This map unit is not suited to windbreaks and environmental plantings because of the slope, the depth to bedrock, and excess sodium in the Midway soil. The Razor soil is suited to windbreaks and environmental plantings in areas where the slope is less than 9 percent. Onsite investigation is needed to ensure the establishment and survival of seedlings.

52—Norka silt loam, 0 to 3 percent slopes

Setting

Location: This map unit occurs dominantly in the eastern part of the survey area.
Elevation: 3,901 to 4,600 feet
Mean annual precipitation: 15 to 17 inches
Frost-free period: 148 to 152 days
Note: This very deep, well drained soil is on nearly level and gently sloping plains. It formed in loess. The native vegetation is mainly grasses.

Component Description

Norka and similar soils

Percent of the map unit: 80 percent
Landform: Plains
Slope range: 0 to 3 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
A—0 to 5 inches; silt loam
Bt—5 to 13 inches; silty clay loam
Bk1—13 to 28 inches; silt loam
Bk2—28 to 39 inches; silt loam
C1—39 to 49 inches; loam
C2—49 to 67 inches; loam
Additional components:
Colby and similar soils: 5 percent
Kuma and similar soils: 4 percent
Pleasant and similar soils: 4 percent
Richfield and similar soils: 4 percent
Goshen and similar soils: 2 percent
Lodgepole and similar soils: 1 percent

Management

Major uses: Nonirrigated cropland, irrigated cropland, and rangeland

The main limitation affecting nonirrigated and irrigated crops is the hazard of soil blowing. Deep tillage may bring lime closer to the surface. Because the amount of precipitation is not sufficient for annual cropping, the best cropping system for nonirrigated crops is one that includes small grain and summer fallow. The Colby soil is subject to lime-induced chlorosis. Leaving crop residue on or near the surface helps to conserve moisture, maintain tilth, and control erosion.

Controlled livestock management is the major management practice needed on this map unit.

The main limitation affecting windbreaks and environmental plantings is the hazard of soil blowing.

53—Norka silt loam, 1 to 3 percent slopes, eroded

Setting

Location: This map unit occurs dominantly in the central part of the survey area.
Elevation: 3,901 to 4,600 feet
Mean annual precipitation: 15 to 17 inches
Frost-free period: 148 to 152 days
Note: This very deep, well drained soil is on nearly level and gently sloping plains. It formed in loess. The native vegetation is mainly grasses.

Component Description

Norka and similar soils

Percent of the map unit: 80 percent
Landform: Plains
Slope range: 1 to 3 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
A—0 to 5 inches; silt loam
Bt—5 to 13 inches; silty clay loam
Bk1—13 to 28 inches; silt loam
Bk2—28 to 39 inches; silt loam
C1—39 to 49 inches; loam
C2—49 to 67 inches; loam
Additional components:
Richfield and similar soils: 6 percent
Wiley and similar soils: 6 percent
Pleasant and similar soils: 4 percent
Goshen and similar soils: 3 percent
Lodgepole and similar soils: 1 percent

Mean annual precipitation: 15 to 17 inches
Frost-free period: 148 to 152 days
Note: This map unit is on gently sloping plains. The Norka soil is on side slopes, and the Colby soil is on summits and side slopes. The native vegetation is mainly grasses.

Component Description

Norka and similar soils

Percent of the map unit: 50 percent
Landform: Plains
Slope range: 3 to 5 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
A—0 to 3 inches; silt loam
Bt—3 to 10 inches; silty clay loam
Bk—10 to 15 inches; silt loam
Ck—15 to 60 inches; silt loam

Colby and similar soils

Percent of the map unit: 35 percent
Landform: Plains
Landform element: Summits
Slope range: 3 to 5 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
Ap—0 to 4 inches; silt loam
C—4 to 60 inches; silt loam

Additional components

Goshen and similar soils: 5 percent
Richfield and similar soils: 5 percent
Kuma and similar soils: 4 percent
Lodgepole and similar soils: 1 percent

Management

Major uses: Nonirrigated cropland, irrigated cropland, and rangeland

The main limitations affecting nonirrigated and irrigated crops are the hazards of soil blowing and water erosion on the Norka and Colby soils and lime-induced chlorosis on the Colby soil. Because the amount of precipitation is not sufficient for annual cropping, the best cropping system for nonirrigated crops is one that includes small grain and summer fallow. Maintaining crop residue on or near the surface can help to control runoff and soil blowing and helps to maintain tilth and the content of organic matter. Tillage should be on the contour or across the slope. Terraces reduce the runoff rate, help to control erosion, and help to conserve moisture. Because of the slope, a sprinkler system is the best method of irrigation on this unit. Irrigation water should be applied at a rate that ensures optimum production without increasing deep percolation, runoff, and erosion.

The Colby soil is subject to lime-induced chlorosis. A high content of lime decreases the available supply of most plant nutrients. Chlorosis is apparent, particularly in beans and grain sorghum. Returning crop residue to the soil or regularly adding other organic material improves fertility, minimizes crusting, reduces the hazards of water erosion and soil blowing, and increases the water intake rate.

Controlled livestock management is the major management practice needed on this map unit.

The main limitations affecting windbreaks and environmental plantings are the hazard of soil blowing on all of the soils and lime-induced chlorosis on the Colby soil. Planting the trees on the contour helps to conserve moisture. Shrubs and trees that are not sensitive to lime-induced chlorosis are suitable for use in windbreaks on the Colby soil.

56—Norka-Colby silt loams, 5 to 15 percent slopes

Setting

Location: This map unit occurs dominantly in the eastern part of the survey area, but minor acreages also occur in the northwestern part.
Elevation: 3,901 to 4,600 feet
Mean annual precipitation: 15 to 17 inches
Frost-free period: 148 to 152 days
Note: This map unit is on gently sloping to strongly sloping loess hills. The Norka soil is on side slopes, and the Colby soil is on summits and side slopes. The native vegetation is mainly grasses.

Component Description

Norka and similar soils

Percent of the map unit: 60 percent

Landform: Hills
Slope range: 5 to 9 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
A—0 to 7 inches; silt loam
Bt—7 to 14 inches; silt loam
Bk—14 to 18 inches; silt loam
C—18 to 60 inches; silt loam

Colby and similar soils

Percent of the map unit: 30 percent
Landform: Hills
Landform element: Summits
Slope range: 5 to 15 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
Ap—0 to 3 inches; silt loam
AC—3 to 8 inches; silt loam
C1—8 to 30 inches; silt loam
C2—30 to 60 inches; silt loam

Additional components

Goshen and similar soils: 5 percent
Kimst and similar soils: 5 percent

Management

Major uses: Rangeland

This map unit is not suited to nonirrigated crops because of the slope and the hazards of water erosion and soil blowing.

Controlled livestock management is the major management practice needed on this map unit.

The main limitations affecting windbreaks and environmental plantings are the slope, the hazard of soil blowing on all of the soils, and lime-induced chlorosis on the Colby soil. This map unit is not suited to windbreaks and environmental plantings in areas where the slope is more than 9 percent. Planting the trees on the contour helps to conserve moisture. Shrubs and trees that are not sensitive to lime-induced chlorosis are suitable for use in windbreaks.

57—Norka-Colby-Weld silt loams, 3 to 5 percent slopes

Setting

Location: This map unit occurs dominantly in the western part of the survey area.
Elevation: 4,301 to 5,200 feet
Mean annual precipitation: 13 to 15 inches
Frost-free period: 145 to 148 days
Note: This map unit is on gently sloping plains. The Norka soil is on side slopes, and the Colby soil is on summits and side slopes. The native vegetation is mainly grasses.

Component Description

Norka and similar soils

Percent of the map unit: 35 percent
Landform: Plains
Slope range: 3 to 5 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
A—0 to 3 inches; silt loam
Bt—3 to 10 inches; silty clay loam
Bk—10 to 15 inches; silt loam
Ck—15 to 60 inches; silt loam

Colby and similar soils

Percent of the map unit: 30 percent
Landform: Plains
Landform element: Summits
Slope range: 3 to 5 percent
Surface layer texture: Silt loam
Depth to restrictive feature: More than 60 inches
Drainage class: Well drained
Parent material: Fine-silty, calcareous loess
Native plant cover type: Rangeland
Flooding: None
Available water capacity: Mainly 10.6 inches
Typical profile:
Ap—0 to 4 inches; silt loam
C—4 to 60 inches; silt loam

Weld and similar soils

Percent of the map unit: 20 percent
Landform: Plains
Slope range: 3 to 5 percent