

131BS—Burchard-Steinauer clay loams, 6 to 12 percent slopes

Map Unit Composition

Burchard: 63 percent
Steinauer: 27 percent
Minor components: 10 percent

Component Descriptions

Burchard

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy drift

Slope: 5 to 11 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 9.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 10 inches; clay loam

H2—10 to 17 inches; clay loam

H3—17 to 60 inches; clay loam

Steinauer

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Calcareous fine-loamy drift

Slope: 8 to 12 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 10.1 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Limy Upland (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; clay loam

H2—6 to 60 inches; clay loam

Minor Components

Kipson

Composition: About 4 percent

Geomorphic Position: hillslope on upland

Slope: 5 to 25 percent

Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Ecological site: Limy Upland (pe30-37)

Pawnee

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 4 to 8 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Wymore

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 4 to 8 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

149BF—Benfield-Florence complex, 3 to 15 percent slopes

Map Unit Composition

Benfield: 70 percent

Florence: 15 percent

Minor components: 15 percent

Component Descriptions

Benfield

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Calcareous clayey shale

Slope: 3 to 15 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 5.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 30 inches; silty clay

Cr—30 to 34 inches; unweathered bedrock

Florence

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Clayey residuum weathered from cherty limestone

Slope: 3 to 15 percent

Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Low (About 3.8 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 14 inches; gravelly silty clay loam

H2—14 to 42 inches; very gravelly silty clay loam

R—42 to 46 inches; unweathered bedrock

Minor Components

Pawnee

Composition: About 5 percent

Slope: 3 to 6 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Sogn

Composition: About 5 percent

Slope: 5 to 20 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Somewhat excessively drained

Ecological site: Shallow Limy (pe30-36)

Tully

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 3 to 8 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Wymore

Composition: About 2 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

149CS—Clime-Sogn silty clay loams, 5 to 20 percent slopes

Map Unit Composition

Clime: 70 percent

Sogn: 15 percent

Minor components: 15 percent

Component Descriptions

Clime

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from calcareous shale

Slope: 5 to 20 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Limy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; silty clay loam

H2—8 to 26 inches; silty clay loam

Cr—26 to 30 inches; unweathered bedrock

Sogn

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Loamy residuum weathered from limestone

Slope: 5 to 20 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 2.8 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Shallow Limy (pe30-36)
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 14 inches; silty clay loam
 R—14 to 18 inches; unweathered bedrock

Minor Components

Rock outcrop

Composition: About 4 percent

Kennebec

Composition: About 3 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe35-42)

Pawnee

Composition: About 3 percent
Slope: 3 to 6 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Tully

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 3 to 8 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-36)

Unnamed Hydric Soils

Composition: About 1 percent
Drainage class: Poorly drained

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

149PS—Paxico silt loam, frequently flooded

Map Unit Composition

Paxico: 90 percent
 Minor components: 10 percent

Component Descriptions

Paxico

MLRA: 76 - Bluestem Hills
Landform: Flood plain on river valley
Parent material: Loamy alluvium over sandy alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 10.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Very Rare
Depth to seasonal water saturation: About 18 to 36 inches
Runoff class: Low
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 42 inches; silt loam
 H2—42 to 60 inches; loamy fine sand

Minor Components

Haynie

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Sarpy

Composition: About 5 percent
Slope: 0 to 3 percent
Drainage class: Excessively drained
Ecological site: Sandy Lowland (pe30-37)

149WB—Wabash silty clay, occasionally flooded

Map Unit Composition

Wabash: 90 percent
 Minor components: 10 percent

Component Descriptions

Wabash

MLRA: 76 - Bluestem Hills
Landform: Flood plain on valley
Parent material: Clayey alluvium
Slope: 0 to 1 percent
Drainage class: Poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 6.4 inches)

Shrink-swell potential: Very high (About 17.0 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 0 to 12 inches

Runoff class: Very high

Ecological site: Clay Lowland (pe30-37)

Land capability (nonirrigated): 3w

Typical Profile:

H1—0 to 18 inches; silty clay

H2—18 to 60 inches; silty clay

Minor Components

Kennebec

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Ecological site: Loamy Lowland (pe30-37)

Reading

Composition: About 5 percent

Slope: 0 to 1 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe30-36)

201CR—Crete silt loam, 0 to 1 percent slopes

Map Unit Composition

Crete: 99 percent

Minor components: 1 percent

Component Descriptions

Crete

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey loess

Slope: 0 to 1 percent

Drainage class: Moderately well drained

Slowest permeability: Impermeable (About 0.00 in/hr)

Available water capacity: High (About 11.3 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Clay Upland (pe26-30)

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 5 inches; silt loam

H2—5 to 12 inches; silty clay loam

H3—12 to 32 inches; silty clay

H4—32 to 60 inches; silt loam

Minor Components

Unnamed Hydric Soil

Composition: About 1 percent

Drainage class: Poorly drained

201CS—Crete silty clay loam, 1 to 3 percent slopes

Map Unit Composition

Crete: 95 percent

Minor components: 5 percent

Component Descriptions

Crete

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey loess

Slope: 1 to 3 percent

Drainage class: Moderately well drained

Slowest permeability: Impermeable (About 0.00 in/hr)

Available water capacity: High (About 11.1 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Clay Upland (pe26-30)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 9 inches; silty clay loam

H2—9 to 32 inches; silty clay

H3—32 to 60 inches; silt loam

Minor Components

Hobbs

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe26-30)

201CT—Crete silty clay loam, 3 to 7 percent slopes

Map Unit Composition

Crete: 100 percent

Component Descriptions

Crete

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey loess

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 11.3 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Clay Upland (pe25-34)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; silty clay loam

H2—8 to 11 inches; silty clay loam

H3—11 to 30 inches; silty clay

H4—30 to 60 inches; silty clay loam

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Slowest permeability: Impermeable (About 0.00 in/hr)

Available water capacity: High (About 10.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Clay Upland (pe26-30)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 5 inches; silty clay loam

H2—5 to 30 inches; silty clay

H3—30 to 60 inches; silt loam

Minor Components

Hobbs

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Lowland (pe26-30)

Longford

Composition: About 5 percent

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe26-30)

201EU—Eudora loam, occasionally flooded

Map Unit Composition

Eudora: 94 percent

Minor components: 6 percent

Component Descriptions

Eudora

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills

Landform: Flood plain on river valley

Parent material: Coarse-silty alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very high (About 12.0 inches)

201CX—Crete silty clay loam, 3 to 7 percent slopes, eroded

Map Unit Composition

Crete: 90 percent

Minor components: 10 percent

Component Descriptions

Crete

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey loess

Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe25-34)
Land capability (nonirrigated): 2w

Typical Profile:
 H1—0 to 10 inches; loam
 H2—10 to 60 inches; very fine sandy loam

Minor Components

Cass

Composition: About 5 percent
Slope: 0 to 2 percent
Depth to restrictive feature: inches to strongly contrasting textural stratification
Drainage class: Well drained
Ecological site: Sandy Lowland (pe25-34)

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

201HO—Hobbs silt loam, occasionally flooded

Map Unit Composition

Hobbs: 85 percent
 Minor components: 15 percent

Component Descriptions

Hobbs

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills
Landform: Flood plain on valley
Parent material: Fine-silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 12.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Lowland (pe26-30)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 6 inches; silt loam
 H2—6 to 60 inches; silt loam

Minor Components

Hobbs-Like

Composition: About 10 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe26-30)

Hobbs-Like

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe26-30)

201KS—Kipson-Sogn complex, 5 to 30 percent slopes

Map Unit Composition

Kipson: 70 percent
 Sogn: 15 percent
 Minor components: 15 percent

Component Descriptions

Kipson

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Loamy residuum weathered from limestone and shale
Slope: 5 to 30 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Low (About 3.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Limy Upland (pe26-30)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; silty clay loam
 H2—12 to 18 inches; silty clay loam
 Cr—18 to 22 inches; weathered bedrock

Sogn

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills

Landform: Hillslope on upland

Hillslope position: Shoulder

Parent material: Loamy residuum weathered from limestone

Slope: 5 to 15 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.1 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Limy (pe26-30)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; silt loam
 H2—8 to 16 inches; channery silt loam
 H3—16 to 20 inches; unweathered bedrock

Minor Components**Crete**

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe26-30)

Tully

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 5 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe26-30)

Rock outcrop

Composition: About 3 percent
Slope: 15 to 45 percent

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

Unnamed Hydric Soils

Composition: About 1 percent
Drainage class: Poorly drained

201MC—Mayberry clay loam, 3 to 7 percent slopes**Map Unit Composition**

Mayberry: 85 percent

Minor components: 15 percent

Component Descriptions**Mayberry**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills,75 - Central Loess Plains,76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Clayey drift

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 8.1 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 6 to 18 inches

Runoff class: High

Ecological site: Clay Upland (pe25-34)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 14 inches; clay loam
 H2—14 to 45 inches; clay
 H3—45 to 60 inches; stratified sandy loam to clay

Minor Components**Morrill**

Composition: About 8 percent
Slope: 7 to 15 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe25-34)

Crete

Composition: About 6 percent
Slope: 0 to 1 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe26-30)

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

201MH—Morrill loam, 3 to 7 percent slopes

Map Unit Composition

Morrill: 90 percent
Minor components: 10 percent

Component Descriptions

Morrill

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Fine-loamy till

Slope: 3 to 7 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 10.1 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Loamy Upland (pe25-34)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; loam

H2—8 to 43 inches; clay loam

H3—43 to 60 inches; sandy clay loam

Minor Components

Mayberry

Composition: About 10 percent

Slope: 3 to 7 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe25-34)

600BF—Benfield-Florence complex, 5 to 20 percent slopes

Map Unit Composition

Benfield: 45 percent
Florence: 30 percent
Minor components: 25 percent

Component Descriptions

Benfield

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Clayey residuum weathered from limestone and shale

Slope: 5 to 20 percent

Depth to restrictive feature: 22 to 39 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 6.0 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Loamy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 30 inches; silty clay

H3—30 to 35 inches; silty clay loam

Cr—35 to 39 inches; weathered bedrock

Florence

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Clayey residuum weathered from cherty limestone

Slope: 5 to 15 percent

Depth to restrictive feature: 24 to 39 inches to bedrock (lithic)

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Very low (About 2.8 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; gravelly silt loam

H2—5 to 10 inches; very gravelly silty clay loam

H3—10 to 14 inches; very gravelly silty clay loam
 H4—14 to 30 inches; gravelly clay
 R—30 to 34 inches; unweathered bedrock

Minor Components**Clime**

Composition: About 10 percent
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe30-36)

Sogn

Composition: About 5 percent
Slope: 5 to 8 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Shallow Limy (pe30-36)

Dwight

Composition: About 4 percent
Slope: 1 to 3 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (lithic)
Drainage class: Moderately well drained
Ecological site: Clay Pan (pe25-34)

Irwin

Composition: About 3 percent
Slope: 1 to 4 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe25-34)

Tully

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 4 to 8 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe25-34)

600CS—Clime-Sogn complex, 5 to 20 percent slopes**Map Unit Composition**

Clime: 50 percent
 Sogn: 30 percent
 Minor components: 20 percent

Component Descriptions**Clime**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Silty and clayey residuum weathered from shale, calcareous

Slope: 5 to 20 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Low (About 5.3 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Limy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; silty clay loam

H2—12 to 30 inches; silty clay

Cr—30 to 34 inches; weathered bedrock

Sogn

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Loamy residuum weathered from limestone, unspecified

Slope: 5 to 8 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 1.8 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Limy (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 9 inches; silty clay loam

R—9 to 13 inches; unweathered bedrock

Minor Components**Unnamed Soil**

Composition: About 10 percent
Slope: 5 to 20 percent
Depth to restrictive feature: 20 to 40 inches
 to bedrock (paralithic)
Drainage class: Well drained
Ecological site: Limy Upland (pe30-36)

Rock outcrop

Composition: About 5 percent

Irwin

Composition: About 3 percent
Slope: 4 to 8 percent
Depth to restrictive feature: 40 to 60 inches
 to bedrock (paralithic)
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe25-34)

Unnamed Hydric Soils

Composition: About 1 percent
Drainage class: Poorly drained

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

600MA—Mayberry clay loam, 2 to 6 percent slopes

Map Unit Composition

Mayberry: 85 percent
 Minor components: 15 percent

Component Descriptions

Mayberry

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills, 75 - Central Loess Plains, 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Backslope
Parent material: Till, unspecified
Slope: 2 to 6 percent
Drainage class: Moderately well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Moderate (About 7.7 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 9 to 14 inches
Runoff class: High
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 3e

Typical Profile:

Ap—0 to 10 inches; clay loam
 Bt—10 to 42 inches; clay
 C—42 to 80 inches; clay loam

Minor Components**Morrill**

Composition: About 8 percent
Slope: 6 to 12 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Wymore

Composition: About 7 percent
Geomorphic Position: interfluvium on upland
Slope: 2 to 5 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

AED—Arents, Earthen Dam

Ea—Eudora silt loam, rarely flooded

Map Unit Composition

Eudora: 90 percent
 Minor components: 10 percent

Component Descriptions

Eudora

MLRA: 76 - Bluestem Hills
Landform: Flood plain on river valley
Parent material: Coarse-silty alluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 12 inches; silt loam
 H2—12 to 72 inches; silt loam

Minor Components**Kimo**

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Ecological site: Clay Lowland (pe30-37)

Sarpy

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Somewhat excessively drained
Ecological site: Sandy Lowland (pe30-37)

Unnamed Hydric Soil

Drainage class: Poorly drained

Ga—Geary silt loam, 3 to 7 percent slopes**Map Unit Composition**

Geary: 100 percent

Component Descriptions**Geary**

MLRA: 75 - Central Loess Plains
Landform: Hillslope, upland
Parent material: Loess
Slope: 3 to 7 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: High (About 11.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe25-34)
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; silt loam
 H2—12 to 42 inches; silty clay loam
 H3—42 to 60 inches; clay loam

Ka—Kennebec silt loam, occasionally flooded**Map Unit Composition**

Kennebec: 95 percent
 Minor components: 5 percent

Component Descriptions**Kennebec**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on valley
Parent material: Fine-silty alluvium
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 13.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 40 to 44 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe35-42)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 48 inches; silt loam
 H2—48 to 60 inches; silt loam

Minor Components**Wabash**

Composition: About 4 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe30-37)

Unnamed Hydric Soil

Composition: About 1 percent
Slope: 0 to 2 percent
Drainage class: Poorly drained

Kb—Kennebec silt loam, channeled**Map Unit Composition**

Kennebec: 90 percent
 Minor components: 10 percent

Component Descriptions

Kennebec

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Flood plain on river valley

Parent material: Fine-silty alluvium

Slope: 0 to 2 percent

Drainage class: Moderately well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very high (About 13.3 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: Frequent

Depth to seasonal water saturation: About 36 to 60 inches

Runoff class: Negligible

Ecological site: Loamy Lowland (pe30-37)

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 47 inches; silt loam

H2—47 to 60 inches; silt loam

Minor Components

Muir

Composition: About 5 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Terrace (pe30-36)

Tully

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Kc—Kipson-Sogn silty clay loams, 5 to 25 percent slopes

Map Unit Composition

Kipson: 70 percent

Sogn: 15 percent

Minor components: 15 percent

Component Descriptions

Kipson

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Calcareous loamy residuum weathered from shale

Slope: 5 to 25 percent

Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 3.5 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Limy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 12 inches; silty clay loam

H2—12 to 19 inches; silty clay loam

Cr—19 to 23 inches; weathered bedrock

Sogn

MLRA: 76 - Bluestem Hills

Landform: Hillslope on upland

Parent material: Loamy residuum weathered from limestone

Slope: 5 to 10 percent

Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Very low (About 2.8 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Limy Upland (pe30-36)

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 14 inches; silty clay loam

R—14 to 18 inches; unweathered bedrock

Minor Components

Tully

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Pawnee

Composition: About 5 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Wymore

Composition: About 4 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Rock outcrop

Composition: About 1 percent

La—Ladysmith silty clay loam, 0 to 1 percent slopes**Map Unit Composition**

Ladysmith: 100 percent

Component Descriptions**Ladysmith**

MLRA: 75 - Central Loess Plains
Landform: Hillslope on upland
Hillslope position: Summit
Parent material: Clayey alluvium
Slope: 0 to 1 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Impermeable (About 0.00 in/hr)
Available water capacity: High (About 9.0 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Clay Upland (pe30-37)
Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 9 inches; silty clay loam
 H2—9 to 32 inches; silty clay
 H3—32 to 60 inches; silty clay loam

Ma—Morrill loam, 1 to 4 percent slopes**Map Unit Composition**

Morrill: 85 percent
 Minor components: 15 percent

Component Descriptions**Morrill**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Fine-loamy glaciofluvial deposits
Slope: 1 to 4 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.2 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Loamy Upland (pe30-37)
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 12 inches; loam
 H2—12 to 43 inches; sandy clay loam
 H3—43 to 60 inches; sandy clay loam

Minor Components**Wymore**

Composition: About 5 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Pawnee

Composition: About 5 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Ortello

Composition: About 5 percent
Slope: 4 to 10 percent
Drainage class: Well drained
Ecological site: Sandy (pe30-37)

Mb—Morrill loam, 4 to 8 percent slopes**Map Unit Composition**

Morrill: 85 percent
 Minor components: 15 percent

Component Descriptions**Morrill**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy glaciofluvial deposits

Slope: 4 to 8 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 12 inches; loam

H2—12 to 43 inches; sandy clay loam

H3—43 to 60 inches; sandy clay loam

Minor Components**Wymore**

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Pawnee

Composition: About 5 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Ortello

Composition: About 5 percent

Slope: 4 to 10 percent

Drainage class: Well drained

Ecological site: Sandy (pe30-37)

Mc—Morrill clay loam, 4 to 8 percent slopes, eroded**Map Unit Composition**

Morrill: 85 percent
 Minor components: 15 percent

Component Descriptions**Morrill**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy glaciofluvial deposits

Slope: 4 to 8 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 10.1 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 8 inches; clay loam

H2—8 to 32 inches; sandy clay loam

H3—32 to 60 inches; sandy clay loam

Minor Components**Wymore**

Composition: About 5 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Pawnee

Composition: About 5 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Ortello

Composition: About 5 percent

Slope: 4 to 10 percent

Drainage class: Well drained

Ecological site: Sandy (pe30-37)

Me—Muir silt loam, rarely flooded**Map Unit Composition**

Muir: 80 percent
 Minor components: 20 percent

Component Descriptions**Muir**

MLRA: 76 - Bluestem Hills
Landform: Terrace on river valley
Parent material: Fine-silty alluvium
Slope: 0 to 2 percent
Drainage class: Well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 12.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Rare
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Loamy Terrace (pe30-36)
Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 16 inches; silt loam
 H2—16 to 45 inches; silt loam
 H3—45 to 60 inches; silt loam

Minor Components**Nodaway**

Composition: About 7 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Kennebec

Composition: About 7 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Wabash

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe25-34)

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

Na—Nodaway silt loam, occasionally flooded**Map Unit Composition**

Nodaway: 85 percent
 Minor components: 15 percent

Component Descriptions**Nodaway**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on river valley
Parent material: Calcareous fine-silty alluvium
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Slowest permeability: Moderate (About 0.60 in/hr)
Available water capacity: Very high (About 13.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 36 to 60 inches
Runoff class: Low
Ecological site: Loamy Lowland (pe30-37)
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 8 inches; silt loam
 H2—8 to 60 inches; silt loam

Minor Components**Muir**

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Loamy Terrace (pe30-36)

Eudora

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Wabash

Composition: About 4 percent
Slope: 0 to 1 percent
Drainage class: Poorly drained
Ecological site: Clay Lowland (pe25-34)

Unnamed Hydric Soil

Composition: About 1 percent
Drainage class: Poorly drained

Drainage class: Well drained
Ecological site: Limy Upland (pe30-37)

Oa—Olmitz loam, 1 to 4 percent slopes

Map Unit Composition

Olmitz: 88 percent
 Minor components: 12 percent

Component Descriptions

Olmitz

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy colluvium

Slope: 1 to 4 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: High (About 10.6 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 21 inches; loam

H2—21 to 29 inches; clay loam

H3—29 to 60 inches; clay loam

Minor Components

Pawnee

Composition: About 3 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Shelby

Composition: About 3 percent

Slope: 10 to 14 percent

Drainage class: Moderately well drained

Muir

Composition: About 3 percent

Slope: 0 to 2 percent

Drainage class: Well drained

Ecological site: Loamy Terrace (pe30-36)

Steinauer

Composition: About 3 percent

Slope: 14 to 25 percent

Ob—Ortello sandy loam, 4 to 10 percent slopes

Map Unit Composition

Ortello: 91 percent
 Minor components: 9 percent

Component Descriptions

Ortello

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Loamy alluvium and/or loamy eolian deposits

Slope: 4 to 10 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 7.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 20 inches; sandy loam

H2—20 to 36 inches; fine sandy loam

H3—36 to 60 inches; loamy fine sand

Minor Components

Olmitz

Composition: About 3 percent

Slope: 1 to 4 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Morrill

Composition: About 3 percent

Slope: 4 to 8 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 3 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Pa—Pawnee clay loam, 1 to 4 percent slopes

Map Unit Composition

Pawnee: 88 percent
Minor components: 12 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Clayey drift

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 8.1 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: Medium

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; clay loam

H2—13 to 36 inches; clay

H3—36 to 60 inches; clay loam

Minor Components

Wymore

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Shelby

Composition: About 3 percent

Slope: 10 to 14 percent

Drainage class: Moderately well drained

Morrill

Composition: About 3 percent

Slope: 4 to 8 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-37)

Kipson

Composition: About 3 percent

Slope: 5 to 25 percent

Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Ecological site: Limy Upland (pe30-36)

Pb—Pawnee clay loam, 4 to 8 percent slopes

Map Unit Composition

Pawnee: 88 percent
Minor components: 12 percent

Component Descriptions

Pawnee

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Clayey drift

Slope: 4 to 8 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 8.1 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: Very high

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; clay loam

H2—13 to 36 inches; clay

H3—36 to 60 inches; clay loam

Minor Components

Wymore

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Clay Upland (pe30-37)

Shelby

Composition: About 3 percent

Slope: 10 to 14 percent

Drainage class: Moderately well drained

Morrill

Composition: About 3 percent
Slope: 4 to 8 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Kipson

Composition: About 3 percent
Slope: 5 to 25 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-36)

Pc—Pawnee clay, 3 to 8 percent slopes, eroded**Map Unit Composition**

Pawnee: 88 percent
 Minor components: 12 percent

Component Descriptions**Pawnee**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Clayey drift

Slope: 3 to 8 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: Moderate (About 7.6 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: Very high

Ecological site: Clay Upland (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; clay

H2—6 to 26 inches; clay

H3—26 to 60 inches; clay loam

Minor Components**Wymore**

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Shelby

Composition: About 3 percent
Slope: 10 to 14 percent
Drainage class: Moderately well drained

Morrill

Composition: About 3 percent
Slope: 4 to 8 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Kipson

Composition: About 3 percent
Slope: 5 to 25 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-36)

Pd—Pits**Sa—Shelby clay loam, 6 to 10 percent slopes****Map Unit Composition**

Shelby: 91 percent
 Minor components: 9 percent

Component Descriptions**Shelby**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Parent material: Fine-loamy drift

Slope: 6 to 10 percent

Drainage class: Moderately well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 10.0 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Loamy Upland (pe30-37)

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 17 inches; clay loam

H2—17 to 48 inches; clay loam
H3—48 to 60 inches; clay loam

Minor Components

Pawnee

Composition: About 3 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Morrill

Composition: About 3 percent
Slope: 4 to 8 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Steinauer

Composition: About 3 percent
Slope: 14 to 25 percent
Drainage class: Well drained
Ecological site: Limy Upland (pe30-37)

Sb—Steinauer clay loam, 14 to 25 percent slopes

Map Unit Composition

Steinauer: 85 percent
Minor components: 15 percent

Component Descriptions

Steinauer

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Calcareous fine-loamy drift
Slope: 14 to 25 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Limy Upland (pe30-37)
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; clay loam
H2—5 to 18 inches; clay loam
H3—18 to 60 inches; clay loam

Minor Components

Olmitz

Composition: About 8 percent
Slope: 1 to 4 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 7 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Sc—Steinauer-Shelby clay loams, 10 to 14 percent slopes

Map Unit Composition

Steinauer: 60 percent
Shelby: 25 percent
Minor components: 15 percent

Component Descriptions

Steinauer

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Calcareous fine-loamy drift
Slope: 10 to 14 percent
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Limy Upland (pe30-37)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 5 inches; clay loam
H2—5 to 18 inches; clay loam
H3—18 to 60 inches; clay loam

Shelby

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Hillslope on upland
Parent material: Fine-loamy drift

Slope: 10 to 14 percent
Drainage class: Moderately well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: High (About 10.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 17 inches; clay loam
 H2—17 to 48 inches; clay loam
 H3—48 to 60 inches; clay loam

Minor Components**Olmitz**

Composition: About 8 percent
Slope: 1 to 4 percent
Drainage class: Well drained
Ecological site: Loamy Upland (pe30-37)

Pawnee

Composition: About 7 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Ta—Tully silty clay loam, 3 to 7 percent slopes**Map Unit Composition**

Tully: 88 percent
 Minor components: 12 percent

Component Descriptions**Tully**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Footslope
Parent material: Clayey colluvium
Slope: 3 to 7 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: High (About 9.2 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet

Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 19 inches; silty clay loam
 H2—19 to 60 inches; silty clay

Minor Components**Wymore**

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Pawnee

Composition: About 3 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Kipson

Composition: About 3 percent
Slope: 5 to 25 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-36)

Sogn

Composition: About 3 percent
Slope: 5 to 10 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-36)

Tb—Tully silty clay loam, 3 to 7 percent slopes, eroded**Map Unit Composition**

Tully: 88 percent
 Minor components: 12 percent

Component Descriptions**Tully**

MLRA: 76 - Bluestem Hills
Landform: Hillslope on upland
Hillslope position: Footslope
Parent material: Clayey colluvium
Slope: 3 to 7 percent
Drainage class: Well drained
Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 9.2 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Loamy Upland (pe30-36)
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 19 inches; silty clay loam
 H2—19 to 60 inches; silty clay

Minor Components

Wymore

Composition: About 3 percent
Geomorphic Position: hillslope on upland
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Clay Upland (pe30-37)

Pawnee

Composition: About 3 percent
Slope: 1 to 4 percent
Drainage class: Moderately well drained
Ecological site: Loamy Upland (pe30-37)

Kipson

Composition: About 3 percent
Slope: 5 to 25 percent
Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-36)

Sogn

Composition: About 3 percent
Slope: 5 to 10 percent
Depth to restrictive feature: 4 to 20 inches to bedrock (lithic)
Drainage class: Somewhat excessively drained
Ecological site: Limy Upland (pe30-36)

W—Water

Wa—Wabash silty clay loam, occasionally flooded

Map Unit Composition

Wabash: 85 percent
 Minor components: 15 percent

Component Descriptions

Wabash

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills
Landform: Flood plain on river valley
Parent material: Clayey alluvium
Slope: 0 to 1 percent
Drainage class: Poorly drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 7.6 inches)
Shrink-swell potential: Very high (About 17.0 LEP)
Flooding hazard: Occasional
Depth to seasonal water saturation: About 0 to 12 inches
Runoff class: Very high
Ecological site: Clay Lowland (pe25-34)
Land capability (nonirrigated): 3w

Typical Profile:

H1—0 to 13 inches; silty clay loam
 H2—13 to 60 inches; silty clay

Minor Components

Muir

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Well drained
Ecological site: Loamy Terrace (pe30-36)

Nodaway

Composition: About 5 percent
Slope: 0 to 2 percent
Drainage class: Moderately well drained
Ecological site: Loamy Lowland (pe30-37)

Eudora

Composition: About 5 percent
Slope: 0 to 1 percent
Drainage class: Well drained
Ecological site: Loamy Lowland (pe30-37)

Wb—Wymore silty clay loam, 1 to 4 percent slopes

Map Unit Composition

Wymore: 88 percent
 Minor components: 12 percent

Component Descriptions

Wymore

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Hillslope position: Summit, shoulder

Parent material: Silty and clayey loess

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: High

Ecological site: Clay Upland (pe30-37)

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 26 inches; silty clay

H3—26 to 60 inches; silty clay loam

Minor Components**Tully**

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe30-36)

Pawnee

Composition: About 3 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Ladysmith

Composition: About 3 percent

Geomorphic Position: hillslope on upland

Slope: 0 to 1 percent

Drainage class: Somewhat poorly drained

Ecological site: Clay Upland (pe30-37)

Geary

Composition: About 3 percent

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe25-34)

Wc—Wymore silty clay loam, 3 to 6 percent slopes, eroded**Map Unit Composition**

Wymore: 85 percent

Minor components: 15 percent

Component Descriptions**Wymore**

MLRA: 106 - Nebraska and Kansas Loess-Drift Hills

Landform: Hillslope on upland

Hillslope position: Backslope

Parent material: Silty and clayey loess

Slope: 3 to 6 percent

Drainage class: Moderately well drained

Slowest permeability: Slow (About 0.06 in/hr)

Available water capacity: High (About 10.2 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: High

Ecological site: Clay Upland (pe30-37)

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; silty clay loam

H2—6 to 26 inches; silty clay

H3—26 to 60 inches; silty clay loam

Minor Components**Pawnee**

Composition: About 5 percent

Slope: 1 to 4 percent

Drainage class: Moderately well drained

Ecological site: Loamy Upland (pe30-37)

Kipson

Composition: About 5 percent

Slope: 5 to 25 percent

Depth to restrictive feature: 7 to 20 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Ecological site: Limy Upland (pe30-36)

Geary

Composition: About 5 percent

Slope: 3 to 7 percent

Drainage class: Well drained

Ecological site: Loamy Upland (pe25-34)

