

Map Unit Description (MN)

Lyon County, Minnesota

[Data apply to the entire extent of the map unit within the survey area. Map unit and soil properties for a specific parcel of land may vary somewhat and should be determined by onsite investigation]

51--La Prairie loam

La Prairie, occasionally flooded

Extent: 95 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.20 to 1.56 in | 6.6 to 8.4 |
| A,AB,Bw -- 7 to 40 in | loam | moderate | 5.62 to 7.28 in | 6.6 to 8.4 |
| C -- 40 to 60 in | stratified fine sandy loam to silty clay loam | moderate | 2.95 to 4.33 in | 6.6 to 8.4 |

86--Canisteo clay loam

Canisteo

Extent: 95 percent of the unit

Landform(s): flats

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A,ABg -- 0 to 22 in | loam | moderate | 3.09 to 3.53 in | 7.4 to 8.4 |
| Bg -- 22 to 31 in | clay loam | moderate | 1.63 to 1.99 in | 7.4 to 8.4 |
| Cg -- 31 to 60 in | clay loam | moderate | 3.45 to 5.17 in | 7.4 to 8.4 |

Map Unit Description (MN)

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114--Glencoe silty clay loam

Glencoe

Extent: 95 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | silty clay loam | moderately slow | 1.77 to 2.17 in | 6.1 to 7.3 |
| A,AB -- 10 to 42 in | clay loam | moderately slow | 5.81 to 7.10 in | 6.1 to 7.3 |
| Bg -- 42 to 47 in | loam | moderately slow | 0.71 to 0.90 in | 6.6 to 7.8 |
| Cg -- 47 to 60 in | clay loam | moderate | 1.95 to 2.47 in | 6.6 to 7.8 |

127--Sverdrup sandy loam, 0 to 2 percent slopes

Sverdrup

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 32 in | sandy loam | moderately rapid | 1.83 to 3.20 in | 6.1 to 7.3 |
| C -- 32 to 60 in | sand | rapid | 0.56 to 1.68 in | 7.4 to 8.4 |

Map Unit Description (MN)

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127B--Sverdrup sandy loam, 2 to 6 percent slopes

Sverdrup

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 32 in | sandy loam | moderately rapid | 1.83 to 3.20 in | 6.1 to 7.3 |
| C -- 32 to 60 in | sand | rapid | 0.56 to 1.68 in | 7.4 to 8.4 |

149B--Everly clay loam, 2 to 4 percent slopes

Everly

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 4 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw -- 10 to 26 in | clay loam | moderately slow | 2.42 to 2.74 in | 6.1 to 7.3 |
| C -- 26 to 60 in | loam | moderately slow | 5.76 to 6.43 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

149B2--Everly clay loam, 3 to 6 percent slopes, eroded

Everly, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw -- 10 to 26 in | clay loam | moderately slow | 2.42 to 2.74 in | 6.1 to 7.3 |
| C -- 26 to 60 in | loam | moderately slow | 5.76 to 6.43 in | 7.4 to 8.4 |

149C2--Everly clay loam, 6 to 12 percent slopes, eroded

Everly, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw -- 10 to 26 in | clay loam | moderately slow | 2.42 to 2.74 in | 6.1 to 7.3 |
| C -- 26 to 60 in | loam | moderately slow | 5.76 to 6.43 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

184--Hamerly loam, 1 to 3 percent slopes

Hamerly

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A,AB -- 0 to 17 in | loam | moderate | 3.39 to 4.06 in | 7.4 to 8.4 |
| Bk1 -- 17 to 26 in | loam | moderate | 1.36 to 1.72 in | 7.4 to 8.4 |
| Bk2,C -- 26 to 60 in | loam | moderate | 4.74 to 6.43 in | 7.4 to 8.4 |

210--Fulda silty clay

Fulda

Extent: 90 percent of the unit

Landform(s): flats

Slope gradient: 0 to 2 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 17 in | silty clay | slow | 2.37 to 3.39 in | 6.6 to 7.3 |
| Bg -- 17 to 28 in | silty clay | slow | 1.43 to 1.76 in | 7.4 to 8.4 |
| Cg -- 28 to 60 in | silty clay | slow | 5.10 to 6.06 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

212--Sinai silty clay, 1 to 3 percent slopes

Sinai

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: D

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A,AB -- 0 to 17 in | silty clay | slow | 2.20 to 2.71 in | 6.1 to 7.3 |
| Bw -- 17 to 33 in | silty clay | slow | 2.74 to 3.07 in | 6.6 to 7.8 |
| Bk -- 33 to 47 in | silty clay | very slow | 1.52 to 2.34 in | 7.4 to 8.4 |
| C -- 47 to 60 in | silty clay loam | very slow | 1.43 to 2.21 in | 7.4 to 8.4 |

219--Rolfe loam

Rolfe

Extent: 90 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .17

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 20 in | loam | moderate | 4.42 to 4.82 in | 6.1 to 7.3 |
| Btg -- 20 to 32 in | clay | slow | 1.30 to 1.54 in | 6.1 to 7.3 |
| Cg -- 32 to 60 in | loam | moderate | 3.91 to 4.47 in | 6.1 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

241--Letri clay loam

Letri

Extent: 90 percent of the unit

Landform(s): swales

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A,AB -- 0 to 20 in | clay loam | moderately slow | 3.61 to 4.42 in | 6.1 to 7.3 |
| Bg -- 20 to 35 in | clay loam | moderately slow | 2.24 to 2.84 in | 6.1 to 7.3 |
| Cg -- 35 to 60 in | loam | moderately slow | 4.22 to 4.71 in | 6.6 to 8.4 |

246--Marysland loam

Marysland

Extent: 90 percent of the unit

Landform(s): flats

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 4

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|--|---------------------|---------------------------------|------------|
| Ap,A,Ak -- 0 to 18 in | loam | moderate | 3.08 to 3.98 in | 7.4 to 8.4 |
| Bk -- 18 to 42 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |
| 2C -- 42 to 60 in | stratified gravelly coarse sand to fine sand | rapid | 0.35 to 1.24 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

276--Oldham silty clay loam

Oldham

Extent: 90 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 13 in | silty clay loam | moderately slow | 1.69 to 2.47 in | 7.4 to 7.8 |
| Bg -- 13 to 31 in | silty clay loam | moderately slow | 2.54 to 3.62 in | 7.4 to 8.4 |
| Cg -- 31 to 60 in | silty clay loam | moderately slow | 4.02 to 5.75 in | 7.4 to 8.4 |

335--Urness silt loam

Urness

Extent: 90 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .37

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | silt loam | moderate | 1.81 to 1.99 in | 7.4 to 8.4 |
| A -- 9 to 44 in | mucky silty clay loam | moderate | 5.61 to 7.71 in | 7.4 to 8.4 |
| 2Cg -- 44 to 60 in | silty clay loam | moderate | 2.20 to 3.15 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

339--Fordville loam, 0 to 2 percent slopes

Fordville

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 12 in | loam | moderate | 2.13 to 2.36 in | 6.1 to 7.3 |
| Bw -- 12 to 23 in | loam | moderate | 1.98 to 2.31 in | 6.1 to 7.3 |
| Bk -- 23 to 28 in | loam | moderately rapid | 0.61 to 0.92 in | 6.1 to 8.4 |
| 2C -- 28 to 60 in | gravelly sand | rapid | 0.96 to 1.91 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

339B--Fordville loam, 2 to 6 percent slopes

Fordville

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | loam | moderate | 1.77 to 1.97 in | 6.1 to 7.3 |
| Bw -- 10 to 21 in | loam | moderate | 1.98 to 2.31 in | 6.1 to 7.3 |
| Bk -- 21 to 26 in | loam | moderately rapid | 0.61 to 0.92 in | 6.1 to 8.4 |
| 2C -- 26 to 60 in | gravelly sand | rapid | 1.02 to 2.03 in | 7.4 to 8.4 |

341--Arvilla sandy loam, 0 to 2 percent slopes

Arvilla

Extent: 90 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw,BC -- 9 to 19 in | sandy loam | moderately rapid | 1.08 to 1.38 in | 6.6 to 7.3 |
| 2C -- 19 to 60 in | gravelly coarse sand | rapid | 0.82 to 2.05 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

341B--Arvilla sandy loam, 2 to 6 percent slopes

Arvilla

Extent: 90 percent of the unit
Landform(s): outwash plains, stream terraces
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw,BC -- 9 to 19 in | sandy loam | moderately rapid | 1.08 to 1.38 in | 6.6 to 7.3 |
| 2C -- 19 to 60 in | gravelly coarse sand | rapid | 0.82 to 2.05 in | 7.4 to 8.4 |

341C--Arvilla sandy loam, 6 to 12 percent slopes

Arvilla

Extent: 90 percent of the unit
Landform(s): outwash plains, stream terraces
Slope gradient: 6 to 12 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw,BC -- 9 to 19 in | sandy loam | moderately rapid | 1.08 to 1.38 in | 6.6 to 7.3 |
| 2C -- 19 to 60 in | gravelly coarse sand | rapid | 0.82 to 2.05 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

347--Malachy loam

Malachy

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A,AB -- 0 to 15 in | loam | moderate | 2.99 to 3.29 in | 7.4 to 8.4 |
| Bk,C -- 15 to 36 in | fine sandy loam | moderately rapid | 2.50 to 3.96 in | 7.4 to 8.4 |
| 2C -- 36 to 60 in | sand | rapid | 0.48 to 2.40 in | 7.4 to 8.4 |

402E--Sioux soils, 2 to 40 percent slopes

Sioux

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 40 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .10

Land capability, nonirrigated 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---------------------|---------------------|---------------------------------|------------|
| A -- 0 to 11 in | gravelly sandy loam | moderately rapid | 1.10 to 1.65 in | 7.4 to 8.4 |
| C -- 11 to 16 in | gravelly sandy loam | moderately rapid | 0.51 to 0.77 in | 7.4 to 8.4 |
| 2C -- 16 to 60 in | very gravelly sand | rapid | 1.31 to 2.62 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

421B--Ves loam, 1 to 4 percent slopes

Ves

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 4 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,AB -- 0 to 11 in | loam | moderate | 1.87 to 2.43 in | 6.1 to 7.3 |
| Bw -- 11 to 21 in | loam | moderate | 1.48 to 1.87 in | 6.1 to 7.3 |
| Bk -- 21 to 36 in | loam | moderate | 2.24 to 2.84 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

421B2--Ves loam, 3 to 6 percent slops, eroded

Ves, eroded

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,AB -- 0 to 11 in | loam | moderate | 1.87 to 2.43 in | 6.1 to 7.3 |
| Bw -- 11 to 21 in | loam | moderate | 1.48 to 1.87 in | 6.6 to 7.3 |
| Bk -- 21 to 36 in | loam | moderate | 2.24 to 2.84 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |

423--Seaforth loam, 1 to 3 percent slopes

Seaforth

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,AB -- 0 to 15 in | loam | moderate | 2.54 to 3.59 in | 7.4 to 8.4 |
| Bk -- 15 to 24 in | loam | moderate | 1.36 to 1.72 in | 7.4 to 8.4 |
| C -- 24 to 60 in | loam | moderate | 6.09 to 6.81 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

437E--Buse loam, 18 to 25 percent slopes

Buse

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A,AB -- 0 to 14 in | loam | moderate | 2.34 to 3.03 in | 7.4 to 8.4 |
| Bk -- 14 to 26 in | loam | moderate | 1.71 to 2.32 in | 7.4 to 8.4 |
| C -- 26 to 60 in | loam | moderate | 4.74 to 6.43 in | 7.4 to 8.4 |

437F--Buse loam, 25 to 40 percent slopes

Buse

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 25 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A,AB -- 0 to 14 in | loam | moderate | 2.34 to 3.03 in | 7.4 to 8.4 |
| Bk -- 14 to 26 in | loam | moderate | 1.71 to 2.32 in | 7.4 to 8.4 |
| C -- 26 to 60 in | loam | moderate | 4.74 to 6.43 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

446--Normania loam, 1 to 3 percent slopes

Normania

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A,AB -- 0 to 17 in | loam | moderate | 3.39 to 3.72 in | 6.1 to 7.3 |
| Bw -- 17 to 26 in | loam | moderate | 1.36 to 1.72 in | 6.6 to 7.3 |
| Bkg -- 26 to 50 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |
| Cg -- 50 to 60 in | loam | moderate | 1.48 to 1.87 in | 7.4 to 8.4 |

450--Rauville silty clay loam

Rauville, frequently flooded

Extent: 90 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A -- 0 to 38 in | silty clay loam | moderate | 7.18 to 8.31 in | 7.4 to 8.4 |
| Cg -- 38 to 60 in | silty clay loam | moderate | 3.75 to 4.41 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

894D2--Storden-Everly complex, 12 to 18 percent slopes, eroded

Storden, eroded

Extent: 60 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .37

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderately slow | 1.42 to 1.56 in | 7.4 to 8.4 |
| Bk -- 7 to 23 in | loam | moderately slow | 2.36 to 2.99 in | 7.4 to 8.4 |
| C -- 23 to 60 in | loam | moderately slow | 5.55 to 7.03 in | 7.4 to 8.4 |

Everly, eroded

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | clay loam | moderately slow | 1.20 to 1.35 in | 6.1 to 7.3 |
| Bw -- 7 to 19 in | loam | moderately slow | 1.77 to 2.01 in | 6.1 to 7.3 |
| C -- 19 to 60 in | loam | moderately slow | 6.96 to 7.78 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

904B2--Arvilla-Barnes-Buse complex, 2 to 6 percent slopes, eroded

Arvilla

Extent: 40 percent of the unit
Landform(s): moraines
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 16 in | sandy loam | moderately rapid | 0.78 to 0.99 in | 6.6 to 7.3 |
| 2C -- 16 to 60 in | gravelly coarse sand | rapid | 0.87 to 2.19 in | 7.4 to 8.4 |

Barnes, eroded

Extent: 30 percent of the unit
Landform(s): moraines
Slope gradient: 2 to 6 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .20
Land capability, nonirrigated 2e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.28 to 1.70 in | 6.1 to 7.3 |
| Bw -- 7 to 14 in | sandy clay loam | moderate | 1.00 to 1.27 in | 6.1 to 7.3 |
| Bk,C -- 14 to 60 in | loam | moderate | 6.45 to 8.75 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

904B2--Arvilla-Barnes-Buse complex, 2 to 6 percent slopes, eroded

Buse, eroded

Extent: 20 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A,AB -- 0 to 7 in | loam | moderate | 1.20 to 1.56 in | 7.4 to 8.4 |
| Bk -- 7 to 26 in | loam | moderate | 2.65 to 3.59 in | 7.4 to 8.4 |
| C -- 26 to 60 in | loam | moderate | 4.74 to 6.43 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

953C--Arvilla-Storden-Ves complex, 6 to 15 percent slopes

Arvilla

Extent: 40 percent of the unit
Landform(s): moraines
Slope gradient: 6 to 15 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated 4e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | sandy loam | moderately rapid | 1.02 to 1.18 in | 6.1 to 7.3 |
| Bw -- 8 to 16 in | sandy loam | moderately rapid | 0.91 to 1.16 in | 6.6 to 7.3 |
| 2C -- 16 to 60 in | gravelly coarse sand | rapid | 0.87 to 2.19 in | 7.4 to 8.4 |

Storden

Extent: 30 percent of the unit
Landform(s): moraines
Slope gradient: 6 to 15 percent
Parent material: till
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated 3e
Hydric soil: no
Hydrologic group: B
Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.42 to 1.56 in | 7.4 to 8.4 |
| Bk -- 7 to 23 in | loam | moderate | 2.36 to 2.99 in | 7.4 to 8.4 |
| C -- 23 to 60 in | loam | moderate | 5.55 to 7.03 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

953C--Arvilla-Storden-Ves complex, 6 to 15 percent slopes

Ves

Extent: 25 percent of the unit

Landform(s): moraines

Slope gradient: 6 to 15 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.34 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 18 in | loam | moderate | 1.54 to 1.94 in | 6.6 to 7.3 |
| Bk -- 18 to 36 in | loam | moderate | 2.66 to 3.37 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

954C2--Storden-Ves loams, 5 to 12 percent slopes, eroded

Storden, eroded

Extent: 55 percent of the unit

Landform(s): moraines

Slope gradient: 5 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.42 to 1.56 in | 7.4 to 8.4 |
| Bk -- 7 to 23 in | loam | moderate | 2.36 to 2.99 in | 7.4 to 8.4 |
| C -- 23 to 60 in | loam | moderate | 5.55 to 7.03 in | 7.4 to 8.4 |

Ves, eroded

Extent: 35 percent of the unit

Landform(s): moraines

Slope gradient: 5 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.34 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 18 in | loam | moderate | 1.54 to 1.94 in | 6.6 to 7.3 |
| Bk -- 18 to 36 in | loam | moderate | 2.66 to 3.37 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

954D2--Storden-Ves loams, 12 to 18 percent slopes, eroded

Storden, eroded

Extent: 60 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.42 to 1.56 in | 7.4 to 8.4 |
| Bk -- 7 to 23 in | loam | moderate | 2.36 to 2.99 in | 7.4 to 8.4 |
| C -- 23 to 60 in | loam | moderate | 5.55 to 7.03 in | 7.4 to 8.4 |

Ves, eroded

Extent: 30 percent of the unit

Landform(s): moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.34 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 18 in | loam | moderate | 1.54 to 1.94 in | 6.6 to 7.3 |
| Bk -- 18 to 36 in | loam | moderate | 2.66 to 3.37 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

986--Lamoure and La Prairie soils, frequently flooded

Lamoure, frequently flooded

Extent: 45 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 6w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 25 in | silty clay loam | moderate | 4.79 to 5.54 in | 7.4 to 8.4 |
| Bg -- 25 to 38 in | silty clay loam | moderate | 2.14 to 2.52 in | 7.4 to 8.4 |
| Cg -- 38 to 60 in | silty clay loam | moderate | 3.75 to 4.41 in | 7.4 to 8.4 |

La Prairie, frequently flooded

Extent: 45 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 6w

Hydric soil: yes

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.20 to 1.56 in | 6.6 to 8.4 |
| A,AB,Bw -- 7 to 40 in | loam | moderate | 5.62 to 7.28 in | 6.6 to 8.4 |
| C -- 40 to 60 in | stratified fine sandy loam to silty clay loam | moderate | 2.95 to 4.33 in | 6.6 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

1003B--Udorthents (cut and fill land), 0 to 6 percent slopes

Udorthents, (cut and fill land)

Extent: 100 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 6 percent

Parent material: variable loamy material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

1007--Udorthents, shallow (sanitary landfill)

Udorthents, shallow, sanitary landfill

Extent: 100 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 20 percent

Parent material: variable soil material

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class: well drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil: no

Hydrologic group:

Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Map Unit Description (MN)

Lyon County, Minnesota

1016--Udorthents

Udorthents

Extent: 100 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 6 percent

Parent material: variable soil material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

1024A--Havelock clay loam, 0 to 2 percent slopes. occasionally flooded

Havelock, occasionally flooded

Extent: 75 to 85 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A1,A2 -- 0 to 32 in | clay loam | moderate | 5.42 to 7.33 in | 7.4 to 8.4 |
| Cg -- 32 to 60 in | clay loam | moderate | 4.75 to 5.59 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

1029--Pits, gravel

Pits, gravel

Extent: 100 percent of the unit

Landform(s): outwash plains, stream terraces

Slope gradient:

Parent material: sandy and gravelly outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Map Unit Description (MN)

Lyon County, Minnesota

1032--Aquents and Udorthents

Aquents

Extent: 65 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 2 percent

Parent material: loamy or sandy material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated 5w

Hydric soil:

Hydrologic group:

Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Udorthents

Extent: 30 percent of the unit

Landform(s): moraines

Slope gradient: 0 to 15 percent

Parent material: loamy or sandy material

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated 4s

Hydric soil:

Hydrologic group:

Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Map Unit Description (MN)

Lyon County, Minnesota

1053--Aquolls and Aquents, ponded

Aquolls, ponded

Extent: 55 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer)

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group:

Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Aquents, ponded

Extent: 35 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor):

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer)

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group:

Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Map Unit Description (MN)

Lyon County, Minnesota

1356--Water, miscellaneous

Water, miscellaneous

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

Representative soil profile:

Texture

Permeability

*Available water
capacity*

pH

Map Unit Description (MN)

Lyon County, Minnesota

1809--Bearden complex

Bearden, occasionally flooded

Extent: 50 percent of the unit
Landform(s): -- error in exists on --
Slope gradient: 0 to 2 percent
Parent material: lacustrine deposits
Restrictive feature(s): greater than 60 inches
Flooding: occasional
Ponding: none
Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .32
Land capability, nonirrigated 2s
Hydric soil: no
Hydrologic group: B/D
Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 16 in | silty clay loam | moderate | 2.74 to 3.71 in | 7.4 to 8.4 |
| Bk -- 16 to 37 in | silt loam | moderate | 3.34 to 4.59 in | 7.4 to 8.4 |
| Cg -- 37 to 80 in | stratified silt loam to silty clay loam | moderate | 6.87 to 9.44 in | 7.4 to 8.4 |

Du Page, occasionally flooded

Extent: 40 percent of the unit
Landform(s): flats
Slope gradient: 0 to 2 percent
Parent material: alluvium
Restrictive feature(s): greater than 60 inches
Flooding: occasional
Ponding: none
Drainage class: moderately well drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 4L
Wind erodibility index (WEI): 86
Kw factor (surface layer) .20
Land capability, nonirrigated 2w
Hydric soil: no
Hydrologic group: C
Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|------------------------------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 36 in | loam | moderate | 7.17 to 7.88 in | 6.6 to 8.4 |
| C1 -- 36 to 60 in | loam | moderate | 4.08 to 4.56 in | 7.4 to 8.4 |
| C2 -- 60 to 64 in | stratified loam to sandy clay loam | moderately rapid | 0.67 to 0.75 in | 7.9 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

1810--Colvin complex

Colvin, occasionally flooded

Extent: 55 percent of the unit

Landform(s): flats

Slope gradient: 0 to 1 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 2.26 in | 7.4 to 8.4 |
| Bg -- 10 to 30 in | silty clay loam | moderately slow | 3.21 to 4.02 in | 7.4 to 8.4 |
| Cg -- 30 to 60 in | silty clay loam | moderately slow | 4.49 to 5.98 in | 7.4 to 8.4 |

Calco, occasionally flooded

Extent: 35 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A1 -- 0 to 16 in | silty clay loam | moderate | 2.91 to 3.55 in | 7.4 to 8.4 |
| A -- 16 to 32 in | silty clay loam | moderate | 2.83 to 3.46 in | 7.4 to 8.4 |
| Bg -- 32 to 60 in | silty clay loam | moderate | 4.47 to 5.31 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

1814--Oldham silty clay

Oldham

Extent: 90 percent of the unit

Landform(s): depressions

Slope gradient: 0 to 1 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 17 in | silty clay | moderately slow | 2.20 to 3.22 in | 7.4 to 7.8 |
| Bg -- 17 to 33 in | silty clay | moderately slow | 2.26 to 3.23 in | 7.4 to 8.4 |
| Cg -- 33 to 60 in | clay loam | moderately slow | 3.75 to 5.35 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

GP--Pits, gravel-Udipsamments complex

Pits, gravel

Extent: 50 to 100 percent of the unit
Landform(s): moraines, outwash plains, stream terraces
Slope gradient: 0 to 50 percent
Parent material: sandy and gravelly outwash
Restrictive feature(s): greater than 60 inches
Flooding:
Ponding:
Drainage class:

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated
Hydric soil:
Hydrologic group:
Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Udipsamments

Extent: 15 to 30 percent of the unit
Landform(s): moraines, outwash plains, stream terraces
Slope gradient: 0 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding:
Ponding:
Drainage class: excessively drained

Soil loss tolerance (T factor):
Wind erodibility group (WEG):
Wind erodibility index (WEI):
Kw factor (surface layer)
Land capability, nonirrigated
Hydric soil:
Hydrologic group:
Potential for frost action:

| | | | | |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

Map Unit Description (MN)

Lyon County, Minnesota

J1A--Parnell silty clay loam, depressional, 0 to 1 percent slopes

Parnell, depressional

Extent: 85 to 95 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on till plains

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer): .32

Land capability, nonirrigated: 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 22 in | silty clay loam | moderately slow | 3.97 to 4.85 in | 6.1 to 7.3 |
| Btg -- 22 to 55 in | silty clay | slow | 4.30 to 5.29 in | 6.1 to 7.3 |
| BCg -- 55 to 80 in | silty clay loam | slow | 3.97 to 4.71 in | 6.6 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J2A--La Prairie loam, 0 to 2 percent slopes, occasionally flooded

La Prairie, occasionally flooded

Extent: 80 to 95 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | loam | moderate | 1.81 to 1.99 in | 6.6 to 8.4 |
| A -- 9 to 38 in | loam | moderate | 5.83 to 6.41 in | 6.6 to 8.4 |
| Bw -- 38 to 50 in | loam | moderate | 2.01 to 2.24 in | 6.6 to 8.4 |
| C -- 50 to 60 in | loam | moderate | 1.67 to 1.87 in | 7.4 to 8.4 |

J7A--Sverdrup sandy loam, 0 to 2 percent slopes

Sverdrup

Extent: 70 to 90 percent of the unit

Landform(s): flats on outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 12 in | sandy loam | moderately rapid | 1.54 to 1.77 in | 6.1 to 7.3 |
| Bw -- 12 to 26 in | sandy loam | moderately rapid | 1.70 to 1.98 in | 6.1 to 7.3 |
| 2C -- 26 to 80 in | sand | rapid | 2.70 to 3.78 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J7B--Sverdrup sandy loam, 2 to 6 percent slopes

Sverdrup

Extent: 80 to 90 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 12 in | sandy loam | moderately rapid | 1.54 to 1.77 in | 6.1 to 7.3 |
| Bw -- 12 to 26 in | sandy loam | moderately rapid | 1.70 to 1.98 in | 6.1 to 7.3 |
| 2C -- 26 to 80 in | sand | rapid | 2.70 to 3.78 in | 7.4 to 8.4 |

J11A--Vallers clay loam, 0 to 2 percent slopes

Vallers

Extent: 75 to 95 percent of the unit

Landform(s): rims on depressions on till plains, flats on till plains, drainageways on till plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 14 in | clay loam | moderate | 2.41 to 2.69 in | 7.4 to 8.4 |
| Bkg -- 14 to 38 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |
| Cg -- 38 to 80 in | loam | moderately slow | 6.26 to 7.93 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J12A--Marysland loam, 0 to 2 percent slopes

Marysland

Extent: 75 to 95 percent of the unit

Landform(s): rims on depressions on outwash plains, flats on outwash plains, drainageways on outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer): .28

Land capability, nonirrigated: 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

Representative soil profile:

| | | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|--------|-------------|----------------|---------------------|---------------------------------|------------|
| Ap -- | 0 to 9 in | loam | moderate | 1.54 to 1.99 in | 7.4 to 8.4 |
| Ak -- | 9 to 12 in | loam | moderate | 0.47 to 0.61 in | 7.4 to 8.4 |
| Bkg -- | 12 to 27 in | loam | moderate | 2.30 to 2.92 in | 7.4 to 8.4 |
| 2Cg -- | 27 to 80 in | gravelly sand | rapid | 1.06 to 3.69 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J17A--Quam silty clay loam, depressional, 0 to 1 percent slopes

Quam, depressional

Extent: 85 to 95 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on till plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | silty clay loam | moderately slow | 1.77 to 2.17 in | 6.6 to 7.3 |
| A1,A2 -- 10 to 45 in | silty clay loam | moderately slow | 5.61 to 6.66 in | 6.6 to 7.3 |
| Cg -- 45 to 80 in | silty clay loam | moderately slow | 5.61 to 6.66 in | 6.6 to 7.8 |

J18A--Malachy sandy loam, 1 to 3 percent slopes

Malachy

Extent: 75 to 95 percent of the unit

Landform(s): knolls on outwash plains

Slope gradient: 1 to 3 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 17 in | sandy loam | moderately rapid | 2.20 to 3.05 in | 7.4 to 8.4 |
| Bk -- 17 to 28 in | sandy loam | moderately rapid | 1.32 to 2.09 in | 7.4 to 8.4 |
| 2C -- 28 to 80 in | loamy sand | rapid | 1.04 to 5.20 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J23A--Lamoure silty clay loam, 0 to 2 percent slopes, occasionally flooded

Lamoure, occasionally flooded

Extent: 75 to 95 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 27 in | silty clay loam | moderate | 4.89 to 5.98 in | 7.4 to 8.4 |
| Cg1 -- 27 to 34 in | silty clay loam | moderate | 1.07 to 1.27 in | 7.4 to 8.4 |
| Cg2 -- 34 to 60 in | silt loam | moderate | 5.20 to 5.72 in | 7.4 to 8.4 |

J25A--Rauville silty clay loam, 0 to 1 percent slopes, frequently flooded

Rauville, frequently flooded

Extent: 80 to 95 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 1 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 6w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---------------------------------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 27 in | silty clay loam | moderate | 4.89 to 5.98 in | 7.4 to 8.4 |
| Cg -- 27 to 45 in | silty clay loam | moderate | 2.83 to 3.37 in | 7.4 to 8.4 |
| 2Cg -- 45 to 60 in | stratified gravelly sand to clay loam | moderately rapid | 1.20 to 2.24 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J26B--Darnen loam, 2 to 6 percent slopes

Darnen

Extent: 85 to 95 percent of the unit

Landform(s): hills on moraines

Slope gradient: 2 to 6 percent

Parent material: colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 24 in | loam | moderate | 4.80 to 5.28 in | 6.6 to 7.3 |
| AB,Bw1 -- 24 to 34 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw2 -- 34 to 80 in | loam | moderate | 7.83 to 8.75 in | 6.6 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J31B--Arvilla-Sandberg complex, 2 to 6 percent slopes

Arvilla

Extent: 35 to 55 percent of the unit
Landform(s): hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .15
Land capability, nonirrigated 3e
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 14 in | sandy loam | moderately rapid | 0.61 to 0.72 in | 6.6 to 7.3 |
| 2Bk -- 14 to 48 in | gravelly sand | very rapid | 0.68 to 1.69 in | 7.4 to 8.4 |
| 2C -- 48 to 80 in | gravelly sand | very rapid | 0.64 to 1.59 in | 7.4 to 8.4 |

Sandberg

Extent: 30 to 50 percent of the unit
Landform(s): hills on outwash plains
Slope gradient: 2 to 6 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: excessively drained

Soil loss tolerance (T factor): 5
Wind erodibility group (WEG): 5
Wind erodibility index (WEI): 56
Kw factor (surface layer) .15
Land capability, nonirrigated 4s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | gravelly sandy loam | very rapid | 0.39 to 1.02 in | 6.1 to 7.8 |
| Bk -- 8 to 32 in | very gravelly sand | very rapid | 0.48 to 1.44 in | 7.4 to 8.4 |
| C -- 32 to 80 in | gravelly sand | very rapid | 0.96 to 2.88 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J32A--Bigstone silty clay loam, depressional, 0 to 1 percent slopes

Bigstone, depressional

Extent: 70 to 90 percent of the unit

Landform(s): depressions on lake plains, depressions on moraines, depressions on till plains

Slope gradient: 0 to 1 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | silty clay loam | moderate | 1.77 to 2.17 in | 7.4 to 8.4 |
| A -- 10 to 30 in | silty clay loam | moderate | 3.61 to 4.42 in | 7.4 to 8.4 |
| Cg -- 30 to 80 in | loam | moderate | 7.50 to 9.50 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J42C--Sandberg-Arvilla complex, 6 to 12 percent slopes

Sandberg

Extent: 50 to 70 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .17

Land capability, nonirrigated 6s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | gravelly sandy loam | very rapid | 0.49 to 1.28 in | 6.1 to 7.8 |
| Bk -- 10 to 22 in | gravelly sand | very rapid | 0.24 to 0.73 in | 7.4 to 8.4 |
| C -- 22 to 80 in | gravelly sand | very rapid | 1.16 to 3.47 in | 7.4 to 8.4 |

Arvilla

Extent: 25 to 35 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 14 in | sandy loam | moderately rapid | 0.61 to 0.72 in | 6.6 to 7.3 |
| 2Bk -- 14 to 48 in | gravelly sand | very rapid | 0.68 to 1.69 in | 7.4 to 8.4 |
| 2C -- 48 to 80 in | gravelly sand | very rapid | 0.64 to 1.59 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J45F--Sandberg sandy loam, 12 to 40 percent slopes

Sandberg

Extent: 70 to 90 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 12 to 40 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 12 in | sandy loam | very rapid | 1.54 to 1.77 in | 6.1 to 7.8 |
| Bk -- 12 to 28 in | gravelly sand | very rapid | 0.32 to 0.97 in | 7.4 to 8.4 |
| C -- 28 to 80 in | gravelly sand | very rapid | 1.04 to 3.12 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J48A--Bigstone and Parnell soils, ponded, 0 to 1 percent slopes

Bigstone, ponded

| | |
|---|--|
| <i>Extent:</i> 0 to 85 percent of the unit | <i>Soil loss tolerance (T factor):</i> 5 |
| <i>Landform(s):</i> depressions on moraines, depressions on lake plains, depressions on till plains | <i>Wind erodibility group (WEG):</i> 8 |
| <i>Slope gradient:</i> 0 to 1 percent | <i>Wind erodibility index (WEI):</i> 0 |
| <i>Parent material:</i> lacustrine deposits | <i>Kw factor (surface layer)</i> .24 |
| <i>Restrictive feature(s):</i> greater than 60 inches | <i>Land capability, nonirrigated</i> 8w |
| <i>Flooding:</i> none | <i>Hydric soil:</i> yes |
| <i>Ponding:</i> frequent | <i>Hydrologic group:</i> B/D |
| <i>Drainage class:</i> very poorly drained | <i>Potential for frost action:</i> high |

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1 -- 0 to 18 in | silty clay loam | moderate | 3.26 to 3.98 in | 7.4 to 8.4 |
| A2 -- 18 to 48 in | silty clay loam | moderate | 5.39 to 6.58 in | 7.4 to 8.4 |
| 2Cg -- 48 to 80 in | loam | moderate | 4.78 to 6.06 in | 7.4 to 8.4 |

Parnell, ponded

| | |
|---|--|
| <i>Extent:</i> 0 to 85 percent of the unit | <i>Soil loss tolerance (T factor):</i> 5 |
| <i>Landform(s):</i> depressions on moraines, depressions on lake plains, depressions on till plains | <i>Wind erodibility group (WEG):</i> 8 |
| <i>Slope gradient:</i> 0 to 1 percent | <i>Wind erodibility index (WEI):</i> 0 |
| <i>Parent material:</i> till | <i>Kw factor (surface layer)</i> .32 |
| <i>Restrictive feature(s):</i> greater than 60 inches | <i>Land capability, nonirrigated</i> 8w |
| <i>Flooding:</i> none | <i>Hydric soil:</i> yes |
| <i>Ponding:</i> frequent | <i>Hydrologic group:</i> C/D |
| <i>Drainage class:</i> very poorly drained | <i>Potential for frost action:</i> high |

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 22 in | silty clay loam | moderately slow | 3.97 to 4.85 in | 6.1 to 7.3 |
| Btg -- 22 to 55 in | silty clay | slow | 4.30 to 5.29 in | 6.1 to 7.3 |
| BCg -- 55 to 80 in | silty clay loam | slow | 3.97 to 4.71 in | 6.6 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J57A--Balaton loam, 1 to 3 percent slopes

Balaton

Extent: 75 to 95 percent of the unit

Landform(s): knolls on till plains

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 13 in | loam | moderate | 2.60 to 2.86 in | 7.4 to 8.4 |
| ABk,Bk -- 13 to 31 in | loam | moderate | 2.72 to 3.44 in | 7.4 to 8.4 |
| C -- 31 to 80 in | loam | moderate | 7.32 to 9.28 in | 7.4 to 8.4 |

J75A--Fordville loam, 0 to 2 percent slopes

Fordville

Extent: 80 to 90 percent of the unit

Landform(s): flats on outwash plains

Slope gradient: 0 to 2 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 6 in | loam | moderate | 1.18 to 1.30 in | 6.1 to 7.3 |
| Bw -- 6 to 24 in | loam | moderate | 3.08 to 3.44 in | 6.1 to 7.3 |
| 2C -- 24 to 80 in | gravelly loamy sand | very rapid | 2.24 to 3.35 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J75B--Fordville loam, 2 to 6 percent slopes

Fordville

Extent: 80 to 90 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|---------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 6 in | loam | moderate | 1.18 to 1.30 in | 6.1 to 7.3 |
| Bw -- 6 to 24 in | loam | moderate | 3.08 to 3.44 in | 6.1 to 7.3 |
| 2C -- 24 to 80 in | gravelly loamy sand | very rapid | 2.24 to 3.35 in | 7.4 to 8.4 |

J77A--Lamoure silty clay loam, 0 to 2 percent slopes, frequently flooded

Lamoure, frequently flooded

Extent: 75 to 95 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 27 in | silty clay loam | moderate | 4.89 to 5.98 in | 7.4 to 8.4 |
| Cg1 -- 27 to 34 in | silty clay loam | moderate | 1.07 to 1.27 in | 7.4 to 8.4 |
| Cg2 -- 34 to 60 in | silt loam | moderate | 5.20 to 5.72 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J80A--Lamoure-La Prairie complex, channeled, 0 to 2 percent slopes, frequently flooded

Lamoure, channeled, frequently flooded

Extent: 40 to 60 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 27 in | silty clay loam | moderate | 4.89 to 5.98 in | 7.4 to 8.4 |
| Cg1 -- 27 to 34 in | silty clay loam | moderate | 1.07 to 1.27 in | 7.4 to 8.4 |
| Cg2 -- 34 to 60 in | silt loam | moderate | 5.20 to 5.72 in | 7.4 to 8.4 |

La Prairie, channeled, frequently flooded

Extent: 30 to 50 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | loam | moderate | 1.81 to 1.99 in | 6.6 to 8.4 |
| A -- 9 to 38 in | loam | moderate | 5.83 to 6.41 in | 6.6 to 8.4 |
| Bw -- 38 to 50 in | loam | moderate | 2.01 to 2.24 in | 6.6 to 8.4 |
| C -- 50 to 60 in | loam | moderate | 1.67 to 1.87 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J95E--Buse, stony-Wilno complex, 18 to 25 percent slopes

Buse, stony

Extent: 65 to 85 percent of the unit

Landform(s): hills on moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk -- 8 to 37 in | loam | moderate | 4.37 to 5.54 in | 7.4 to 8.4 |
| C -- 37 to 80 in | loam | moderately slow | 6.44 to 8.15 in | 7.4 to 8.4 |

Wilno

Extent: 10 to 20 percent of the unit

Landform(s): hills on moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 42 in | loam | moderate | 8.43 to 9.27 in | 6.1 to 7.3 |
| AB -- 42 to 52 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 52 to 80 in | loam | moderate | 4.75 to 5.31 in | 6.1 to 7.3 |

Map Unit Description (MN)

Lyon County, Minnesota

J95F--Buse, stony-Wilno complex, 25 to 40 percent slopes

Buse, stony

Extent: 65 to 85 percent of the unit

Landform(s): hills on moraines

Slope gradient: 25 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk -- 8 to 37 in | loam | moderate | 4.37 to 5.54 in | 7.4 to 8.4 |
| C -- 37 to 80 in | loam | moderately slow | 6.44 to 8.15 in | 7.4 to 8.4 |

Wilno

Extent: 10 to 20 percent of the unit

Landform(s): hills on moraines

Slope gradient: 25 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 42 in | loam | moderate | 8.43 to 9.27 in | 6.1 to 7.3 |
| AB -- 42 to 52 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 52 to 80 in | loam | moderate | 4.75 to 5.31 in | 6.1 to 7.3 |

Map Unit Description (MN)

Lyon County, Minnesota

J96C2--Barnes-Buse complex, 6 to 12 percent slopes, moderately eroded

Barnes, moderately eroded

Extent: 40 to 60 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.42 to 1.56 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 7 to 19 in | loam | moderate | 2.01 to 2.24 in | 6.1 to 7.3 |
| Bk -- 19 to 37 in | loam | moderate | 2.72 to 3.44 in | 7.4 to 8.4 |
| C -- 37 to 60 in | loam | moderately slow | 3.43 to 4.34 in | 7.4 to 8.4 |

Buse, moderately eroded

Extent: 20 to 40 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk1,Bk2 -- 8 to 40 in | loam | moderate | 4.84 to 6.13 in | 7.4 to 8.4 |
| C -- 40 to 60 in | loam | moderately slow | 2.95 to 3.74 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J100D2--Buse, eroded-Wilno complex, 12 to 18 percent slopes

Buse, moderately eroded

Extent: 60 to 80 percent of the unit

Landform(s): hills on moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk1,Bk2 -- 8 to 40 in | loam | moderate | 4.84 to 6.13 in | 7.4 to 8.4 |
| C -- 40 to 60 in | loam | moderately slow | 2.95 to 3.74 in | 7.4 to 8.4 |

Wilno

Extent: 10 to 20 percent of the unit

Landform(s): hills on moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 42 in | loam | moderate | 8.43 to 9.27 in | 6.1 to 7.3 |
| AB -- 42 to 52 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 52 to 80 in | loam | moderate | 4.75 to 5.31 in | 6.1 to 7.3 |

Map Unit Description (MN)

Lyon County, Minnesota

J101B--Hokans-Svea complex, 1 to 4 percent slopes

Hokans

Extent: 60 to 80 percent of the unit

Landform(s): hills on moraines

Slope gradient: 1 to 4 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 15 in | loam | moderate | 2.99 to 3.29 in | 6.1 to 7.3 |
| Bw -- 15 to 22 in | loam | moderate | 1.20 to 1.35 in | 6.1 to 7.3 |
| Bk -- 22 to 40 in | loam | moderate | 2.72 to 3.44 in | 7.4 to 8.4 |
| C -- 40 to 80 in | loam | moderately slow | 5.96 to 7.56 in | 7.4 to 8.4 |

Svea

Extent: 15 to 25 percent of the unit

Landform(s): swales on moraines, flats on moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 10 in | loam | moderate | 1.97 to 2.17 in | 6.1 to 7.3 |
| Bw -- 10 to 21 in | loam | moderate | 1.87 to 2.09 in | 6.6 to 7.3 |
| Bk -- 21 to 36 in | clay loam | moderate | 2.24 to 2.84 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderately slow | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J104A--Svea loam, 1 to 3 percent slopes

Svea

Extent: 65 to 85 percent of the unit

Landform(s): swales on moraines, flats on moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 10 in | loam | moderate | 1.97 to 2.17 in | 6.1 to 7.3 |
| Bw -- 10 to 21 in | loam | moderate | 1.87 to 2.09 in | 6.6 to 7.3 |
| Bk -- 21 to 36 in | clay loam | moderate | 2.24 to 2.84 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderately slow | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J105A--Arvilla sandy loam, 0 to 2 percent slopes

Arvilla

Extent: 75 to 95 percent of the unit
Landform(s): flats on outwash plains
Slope gradient: 0 to 2 percent
Parent material: outwash
Restrictive feature(s): greater than 60 inches
Flooding: none
Ponding: none
Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2
Wind erodibility group (WEG): 3
Wind erodibility index (WEI): 86
Kw factor (surface layer) .15
Land capability, nonirrigated 3s
Hydric soil: no
Hydrologic group: A
Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 14 in | sandy loam | moderately rapid | 0.61 to 0.72 in | 6.6 to 7.3 |
| 2Bk -- 14 to 48 in | gravelly sand | very rapid | 0.68 to 1.69 in | 7.4 to 8.4 |
| 2C -- 48 to 80 in | gravelly sand | very rapid | 0.64 to 1.59 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J106B--Barnes-Buse-Svea complex, 1 to 6 percent slopes

Barnes, occasional saturation

Extent: 50 to 70 percent of the unit

Landform(s): hills on moraines, hills on till plains

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 11 in | loam | moderate | 2.20 to 2.43 in | 6.1 to 7.3 |
| Bw -- 11 to 26 in | loam | moderate | 2.54 to 2.84 in | 6.1 to 7.3 |
| Bk -- 26 to 44 in | loam | moderate | 2.72 to 3.44 in | 7.4 to 8.4 |
| C -- 44 to 80 in | loam | moderately slow | 5.37 to 6.81 in | 7.4 to 8.4 |

Buse

Extent: 10 to 20 percent of the unit

Landform(s): hills on moraines, hills on till plains

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk1,Bk2 -- 8 to 40 in | loam | moderate | 4.84 to 6.13 in | 7.4 to 8.4 |
| C -- 40 to 60 in | loam | moderately slow | 2.95 to 3.74 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J106B--Barnes-Buse-Svea complex, 1 to 6 percent slopes

Svea

| | |
|---|---|
| <p><i>Extent:</i> 10 to 20 percent of the unit</p> <p><i>Landform(s):</i> swales on moraines, flats on moraines, swales on till plains, flats on till plains</p> <p><i>Slope gradient:</i> 1 to 3 percent</p> <p><i>Parent material:</i> till</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> moderately well drained</p> | <p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 6</p> <p><i>Wind erodibility index (WEI):</i> 48</p> <p><i>Kw factor (surface layer)</i> .24</p> <p><i>Land capability, nonirrigated</i> 1</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> C</p> <p><i>Potential for frost action:</i> moderate</p> |
|---|---|

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 10 in | loam | moderate | 1.97 to 2.17 in | 6.1 to 7.3 |
| Bw -- 10 to 21 in | loam | moderate | 1.87 to 2.09 in | 6.6 to 7.3 |
| Bk -- 21 to 36 in | clay loam | moderate | 2.24 to 2.84 in | 7.4 to 8.4 |
| C -- 36 to 60 in | loam | moderately slow | 3.60 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J107A--Lakepark-Roliss-Parnell, depressional, complex, 0 to 3 percent slopes

Lakepark

| | |
|--|---|
| <p><i>Extent:</i> 30 to 40 percent of the unit</p> <p><i>Landform(s):</i> drainageways on moraines</p> <p><i>Slope gradient:</i> 0 to 3 percent</p> <p><i>Parent material:</i> till</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> poorly drained</p> | <p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 6</p> <p><i>Wind erodibility index (WEI):</i> 48</p> <p><i>Kw factor (surface layer)</i> .28</p> <p><i>Land capability, nonirrigated</i> 2w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> B/D</p> <p><i>Potential for frost action:</i> high</p> |
|--|---|

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 6.1 to 7.3 |
| A -- 8 to 27 in | loam | moderate | 3.86 to 4.24 in | 6.1 to 7.3 |
| Bg -- 27 to 41 in | loam | moderate | 2.34 to 2.62 in | 6.6 to 7.3 |
| Cg -- 41 to 80 in | loam | moderately slow | 5.85 to 7.41 in | 7.4 to 8.4 |

Roliss

| | |
|---|--|
| <p><i>Extent:</i> 20 to 30 percent of the unit</p> <p><i>Landform(s):</i> drainageways on moraines, flats on moraines, rims on moraines</p> <p><i>Slope gradient:</i> 0 to 2 percent</p> <p><i>Parent material:</i> till</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> poorly drained</p> | <p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 4L</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .20</p> <p><i>Land capability, nonirrigated</i> 2w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> C/D</p> <p><i>Potential for frost action:</i> high</p> |
|---|--|

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | loam | moderate | 1.36 to 1.72 in | 7.4 to 8.4 |
| A -- 9 to 14 in | clay loam | moderate | 0.87 to 0.97 in | 7.4 to 8.4 |
| Bg -- 14 to 20 in | clay loam | moderate | 1.00 to 1.12 in | 7.4 to 8.4 |
| Cg -- 20 to 80 in | loam | moderately slow | 8.98 to 11.37 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J107A--Lakepark-Roliss-Parnell, depressional, complex, 0 to 3 percent slopes

Parnell, depressional

Extent: 10 to 20 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 22 in | silty clay loam | moderately slow | 3.97 to 4.85 in | 6.1 to 7.3 |
| Btg -- 22 to 55 in | silty clay | slow | 4.30 to 5.29 in | 6.1 to 7.3 |
| BCg -- 55 to 80 in | silty clay loam | slow | 3.97 to 4.71 in | 6.6 to 8.4 |

J195B--Poinsett silty clay loam, 2 to 6 percent slopes

Poinsett, occasional saturation

Extent: 70 to 90 percent of the unit

Landform(s): hills on lake plains

Slope gradient: 2 to 6 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | silty clay loam | moderate | 1.42 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 23 in | silty clay loam | moderate | 2.39 to 2.84 in | 6.1 to 7.3 |
| Bk -- 23 to 62 in | silty clay loam | moderate | 6.24 to 7.41 in | 7.4 to 8.4 |
| 2C -- 62 to 80 in | clay loam | moderately slow | 2.54 to 3.26 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J198C2--Rusklyn-Poinsett complex, 6 to 12 percent slopes, moderately eroded

Rusklyn, moderately eroded

Extent: 40 to 50 percent of the unit

Landform(s): hills on lake plains

Slope gradient: 6 to 12 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | silty clay loam | moderate | 1.63 to 1.99 in | 7.4 to 8.4 |
| Bk -- 9 to 28 in | silty clay loam | moderate | 3.02 to 3.59 in | 7.4 to 8.4 |
| C1 -- 28 to 53 in | silty clay loam | moderate | 4.03 to 4.79 in | 7.4 to 8.4 |
| 2C2 -- 53 to 80 in | clay loam | moderately slow | 3.75 to 4.82 in | 7.4 to 8.4 |

Poinsett, moderately eroded

Extent: 35 to 45 percent of the unit

Landform(s): hills on lake plains

Slope gradient: 6 to 12 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | silty clay loam | moderate | 1.42 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 23 in | silty clay loam | moderate | 2.39 to 2.84 in | 6.1 to 7.3 |
| Bk -- 23 to 62 in | silty clay loam | moderate | 6.24 to 7.41 in | 7.4 to 8.4 |
| 2C -- 62 to 80 in | clay loam | moderately slow | 2.54 to 3.26 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J199A--Fulda silty clay, 0 to 2 percent slopes

Fulda

Extent: 75 to 95 percent of the unit

Landform(s): flats on moraines, drainageways on moraines

Slope gradient: 0 to 2 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 13 in | silty clay | slow | 1.69 to 2.21 in | 6.1 to 7.3 |
| Bg -- 13 to 33 in | silty clay | slow | 2.01 to 3.81 in | 6.6 to 7.3 |
| Bkg -- 33 to 40 in | silty clay | slow | 0.71 to 1.35 in | 7.4 to 8.4 |
| Cg -- 40 to 60 in | silty clay | slow | 1.97 to 3.74 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J227D2--Buse, moderately eroded-Sandberg complex, 12 to 18 percent slopes

Buse, moderately eroded

Extent: 40 to 60 percent of the unit

Landform(s): hills on moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk1,Bk2 -- 8 to 40 in | loam | moderate | 4.84 to 6.13 in | 7.4 to 8.4 |
| C -- 40 to 60 in | loam | moderately slow | 2.95 to 3.74 in | 7.4 to 8.4 |

Sandberg

Extent: 20 to 40 percent of the unit

Landform(s): hills on moraines

Slope gradient: 12 to 18 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 12 in | sandy loam | very rapid | 1.54 to 1.77 in | 6.1 to 7.8 |
| Bk -- 12 to 28 in | gravelly sand | very rapid | 0.32 to 0.97 in | 7.4 to 8.4 |
| C -- 28 to 80 in | gravelly sand | very rapid | 1.04 to 3.12 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J227F--Buse-Sandberg complex, 18 to 40 percent slopes

Buse

Extent: 40 to 60 percent of the unit

Landform(s): hills on moraines

Slope gradient: 18 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk -- 8 to 37 in | loam | moderate | 4.37 to 5.54 in | 7.4 to 8.4 |
| C -- 37 to 80 in | loam | moderately slow | 6.44 to 8.15 in | 7.4 to 8.4 |

Sandberg

Extent: 20 to 40 percent of the unit

Landform(s): hills on moraines

Slope gradient: 18 to 40 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 12 in | sandy loam | very rapid | 1.54 to 1.77 in | 6.1 to 7.8 |
| Bk -- 12 to 28 in | gravelly sand | very rapid | 0.32 to 0.97 in | 7.4 to 8.4 |
| C -- 28 to 80 in | gravelly sand | very rapid | 1.04 to 3.12 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J232B--Barnes-Buse-Arvilla complex, 2 to 6 percent slopes

Barnes, occasional saturation

Extent: 30 to 40 percent of the unit

Landform(s): hills on moraines, hills on till plains

Slope gradient: 2 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 11 in | loam | moderate | 2.20 to 2.43 in | 6.1 to 7.3 |
| Bw -- 11 to 26 in | loam | moderate | 2.54 to 2.84 in | 6.1 to 7.3 |
| Bk -- 26 to 44 in | loam | moderate | 2.72 to 3.44 in | 7.4 to 8.4 |
| C -- 44 to 80 in | loam | moderately slow | 5.37 to 6.81 in | 7.4 to 8.4 |

Buse

Extent: 25 to 35 percent of the unit

Landform(s): hills on moraines, hills on till plains

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk1,Bk2 -- 8 to 40 in | loam | moderate | 4.84 to 6.13 in | 7.4 to 8.4 |
| C -- 40 to 60 in | loam | moderately slow | 2.95 to 3.74 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J232B--Barnes-Buse-Arvilla complex, 2 to 6 percent slopes

Arvilla

Extent: 20 to 30 percent of the unit

Landform(s): hills on moraines

Slope gradient: 2 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 14 in | sandy loam | moderately rapid | 0.61 to 0.72 in | 6.6 to 7.3 |
| 2Bk -- 14 to 48 in | gravelly sand | very rapid | 0.68 to 1.69 in | 7.4 to 8.4 |
| 2C -- 48 to 80 in | gravelly sand | very rapid | 0.64 to 1.59 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J235C2--Buse-Barnes-Arvilla complex, 6 to 12 percent slopes, moderately eroded

Buse, moderately eroded

Extent: 30 to 40 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk1,Bk2 -- 8 to 40 in | loam | moderate | 4.84 to 6.13 in | 7.4 to 8.4 |
| C -- 40 to 60 in | loam | moderately slow | 2.95 to 3.74 in | 7.4 to 8.4 |

Barnes, moderately eroded

Extent: 25 to 35 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.42 to 1.56 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 7 to 19 in | loam | moderate | 2.01 to 2.24 in | 6.1 to 7.3 |
| Bk -- 19 to 37 in | loam | moderate | 2.72 to 3.44 in | 7.4 to 8.4 |
| C -- 37 to 60 in | loam | moderately slow | 3.43 to 4.34 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J235C2--Buse-Barnes-Arvilla complex, 6 to 12 percent slopes, moderately eroded

Arvilla

Extent: 20 to 30 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.36 in | 6.1 to 7.3 |
| Bw -- 9 to 14 in | sandy loam | moderately rapid | 0.61 to 0.72 in | 6.6 to 7.3 |
| 2Bk -- 14 to 48 in | gravelly sand | very rapid | 0.68 to 1.69 in | 7.4 to 8.4 |
| 2C -- 48 to 80 in | gravelly sand | very rapid | 0.64 to 1.59 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J236A--Highpoint Lake silty clay, 0 to 2 percent slopes

Highpoint Lake

Extent: 80 to 95 percent of the unit

Landform(s): flats on moraines

Slope gradient: 0 to 2 percent

Parent material: lacustrine deposits

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 18 in | silty clay | slow | 2.35 to 3.08 in | 6.1 to 7.3 |
| Bw -- 18 to 25 in | silty clay | slow | 0.71 to 1.35 in | 6.6 to 7.3 |
| Bk -- 25 to 53 in | silty clay loam | slow | 2.80 to 5.31 in | 7.4 to 8.4 |
| C -- 53 to 80 in | silty clay loam | slow | 2.68 to 5.09 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J237A--Brensall-Tress complex, 0 to 2 percent slopes

Brensall

Extent: 60 to 80 percent of the unit

Landform(s): flats on till plains

Slope gradient: 1 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderately slow | 1.34 to 1.50 in | 6.1 to 7.3 |
| Bt -- 8 to 15 in | clay loam | moderately slow | 1.06 to 1.35 in | 6.6 to 7.3 |
| Bk -- 15 to 48 in | clay loam | moderately slow | 4.63 to 5.29 in | 7.4 to 8.4 |
| BC -- 48 to 80 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Tress

Extent: 15 to 25 percent of the unit

Landform(s): swales on till plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 20 in | clay loam | moderately slow | 3.41 to 3.81 in | 6.1 to 7.3 |
| Bt -- 20 to 36 in | clay loam | moderately slow | 2.36 to 2.99 in | 6.6 to 7.3 |
| Bk -- 36 to 48 in | clay loam | moderately slow | 1.71 to 1.95 in | 7.4 to 8.4 |
| BC -- 48 to 80 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J237B--Brensall-Tress complex 1 to 4 percent slopes

Brensall

Extent: 50 to 70 percent of the unit

Landform(s): flats on till plains

Slope gradient: 1 to 4 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderately slow | 1.34 to 1.50 in | 6.1 to 7.3 |
| Bt -- 8 to 15 in | clay loam | moderately slow | 1.06 to 1.35 in | 6.6 to 7.3 |
| Bk -- 15 to 48 in | clay loam | moderately slow | 4.63 to 5.29 in | 7.4 to 8.4 |
| BC -- 48 to 80 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Tress

Extent: 20 to 30 percent of the unit

Landform(s): swales on till plains

Slope gradient: 1 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 20 in | clay loam | moderately slow | 3.41 to 3.81 in | 6.1 to 7.3 |
| Bt -- 20 to 36 in | clay loam | moderately slow | 2.36 to 2.99 in | 6.6 to 7.3 |
| Bk -- 36 to 48 in | clay loam | moderately slow | 1.71 to 1.95 in | 7.4 to 8.4 |
| BC -- 48 to 80 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J238D2--Buse, firm till-Wilno complex, 12 to 18 percent slopes

Buse, firm till, moderately eroded

Extent: 50 to 70 percent of the unit

Landform(s): hills on till plains

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | clay loam | moderately slow | 1.54 to 1.72 in | 7.4 to 8.4 |
| Bk -- 9 to 34 in | clay loam | moderately slow | 3.47 to 3.97 in | 7.4 to 8.4 |
| BC -- 34 to 80 in | clay loam | moderately slow | 6.45 to 7.37 in | 7.4 to 8.4 |

Wilno

Extent: 15 to 25 percent of the unit

Landform(s): hills on till plains

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 42 in | loam | moderate | 8.43 to 9.27 in | 6.1 to 7.3 |
| AB -- 42 to 52 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 52 to 80 in | loam | moderate | 4.75 to 5.31 in | 6.1 to 7.3 |

Map Unit Description (MN)

Lyon County, Minnesota

J238E--Buse, firm till-Wilno complex, 18 to 25 percent slopes

Buse, firm till

Extent: 65 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | clay loam | moderately slow | 1.54 to 1.72 in | 7.4 to 8.4 |
| Bk -- 9 to 34 in | clay loam | moderately slow | 3.47 to 3.97 in | 7.4 to 8.4 |
| BC -- 34 to 80 in | clay loam | moderately slow | 6.45 to 7.37 in | 7.4 to 8.4 |

Wilno

Extent: 10 to 20 percent of the unit

Landform(s): hills on till plains

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 42 in | loam | moderate | 8.43 to 9.27 in | 6.1 to 7.3 |
| AB -- 42 to 52 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 52 to 80 in | loam | moderate | 4.75 to 5.31 in | 6.1 to 7.3 |

Map Unit Description (MN)

Lyon County, Minnesota

J238F--Buse, firm till-Wilno complex, 25 to 40 percent slopes

Buse, firm till

Extent: 65 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 25 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | clay loam | moderately slow | 1.54 to 1.72 in | 7.4 to 8.4 |
| Bk -- 9 to 34 in | clay loam | moderately slow | 3.47 to 3.97 in | 7.4 to 8.4 |
| BC -- 34 to 80 in | clay loam | moderately slow | 6.45 to 7.37 in | 7.4 to 8.4 |

Wilno

Extent: 10 to 20 percent of the unit

Landform(s): hills on moraines

Slope gradient: 25 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 7e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 42 in | loam | moderate | 8.43 to 9.27 in | 6.1 to 7.3 |
| AB -- 42 to 52 in | loam | moderate | 1.67 to 1.87 in | 6.1 to 7.3 |
| Bw1,Bw2 -- 52 to 80 in | loam | moderate | 4.75 to 5.31 in | 6.1 to 7.3 |

Map Unit Description (MN)

Lyon County, Minnesota

J240B--Forman-Aastad complex, 3 to 6 percent slopes

Forman, occasional saturation

Extent: 40 to 60 percent of the unit

Landform(s): hills on till plains

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderately slow | 1.34 to 1.50 in | 6.6 to 7.3 |
| Bt1 -- 8 to 14 in | clay loam | moderately slow | 0.94 to 1.20 in | 6.6 to 7.3 |
| Bt2 -- 14 to 17 in | clay loam | moderately slow | 0.41 to 0.52 in | 6.6 to 7.3 |
| Bk -- 17 to 44 in | clay loam | moderately slow | 3.80 to 4.35 in | 7.4 to 8.4 |
| Bky -- 44 to 60 in | clay loam | moderately slow | 2.20 to 2.52 in | 7.4 to 8.4 |

Aastad

Extent: 15 to 25 percent of the unit

Landform(s): swales on till plains

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A1,A2 -- 0 to 19 in | clay loam | moderately slow | 3.21 to 3.59 in | 6.1 to 7.3 |
| Bw -- 19 to 32 in | clay loam | moderately slow | 1.95 to 2.47 in | 6.6 to 7.3 |
| Bk -- 32 to 46 in | clay loam | moderately slow | 1.98 to 2.27 in | 7.4 to 8.4 |
| BC -- 46 to 60 in | clay loam | moderately slow | 1.93 to 2.20 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J243A--Balaton clay loam, 1 to 3 percent slopes

Balaton

Extent: 85 to 95 percent of the unit

Landform(s): knolls on till plains

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 7.4 to 8.4 |
| Bk -- 10 to 28 in | clay loam | moderately slow | 2.54 to 2.90 in | 7.4 to 8.4 |
| BC -- 28 to 60 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J250C2--Forman-Buse complex, 6 to 12 percent slopes, moderately eroded

Forman, moderately eroded

Extent: 40 to 50 percent of the unit

Landform(s): hills on till plains

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .20

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderately slow | 1.34 to 1.50 in | 6.6 to 7.3 |
| Bt1 -- 8 to 14 in | clay loam | moderately slow | 0.94 to 1.20 in | 6.6 to 7.3 |
| Bt2 -- 14 to 17 in | clay loam | moderately slow | 0.41 to 0.52 in | 6.6 to 7.3 |
| Bk -- 17 to 44 in | clay loam | moderately slow | 3.80 to 4.35 in | 7.4 to 8.4 |
| Bky -- 44 to 60 in | clay loam | moderately slow | 2.20 to 2.52 in | 7.4 to 8.4 |

Buse, moderately eroded, firm till

Extent: 35 to 45 percent of the unit

Landform(s): hills on till plains

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 9 in | clay loam | moderately slow | 1.54 to 1.72 in | 7.4 to 8.4 |
| Bk -- 9 to 34 in | clay loam | moderately slow | 3.47 to 3.97 in | 7.4 to 8.4 |
| BC -- 34 to 80 in | clay loam | moderately slow | 6.45 to 7.37 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

J251A--Parnell silty clay loam, firm till, 0 to 2 percent slopes

Parnell, firm till

Extent: 70 to 80 percent of the unit

Landform(s): drainageways on till plains

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 25 in | silty clay loam | moderately slow | 4.54 to 5.54 in | 6.1 to 7.3 |
| Btg -- 25 to 44 in | silty clay | slow | 2.46 to 3.02 in | 6.1 to 7.3 |
| Bkg -- 44 to 62 in | clay loam | moderately slow | 2.48 to 2.83 in | 7.4 to 8.4 |
| BCg -- 62 to 80 in | clay loam | moderately slow | 2.54 to 2.90 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L84A--Glencoe clay loam, depressional, 0 to 1 percent slopes

Glencoe, depressional

Extent: 75 to 100 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 24 in | clay loam | moderate | 4.32 to 5.28 in | 6.1 to 7.8 |
| ABg -- 24 to 35 in | clay loam | moderate | 1.98 to 2.43 in | 6.1 to 7.8 |
| Bg -- 35 to 48 in | loam | moderate | 1.95 to 2.47 in | 6.6 to 7.8 |
| Cg -- 48 to 60 in | loam | moderate | 1.77 to 2.24 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L96B--Estherville-Hawick complex, 2 to 6 percent slopes

Estherville

| | |
|---|--|
| <i>Extent:</i> 40 to 65 percent of the unit | <i>Soil loss tolerance (T factor):</i> 2 |
| <i>Landform(s):</i> hills on outwash plains, hills on stream terraces | <i>Wind erodibility group (WEG):</i> 3 |
| <i>Slope gradient:</i> 2 to 6 percent | <i>Wind erodibility index (WEI):</i> 86 |
| <i>Parent material:</i> sandy outwash | <i>Kw factor (surface layer)</i> .20 |
| <i>Restrictive feature(s):</i> greater than 60 inches | <i>Land capability, nonirrigated</i> 3s |
| <i>Flooding:</i> none | <i>Hydric soil:</i> no |
| <i>Ponding:</i> none | <i>Hydrologic group:</i> A |
| <i>Drainage class:</i> somewhat excessively drained | <i>Potential for frost action:</i> low |

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 13 in | sandy loam | moderately rapid | 1.69 to 2.34 in | 5.6 to 7.3 |
| Bw1 -- 13 to 18 in | sandy loam | moderately rapid | 0.61 to 0.85 in | 5.6 to 7.3 |
| 2Bw2 -- 18 to 23 in | loamy coarse sand | rapid | 0.10 to 0.20 in | 5.6 to 7.3 |
| 2C -- 23 to 60 in | gravelly coarse sand | rapid | 0.74 to 1.48 in | 6.6 to 8.4 |

Hawick

| | |
|---|--|
| <i>Extent:</i> 25 to 40 percent of the unit | <i>Soil loss tolerance (T factor):</i> 5 |
| <i>Landform(s):</i> hills on outwash plains, hills on stream terraces | <i>Wind erodibility group (WEG):</i> 3 |
| <i>Slope gradient:</i> 2 to 6 percent | <i>Wind erodibility index (WEI):</i> 86 |
| <i>Parent material:</i> sandy outwash | <i>Kw factor (surface layer)</i> .20 |
| <i>Restrictive feature(s):</i> greater than 60 inches | <i>Land capability, nonirrigated</i> 4s |
| <i>Flooding:</i> none | <i>Hydric soil:</i> no |
| <i>Ponding:</i> none | <i>Hydrologic group:</i> A |
| <i>Drainage class:</i> excessively drained | <i>Potential for frost action:</i> low |

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | sandy loam | moderately rapid | 0.92 to 1.06 in | 6.1 to 7.8 |
| Bw -- 7 to 11 in | gravelly loamy coarse sand | rapid | 0.12 to 0.39 in | 6.1 to 7.8 |
| C -- 11 to 80 in | gravelly coarse sand | very rapid | 1.38 to 4.13 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L139A--Wadena loam, 0 to 2 percent slopes

Wadena

| | |
|--|---|
| <p><i>Extent:</i> 80 to 90 percent of the unit</p> <p><i>Landform(s):</i> flats on outwash plains, rises on outwash plains, flats on stream terraces, rises on stream terraces</p> <p><i>Slope gradient:</i> 0 to 2 percent</p> <p><i>Parent material:</i> loamy sediments over outwash</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> none</p> <p><i>Drainage class:</i> well drained</p> | <p><i>Soil loss tolerance (T factor):</i> 3</p> <p><i>Wind erodibility group (WEG):</i> 6</p> <p><i>Wind erodibility index (WEI):</i> 48</p> <p><i>Kw factor (surface layer)</i> .24</p> <p><i>Land capability, nonirrigated</i> 2s</p> <p><i>Hydric soil:</i> no</p> <p><i>Hydrologic group:</i> B</p> <p><i>Potential for frost action:</i> low</p> |
|--|---|

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 13 in | loam | moderate | 2.60 to 2.86 in | 6.1 to 7.3 |
| Bw1 -- 13 to 20 in | loam | moderate | 0.99 to 1.35 in | 5.6 to 7.3 |
| Bw2 -- 20 to 30 in | sandy loam | moderately rapid | 1.28 to 1.77 in | 5.6 to 7.3 |
| 2C -- 30 to 60 in | gravelly coarse sand | rapid | 0.60 to 1.20 in | 6.6 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L142A--Jeffers clay loam, 0 to 2 percent slopes

Jeffers

Extent: 80 to 95 percent of the unit

Landform(s): rims on depressions on moraines, flats on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

Representative soil profile:

| | | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|------------|-------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- | 0 to 18 in | clay loam | moderate | 3.08 to 3.44 in | 7.4 to 8.4 |
| Bg -- | 18 to 22 in | clay loam | moderate | 0.59 to 0.75 in | 7.9 to 8.4 |
| Bkg,Bk -- | 22 to 35 in | clay loam | moderate | 1.95 to 2.47 in | 7.9 to 8.4 |
| BC1,BC2 -- | 35 to 60 in | clay loam | moderately slow | 3.47 to 3.97 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L172D2--Storden, firm till-Annton complex, 12 to 18 percent slopes, moderately eroded

Storden, moderately eroded, firm till

Extent: 40 to 60 percent of the unit

Landform(s): hills on moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 4e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk -- 8 to 20 in | loam | moderate | 2.07 to 2.32 in | 7.9 to 8.4 |
| BC -- 20 to 80 in | clay loam | moderately slow | 8.38 to 9.57 in | 7.4 to 8.4 |

Annton, moderately, eroded

Extent: 20 to 45 percent of the unit

Landform(s): hills on moraines

Slope gradient: 12 to 18 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderate | 1.42 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 26 in | clay loam | moderate | 3.08 to 3.44 in | 6.1 to 7.3 |
| Bk -- 26 to 60 in | loam | moderate | 5.76 to 6.43 in | 7.9 to 8.4 |
| BC -- 60 to 80 in | clay loam | moderately slow | 2.81 to 3.21 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L173A--Moines clay loam, 1 to 3 percent slopes

Moines

Extent: 80 to 95 percent of the unit

Landform(s): flats on moraines, rises on moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .24

Land capability, nonirrigated 2s

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,ABy -- 0 to 14 in | clay loam | moderate | 2.41 to 2.69 in | 7.4 to 8.4 |
| Byg1,Byg2,Bk - 14 to 40 in | loam | moderate | 4.42 to 4.94 in | 7.9 to 8.4 |
| BCg -- 40 to 60 in | clay loam | moderately slow | 2.76 to 3.15 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L198A--North Twin-Walnut Grove complex, 0 to 2 percent slopes

North Twin

Extent: 60 to 80 percent of the unit

Landform(s): hills on moraines

Slope gradient: 1 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 6.6 to 7.3 |
| Bw -- 10 to 18 in | clay loam | moderately slow | 1.16 to 1.49 in | 6.1 to 7.3 |
| Bk -- 18 to 31 in | clay loam | moderately slow | 1.82 to 2.08 in | 7.4 to 8.4 |
| BCg,BC1,BC2 -- 31 to 80 in | clay loam | moderately slow | 6.83 to 7.81 in | 7.4 to 8.4 |

Walnut Grove

Extent: 15 to 25 percent of the unit

Landform(s): flats on moraines, rises on moraines

Slope gradient: 0 to 2 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 14 in | clay loam | moderately slow | 2.41 to 2.69 in | 6.6 to 7.3 |
| Bw -- 14 to 28 in | clay loam | moderate | 2.48 to 3.31 in | 6.1 to 7.3 |
| Bk -- 28 to 39 in | clay loam | moderately slow | 1.54 to 1.76 in | 7.4 to 8.4 |
| BC1,BC2 -- 39 to 80 in | clay loam | moderately slow | 5.73 to 6.55 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L198B--North Twin-Walnut Grove complex, 1 to 4 percent slopes

North Twin

Extent: 50 to 70 percent of the unit

Landform(s): hills on moraines

Slope gradient: 1 to 4 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 6.6 to 7.3 |
| Bw -- 10 to 18 in | clay loam | moderately slow | 1.16 to 1.49 in | 6.1 to 7.3 |
| Bk -- 18 to 31 in | clay loam | moderately slow | 1.82 to 2.08 in | 7.4 to 8.4 |
| BCg,BC1,BC2 -- 31 to 80 in | clay loam | moderately slow | 6.83 to 7.81 in | 7.4 to 8.4 |

Walnut Grove

Extent: 15 to 35 percent of the unit

Landform(s): flats on moraines, rises on moraines

Slope gradient: 1 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: C/D

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 14 in | clay loam | moderately slow | 2.41 to 2.69 in | 6.6 to 7.3 |
| Bw -- 14 to 28 in | clay loam | moderate | 2.48 to 3.31 in | 6.1 to 7.3 |
| Bk -- 28 to 39 in | clay loam | moderately slow | 1.54 to 1.76 in | 7.4 to 8.4 |
| BC1,BC2 -- 39 to 80 in | clay loam | moderately slow | 5.73 to 6.55 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L201A--Normania loam, 0 to 3 percent slopes

Normania

Extent: 75 to 90 percent of the unit

Landform(s): flats on moraines, rises on moraines

Slope gradient: 0 to 3 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A,AB -- 0 to 17 in | loam | moderate | 3.39 to 3.72 in | 6.1 to 7.3 |
| Bw -- 17 to 26 in | loam | moderate | 1.36 to 1.72 in | 6.6 to 7.3 |
| Bk -- 26 to 50 in | loam | moderate | 3.60 to 4.56 in | 7.4 to 8.4 |
| Cg -- 50 to 60 in | loam | moderate | 1.48 to 1.87 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L202A--Pell Creek-Romnell complex, 0 to 2 percent slopes

Pell Creek

| | |
|---|--|
| <i>Extent:</i> 35 to 70 percent of the unit | <i>Soil loss tolerance (T factor):</i> 5 |
| <i>Landform(s):</i> drainageways on moraines, flats on moraines, swales on moraines | <i>Wind erodibility group (WEG):</i> 6 |
| <i>Slope gradient:</i> 0 to 2 percent | <i>Wind erodibility index (WEI):</i> 48 |
| <i>Parent material:</i> till | <i>Kw factor (surface layer)</i> .24 |
| <i>Restrictive feature(s):</i> greater than 60 inches | <i>Land capability, nonirrigated</i> 2w |
| <i>Flooding:</i> none | <i>Hydric soil:</i> yes |
| <i>Ponding:</i> none | <i>Hydrologic group:</i> C/D |
| <i>Drainage class:</i> poorly drained | <i>Potential for frost action:</i> high |

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A,AB -- 0 to 20 in | clay loam | moderate | 3.41 to 3.81 in | 6.1 to 7.3 |
| Bg -- 20 to 34 in | clay loam | moderate | 2.07 to 2.62 in | 7.4 to 8.4 |
| BCg,BC1,BC2 -- 34 to 80 in | clay loam | moderately slow | 6.45 to 7.37 in | 7.4 to 8.4 |

Romnell

| | |
|--|--|
| <i>Extent:</i> 15 to 45 percent of the unit | <i>Soil loss tolerance (T factor):</i> 5 |
| <i>Landform(s):</i> drainageways on moraines, swales on moraines | <i>Wind erodibility group (WEG):</i> 4L |
| <i>Slope gradient:</i> 0 to 2 percent | <i>Wind erodibility index (WEI):</i> 86 |
| <i>Parent material:</i> till | <i>Kw factor (surface layer)</i> .20 |
| <i>Restrictive feature(s):</i> greater than 60 inches | <i>Land capability, nonirrigated</i> 2w |
| <i>Flooding:</i> none | <i>Hydric soil:</i> yes |
| <i>Ponding:</i> none | <i>Hydrologic group:</i> C/D |
| <i>Drainage class:</i> poorly drained | <i>Potential for frost action:</i> high |

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 18 in | clay loam | moderate | 3.08 to 4.35 in | 6.6 to 7.8 |
| Bg -- 18 to 27 in | clay loam | moderate | 1.54 to 2.17 in | 6.6 to 7.8 |
| Btyg -- 27 to 33 in | clay loam | moderately slow | 0.89 to 1.12 in | 6.6 to 7.8 |
| Bkg -- 33 to 43 in | clay loam | moderately slow | 1.38 to 1.57 in | 7.4 to 8.4 |
| BCkg -- 43 to 60 in | clay loam | moderately slow | 2.37 to 2.71 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L207E--Belview-Ridgeton complex, 18 to 25 percent slopes, firm till substratum

Belview, firm till substratum

Extent: 65 to 85 percent of the unit

Landform(s): escarpments on moraines

Slope gradient: 18 to 25 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk -- 8 to 48 in | loam | moderate | 6.02 to 7.63 in | 7.4 to 8.4 |
| BC1,2 -- 48 to 80 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Ridgeton, firm till substratum

Extent: 10 to 20 percent of the unit

Landform(s): escarpments on moraines

Slope gradient: 18 to 25 percent

Parent material: colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2,AB -- 0 to 31 in | loam | moderate | 6.22 to 6.84 in | 6.1 to 7.3 |
| BA -- 31 to 49 in | loam | moderate | 3.54 to 3.90 in | 6.1 to 7.3 |
| Bw -- 49 to 64 in | clay loam | moderate | 2.46 to 2.76 in | 6.1 to 7.3 |
| BC -- 64 to 80 in | clay loam | moderately slow | 2.20 to 2.52 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L207F--Belview-Ridgeton complex, 18 to 40 percent slopes, firm till substratum

Belview, firm till substratum

Extent: 65 to 85 percent of the unit

Landform(s): escarpments on moraines

Slope gradient: 18 to 40 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 7.4 to 8.4 |
| Bk -- 8 to 48 in | loam | moderate | 6.02 to 7.63 in | 7.4 to 8.4 |
| BC1,BC2 -- 48 to 80 in | clay loam | moderately slow | 4.46 to 5.10 in | 7.4 to 8.4 |

Ridgeton, firm till substratum

Extent: 10 to 20 percent of the unit

Landform(s): escarpments on moraines

Slope gradient: 18 to 35 percent

Parent material: colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 6e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2,AB -- 0 to 31 in | loam | moderate | 6.22 to 6.84 in | 6.1 to 7.3 |
| BA -- 31 to 49 in | loam | moderate | 3.54 to 3.90 in | 6.1 to 7.3 |
| Bw -- 49 to 64 in | clay loam | moderate | 2.46 to 2.76 in | 6.1 to 7.3 |
| BC -- 64 to 80 in | clay loam | moderately slow | 2.20 to 2.52 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L214A--Calco-Du Page complex, 0 to 2 percent slopes, frequently flooded

Calco, frequently flooded

Extent: 40 to 70 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A1 -- 0 to 14 in | silty clay loam | moderate | 2.98 to 3.26 in | 7.4 to 8.4 |
| A2 -- 14 to 40 in | silty clay loam | moderate | 5.46 to 5.98 in | 7.4 to 8.4 |
| Cg -- 40 to 60 in | silty clay loam | moderate | 3.54 to 3.94 in | 7.4 to 8.4 |

Du Page, frequently flooded

Extent: 40 to 60 percent of the unit

Landform(s): flats on flood plains, rises on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 36 in | loam | moderate | 7.17 to 7.88 in | 6.6 to 8.4 |
| C1,C2 -- 36 to 60 in | loam | moderate | 4.08 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L220A--Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded

Calco, occasionally flooded

Extent: 75 to 90 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 2w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A1 -- 0 to 14 in | silty clay loam | moderate | 2.98 to 3.26 in | 7.4 to 8.4 |
| A2 -- 14 to 40 in | silty clay loam | moderate | 5.46 to 5.98 in | 7.4 to 8.4 |
| Cg -- 40 to 60 in | silty clay loam | moderate | 3.54 to 3.94 in | 7.4 to 8.4 |

L221A--Du Page loam, 0 to 2 percent slopes, occasionally flooded

Du Page, occasionally flooded

Extent: 75 to 90 percent of the unit

Landform(s): flats on flood plains, rises on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 2w

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A1,A2 -- 0 to 36 in | loam | moderate | 7.17 to 7.88 in | 6.6 to 8.4 |
| C1,C2 -- 36 to 60 in | loam | moderate | 4.08 to 4.56 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L222C2--Ves-Storden-Pilot Grove complex, 6 to 12 percent slopes, moderately eroded

Ves, moderately eroded

Extent: 25 to 40 percent of the unit

Landform(s): moraines on hills

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | loam | moderate | 1.57 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 22 in | loam | moderate | 2.13 to 2.69 in | 6.6 to 7.3 |
| Bk -- 22 to 33 in | loam | moderate | 1.87 to 2.09 in | 7.4 to 8.4 |
| C -- 33 to 60 in | loam | moderate | 4.55 to 5.09 in | 7.4 to 8.4 |

Storden, moderately eroded

Extent: 20 to 40 percent of the unit

Landform(s): moraines on hills

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 7 in | loam | moderate | 1.42 to 1.56 in | 7.4 to 8.4 |
| Bk -- 7 to 55 in | loam | moderate | 7.20 to 9.13 in | 7.4 to 8.4 |
| C -- 55 to 80 in | loam | moderate | 3.72 to 4.71 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L222C2--Ves-Storden-Pilot Grove complex, 6 to 12 percent slopes, moderately eroded

Pilot Grove

Extent: 15 to 35 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: outwash over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 4s

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 9 in | sandy loam | moderately rapid | 1.18 to 1.63 in | 5.6 to 7.3 |
| Bw -- 9 to 17 in | sandy loam | moderately rapid | 1.02 to 1.42 in | 5.6 to 7.3 |
| 2BC -- 17 to 21 in | loamy sand | rapid | 0.08 to 0.16 in | 5.6 to 7.3 |
| 2C -- 21 to 58 in | gravelly coarse sand | rapid | 0.74 to 1.48 in | 6.6 to 8.4 |
| 3C -- 58 to 80 in | loam | moderate | 3.31 to 4.19 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L225B--Annton-North Twin complex, 3 to 6 percent slopes

Annton

Extent: 40 to 55 percent of the unit

Landform(s): hills on moraines

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderate | 1.77 to 2.17 in | 6.1 to 7.3 |
| Bw -- 10 to 22 in | clay loam | moderate | 2.07 to 2.32 in | 6.1 to 7.3 |
| Bk -- 22 to 60 in | loam | moderately slow | 5.29 to 6.05 in | 7.4 to 8.4 |
| BC -- 60 to 80 in | clay loam | moderately slow | 2.81 to 3.21 in | 7.4 to 8.4 |

North Twin

Extent: 15 to 45 percent of the unit

Landform(s): hills on moraines

Slope gradient: 3 to 4 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderately slow | 1.67 to 1.87 in | 6.6 to 7.3 |
| Bw -- 10 to 18 in | clay loam | moderately slow | 1.16 to 1.49 in | 6.1 to 7.3 |
| Bk -- 18 to 31 in | clay loam | moderately slow | 1.82 to 2.08 in | 7.4 to 8.4 |
| BCg,BC1,BC2 -- 31 to 80 in | clay loam | moderately slow | 6.83 to 7.81 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L226C2--Annton-Storden, firm till complex, 6 to 12 percent slopes, moderately eroded

Annton, moderately eroded

Extent: 30 to 60 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderate | 1.42 to 1.73 in | 6.1 to 7.3 |
| Bw -- 8 to 21 in | clay loam | moderate | 2.21 to 2.47 in | 6.1 to 7.3 |
| Bk -- 21 to 34 in | clay loam | moderately slow | 1.82 to 2.08 in | 7.4 to 8.4 |
| BC1,BC2 -- 34 to 80 in | clay loam | moderately slow | 6.45 to 7.37 in | 7.4 to 8.4 |

Storden, moderately eroded, firm till

Extent: 25 to 50 percent of the unit

Landform(s): hills on moraines

Slope gradient: 6 to 12 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .37

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | loam | moderate | 1.97 to 2.17 in | 7.4 to 8.4 |
| Bk -- 10 to 31 in | clay loam | moderately slow | 2.98 to 3.40 in | 7.4 to 8.4 |
| BC -- 31 to 80 in | clay loam | moderately slow | 6.83 to 7.81 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L229A--Romnell silty clay loam, depressional, 0 to 1 percent slopes

Romnell, depressional

Extent: 75 to 95 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 23 in | silty clay loam | moderately slow | 4.80 to 5.25 in | 6.1 to 7.8 |
| Bg1,Bg2 -- 23 to 43 in | silty clay loam | moderate | 3.41 to 4.82 in | 6.6 to 7.8 |
| BCg1 -- 43 to 51 in | clay loam | moderately slow | 1.24 to 1.57 in | 6.6 to 7.8 |
| BCg2 -- 51 to 80 in | clay loam | moderately slow | 4.02 to 4.60 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L234A--Romnell silty clay loam, ponded, 0 to 1 percent slopes

Romnell, ponded

Extent: 75 to 95 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .32

Land capability, nonirrigated 8w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A -- 0 to 42 in | silty clay loam | moderate | 7.58 to 9.27 in | 6.1 to 7.8 |
| Bg -- 42 to 50 in | clay loam | moderate | 1.18 to 1.50 in | 6.6 to 7.8 |
| BCg1 -- 50 to 51 in | clay loam | moderately slow | 0.18 to 0.22 in | 6.6 to 7.8 |
| BCg2 -- 51 to 80 in | clay loam | moderately slow | 4.02 to 4.60 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L242B--Terril loam, firm till substratum, 2 to 6 percent slopes

Terril, firm till substratum

Extent: 80 to 95 percent of the unit

Landform(s): hills on moraines

Slope gradient: 2 to 6 percent

Parent material: colluvium over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A1,A2 -- 0 to 30 in | loam | moderate | 5.98 to 6.58 in | 6.1 to 7.3 |
| A3,AB -- 30 to 40 in | loam | moderate | 1.74 to 1.94 in | 6.1 to 7.3 |
| Bw -- 40 to 61 in | loam | moderate | 3.34 to 3.76 in | 6.1 to 7.3 |
| BC -- 61 to 80 in | clay loam | moderately slow | 2.65 to 3.02 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L243A--Havelock-Zumbro complex, 0 to 3 percent slopes, frequently flooded

Havelock, frequently flooded

Extent: 50 to 85 percent of the unit

Landform(s): flats on flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 5w

Hydric soil: yes

Hydrologic group: B/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| A1,A2 -- 0 to 32 in | loam | moderate | 5.42 to 7.33 in | 7.4 to 8.4 |
| Cg -- 32 to 60 in | clay loam | moderate | 4.75 to 5.59 in | 7.4 to 8.4 |

Zumbro, frequently flooded

Extent: 10 to 20 percent of the unit

Landform(s): flood plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

Restrictive feature(s): greater than 60 inches

Flooding: frequent

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 3s

Hydric soil: no

Hydrologic group: B

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| A -- 0 to 10 in | fine sandy loam | moderately rapid | 1.57 to 1.77 in | 6.1 to 7.8 |
| AB -- 10 to 42 in | loamy fine sand | rapid | 2.58 to 3.23 in | 6.1 to 7.8 |
| C -- 42 to 60 in | fine sand | rapid | 0.35 to 1.24 in | 7.4 to 7.8 |

Map Unit Description (MN)

Lyon County, Minnesota

L246B--Dickman sandy loam, firm till substratum, 1 to 6 percent slopes

Dickman, firm till substratum

Extent: 75 to 95 percent of the unit

Landform(s): outwash plains on hills

Slope gradient: 1 to 6 percent

Parent material: outwash

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: somewhat excessively drained

Soil loss tolerance (T factor): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .20

Land capability, nonirrigated 3e

Hydric soil: no

Hydrologic group: A

Potential for frost action: low

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap,A -- 0 to 12 in | sandy loam | moderately rapid | 1.54 to 1.77 in | 6.1 to 6.5 |
| Bw -- 12 to 19 in | sandy loam | moderately rapid | 0.85 to 0.99 in | 6.1 to 7.3 |
| 2Bw,C -- 19 to 60 in | coarse sand | rapid | 2.05 to 2.87 in | 6.1 to 7.8 |
| 3C -- 60 to 80 in | clay loam | moderately slow | 2.81 to 3.21 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L248B--Annton-Swanlake, firm till complex, 3 to 6 percent slopes

Annton

Extent: 35 to 65 percent of the unit

Landform(s): hills on moraines

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .24

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | clay loam | moderate | 1.77 to 2.17 in | 6.1 to 7.3 |
| Bw -- 10 to 22 in | clay loam | moderate | 2.07 to 2.32 in | 6.1 to 7.3 |
| Bk -- 22 to 60 in | loam | moderately slow | 5.29 to 6.05 in | 7.4 to 8.4 |
| BC -- 60 to 80 in | clay loam | moderately slow | 2.81 to 3.21 in | 7.4 to 8.4 |

Swanlake, firm till

Extent: 30 to 50 percent of the unit

Landform(s): hills on moraines

Slope gradient: 3 to 6 percent

Parent material: till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .28

Land capability, nonirrigated 2e

Hydric soil: no

Hydrologic group: C

Potential for frost action: moderate

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 8 in | clay loam | moderately slow | 1.34 to 1.50 in | 7.4 to 8.4 |
| ABk -- 8 to 18 in | clay loam | moderately slow | 1.43 to 1.64 in | 7.4 to 8.4 |
| Bk -- 18 to 40 in | clay loam | moderately slow | 3.09 to 3.53 in | 7.4 to 8.4 |
| BC -- 40 to 80 in | clay loam | moderately slow | 5.57 to 6.36 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L249A--Knoke silty clay loam, firm till substratum, depressional, 0 to 1 percent slopes

Knoke, firm till substratum, depressional

Extent: 75 to 90 percent of the unit

Landform(s): depressions on moraines

Slope gradient: 0 to 1 percent

Parent material: lacustrine sediments over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: frequent

Drainage class: very poorly drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 4L

Wind erodibility index (WEI): 86

Kw factor (surface layer) .32

Land capability, nonirrigated 3w

Hydric soil: yes

Hydrologic group: C/D

Potential for frost action: high

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------------|---------------------|---------------------------------|------------|
| Ap,A1,A2 -- 0 to 10 in | mucky silty clay loam | moderately slow | 2.07 to 2.26 in | 7.4 to 8.4 |
| ABg -- 10 to 42 in | silty clay loam | moderately slow | 6.78 to 7.43 in | 7.4 to 8.4 |
| Bg -- 42 to 63 in | silty clay loam | moderately slow | 3.76 to 4.17 in | 7.4 to 8.4 |
| 2BCg -- 63 to 80 in | clay loam | moderately slow | 2.37 to 2.71 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L250A--Lowlein loam, firm till, 1 to 3 percent slopes

Lowlein, firm till

Extent: 80 to 90 percent of the unit

Landform(s): flats on moraines, rises on moraines, flats on stream terraces, rises on stream terraces

Slope gradient: 1 to 3 percent

Parent material: outwash over till

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: moderately well drained

Soil loss tolerance (T factor): 5

Wind erodibility group (WEG): 5

Wind erodibility index (WEI): 56

Kw factor (surface layer) .20

Land capability, nonirrigated 1

Hydric soil: no

Hydrologic group: B

Potential for frost action: moderate

Representative soil profile:

| | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|---------------------|----------------|---------------------|---------------------------------|------------|
| Ap,AB -- 0 to 14 in | loam | moderately rapid | 1.84 to 2.13 in | 6.1 to 7.3 |
| Bw1 -- 14 to 24 in | sandy loam | moderately rapid | 1.18 to 1.38 in | 6.1 to 7.3 |
| 2Bw2 -- 24 to 31 in | loamy sand | rapid | 0.43 to 0.78 in | 6.1 to 7.3 |
| 3BC -- 31 to 80 in | clay loam | moderately slow | 6.83 to 7.81 in | 7.4 to 8.4 |

Map Unit Description (MN)

Lyon County, Minnesota

L251A--Blue Earth mucky silt loam, firm till substratum, depressional, 0 to 1 percent slopes

Blue Earth, depressional

| | |
|---|--|
| <p><i>Extent:</i> 85 to 95 percent of the unit</p> <p><i>Landform(s):</i> depressions on lake plains, depressions on moraines</p> <p><i>Slope gradient:</i> 0 to 1 percent</p> <p><i>Parent material:</i> coprogenic material</p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i> none</p> <p><i>Ponding:</i> frequent</p> <p><i>Drainage class:</i> very poorly drained</p> | <p><i>Soil loss tolerance (T factor):</i> 5</p> <p><i>Wind erodibility group (WEG):</i> 4L</p> <p><i>Wind erodibility index (WEI):</i> 86</p> <p><i>Kw factor (surface layer)</i> .28</p> <p><i>Land capability, nonirrigated</i> 3w</p> <p><i>Hydric soil:</i> yes</p> <p><i>Hydrologic group:</i> B/D</p> <p><i>Potential for frost action:</i> high</p> |
|---|--|

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|-----------------|---------------------|---------------------------------|------------|
| Ap -- 0 to 10 in | silty clay loam | moderate | 1.77 to 2.36 in | 7.4 to 8.4 |
| Cg -- 10 to 68 in | silty clay loam | moderate | 10.42 to 13.89 in | 7.4 to 8.4 |
| BCg -- 68 to 80 in | clay loam | moderately slow | 1.71 to 1.95 in | 7.4 to 8.4 |

M-W--Water, miscellaneous

Water, miscellaneous

| | |
|---|--|
| <p><i>Extent:</i> 100 percent of the unit</p> <p><i>Landform(s):</i></p> <p><i>Slope gradient:</i></p> <p><i>Parent material:</i></p> <p><i>Restrictive feature(s):</i> greater than 60 inches</p> <p><i>Flooding:</i></p> <p><i>Ponding:</i></p> <p><i>Drainage class:</i></p> | <p><i>Soil loss tolerance (T factor):</i></p> <p><i>Wind erodibility group (WEG):</i></p> <p><i>Wind erodibility index (WEI):</i></p> <p><i>Kw factor (surface layer)</i></p> <p><i>Land capability, nonirrigated</i></p> <p><i>Hydric soil:</i></p> <p><i>Hydrologic group:</i></p> <p><i>Potential for frost action:</i></p> |
|---|--|

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
| | | | | |

Map Unit Description (MN)

Lyon County, Minnesota

W--Water

Water

Extent: 100 percent of the unit

Landform(s):

Slope gradient:

Parent material:

Restrictive feature(s): greater than 60 inches

Flooding:

Ponding:

Drainage class:

Soil loss tolerance (T factor):

Wind erodibility group (WEG):

Wind erodibility index (WEI):

Kw factor (surface layer)

Land capability, nonirrigated

Hydric soil:

Hydrologic group:

Potential for frost action:

| <i>Representative soil profile:</i> | <i>Texture</i> | <i>Permeability</i> | <i>Available water capacity</i> | <i>pH</i> |
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|
|-------------------------------------|----------------|---------------------|---------------------------------|-----------|

This report provides a semitabular listing of some soil and site properties and interpretations that are valuable in communicating the concept of a map unit. The report also provides easy access to the commonly used conservation planning information in one place. The major soil components in each map unit are displayed. Minor components may be displayed if they are included in the database and are selected at the time the report is generated.