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NRCS

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Soil Survey of Las Animas County Area, Colorado, parts of Huerfano and Las Animas Counties



Typical Profile:

- A—0 to 16 inches; loam
- AB—16 to 23 inches; sandy clay loam
- Bt—23 to 38 inches; gravelly clay loam
- BC—38 to 64 inches; very gravelly loam

Minor Components

Groomer and similar soils

- Composition:* About 10 percent
- Landscape:* Lava plateaus
- Landform:* Fan remnants
- Position on landform:* Rise
- Slope:* 6 to 9 percent
- Aspect:* All aspects
- Shape (down/across):* Linear/linear
- Drainage class:* Well drained
- Ecological site:* Subalpine Loam
- Distinguishing characteristics:* These soils average more than 35 percent clay content.

Embargo and similar soils

- Composition:* About 5 percent
- Landscape:* Lava plateaus
- Landform:* Fans
- Position on landform:* Rise
- Slope:* 3 to 9 percent
- Aspect:* All aspects
- Shape (down/across):* Linear/linear
- Depth to restrictive feature:* 20 to 40 inches to bedrock, lithic
- Drainage class:* Well drained
- Ecological site:* Subalpine Loam
- Distinguishing characteristics:* These soils are 20 to 40 inches deep to basalt bedrock and average more than 35 percent clay content.

Major Uses

Rangeland, wildlife habitat

DFV—Fuera-Dargol-Vamer complex, 10 to 45 percent slopes**Map Unit Setting**

- Major Land Resource Area:* 49
- Elevation:* 7,500 to 9,000 feet (2,286 to 2,743 meters)
- Mean annual precipitation:* 17 to 22 inches (432 to 559 millimeters)
- Mean annual air temperature:* 43 to 46 degrees F. (6.0 to 8.0 degrees C.)
- Frost-free period:* 70 to 100 days
- Note:* Located on steep north-facing hillsides in the foothills.

Map Unit Composition

Fuera and similar soils: 35 percent

Dargol and similar soils: 30 percent
 Vamer and similar soils: 20 percent
 Minor components: 15 percent

Component Descriptions

Fuera soils

Landscape: Foothills

Landform: Hills

Position on landform: Side slope, base slope

Parent material: Alluvium and colluvium derived from shale and siltstone

Slope: 10 to 45 percent

Aspect: West to east

Shape (down/across): Linear/convex

Surface fragments: About 8 percent subrounded gravel

Depth class: Very deep

Drainage class: Well drained

Slowest permeability: .06 to 0.2 in/hr (slow)

Available water capacity: About 7.3 inches (moderate)

Shrink-swell potential: About 3.8 percent (moderate)

Calcium carbonate maximum: None

Gypsum maximum: None

Salinity maximum: About 2 mmhos/cm (nonsaline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Pseudotsuga menziesii-Pinus ponderosa/Festuca arizonica

Potential native vegetation:

Common trees: ponderosa pine, Rocky Mountain Douglas fir, white fir

Other plants: mountain muhly, Arizona fescue, nodding brome, Parry's danthonia, bluegrass, common juniper, elk sedge, Gambel's oak, kinnikinnick, pine dropseed, prairie junegrass

Land capability subclass (nonirrigated): 7e

Typical Profile:

Oi—0 to 2 inches; slightly decomposed plant material

E—2 to 7 inches; cobbly loam

E and Bt—7 to 10 inches; cobbly loam

E and Bt—10 to 11 inches; cobbly clay loam

Bt1—11 to 27 inches; cobbly clay

Bt2—27 to 47 inches; cobbly clay

C—47 to 60 inches; cobbly clay

Dargol soils

Landscape: Foothills

Landform: Hills

Position on landform: Head slope, side slope

Parent material: Slope alluvium and residuum weathered from shale and siltstone

Slope: 10 to 45 percent

Aspect: West to east

Shape (down/across): Linear/linear

Surface fragments: About 15 percent subrounded gravel, about 4 percent subrounded cobbles, about 1 percent subrounded stones

Depth class: Moderately deep

Depth to restrictive feature: 20 to 40 inches to bedrock, lithic

Drainage class: Well drained

Slowest permeability: .001 to .06 in/hr (very slow)

Available water capacity: About 4.7 inches (low)

Shrink-swell potential: About 6.1 percent (high)

Calcium carbonate maximum: None

Gypsum maximum: None

Salinity maximum: About 2 mmhos/cm (nonsaline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Pseudotsuga menziesii-Pinus ponderosa/Festuca arizonica

Potential native vegetation:

Common trees: ponderosa pine, Rocky Mountain Douglas fir, white fir

Other plants: mountain muhly, Arizona fescue, nodding brome, Parry's danthonia, common juniper, elk sedge, Gambel's oak, kinnikinnick, pine dropseed, prairie junegrass, western wheatgrass

Land capability subclass (nonirrigated): 7e

Typical Profile:

Oe—0 to 1 inch; moderately decomposed plant material

E—1 inch to 6 inches; loam

Bt1—6 to 10 inches; clay

Bt2—10 to 29 inches; clay

R—29 to 60 inches; bedrock

Vamer soils

Landscape: Foothills

Landform: Hills

Position on landform: Interfluve, base slope

Parent material: Slope alluvium and residuum weathered from siltstone over sandstone

Slope: 10 to 40 percent

Aspect: West to east

Shape (down/across): Linear/linear

Surface fragments: About 2 percent subangular cobbles, about 1 percent subangular stones

Depth class: Shallow

Depth to restrictive feature: 10 to 20 inches to bedrock, lithic

Drainage class: Well drained

Slowest permeability: .06 to 0.2 in/hr (slow)

Available water capacity: About 2.6 inches (very low)

Shrink-swell potential: About 6.0 percent (moderate)

Calcium carbonate maximum: None

Gypsum maximum: None

Salinity maximum: About 2 mmhos/cm (nonsaline)

Sodium adsorption ratio maximum: About 0 (nonsodic)

Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii

Potential native vegetation:

Common trees: ponderosa pine, Rocky Mountain Douglas fir, white fir

Other plants: mountain muhly, Arizona fescue, nodding brome, western wheatgrass, Gambel's oak, little bluestem, Parry's danthonia, pine dropseed, prairie junegrass

Land capability subclass (nonirrigated): 7e

Typical Profile:

Oi—0 to 1 inch; slightly decomposed plant material

A—1 inch to 3 inches; fine sandy loam

E—3 to 7 inches; fine sandy loam

Bt—7 to 16 inches; clay
 R—16 to 60 inches; bedrock

Minor Components

Rock outcrop

Composition: About 5 percent
Landscape: Foothills
Landform: Scarps
Slope: 15 to 45 percent
Aspect: All aspects
Depth to restrictive feature: 0 inches to bedrock, lithic
Distinguishing characteristics: Rock outcrop consists of areas of exposed sandstone or siltstone from the Raton formation.

Saruche and similar soils

Composition: About 5 percent
Landscape: Foothills
Landform: Hills
Position on landform: Head slope, side slope
Slope: 10 to 45 percent
Aspect: All aspects
Shape (down/across): Convex/convex
Depth to restrictive feature: 8 to 20 inches to bedrock, paralithic
Drainage class: Well drained
Ecological site: Shrubby Foothill
Distinguishing characteristics: These soils are less than 20 inches deep to soft shale bedrock.

Stout and similar soils

Composition: About 5 percent
Landscape: Foothills
Landform: Hills
Position on landform: Interfluvium, head slope
Slope: 10 to 30 percent
Aspect: All aspects
Shape (down/across): Linear/linear
Depth to restrictive feature: 10 to 20 inches to bedrock, lithic
Drainage class: Somewhat excessively drained
Ecological site: Pinus ponderosa-Juniperus scopulorum/Quercus gambelii
Distinguishing characteristics: These soils are similar to Vamer but have less than 35 percent clay content and more sand in the profile.

Major Uses

Woodland, livestock grazing, wildlife habitat

DH—Davtong-Histic Cryaquolls complex, 2 to 5 percent slopes

Map Unit Setting

Major Land Resource Area: 48A
Elevation: 8,000 to 10,000 feet (2,438 to 3,048 meters)
Mean annual precipitation: 20 to 26 inches (508 to 660 millimeters)

Table 22.--Chemical soil properties--continued

Map symbol and soil name	Depth	Cation exchange capacity	Effective cation exchange capacity	Soil reaction	Calcium carbon- ate	Gypsum	Salinity	Sodium adsorp- tion ratio
	<u>Inches</u>	<u>meq/100 g</u>	<u>meq/100 g</u>	<u>pH</u>	<u>Pct.</u>	<u>Pct.</u>	<u>mmhos/cm</u>	
De:								
Davtone-----	0-16	9.4-22	---	6.1-7.3	0	0	0	0
	16-23	17-23	---	6.1-7.3	0	0	0	0
	23-38	16-27	---	6.6-7.3	0	0	0	0
	38-64	11-21	---	6.6-7.3	0	0	0	0
DFV:								
Fuera-----	0-2	50-90	30-60	5.6-6.5	0	0	0.0-2.0	0
	2-7	15-22	---	6.1-7.3	0	0	0	0
	7-10	14-30	---	6.1-7.3	0	0	0	0
	10-11	14-30	---	6.1-7.3	0	0	0	0
	11-27	29-44	---	6.1-7.3	0	0	0	0
	27-47	29-44	---	6.1-7.3	0	0	0	0
	47-60	23-37	---	6.1-7.8	0	0	0	0
Dargol-----	0-1	50-90	30-60	5.6-6.5	0	0	0.0-2.0	0
	1-6	17-22	---	5.6-6.5	0	0	0	0
	6-10	27-41	---	5.6-6.5	0	0	0	0
	10-29	26-40	---	5.6-6.5	0	0	0	0
	29-60	---	---	---	---	---	---	---
Vamer-----	0-1	50-90	30-60	5.6-6.5	0	0	0.0-2.0	0
	1-3	11-18	---	6.1-7.3	0	0	0	0
	3-7	11-18	---	6.1-7.3	0	0	0	0
	7-16	6.0-27	---	6.1-7.3	0	0	0	0
	16-60	---	---	---	---	---	---	---