, value of 3 or 4, and chroma of 3 to 6. Clay content is 8 to 15 percent.

**The Bt1 horizon has a hue of 10R or 2.5YR, value of 3 or 4, and chroma of 4 through 6. Texture is fine sandy loam with a clay content of 12 to 18 percent.**

**The lower Bt horizons have hue of 10R or 2.5YR, value of 3 or 4, and chroma of 6. Texture is fine sandy loam or sandy clay loam with a clay content of 18 to 22 percent.**

The Cr horizon is weakly to strongly cemented reddish sandstone bedrock with a hardness of 2 to 3 on Mohs scale. The sandstone usually contains some glauconite.

## TADLOCK SERIES

The Tadlock series consists of deep, well drained moderately permeable soils that formed in clayey marine sediments. They are on broad upland ridges. Slope ranges from 0 to 10 percent.

TAXONOMIC CLASS: Fine, mixed, subactive, thermic Rhodic Paleudalfs

TYPICAL PEDON: Tadlock fine sandy loam on a smooth, convex 1 percent slope, in pines.  
(Colors are for moist soil unless otherwise stated.)

Ap--0 to 5 inches; dark reddish brown (5YR 3/4) fine sandy loam; weak medium granular structure; very friable, many fine roots; medium acid; abrupt wavy boundary. (4 to 8 inches thick)

B21t--5 to 23 inches; dark red (2.5YR 3/6) clay; moderate fine subangular blocky structure; friable; few fine roots; thin clay films on faces of most peds; few black coatings on ped faces; few clean sand grains; medium acid; gradual wavy boundary. (16 to 60 inches thick)

B22t--23 to 63 inches; dark red (2.5YR 3/6) clay; moderate fine subangular blocky structure; friable; few fine roots; thin clay films on faces of most peds; few clean sand grains; medium acid; gradual wavy boundary. (19 to 50 inches thick)

B23t--63 to 72 inches; dark red (2.5YR 3/6) and red (2.5YR 4/6) clay; moderate fine subangular blocky structure; friable; thin clay films on faces of most peds; few clean sand grains; slightly acid.

TYPE LOCATION: Dallas County, Alabama; 100 feet east of Alabama Highway 22 and 3.9 miles north of Selma City limits and Northside Baptist Church. NE1/4NE1/4NW1/4sec. 32, T. 18 N., R. 11 E.

RANGE IN CHARACTERISTICS: Solum thickness exceeds 72 inches. Reaction is slightly acid to very strongly acid. Many pedons become more acid with depth. Few small quartz pebbles occur throughout some pedons.

The Ap horizon has hue of 2.5YR to 7.5YR, value of 3, and chroma 2 through 4. It is fine sandy loam or loam.

The B2t horizon has hue of 10R to **5YR**, value of 3, and chroma 4 or 6. **Below 40 inches some pedons have hue of 2.5YR or 5YR, value of 4, and chroma of 6 or 8.** It is clay or clay loam. The upper 20 inches of the argillic has more than 30 percent sand and less than 30 percent silt. The clay content gradually decreases with depth. Some pedons have mottles in shades of brown or yellow in the lower B2t horizon. Many pedons have some dark coatings of manganese and a few iron or manganese concretions in the B2t horizon.