

Bernhardt State PL N36-17
Bernhardt State N36-27D
Production Facility
T5N, R67W 8th P.M.
Section 36: SENE

Map Unit Description

Weld County, Colorado, Southern Part

32 Kim loam, 1 to 3 percent slopes

Setting

Elevation: 4900 to 5250 feet
Mean annual precipitation: 13 to 17 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 125 to 150 days

Composition

Kim and similar soils: 90 percent
Minor components: 10 percent

Description of Kim

Setting

Landform: Alluvial fans, plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Mixed eolian deposits derived from sedimentary rock

Properties and Qualities

Slope: 1 to 3 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.57 to 5.95 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 15 percent
Gypsum maximum: 0 percent
Available water capacity: Moderate (about 9.0 inches)

Interpretive Groups

Land capability classification (irrigated): 3e
Land capability (non irrigated): 4e
Ecological site: Loamy Plains (R067BY002CO)

Typical Profile

0 to 12 inches: loam
12 to 40 inches: loam
40 to 60 inches: fine sandy loam

Minor Components

Otero

Percent of map unit: 10 percent

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Map Unit Description

Weld County, Colorado, Southern Part

53 Otero sandy loam, 5 to 9 percent slopes

Setting

Elevation: 4700 to 5250 feet
Mean annual precipitation: 12 to 15 inches
Mean annual air temperature: 48 to 52 degrees F
Frost-free period: 130 to 180 days

Composition

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

Description of Otero

Setting

Landform: Plains
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Eolian deposits and/or mixed outwash

Properties and Qualities

Slope: 5 to 9 percent
Drainage class: Well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately high or high (0.57 to 5.95 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 10 percent
Gypsum maximum: 0 percent
Available water capacity: Moderate (about 7.7 inches)

Interpretive Groups

Land capability classification (irrigated): 4e
Land capability (non irrigated): 6e
Ecological site: Sandy Plains (R067BY024CO)

Typical Profile

0 to 12 inches: sandy loam
12 to 60 inches: fine sandy loam

Minor Components

Kim

Percent of map unit: 10 percent

Cushman

Percent of map unit: 5 percent

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Map Unit Description

Weld County, Colorado, Southern Part

61 Tassel fine sandy loam, 5 to 20 percent slopes

Setting

Elevation: 4850 to 5200 feet
Mean annual precipitation: 12 to 19 inches
Mean annual air temperature: 46 to 52 degrees F
Frost-free period: 110 to 165 days

Composition

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

Description of Tassel

Setting

Landform: Breaks
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Residuum weathered from sandstone

Properties and Qualities

Slope: 5 to 20 percent
Depth to restrictive feature: 10 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 0.20 in/hr)
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate maximum: 10 percent
Gypsum maximum: 0 percent
Available water capacity: Very low (about 2.0 inches)

Interpretive Groups

Land capability classification (irrigated): 6e
Land capability (non irrigated): 6e
Ecological site: Sandstone Breaks (R067BY056CO)

Typical Profile

0 to 11 inches: fine sandy loam
11 to 15 inches: very fine sandy loam
15 to 20 inches: weathered bedrock

Minor Components

Otero

Percent of map unit: 8 percent

Terry

Percent of map unit: 7 percent