



Geology

Soils found on the Honeycreek Ranch in Comal County, Texas were derived from limestone of the Glen Rose Formation. The Glen Rose Formation is of Lower Cretaceous Age (145 -112 m.y.a) and outcrops primarily in the northwestern portions of the county. This geology is characterized by alternating beds of limestone, dolomite and marl. With alternating beds of resistant and recessive limestone and marl stairstepped topography on hillslopes is created. This stairstepped or benched topography is evident in the landscape where the Brackett, Comfort and Bolar soils occur.

Soils

Soil series that occur on the Honeycreek Treatment and Reference Watershed areas include:

Anhalt - Very-fine, smectitic, thermic Leptic Udic Haplusterts

A --- 0 to 8 centimeters; very dark gray (10YR 3/1) dry, silty clay; black (10YR 2/1) moist; 20 percent sand; 28 percent silt; 52 percent clay; strong medium subangular blocky parting to moderate medium granular structure; friable, moderately hard, very sticky, very plastic; moderate excavation difficulty; common very fine roots throughout, common fine roots throughout and common medium roots throughout; discontinuous faint slickensides (pedogenic) on all faces of peds; noneffervescent by HCl, 1 normal; clear smooth boundary.

Bss --- 8 to 53 centimeters; very dark gray (7.5YR 3/1) dry, clay; black (7.5YR 2.5/1) moist; 17 percent sand; 27 percent silt; 56 percent clay; moderate coarse angular blocky structure; firm, hard, very sticky, very plastic; moderate excavation difficulty; common very fine roots throughout and common fine roots throughout; 30 percent (common) patchy prominent pressure faces on all faces of peds; 3 percent (common) medium distinct irregular noncemented masses of carbonate with clear boundaries throughout; 5 percent nonflat subrounded very strongly cemented 2 to 75 millimeters limestone fragments; noneffervescent by HCl, 1 normal; Pressure faces evident. Clay increase but it is believed to be inherent to parent material rather than illuviated.; clear irregular boundary.

Cr --- 53 to 71 centimeters; high excavation difficulty; 2 percent (common) medium distinct irregular noncemented masses of carbonate with diffuse boundaries throughout; 5% soil material in fractures..

Bolar - Fine-loamy, carbonatic, thermic Udic Calciustolls

A --- 0 to 30 centimeters; dark grayish brown (10YR 4/2) dry, clay loam; very dark grayish brown (10YR 3/2) moist; 19 percent sand; 43 percent silt; 38 percent clay; strong medium subangular blocky parting to moderate medium subangular blocky structure; friable, moderately hard, very sticky, very plastic; moderate excavation difficulty; common very fine roots throughout, common fine roots throughout and common medium roots throughout; violently effervescent by HCl, 1 normal; clear smooth boundary.

Bk1 --- 30 to 53 centimeters; brown (10YR 5/3) dry, clay loam; brown (10YR 4/3) moist; 21 percent sand; 41 percent silt; 38 percent clay; moderate medium subangular blocky structure; firm, hard, very sticky, very plastic; moderate excavation difficulty; common very fine roots throughout, common fine roots throughout and moderately few very coarse roots throughout; 1 percent (few) fine distinct irregular noncemented masses of carbonate with clear boundaries throughout; violently effervescent by HCl, 1 normal; Pressure faces evident. Clay increase but it is believed to be inherent to parent material rather than illuviated; clear smooth boundary.

Bk2 --- 53 to 94 centimeters; brown (7.5YR 5/4) dry, clay; brown (7.5YR 4/4) moist; 25 percent sand; 45 percent silt; 40 percent clay; moderate medium subangular blocky structure; firm, hard, very sticky, very plastic; high excavation difficulty; common coarse roots in mat at top of horizon, common fine roots in mat at top of horizon and common very fine roots in mat at top

of horizon; 3 percent (common) medium distinct irregular noncemented masses of carbonate with diffuse boundaries throughout; violently effervescent by HCl, 1 normal; clear smooth boundary.

Bk3 --- 94 to 117 centimeters; light yellowish brown (10YR 6/4) dry, clay; yellowish brown (10YR 5/4) moist; 25 percent sand; 43 percent silt; 42 percent clay; weak medium subangular blocky structure; firm, hard, slightly sticky, slightly plastic; moderate excavation difficulty; common very fine roots throughout; 15 percent (common) medium distinct irregular noncemented masses of carbonate with clear boundaries throughout; violently effervescent by HCl, 1 normal; abrupt irregular boundary.

R --- 117 centimeters; simestone bedrock; high excavation difficulty; strongly effervescent.

Brackett - Loamy, carbonatic, thermic, shallow Typic Haplustepts

A --- 0 to 14 centimeters; brown (10YR 5/3) dry, gravelly loam; brown (10YR 4/3) moist; 43 percent sand; 30 percent silt; 27 percent clay; weak medium subangular blocky parting to moderate fine granular structure; very friable, soft, slightly sticky, slightly plastic; moderate excavation difficulty; many fine roots throughout; 15 percent nonflat subangular indurated 2 to 75 millimeters (0.1 to 3 inches) limestone fragments; violently effervescent by HCl, 1 normal; clear smooth boundary.

Bkk --- 14 to 75 centimeters; brown (10YR 5/3) dry, gravelly clay loam; brown (10YR 4/3) moist; 27 percent sand; 35 percent silt; 38 percent clay; weak medium subangular blocky structure; very firm, moderately hard, moderately sticky, moderately plastic; moderate excavation difficulty; very few fine roots throughout; 70 percent (many) continuous prominent carbonate coats; 25 percent nonflat subangular indurated 2 to 75 millimeters (0.1 to 3 inches) limestone fragments; violently effervescent by HCl, 1 normal; abrupt smooth boundary.

Cr --- 75 centimeters; violently effervescent by HCl, 1 normal.

Comfort - Clayey-skeletal, mixed, superactive, thermic Lithic Argiustolls

A --- 0 to 8 centimeters; very dark brown (10YR 2/2) dry, clay; black (10YR 2/1) moist; 20 percent sand; 28 percent silt; 52 percent clay; moderate fine subangular blocky parting to moderate fine granular structure; firm, moderately hard, slightly sticky, slightly plastic; moderate excavation difficulty; many fine roots throughout; 5 percent nonflat subangular indurated 2 to 75 millimeters limestone fragments; noneffervescent by HCl, 1 normal; clear smooth boundary.

Bt --- 8 to 25 centimeters; dark red (2.5YR 3/6) dry, clay; dark reddish brown (2.5YR 3/3) moist; 17 percent sand; 22 percent silt; 61 percent clay; moderate medium subangular blocky structure; very firm, hard, moderately sticky, moderately plastic; moderate excavation difficulty; common coarse roots throughout and many fine roots throughout; 30 percent (common) discontinuous distinct clay films on all faces of peds; 10 percent nonflat subangular indurated 2 to 75 millimeters limestone fragments; noneffervescent by HCl, 1 normal; abrupt irregular boundary.

R --- 25 centimeters; limestone bedrock; high excavation difficulty; violently effervescent by HCl, 1 normal.

Denton - Fine-silty, carbonatic, thermic Udic Calciustolls

A --- 0 to 12 centimeters; dark brown (10YR 3/3) dry, clay; very dark grayish brown (10YR 3/2) moist; 23 percent sand; 35 percent silt; 42 percent clay; moderate medium subangular blocky structure; firm, hard, very sticky, very plastic; moderate excavation difficulty; many fine roots throughout; 2 percent nonflat subangular indurated 2 to 75 millimeters (0.1 to 3 inches) limestone fragments; strongly effervescent by HCl, 1 normal; clear smooth boundary.

Bw --- 12 to 32 centimeters; dark brown (10YR 3/3) dry, silty clay; 70 percent very dark brown (10YR 2/2) moist and 30 percent very dark grayish brown (10YR 3/2) moist; 14 percent sand; 42 percent silt; 44 percent clay; fine wedge and moderate medium angular blocky structure; very firm, extremely hard, very sticky, very plastic; moderate excavation difficulty; very few coarse roots throughout and common fine roots throughout; distinct pressure faces and finely disseminated carbonates throughout; 2 percent nonflat subangular indurated 2 to 75 millimeters limestone fragments; strongly effervescent by HCl, 1 normal; gradual smooth boundary.

Bk1 --- 32 to 65 centimeters; light brown (10YR 6/4) dry, silty clay; 90 percent yellowish brown (10YR 5/4) moist and 10 percent very dark grayish brown (10YR 3/2) moist; 12 percent sand; 43 percent silt; 45 percent clay; fine wedge and moderate medium angular blocky structure; very firm, extremely hard, very sticky, very plastic; moderate excavation difficulty; very few coarse roots throughout and very few fine roots throughout; distinct pressure faces finely disseminated carbonates throughout; 2 percent nonflat subangular indurated 2 to 75 millimeters limestone fragments; violently effervescent by HCl, 1 normal; gradual smooth boundary.

Bk2 --- 65 to 90 centimeters; light brown (7.5YR 6/4) dry, silt clay loam; brown (7.5YR 5/4) moist; 15 percent sand; 47 percent silt; 38 percent clay; moderate medium angular blocky structure; very firm, extremely hard, very sticky, very plastic; moderate excavation difficulty; distinct pressure faces finely disseminated carbonates throughout; 5 percent nonflat subangular indurated 2 to 75 millimeters limestone fragments; violently effervescent by HCl, 1 normal; abrupt smooth boundary.

R --- 90 centimeters; limestone bedrock; high excavation difficulty; few fine roots in mat at top of horizon.

Doss - Loamy, carbonatic, thermic, shallow Typic Calciustolls

A --- 0 to 18 centimeters; dark grayish brown (10YR 4/2) silty clay, very dark grayish brown (10YR 3/2) moist; 15 percent sand; 42 percent silt; 43 percent clay; moderate fine and medium subangular blocky structure; very hard, very firm; many fine and medium grass roots; common fine pores; common very fine soft bodies of calcium carbonate; about 3 percent weakly cemented fragments of calcium carbonate about 1/4 inch across the long axis; calcareous, moderately alkaline; clear smooth boundary.

Bk --- 18 to 48 centimeters; brown (10YR 5/3) silty clay, dark brown (10YR 4/3) moist; 12 percent sand; 42 percent silt; 46 percent clay; moderate fine and medium subangular blocky structure; very hard, very firm; common fine and few medium roots; common fine pores; common insect burrows; many fine soft and weakly cemented masses of calcium carbonate; few angular fragments of weakly cemented limestone up to 1/4 inch across the long axis; calcareous, moderately alkaline; clear smooth boundary.

Cr --- 48 to 130 centimeters; very pale brown (10YR 8/4) weakly cemented marlaceous limestone interbedded with silty clay, very pale brown (10YR 7/4) moist; platy in the upper 3 inches moderately cemented, massive below and weakly cemented; many veins and bodies of calcium carbonate; calcareous, moderately alkaline.

Eckrant - Clayey-skeletal, smectitic, thermic Lithic Haplustolls

A1 --- 0 to 6 centimeters; very dark gray (10YR 3/1) dry, clay loam; black (10YR 2/1) moist; 28 percent sand; 34 percent silt; 38 percent clay; strong medium subangular blocky parting to moderate medium granular structure; friable, moderately hard, very sticky, very plastic; moderate excavation difficulty; common very fine roots throughout, common fine roots throughout and common medium roots throughout; 40 percent flat subangular indurated 75 to 250 millimeters cherty limestone fragments; noneffervescent by HCl, 1 normal; clear smooth boundary.

A2 --- 6 to 24 centimeters; brown (7.5YR 4/3) dry, clay; dark brown (7.5YR 3/3) moist; 27 percent sand; 30 percent silt; 43 percent clay; moderate medium angular blocky structure; firm, hard, very sticky, very plastic; moderate excavation difficulty; common very fine roots throughout, common fine roots throughout and moderately few very coarse roots throughout; 30 percent (common) patchy prominent pressure faces on all faces of peds; 3 percent (common) medium distinct irregular noncemented masses of carbonate with clear boundaries throughout; 50 percent flat subangular indurated 75 to 250 millimeters cherty limestone fragments; noneffervescent by HCl, 1 normal; Pressure faces evident. Clay increase but it is believed to be inherent to parent material rather than illuviated; clear irregular boundary.

R --- 24 centimeters; limestone bedrock; high excavation difficulty; common coarse roots in mat at top of horizon, common fine roots in mat at top of horizon and common very fine roots in mat at top of horizon; 2 percent (common) medium distinct irregular noncemented masses of carbonate with diffuse boundaries throughout; 5% soil material in fractures.

Real - Loamy-skeletal, carbonatic, thermic, shallow Typic Calcicustolls

A--0 to 12 cm; dark grayish brown (10YR 4/2) gravelly clay loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure parting to moderate fine granular; hard, friable; many very fine and fine roots; 15 percent weakly cemented limestone and caliche gravel; 1 percent limestone cobbles and stones; violently effervescent; moderately alkaline; abrupt wavy boundary.

Bk--12 to 43 cm; dark grayish brown (10YR 4/2) extremely gravelly clay loam, very dark grayish brown (10YR 3/2) moist; weak medium subangular blocky structure parting to moderate fine granular; hard, friable; many very fine and fine roots; 75 percent weakly cemented limestone and caliche gravel; 1 percent limestone cobbles and stones; violently effervescent; moderately alkaline; abrupt wavy boundary.

Cr--43 to 91 cm; 80 percent white (10YR 8/1), 10 percent brownish yellow (10YR 6/6), and 10 percent light yellowish brown (2.5Y 6/3) moist weakly cemented limestone bedrock that is moderately cemented in the upper 2.5 cm

Map Unit Description

AnA --- Anhalt clay, 0 to 1 percent slopes

Setting

Landscape: Plateaus
Elevation: 1200 to 2200 feet
Mean annual precipitation: 25 to 32 inches
Mean annual air temperature: 63 to 70 degrees F
Frost-free period: 230 to 240 days

Composition

Anhalt and similar soils: 85 percent
Minor components: 15 percent

Description of Anhalt Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from limestone
Slope: 0 to 1 percent
Depth to restrictive feature: 20 to 40 inches to Paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Very low or moderately low (0.00 to 0.06 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 15 percent
Gypsum maximum: 0 percent
Available water capacity: Low (about 4.2 inches)

Interpretive Groups

Land capability (non irrigated): 2s
Ecological site: Deep Redland 29-35" PZ (R081CY358TX)

Typical Profile

0 to 18 inches: clay
18 to 28 inches: clay
28 to 35 inches: bedrock

Unnamed, minor components

Percent of map unit: 15 percent

BrB --- Bolar clay loam, 1 to 3 percent slopes

Setting

Landscape: Hills
Elevation: 1000 to 1900 feet
Mean annual precipitation: 20 to 36 inches
Mean annual air temperature: 64 to 68 degrees F
Frost-free period: 220 to 240 days

Composition

Bolar and similar soils: 85 percent
Minor components: 15 percent

Description of Bolar

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope, summit
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone
Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to Paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or high (0.06 to 1.98 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 60 percent
Gypsum maximum: 0 percent
Available water capacity: Low (about 4.2 inches)

Interpretive Groups

Land capability (non irrigated): 2e
Ecological site: Clay Loam 29-35" PZ (R081CY357TX)

Typical Profile

0 to 14 inches: clay loam
14 to 28 inches: clay loam
28 to 30 inches: bedrock

Unnamed, minor components

Percent of map unit: 15 percent

BtD --- Brackett-Rock outcrop-Comfort complex, 1 to 8 percent slopes

Setting

Landscape: Plateaus
Elevation: 300 to 8700 feet
Mean annual precipitation: 10 to 36 inches
Mean annual air temperature: 52 to 73 degrees F
Frost-free period: 120 to 320 days

Composition

Brackett and similar soils: 50 percent
Rock outcrop: 20 percent
Comfort and similar soils: 15 percent
Minor components: 15 percent

Description of Brackett

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 8 percent
Surface area covered with stones and boulders: 30.0 percent
Depth to restrictive feature: 6 to 20 inches to Paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or high (0.06 to 1.98 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 90 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 2.2 inches)

Interpretive Groups

Land capability (non irrigated): 6e
Ecological site: Adobe 29-35" PZ (R081CY355TX)

Typical Profile

0 to 6 inches: gravelly clay loam
6 to 17 inches: gravelly clay loam
17 to 62 inches: bedrock

Description of Rock outcrop

Setting

Landform: Ridges
Landform position (two-dimensional): Shoulder
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Limestone

Properties and Qualities

Slope: 1 to 8 percent
Depth to restrictive feature: 0 to 2 inches to Lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or very high (0.06 to 19.98 in/hr)
Frequency of flooding: None
Frequency of ponding: None

Interpretive Groups

Land capability (non irrigated): 8s

Typical Profile

0 to 80 inches: bedrock

Description of Comfort**Setting**

Landform: Ridges

Landform position (two-dimensional): Footslope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 8 percent

Surface area covered with stones and boulders: 30.0 percent

Depth to restrictive feature: 9 to 20 inches to Lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate maximum: 20 percent

Gypsum maximum: 0 percent

Available water capacity: Very low (about 0.9 inches)

Interpretive Groups

Land capability (non irrigated): 6s

Ecological site: Low Stony Hill 29-35" PZ (R081CY360TX)

Typical Profile

0 to 4 inches: extremely stony clay

4 to 11 inches: extremely stony clay

11 to 20 inches: bedrock

Unnamed, minor components

Percent of map unit: 15 percent

CrD --- Comfort-Rock outcrop complex, 1 to 8 percent slopes**Setting**

Landscape: Plateaus

Elevation: 300 to 8700 feet

Mean annual precipitation: 10 to 36 inches

Mean annual air temperature: 52 to 73 degrees F

Frost-free period: 120 to 320 days

Composition

Comfort and similar soils: 70 percent

Rock outcrop: 15 percent

Minor components: 15 percent

Description of Comfort Setting

Landform: Ridges

Landform position (two-dimensional): Footslope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 8 percent

Surface area covered with stones and boulders: 55.0 percent

Depth to restrictive feature: 9 to 20 inches to Lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate maximum: 20 percent

Gypsum maximum: 0 percent

Available water capacity: Very low (about 1.1 inches)

Interpretive Groups

Land capability (non irrigated): 6s

Ecological site: Low Stony Hill 29-35" PZ (R081CY360TX)

Typical Profile

0 to 6 inches: extremely stony clay

6 to 13 inches: extremely stony clay

13 to 20 inches: bedrock

Description of Rock outcrop

Setting

Landform: Ridges

Landform position (two-dimensional): Footslope

Down-slope shape: Convex

Across-slope shape: Convex

Parent material: Limestone

Properties and Qualities

Slope: 1 to 8 percent

Depth to restrictive feature: 0 to 2 inches to Lithic bedrock

Capacity of the most limiting layer to transmit water (Ksat): Moderately low or very high (0.06 to 19.98 in/hr)

Frequency of flooding: None

Frequency of ponding: None

Interpretive Groups

Land capability (non irrigated): 8s

Typical Profile

0 to 80 inches: bedrock

Unnamed, minor components

Percent of map unit: 15 percent

DeB --- Denton silty clay, 1 to 3 percent slopes

Setting

Landscape: Plateaus

Elevation: 700 to 1500 feet

Mean annual precipitation: 28 to 34 inches

Mean annual air temperature: 64 to 68 degrees F

Frost-free period: 220 to 250 days

Composition

Denton and similar soils: 85 percent

Minor components: 15 percent

Description of Denton Setting

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 3 percent

Depth to restrictive feature: 31 to 60 inches to Lithic bedrock

Drainage class: Well drained

Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)

Frequency of flooding: None

Frequency of ponding: None

Calcium carbonate maximum: 30 percent

Gypsum maximum: 0 percent

Available water capacity: Low (about 5.0 inches)

Interpretive Groups

Land capability (non irrigated): 2e

Ecological site: Clay Loam 29-35" PZ (R081CY357TX)

Typical Profile

0 to 14 inches: silty clay

14 to 33 inches: silty clay

33 to 40 inches: bedrock

Unnamed, minor components

Percent of map unit: 15 percent

DeC3 --- Denton silty clay, 1 to 5 percent slopes, eroded

Setting

Landscape: Plateaus

Elevation: 700 to 1500 feet

Mean annual precipitation: 28 to 34 inches

Mean annual air temperature: 64 to 68 degrees F

Frost-free period: 220 to 250 days

Composition

Denton, eroded, and similar soils: 85 percent

Minor components: 15 percent

Description of Denton, eroded

Setting

Landform: Plains

Down-slope shape: Linear

Across-slope shape: Linear

Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 5 percent
Depth to restrictive feature: 31 to 60 inches to Lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 30 percent
Gypsum maximum: 0 percent
Available water capacity: Low (about 4.7 inches)

Interpretive Groups

Land capability (non irrigated): 3e
Ecological site: Clay Loam 29-35" PZ (R081CY357TX)

Typical Profile

0 to 14 inches: silty clay
14 to 31 inches: silty clay
31 to 40 inches: bedrock

Unnamed, minor components

Percent of map unit: 15 percent

ErG --- Eckrant-Rock outcrop complex, 8 to 30 percent slopes

Setting

Landscape: Plateaus
Elevation: 300 to 8700 feet
Mean annual precipitation: 10 to 35 inches
Mean annual air temperature: 52 to 73 degrees F
Frost-free period: 120 to 320 days

Composition

Eckrant and similar soils: 70 percent
Rock outcrop: 20 percent
Minor components: 10 percent

Description of Eckrant

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 8 to 40 percent
Surface area covered with stones and boulders: 35.0 percent
Depth to restrictive feature: 8 to 20 inches to Lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.57 in/hr)
Frequency of flooding: None
Frequency of ponding: None

Calcium carbonate maximum: 8 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 0.8 inches)

Interpretive Groups

Land capability (non irrigated): 7s
Ecological site: Steep Rocky 29-35" PZ (R081CY363TX)

Typical Profile

0 to 6 inches: extremely stony clay
6 to 10 inches: extremely stony clay
10 to 20 inches: bedrock

Description of Rock outcrop

Setting

Landform: Ridges
Landform position (two-dimensional): Backslope, footslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Limestone

Properties and Qualities

Slope: 8 to 40 percent
Depth to restrictive feature: 0 to 2 inches to Lithic bedrock
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or very high (0.06 to 19.98 in/hr)
Frequency of flooding: None
Frequency of ponding: None

Interpretive Groups

Land capability (non irrigated): 8s

Typical Profile

0 to 80 inches: bedrock

Unnamed, minor components

Percent of map unit: 10 percent

RcD --- Real-Comfort-Doss complex, 1 to 8 percent slopes

Setting

Landscape: Plateaus
Elevation: 900 to 2300 feet
Mean annual precipitation: 23 to 36 inches
Mean annual air temperature: 64 to 70 degrees F
Frost-free period: 210 to 260 days

Composition

Real and similar soils: 40 percent
Comfort and similar soils: 30 percent
Doss and similar soils: 20 percent
Minor components: 10 percent

Description of Real

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 8 percent
Surface area covered with stones and boulders: 25.0 percent
Depth to restrictive feature: 8 to 20 inches to Paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.20 to 1.98 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 70 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 0.6 inches)

Interpretive Groups

Land capability (non irrigated): 6s
Ecological site: Adobe 29-35" PZ (R081CY355TX)

Typical Profile

0 to 4 inches: gravelly loam
4 to 8 inches: very gravelly loam
8 to 24 inches: bedrock

Description of Comfort

Setting

Landform: Ridges
Landform position (two-dimensional): Footslope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 8 percent
Surface area covered with stones and boulders: 25.0 percent
Depth to restrictive feature: 9 to 20 inches to Lithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.20 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 20 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 1.2 inches)

Interpretive Groups

Land capability (non irrigated): 6s
Ecological site: Low Stony Hill 29-35" PZ (R081CY360TX)

Minor Components

Ecological site: Low Stony Hill 29-35" PZ (R081CY360TX)

Typical Profile

0 to 7 inches: very stony clay
7 to 13 inches: extremely stony clay
13 to 20 inches: bedrock

Description of Doss

Setting

Landform: Plains
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Residuum weathered from limestone

Properties and Qualities

Slope: 1 to 8 percent
Surface area covered with stones and boulders: 1.0 percent
Depth to restrictive feature: 11 to 20 inches to Paralithic bedrock
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low or moderately high (0.06 to 0.57 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 70 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 1.7 inches)

Interpretive Groups

Land capability (non irrigated): 4e
Ecological site: Shallow 29-35" PZ (R081CY574TX)

Typical Profile

0 to 12 inches: clay loam
12 to 24 inches: bedrock

Unnamed, minor components

Percent of map unit: 10 percent