

Map Unit Description (MN)

Murray 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]

31F--Storden loam, 18 to 40 percent slopes

Storden

Extent: 85 percent of the unit

Landform(s): 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: 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 9 in	loam	moderate	1.81 to 1.99 in	7.4 to 8.4
C1 -- 9 to 20 in	loam	moderate	1.87 to 2.09 in	7.9 to 8.4
C2 -- 20 to 60 in	clay loam	moderate	5.57 to 6.36 in	7.4 to 8.4

33B--Barnes loam, 2 to 4 percent slopes

Barnes

Extent: 85 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) .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 9 in	loam	moderate	1.81 to 1.99 in	6.1 to 7.3
Bw -- 9 to 17 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bk,C -- 17 to 60 in	loam	moderate	7.30 to 8.15 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

33B2--Barnes loam, 3 to 6 percent slopes, eroded

Barnes, eroded

Extent: 85 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) .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 9 in	loam	moderate	1.81 to 1.99 in	6.1 to 7.3
Bw -- 9 to 17 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bk,C -- 17 to 60 in	loam	moderate	7.30 to 8.15 in	7.4 to 8.4

36--Flom clay loam

Flom

Extent: 85 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: 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 23 in	clay loam	moderate	3.88 to 4.34 in	6.1 to 7.3
Bg -- 23 to 33 in	clay loam	moderate	1.54 to 1.94 in	7.4 to 8.4
Cg -- 33 to 60 in	clay loam	moderate	3.75 to 4.28 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

51--La Prairie loam

La Prairie, occasionally flooded

Extent: 85 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>
A1 -- 0 to 13 in	loam	moderate	2.60 to 2.86 in	6.1 to 7.3
A2,Bw -- 13 to 36 in	loam	moderate	3.88 to 4.34 in	7.4 to 8.4
C -- 36 to 60 in	stratified fine sandy loam to silty clay loam	moderate	3.36 to 4.56 in	7.4 to 8.4

70--Svea loam

Svea

Extent: 85 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: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,A,AB -- 0 to 19 in	loam	moderate	3.78 to 4.16 in	6.1 to 7.3
Bw -- 19 to 26 in	loam	moderate	1.20 to 1.35 in	6.1 to 7.3
BC,C -- 26 to 60 in	loam	moderate	5.76 to 6.43 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

86--Canisteo clay loam

Canisteo

Extent: 85 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 -- 0 to 17 in	clay loam	moderate	2.88 to 3.22 in	7.4 to 8.4
ABg -- 17 to 23 in	clay loam	moderate	1.00 to 1.12 in	7.4 to 8.4
Bg -- 23 to 36 in	clay loam	moderate	1.95 to 2.47 in	7.9 to 8.4
Cg -- 36 to 60 in	clay loam	moderate	3.36 to 3.84 in	7.4 to 8.4

94B--Terril loam, 2 to 8 percent slopes

Terril

Extent: 90 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 8 percent

Parent material: colluvium

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,A -- 0 to 35 in	loam	moderate	7.01 to 7.71 in	6.1 to 7.3
Bw -- 35 to 43 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
BC,C -- 43 to 60 in	loam	moderate	2.88 to 3.22 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

96A--Collinwood silty clay, 0 to 2 percent slopes

Collinwood

Extent: 85 percent of the unit

Landform(s): 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 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 18 in	silty clay	moderately slow	2.54 to 3.08 in	6.1 to 7.3
BA,Bw -- 18 to 34 in	silty clay	moderately slow	2.05 to 2.52 in	6.1 to 7.3
C -- 34 to 60 in	silty clay	moderately slow	2.86 to 3.90 in	7.4 to 8.4

96B--Collinwood silty clay, 2 to 6 percent slopes

Collinwood

Extent: 85 percent of the unit

Landform(s): moraines

Slope gradient: 2 to 6 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 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,A,AB -- 0 to 18 in	silty clay	moderately slow	2.54 to 3.08 in	6.1 to 7.3
BA,Bw -- 18 to 34 in	silty clay	moderately slow	2.05 to 2.52 in	6.1 to 7.3
C -- 34 to 60 in	silty clay	moderately slow	2.86 to 3.90 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

102B--Clarion loam, 2 to 4 percent slopes

Clarion

Extent: 85 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: 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 12 in	loam	moderate	2.36 to 2.60 in	6.1 to 7.3
Bw -- 12 to 23 in	loam	moderate	1.87 to 2.09 in	6.1 to 7.3
C -- 23 to 60 in	loam	moderate	6.29 to 7.03 in	7.4 to 8.4

102B2--Clarion loam, 3 to 6 percent slopes, eroded

Clarion, eroded

Extent: 85 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 12 in	loam	moderate	2.36 to 2.60 in	6.1 to 7.3
Bw -- 12 to 23 in	loam	moderate	1.87 to 2.09 in	6.1 to 7.3
C -- 23 to 60 in	loam	moderate	6.29 to 7.03 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

113--Webster clay loam

Webster

Extent: 85 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: 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 20 in	clay loam	moderate	3.41 to 3.81 in	6.1 to 7.3
BA,Bg -- 20 to 30 in	clay loam	moderate	1.48 to 1.87 in	6.1 to 7.3
Cg -- 30 to 60 in	clay loam	moderate	4.19 to 4.79 in	7.4 to 8.4

114--Glencoe silty clay loam

Glencoe

Extent: 85 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: 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	silty clay loam	moderate	1.63 to 1.99 in	6.1 to 7.3
A,ABg -- 9 to 33 in	silty clay loam	moderate	4.32 to 5.28 in	6.1 to 7.3
Bg -- 33 to 46 in	clay loam	moderate	1.95 to 2.47 in	6.1 to 7.3
C -- 46 to 60 in	clay loam	moderate	1.93 to 2.20 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

118--Crippin loam

Crippin

Extent: 85 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) .24

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,AB -- 0 to 17 in	loam	moderate	3.39 to 3.72 in	7.4 to 8.4
Bw -- 17 to 28 in	loam	moderate	1.87 to 2.09 in	7.9 to 8.4
Bk,Cg -- 28 to 60 in	loam	moderate	5.42 to 6.06 in	7.4 to 8.4

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

Sverdrup

Extent: 85 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) .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 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 7.3
Bw -- 8 to 28 in	sandy loam	moderately rapid	2.41 to 2.81 in	6.1 to 7.3
C -- 28 to 60 in	sand	rapid	1.59 to 2.23 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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

Sverdrup

Extent: 85 percent of the unit

Landform(s): stream terraces

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 -- 0 to 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 7.3
Bw -- 8 to 28 in	loam	moderately rapid	3.41 to 3.81 in	6.1 to 7.3
C -- 28 to 60 in	sand	rapid	1.59 to 2.23 in	7.4 to 8.4

127C--Sverdrup sandy loam, 6 to 12 percent slopes

Sverdrup

Extent: 85 percent of the unit

Landform(s): stream terraces

Slope gradient: 6 to 12 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 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 28 in	loam	moderately rapid	3.41 to 3.81 in	6.1 to 7.3
C -- 28 to 60 in	sand	rapid	1.59 to 2.23 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

130--Nicollet loam

Nicollet

Extent: 85 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) .24

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,AB -- 0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bw -- 16 to 28 in	loam	moderate	2.01 to 2.24 in	6.1 to 7.3
C -- 28 to 60 in	loam	moderate	5.42 to 6.06 in	7.4 to 8.4

140--Spicer silty clay loam

Spicer

Extent: 85 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): 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,AB -- 0 to 14 in	silty clay loam	moderate	2.55 to 3.12 in	7.4 to 8.4
Bg,BCg -- 14 to 31 in	silty clay loam	moderate	2.71 to 3.22 in	7.4 to 8.4
Cg -- 31 to 60 in	silt loam	moderate	5.75 to 6.32 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

141A--Egeland sandy loam, 0 to 2 percent slopes

Egeland

Extent: 85 percent of the unit

Landform(s): stream terraces

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): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

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>
Ap -- 0 to 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	6.1 to 7.3
Bw -- 9 to 26 in	sandy loam	moderately rapid	2.03 to 2.37 in	6.1 to 7.3
BC -- 26 to 36 in	loamy sand	moderately rapid	0.79 to 0.98 in	7.4 to 8.4
C -- 36 to 60 in	stratified fine sand to silt loam	moderate	1.20 to 5.28 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

141B--Egeland sandy loam, 2 to 6 percent slopes

Egeland

Extent: 85 percent of the unit

Landform(s): stream terraces

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): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .17

Land capability, nonirrigated 3e

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 9 in	sandy loam	moderately rapid	1.18 to 1.36 in	6.1 to 7.3
Bw -- 9 to 26 in	sandy loam	moderately rapid	2.03 to 2.37 in	6.1 to 7.3
BC -- 26 to 36 in	loamy sand	moderately rapid	0.79 to 0.98 in	7.4 to 8.4
C -- 36 to 60 in	stratified fine sand to silt loam	moderate	1.20 to 5.28 in	7.4 to 8.4

184--Hamerly loam

Hamerly

Extent: 85 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) .28

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 -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	7.4 to 8.4
A,ABk -- 8 to 20 in	loam	moderate	2.07 to 2.32 in	7.9 to 8.4
Bk,C -- 20 to 60 in	loam	moderate	6.76 to 7.56 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

211--Lura silty clay

Lura

Extent: 85 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) .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,A1,A2 -- 0 to 41 in	silty clay	slow	5.73 to 6.96 in	6.1 to 7.3
Bg,Cg -- 41 to 60 in	silty clay	moderately slow	2.46 to 3.02 in	7.4 to 8.4

219--Rolfe silt loam

Rolfe

Extent: 85 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) .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,E -- 0 to 20 in	silt loam	moderate	4.42 to 4.82 in	6.1 to 7.3
Btg -- 20 to 36 in	silty clay	slow	2.05 to 2.52 in	6.1 to 7.3
BCg,Cg -- 36 to 60 in	clay loam	moderate	3.36 to 3.84 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

229--Waldorf silty clay

Waldorf

Extent: 85 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: 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>
A,AB -- 0 to 21 in	silty clay	moderately slow	2.92 to 3.55 in	6.1 to 7.3
Bg -- 21 to 42 in	silty clay	moderately slow	2.76 to 3.40 in	6.1 to 7.3
Cg -- 42 to 60 in	silty clay	moderately slow	1.95 to 2.66 in	7.4 to 8.4

236--Vallers clay loam

Vallers

Extent: 85 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) .20

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 -- 0 to 15 in	clay loam	moderate	2.54 to 2.84 in	7.4 to 8.4
ABk -- 15 to 23 in	clay loam	moderate	1.18 to 1.50 in	7.9 to 8.4
Cg -- 23 to 60 in	loam	moderate	6.29 to 7.03 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

246--Marysland loam

Marysland

Extent: 85 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): 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

<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	loam	moderate	3.39 to 3.72 in	7.4 to 8.4
Cg -- 17 to 27 in	loam	moderate	1.67 to 1.87 in	7.9 to 8.4
2C -- 27 to 60 in	stratified gravelly coarse sand to fine sand	rapid	0.66 to 2.31 in	7.4 to 8.4

339A--Fordville loam, 0 to 2 percent slopes

Fordville

Extent: 86 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 7 in	loam	moderate	1.42 to 1.56 in	6.1 to 7.3
Bw1 -- 7 to 15 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bw2,BC -- 15 to 27 in	loam	moderately rapid	2.01 to 2.24 in	7.4 to 8.4
2C -- 27 to 60 in	gravelly sand	very rapid	1.65 to 2.31 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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

Fordville

Extent: 86 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 7 in	loam	moderate	1.42 to 1.56 in	6.1 to 7.3
Bw1 -- 7 to 15 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bw2,BC -- 15 to 27 in	loam	moderately rapid	2.01 to 2.24 in	7.4 to 8.4
2C -- 27 to 60 in	gravelly sand	very rapid	1.65 to 2.31 in	7.4 to 8.4

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

Arvilla

Extent: 90 percent of the unit

Landform(s): 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 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 7.3
Bw -- 8 to 19 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 7.3
2C -- 19 to 60 in	gravelly coarse sand	very rapid	0.82 to 1.64 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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

Arvilla

Extent: 90 percent of the unit

Landform(s): 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 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 7.3
Bw -- 8 to 19 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 7.3
2C -- 19 to 60 in	gravelly coarse sand	very rapid	0.82 to 1.64 in	7.4 to 8.4

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

Arvilla

Extent: 90 percent of the unit

Landform(s): 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 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 7.3
Bw -- 8 to 19 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 7.3
2C -- 19 to 60 in	gravelly coarse sand	very rapid	0.82 to 1.64 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

344--Quam silty clay loam

Quam

Extent: 85 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) .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 -- 0 to 10 in	silty clay loam	moderately slow	1.77 to 2.17 in	6.1 to 7.3
A -- 10 to 57 in	silty clay loam	moderately slow	8.50 to 10.39 in	6.1 to 7.3
Cg -- 57 to 60 in	silty clay loam	moderately slow	0.44 to 0.52 in	7.4 to 8.4

359--Lamoure silty clay loam, frequently flooded

Lamoure, frequently flooded

Extent: 80 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 -- 0 to 11 in	silty clay loam	moderate	1.98 to 2.43 in	7.4 to 8.4
AC -- 11 to 38 in	silty clay loam	moderate	4.82 to 5.89 in	7.4 to 8.4
Cg -- 38 to 60 in	stratified sandy loam to silty clay loam	moderate	2.43 to 4.19 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

392--Biscay loam

Biscay

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): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

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,AB -- 0 to 22 in	loam	moderate	4.41 to 4.85 in	6.1 to 7.3
Bg1 -- 22 to 30 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bg2 -- 30 to 38 in	gravelly loam	moderately rapid	1.34 to 1.50 in	7.4 to 8.4
2Cg -- 38 to 60 in	stratified very gravelly coarse sand to loamy sand	rapid	0.44 to 2.20 in	7.4 to 8.4

402E--Sioux sandy loam, 2 to 40 percent slopes

Sioux

Extent: 85 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): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

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 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	7.4 to 8.4
AC -- 7 to 13 in	gravelly sandy loam	moderately rapid	0.71 to 0.83 in	7.9 to 8.4
C -- 13 to 60 in	very gravelly sand	very rapid	2.34 to 3.28 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

418--Lamoure silty clay loam, occasionally flooded

Lamoure, occasionally flooded

Extent: 86 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 -- 0 to 11 in	silty clay loam	moderate	1.98 to 2.43 in	7.4 to 8.4
AC -- 11 to 38 in	silty clay loam	moderate	4.82 to 5.89 in	7.4 to 8.4
Cg -- 38 to 60 in	stratified sandy loam to silty clay loam	moderate	2.43 to 4.19 in	7.4 to 8.4

506--Overly silty clay loam

Overly

Extent: 85 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): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer) .32

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 -- 0 to 14 in	silty clay loam	moderately slow	2.55 to 3.12 in	6.1 to 7.3
AB,Bw -- 14 to 26 in	silty clay loam	moderate	1.89 to 2.24 in	7.4 to 8.4
C -- 26 to 60 in	stratified silt loam to silty clay	moderate	4.74 to 5.42 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

562--Knoke silty clay loam

Knoke

Extent: 86 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) .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	7.4 to 8.4
A -- 10 to 20 in	silty clay loam	moderately slow	1.84 to 2.25 in	7.4 to 8.4
Ag,Bg -- 20 to 60 in	silty clay	moderately slow	5.17 to 6.36 in	7.9 to 8.4

590--Moines clay loam

Moines

Extent: 85 percent of the unit

Landform(s): moraines

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): 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,ABy -- 0 to 14 in	clay loam	moderate	2.41 to 2.69 in	7.4 to 8.4
Byg,Bkg -- 14 to 40 in	loam	moderate	4.42 to 4.94 in	7.9 to 8.4
2Cg -- 40 to 60 in	loam	moderately slow	3.35 to 3.74 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

594--Jeffers clay loam

Jeffers

Extent: 85 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) .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 18 in	clay loam	moderate	3.08 to 3.44 in	7.4 to 8.4
BA,Bk -- 18 to 35 in	clay loam	moderate	2.54 to 3.22 in	7.9 to 8.4
2C -- 35 to 60 in	clay loam	moderately slow	3.47 to 3.97 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

902C2--Barnes-Buse loams, 6 to 12 percent slopes, eroded

Barnes, eroded

Extent: 50 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) .20

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 17 in	loam	moderate	1.54 to 1.72 in	6.1 to 7.3
Bk,C -- 17 to 60 in	loam	moderate	7.30 to 8.15 in	7.4 to 8.4

Buse, eroded

Extent: 36 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): 4L

Wind erodibility index (WEI): 86

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 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 24 in	loam	moderate	2.88 to 3.22 in	7.9 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)

Murray County, Minnesota

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

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 8 in	sandy loam	moderately rapid	1.02 to 1.18 in	6.1 to 7.3
Bw -- 8 to 19 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 7.3
2C -- 19 to 60 in	gravelly coarse sand	very rapid	0.82 to 1.64 in	7.4 to 8.4

Barnes

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 8 in	loam	moderate	1.57 to 1.73 in	6.1 to 7.3
Bw -- 8 to 18 in	loam	moderate	1.74 to 1.94 in	6.1 to 7.3
Bk,C -- 18 to 60 in	loam	moderate	7.09 to 7.93 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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

Buse

Extent: 15 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): 4L

Wind erodibility index (WEI): 86

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 -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 24 in	loam	moderate	2.88 to 3.22 in	7.9 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)

Murray County, Minnesota

904C--Arvilla-Barnes-Buse complex, 6 to 12 percent slopes

Arvilla

Extent: 40 percent of the unit
Landform(s): 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) .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 8.4
Bw -- 8 to 19 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 8.4
2C -- 19 to 60 in	gravelly coarse sand	very rapid	0.82 to 1.64 in	7.4 to 8.4

Barnes

Extent: 25 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) .20
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 18 in	loam	moderate	1.74 to 1.94 in	6.1 to 7.3
Bk,C -- 18 to 60 in	loam	moderate	7.09 to 7.93 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

904C--Arvilla-Barnes-Buse complex, 6 to 12 percent slopes

Buse

Extent: 25 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): 4L

Wind erodibility index (WEI): 86

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 7 in	loam	moderate	1.42 to 1.56 in	7.4 to 8.4
Bk -- 7 to 24 in	loam	moderate	2.88 to 3.22 in	7.9 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)

Murray County, Minnesota

913D--Buse-Barnes loams, 12 to 18 percent slopes

Buse

Extent: 55 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) .24

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 9 in	loam	moderate	1.81 to 1.99 in	7.4 to 8.4
Bk -- 9 to 24 in	loam	moderate	2.54 to 2.84 in	7.9 to 8.4
C -- 24 to 60 in	loam	moderate	6.09 to 6.81 in	7.4 to 8.4

Barnes

Extent: 36 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) .20

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 11 in	loam	moderate	2.20 to 2.43 in	6.1 to 7.3
Bw -- 11 to 19 in	loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bk,C -- 19 to 60 in	loam	moderate	6.96 to 7.78 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

917D--Buse-Sioux complex, 12 to 18 percent slopes

Buse

Extent: 50 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) .24

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 9 in	loam	moderate	1.81 to 1.99 in	7.4 to 8.4
Bk -- 9 to 24 in	loam	moderate	2.54 to 2.84 in	7.9 to 8.4
C -- 24 to 60 in	loam	moderate	6.09 to 6.81 in	7.4 to 8.4

Sioux

Extent: 40 percent of the unit

Landform(s): 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): 2

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .15

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 7 in	sandy loam	moderately rapid	0.92 to 1.06 in	6.6 to 8.4
AC -- 7 to 13 in	gravelly sandy loam	moderately rapid	0.71 to 0.83 in	7.9 to 8.4
C -- 13 to 60 in	gravelly sand	very rapid	2.34 to 3.28 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

920C2--Storden-Clarion-Arvilla complex, 6 to 15 percent slopes , eroded

Storden, eroded

Extent: 40 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
C1 -- 7 to 20 in	loam	moderate	2.21 to 2.47 in	7.9 to 8.4
C2 -- 20 to 60 in	loam	moderate	6.76 to 7.56 in	7.4 to 8.4

Clarion, eroded

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): 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,AB -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	6.1 to 7.3
Bw -- 8 to 19 in	loam	moderate	1.87 to 2.09 in	6.1 to 7.3
C -- 19 to 60 in	loam	moderate	6.96 to 7.78 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

920C2--Storden-Clarion-Arvilla complex, 6 to 15 percent slopes , eroded

Arvilla

Extent: 20 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 19 in	sandy loam	moderately rapid	1.32 to 1.54 in	6.1 to 7.3
2C -- 19 to 60 in	gravelly coarse sand	very rapid	0.82 to 1.64 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

921C2--Clarion-Storden loams, 6 to 12 percent slopes, eroded

Clarion, eroded

Extent: 45 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: 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 8 in	loam	moderate	1.57 to 1.73 in	6.1 to 7.3
Bw -- 8 to 19 in	loam	moderate	1.87 to 2.09 in	6.1 to 7.3
C -- 19 to 60 in	loam	moderate	6.96 to 7.78 in	7.4 to 8.4

Storden, eroded

Extent: 40 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): 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
C1 -- 7 to 20 in	loam	moderate	2.21 to 2.47 in	7.9 to 8.4
C2 -- 20 to 60 in	loam	moderate	6.76 to 7.56 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

960D2--Storden-Clarion loams, 12 to 18 percent slopes, eroded

Storden, eroded

Extent: 50 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 8 in	loam	moderate	1.57 to 1.73 in	7.4 to 8.4
C1 -- 8 to 20 in	loam	moderate	2.07 to 2.32 in	7.9 to 8.4
C2 -- 20 to 60 in	loam	moderate	6.76 to 7.56 in	7.4 to 8.4

Clarion, eroded

Extent: 40 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,AB -- 0 to 8 in	loam	moderate	1.57 to 1.73 in	6.1 to 7.3
Bw -- 8 to 19 in	loam	moderate	1.87 to 2.09 in	6.1 to 7.3
C -- 19 to 60 in	loam	moderate	6.96 to 7.78 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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)

Murray County, Minnesota

1030--Pits, gravel-Udorthents complex

Pits, gravel

Extent: 60 percent of the unit

Landform(s): moraines, stream terraces

Slope gradient: 0 to 50 percent

Parent material:

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:

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

Udorthents

Extent: 40 percent of the unit

Landform(s): moraines, stream terraces

Slope gradient: 0 to 25 percent

Parent material:

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:

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

Map Unit Description (MN)

Murray County, Minnesota

1051--Glencoe silty clay loam, ponded

Glencoe, ponded

Extent: 85 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): 8

Wind erodibility index (WEI): 0

Kw factor (surface layer) .28

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,ABg -- 0 to 33 in	silty clay loam	moderate	5.95 to 7.28 in	6.1 to 7.3
Bg -- 33 to 46 in	silty clay loam	moderate	2.08 to 2.47 in	6.1 to 7.3
C -- 46 to 60 in	clay loam	moderate	1.93 to 2.20 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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 45 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>
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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>
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Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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

J8A--Egeland sandy loam, 0 to 2 percent slopes

Egeland

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): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .10

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,A1 -- 0 to 15 in	sandy loam	moderately rapid	1.65 to 2.54 in	6.1 to 7.3
Bw -- 15 to 40 in	sandy loam	moderately rapid	2.27 to 3.78 in	6.1 to 7.8
Bk -- 40 to 60 in	sandy loam	moderately rapid	1.77 to 2.95 in	7.4 to 8.4
C -- 60 to 80 in	loamy sand	moderately rapid	1.61 to 2.01 in	6.6 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J8B--Egeland sandy loam, 2 to 6 percent slopes

Egeland

Extent: 70 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): 5

Wind erodibility group (WEG): 3

Wind erodibility index (WEI): 86

Kw factor (surface layer) .10

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,A1 -- 0 to 9 in	sandy loam	moderately rapid	1.00 to 1.54 in	6.1 to 7.3
Bw -- 9 to 26 in	sandy loam	moderately rapid	1.52 to 2.54 in	6.1 to 7.8
Bk -- 26 to 39 in	loamy sand	moderately rapid	1.04 to 1.30 in	6.6 to 8.4
C -- 39 to 80 in	loamy sand	moderately rapid	3.28 to 4.09 in	6.6 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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)

Murray 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)

Murray 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

Map Unit Description (MN)

Murray County, Minnesota

J22A--Renshaw loam, 0 to 3 percent slopes

Renshaw

Extent: 75 to 95 percent of the unit
Landform(s): flats on outwash plains
Slope gradient: 0 to 3 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): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .20
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>
Ap -- 0 to 7 in	loam	moderate	1.42 to 1.56 in	6.1 to 7.3
Bw -- 7 to 15 in	loam	moderately rapid	1.34 to 1.50 in	6.6 to 7.3
2Bk -- 15 to 20 in	gravelly loamy sand	very rapid	0.26 to 0.36 in	7.4 to 8.4
2C -- 20 to 60 in	gravelly loamy sand	very rapid	1.59 to 2.39 in	7.4 to 8.4

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

Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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

Representative soil profile:

		<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)

Murray 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)

Murray 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)

Murray 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)

Murray 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

Map Unit Description (MN)

Murray County, Minnesota

J72B--Renshaw-Sandberg complex, 2 to 6 percent slopes

Renshaw

Extent: 65 to 85 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): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .20
Land capability, nonirrigated 3e
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 7 in	loam	moderate	1.42 to 1.56 in	6.1 to 7.3
Bw -- 7 to 15 in	loam	moderately rapid	1.34 to 1.50 in	6.6 to 7.3
2Bk -- 15 to 20 in	gravelly loamy sand	very rapid	0.26 to 0.36 in	7.4 to 8.4
2C -- 20 to 60 in	gravelly loamy sand	very rapid	1.59 to 2.39 in	7.4 to 8.4

Sandberg

Extent: 10 to 20 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): 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>
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	0.48 to 0.81 in	7.4 to 8.4
C -- 28 to 80 in	gravelly sand	very rapid	1.56 to 2.60 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J73D2--Buse clay loam, 12 to 18 percent slopes, moderately eroded

Buse, moderately eroded

Extent: 65 to 80 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) .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 7 in	clay loam	moderately slow	1.20 to 1.35 in	7.4 to 8.4
ABk,Bk -- 7 to 22 in	clay loam	moderately slow	2.09 to 2.69 in	7.4 to 8.4
C -- 22 to 60 in	clay loam	moderately slow	5.29 to 6.80 in	7.4 to 8.4

J73F--Buse clay loam, 25 to 40 percent slopes

Buse

Extent: 75 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) .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>
Ap -- 0 to 7 in	clay loam	moderately slow	1.20 to 1.35 in	7.4 to 8.4
ABk,Bk -- 7 to 22 in	clay loam	moderately slow	2.09 to 2.69 in	7.4 to 8.4
C -- 22 to 60 in	clay loam	moderately slow	5.29 to 6.80 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

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

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

Map Unit Description (MN)

Murray County, Minnesota

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)

Murray County, Minnesota

J78A--Lismore silty clay loam, 1 to 3 percent slopes

Lismore

Extent: 65 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 3 percent

Parent material: loess 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 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	silty clay loam	moderate	1.42 to 1.73 in	6.1 to 7.3
A -- 8 to 17 in	silty clay loam	moderate	1.63 to 1.99 in	6.1 to 7.3
2Bw1,2Bw2 -- 17 to 32 in	clay loam	moderately slow	2.24 to 2.84 in	6.1 to 7.3
2Bk -- 32 to 48 in	clay loam	moderately slow	2.26 to 2.91 in	7.4 to 8.4
2C -- 48 to 60 in	clay loam	moderately slow	1.65 to 2.13 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J79B--Vienna-Brookings complex, 1 to 4 percent slopes

Vienna, occasional saturation

Extent: 45 to 65 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 4 percent

Parent material: loess 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 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	silty clay loam	moderate	1.77 to 2.17 in	6.1 to 7.3
Bw -- 10 to 15 in	silty clay loam	moderate	0.82 to 0.97 in	6.1 to 7.3
2Bw -- 15 to 23 in	clay loam	moderately slow	1.10 to 1.42 in	6.1 to 7.3
2Bk,2C -- 23 to 60 in	clay loam	moderately slow	5.18 to 6.66 in	7.4 to 8.4

Brookings

Extent: 25 to 45 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 4 percent

Parent material: loess 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) .32

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 -- 0 to 9 in	silty clay loam	moderate	1.63 to 1.99 in	6.1 to 7.3
Bw1,Bw2,Bw3 -- 9 to 30 in	silty clay loam	moderate	3.34 to 3.96 in	6.6 to 7.3
2BC,2C -- 30 to 60 in	clay loam	moderately slow	4.19 to 5.39 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J81C2--Renshaw-Barnes complex, 6 to 12 percent slopes, moderately eroded

Renshaw, moderately eroded

Extent: 60 to 80 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): 6
Wind erodibility index (WEI): 48
Kw factor (surface layer) .20
Land capability, nonirrigated 4e
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 7 in	loam	moderate	1.42 to 1.56 in	6.1 to 7.3
Bw -- 7 to 15 in	loam	moderately rapid	1.34 to 1.50 in	6.6 to 7.3
2Bk -- 15 to 20 in	gravelly loamy sand	very rapid	0.26 to 0.36 in	7.4 to 8.4
2C -- 20 to 60 in	gravelly loamy sand	very rapid	1.59 to 2.39 in	7.4 to 8.4

Barnes, moderately eroded

Extent: 10 to 30 percent of the unit
Landform(s): hills on outwash 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) .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 11 in	clay loam	moderately slow	1.87 to 2.09 in	6.1 to 7.3
Bw -- 11 to 17 in	clay loam	moderately slow	0.89 to 1.12 in	6.1 to 7.3
Bk -- 17 to 31 in	clay loam	moderately slow	1.93 to 2.48 in	7.4 to 8.4
BC -- 31 to 60 in	clay loam	moderately slow	4.08 to 5.24 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J83F--Sandberg-Buse-Everts complex, 12 to 40 percent slopes

Sandberg

Extent: 45 to 65 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) .15

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	0.48 to 0.81 in	7.4 to 8.4
C -- 28 to 80 in	gravelly sand	very rapid	1.56 to 2.60 in	7.4 to 8.4

Buse

Extent: 15 to 35 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 12 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>
Ap -- 0 to 7 in	clay loam	moderately slow	1.20 to 1.35 in	7.4 to 8.4
ABk,Bk -- 7 to 22 in	clay loam	moderately slow	2.09 to 2.69 in	7.4 to 8.4
C -- 22 to 60 in	clay loam	moderately slow	5.29 to 6.80 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J83F--Sandberg-Buse-Everts complex, 12 to 40 percent slopes

Everts

Extent: 10 to 20 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 12 to 40 percent

Parent material: colluvium

Restrictive feature(s): greater than 60 inches

Flooding: none

Ponding: none

Drainage class: well drained

Soil loss tolerance (T factor): 4

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,AB -- 0 to 38 in	loam	moderate	7.64 to 8.40 in	6.6 to 7.3
Bw -- 38 to 54 in	loam	moderate	2.68 to 2.99 in	6.1 to 7.3
2C -- 54 to 80 in	very gravelly coarse sand	very rapid	0.52 to 1.04 in	7.4 to 8.4

J85A--Trosky silty clay loam, 0 to 2 percent slopes

Trosky

Extent: 85 to 95 percent of the unit

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

Slope gradient: 0 to 2 percent

Parent material: loess over 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) .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,A,AB -- 0 to 20 in	silty clay loam	moderate	3.61 to 4.42 in	7.4 to 8.4
Bkg1,Bkg2 -- 20 to 38 in	silty clay loam	moderate	2.90 to 3.44 in	7.4 to 8.4
2Cg -- 38 to 60 in	gravelly coarse sand	rapid	0.87 to 1.30 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J86B--Vienna silty clay loam, 3 to 6 percent slopes

Vienna, occasional saturation

Extent: 80 to 90 percent of the unit

Landform(s): hills on till plains

Slope gradient: 3 to 6 percent

Parent material: loess 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 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	silty clay loam	moderate	1.77 to 2.17 in	6.1 to 7.3
Bw -- 10 to 15 in	silty clay loam	moderate	0.82 to 0.97 in	6.1 to 7.3
2Bw -- 15 to 23 in	clay loam	moderately slow	1.10 to 1.42 in	6.1 to 7.3
2Bk,2C -- 23 to 60 in	clay loam	moderately slow	5.18 to 6.66 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J90B--Kranzburg-Brookings complex, 1 to 4 percent slopes

Kranzburg, occasional saturation

Extent: 45 to 65 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 4 percent

Parent material: loess 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) .24

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 9 in	silty clay loam	moderate	1.63 to 1.99 in	6.1 to 7.3
Bw1,Bw2 -- 9 to 25 in	silty clay loam	moderate	2.58 to 3.07 in	6.6 to 7.3
2Bk -- 25 to 57 in	clay loam	moderately slow	4.46 to 5.74 in	7.4 to 8.4
2C -- 57 to 60 in	clay loam	moderately slow	0.39 to 0.50 in	7.4 to 8.4

Brookings

Extent: 25 to 45 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 4 percent

Parent material: loess 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) .32

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 -- 0 to 9 in	silty clay loam	moderate	1.63 to 1.99 in	6.1 to 7.3
Bw1,Bw2,Bw3 -- 9 to 30 in	silty clay loam	moderate	3.34 to 3.96 in	6.6 to 7.3
2BC,2C -- 30 to 60 in	clay loam	moderately slow	4.19 to 5.39 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J91B--Darnen loam, stratified substratum, 2 to 6 percent slopes

Darnen, stratified substratum

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,A1,A2 -- 0 to 30 in	loam	moderate	5.98 to 6.58 in	6.6 to 7.3
Bk1,Bk2 -- 30 to 62 in	loam	moderate	5.42 to 6.06 in	7.4 to 8.4
C1 -- 62 to 74 in	loamy sand	moderately rapid	0.98 to 1.59 in	7.4 to 8.4
C2 -- 74 to 80 in	clay loam	moderately slow	0.77 to 1.12 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J92C2--Buse-Vienna complex, 6 to 12 percent slopes, moderately eroded

Buse, moderately eroded

Extent: 45 to 55 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) .32

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	7.4 to 8.4
ABk,Bk -- 7 to 22 in	clay loam	moderately slow	2.09 to 2.69 in	7.4 to 8.4
C -- 22 to 60 in	clay loam	moderately slow	5.29 to 6.80 in	7.4 to 8.4

Vienna, moderately eroded

Extent: 15 to 25 percent of the unit

Landform(s): hills on till plains

Slope gradient: 6 to 12 percent

Parent material: loess 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 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	silty clay loam	moderate	1.77 to 2.17 in	6.1 to 7.3
Bw -- 10 to 15 in	silty clay loam	moderate	0.82 to 0.97 in	6.1 to 7.3
2Bw -- 15 to 23 in	clay loam	moderately slow	1.10 to 1.42 in	6.1 to 7.3
2Bk,2C -- 23 to 60 in	clay loam	moderately slow	5.18 to 6.66 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

J93A--Hidewood-Badger complex, 0 to 2 percent slopes

Hidewood

Extent: 40 to 60 percent of the unit

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

Slope gradient: 0 to 2 percent

Parent material: loess over 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) .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 -- 0 to 8 in	silty clay loam	moderate	1.42 to 1.73 in	7.4 to 8.4
A -- 8 to 27 in	silty clay loam	moderate	3.47 to 4.24 in	7.4 to 8.4
Cg -- 27 to 42 in	silty clay loam	moderate	2.39 to 2.84 in	7.4 to 8.4
2Cg -- 42 to 80 in	clay loam	moderately slow	5.29 to 6.80 in	7.4 to 8.4

Badger

Extent: 20 to 40 percent of the unit

Landform(s): drainageways on till plains

Slope gradient: 0 to 2 percent

Parent material: loess over 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) .32

Land capability, nonirrigated 2w

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 9 in	silty clay loam	moderately slow	1.63 to 1.99 in	6.1 to 7.3
Bt1,Bt2 -- 9 to 35 in	silty clay	slow	3.38 to 4.16 in	6.1 to 7.3
BCg,Cg -- 35 to 55 in	silty clay loam	moderately slow	3.21 to 3.81 in	6.6 to 8.4
2Cg -- 55 to 60 in	clay loam	moderately slow	0.66 to 0.76 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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)

Murray County, Minnesota

J96B--Barnes-Buse complex, 3 to 6 percent slopes

Barnes, occasional saturation

Extent: 55 to 75 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
Bk -- 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)

Murray 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)

Murray County, Minnesota

J99A--Lakepark clay loam, 0 to 3 percent slopes, overwash

Lakepark, overwash

Extent: 75 to 95 percent of the unit

Landform(s): drainageways 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) .20

Land capability, nonirrigated 2w

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 -- 0 to 8 in	clay loam	moderate	1.34 to 1.50 in	6.1 to 7.3
A -- 8 to 40 in	clay loam	moderate	5.49 to 6.13 in	6.1 to 7.3
Bg -- 40 to 60 in	clay loam	moderate	2.95 to 3.74 in	6.6 to 7.3
Cg -- 60 to 80 in	loam	moderately slow	3.01 to 3.81 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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>
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<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)

Murray County, Minnesota

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

Lakepark

Extent: 30 to 40 percent of the unit

Landform(s): drainageways on moraines

Slope gradient: 0 to 3 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) .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 -- 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

Extent: 20 to 30 percent of the unit

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

<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)

Murray 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)

Murray County, Minnesota

J196A--Forada loam, 0 to 2 percent slopes

Forada

Extent: 70 to 90 percent of the unit

Landform(s): 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): 5

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

Kw factor (surface layer): .17

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,A --	0 to 16 in	loam	moderate	3.23 to 3.55 in	6.1 to 7.3
Bg1 --	16 to 20 in	sandy loam	moderately rapid	0.35 to 0.59 in	6.1 to 7.3
Bg2 --	20 to 28 in	loam	moderate	1.42 to 1.57 in	6.1 to 7.3
2Cg1 --	28 to 33 in	coarse sand	rapid	0.26 to 0.77 in	6.6 to 7.3
2Cg2 --	33 to 60 in	coarse sand	rapid	1.34 to 4.02 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray County, Minnesota

J256A--Waubay silty clay loam, 1 to 3 percent slopes

Waubay

Extent: 65 to 85 percent of the unit

Landform(s): flats on lake plains

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): 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: 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	moderate	2.34 to 2.86 in	6.1 to 7.3
Bw1,2 -- 13 to 24 in	silty clay loam	moderate	1.76 to 2.09 in	6.1 to 7.3
Bk1,2 -- 24 to 45 in	silt loam	moderate	3.34 to 3.96 in	7.4 to 8.4
C1 -- 45 to 60 in	silt loam	moderate	2.39 to 2.84 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

L139B--Wadena loam, 2 to 6 percent slopes

Wadena

Extent: 80 to 90 percent of the unit

Landform(s): hills on outwash plains, hills on terraces

Slope gradient: 2 to 6 percent

Parent material: loamy sediments over 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) .24

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,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)

Murray 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)

Murray County, Minnesota

L149A--Romnell clay loam, 0 to 3 percent slopes

Romnell

Extent: 80 to 95 percent of the unit

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

Slope gradient: 0 to 3 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 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 80 in	clay loam	moderately slow	5.18 to 5.92 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray 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)

Murray County, Minnesota

L213A--Calco silty clay loam, 0 to 2 percent slopes, frequently flooded

Calco, frequently 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: 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>
A -- 0 to 22 in	silty clay loam	moderate	4.63 to 5.07 in	7.4 to 8.4
Bg -- 22 to 50 in	silty clay loam	moderate	5.87 to 6.43 in	7.4 to 8.4
Cg -- 50 to 80 in	silty clay loam	moderate	5.39 to 5.98 in	7.4 to 8.4

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

Map Unit Description (MN)

Murray County, Minnesota

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

L224A--Coland clay loam, 0 to 2 percent slopes, frequently flooded

Coland, frequently flooded

Extent: 65 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: frequent

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 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 42 in	clay loam	moderate	8.43 to 9.27 in	6.1 to 7.3
C -- 42 to 60 in	clay loam	moderate	3.54 to 3.90 in	6.1 to 7.3

Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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)

Murray County, Minnesota

L241B--Dickinson fine sandy loam, firm till substratum, 1 to 6 percent slopes

Dickinson, firm till substratum

Extent: 70 to 90 percent of the unit

Landform(s): hills on moraines

Slope gradient: 1 to 6 percent

Parent material: outwash over till

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: moderate

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
Ap,AB -- 0 to 16 in	fine sandy loam	moderately rapid	1.94 to 2.42 in	5.6 to 7.3
Bw -- 16 to 30 in	fine sandy loam	moderately rapid	1.65 to 2.07 in	5.1 to 6.5
C1 -- 30 to 47 in	loamy sand	rapid	0.34 to 0.68 in	5.6 to 7.8
C2 -- 47 to 60 in	sand	rapid	0.26 to 0.52 in	5.6 to 7.8
2BC -- 60 to 80 in	clay loam	moderately slow	2.81 to 3.21 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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)

Murray 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)

Murray 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)

Murray County, Minnesota

L247A--Moines-Walnut Grove complex, 1 to 3 percent slopes

Moines

Extent: 35 to 60 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: high

<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
Byg1,2,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

Walnut grove

Extent: 20 to 40 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
BC1,2 -- 39 to 80 in	clay loam	moderately slow	5.73 to 6.55 in	7.4 to 8.4

Map Unit Description (MN)

Murray 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)

Murray 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

M-W--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:

<i>Representative soil profile:</i>	<i>Texture</i>	<i>Permeability</i>	<i>Available water capacity</i>	<i>pH</i>
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Map Unit Description (MN)

Murray County, Minnesota

P3A--Biscay silty clay loam, 0 to 2 percent slopes, occasionally flooded

Biscay, occasionally flooded

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: occasional

Ponding: none

Drainage class: poorly drained

Soil loss tolerance (T factor): 3

Wind erodibility group (WEG): 6

Wind erodibility index (WEI): 48

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	3.23 to 3.55 in	6.1 to 7.3
A2 -- 16 to 21 in	clay loam	moderate	0.80 to 0.90 in	6.6 to 7.3
Bg -- 21 to 31 in	clay loam	moderate	1.74 to 1.94 in	6.6 to 7.3
2Cg -- 31 to 60 in	coarse sand	rapid	0.57 to 1.15 in	7.4 to 8.4

P4A--Calco silty clay loam, 0 to 2 percent slopes, frequently flooded

Calco, frequently 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: 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>
A1,A2 -- 0 to 36 in	silty clay loam	moderate	7.52 to 8.24 in	7.4 to 8.4
Cg -- 36 to 60 in	silty clay loam	moderate	5.04 to 5.52 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P5A--Calco silty clay loam, 0 to 2 percent slopes, occasionally flooded

Calco, 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) .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,A2,A3 -- 0 to 36 in	silty clay loam	moderate	7.52 to 8.24 in	7.4 to 8.4
Bg -- 36 to 44 in	silty clay loam	moderate	1.74 to 1.90 in	7.4 to 8.4
Cg -- 44 to 60 in	silty clay loam	moderate	3.31 to 3.62 in	7.4 to 8.4

P8A--Cylinder loam, 0 to 2 percent slopes, occasionally flooded

Cylinder, occasionally flooded

Extent: 75 to 85 percent of the unit

Landform(s): flats on outwash plains

Slope gradient: 0 to 2 percent

Parent material: alluvium over outwash

Restrictive feature(s): greater than 60 inches

Flooding: occasional

Ponding: none

Drainage class: somewhat poorly 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/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,A1,A2 -- 0 to 18 in	loam	moderate	3.62 to 3.98 in	6.1 to 7.3
Bg1,Bg2 -- 18 to 28 in	loam	moderate	1.67 to 1.87 in	6.1 to 7.3
2BC -- 28 to 39 in	gravelly sand	very rapid	0.22 to 0.44 in	7.4 to 8.4
2C1,2C2 -- 39 to 60 in	gravelly sand	very rapid	0.42 to 0.83 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P12B--Everly silty clay loam, 2 to 6 percent slopes

Everly

Extent: 75 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 2 to 6 percent

Parent material: loess 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 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	silty clay loam	moderate	1.67 to 1.87 in	6.1 to 7.3
Bw -- 10 to 18 in	silty clay loam	moderate	1.24 to 1.41 in	6.1 to 7.3
2Bk,2BC -- 18 to 80 in	clay loam	moderately slow	8.65 to 11.13 in	7.4 to 8.4

P12C2--Everly silty clay loam, 6 to 12 percent slopes, moderately eroded

Everly, moderately eroded

Extent: 75 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 6 to 12 percent

Parent material: loess 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) .32

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	silty clay loam	moderate	1.20 to 1.35 in	6.1 to 7.3
Bw -- 7 to 16 in	silty clay loam	moderate	1.36 to 1.54 in	6.1 to 7.3
2Bk,2BC -- 16 to 80 in	clay loam	moderately slow	8.93 to 11.48 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P20B--Judson silt loam, 3 to 8 percent slopes

Judson

Extent: 75 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 3 to 8 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) .32

Land capability, nonirrigated 2e

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 36 in	silt loam	moderate	6.81 to 7.88 in	6.1 to 7.3
Bw1,Bw2 -- 36 to 56 in	silty clay loam	moderate	3.81 to 4.42 in	6.1 to 7.3
C -- 56 to 60 in	silty clay loam	moderate	0.67 to 0.79 in	6.6 to 7.8

P28A--Ransom silty clay loam, 1 to 3 percent slopes

Ransom

Extent: 75 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 3 percent

Parent material: loess over 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) .32

Land capability, nonirrigated 1

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,A,AB -- 0 to 16 in	silty clay loam	moderate	2.91 to 3.55 in	6.6 to 7.3
Bw1,Bw2,Bw3 -- 16 to 33 in	silty clay loam	moderate	2.71 to 3.22 in	6.6 to 7.3
2BCK,2BC -- 33 to 80 in	clay loam	moderately slow	6.56 to 8.43 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P29A--Rushmore silty clay loam, 0 to 2 percent slopes

Rushmore

Extent: 75 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 0 to 2 percent

Parent material: loess over 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,AB -- 0 to 18 in	silty clay loam	moderate	3.26 to 3.98 in	6.6 to 7.3
Bg1,Bg2 -- 18 to 24 in	silty clay loam	moderate	0.94 to 1.12 in	6.6 to 7.3
BCg -- 24 to 32 in	silty clay loam	moderate	1.26 to 1.50 in	7.4 to 7.8
2BCkg,2BCg -- 32 to 80 in	clay loam	moderately slow	6.72 to 8.65 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P30B--Sac silty clay loam, 2 to 5 percent slopes

Sac

Extent: 75 to 85 percent of the unit

Landform(s): hills on till plains

Slope gradient: 2 to 5 percent

Parent material: loess 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) .24

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,A -- 0 to 11 in	silty clay loam	moderate	2.31 to 2.54 in	6.1 to 7.3
BA,Bw1 -- 11 to 28 in	silty clay loam	moderate	3.05 to 3.39 in	6.1 to 7.3
2Bw2 -- 28 to 33 in	clay loam	moderately slow	0.72 to 0.92 in	6.1 to 7.3
2BCK,2BC -- 33 to 60 in	clay loam	moderately slow	3.75 to 4.82 in	7.4 to 8.4

P33A--Spillco silt loam, 0 to 2 percent slopes, occasionally flooded

Spillco, occasionally flooded

Extent: 80 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: moderately well 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 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>
A1 -- 0 to 10 in	silt loam	moderate	1.87 to 2.07 in	6.6 to 7.3
A2,A3,A4 -- 10 to 35 in	silt loam	moderate	4.79 to 5.29 in	6.6 to 8.4
C -- 35 to 60 in	loam	moderate	4.71 to 5.21 in	6.6 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P37D--Talmo gravelly sandy loam, 6 to 35 percent slopes

Talmo

Extent: 85 to 95 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 6 to 35 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) .10

Land capability, nonirrigated 7s

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 9 in	gravelly sandy loam	moderately rapid	0.91 to 1.09 in	6.1 to 8.4
AC -- 9 to 12 in	gravelly loamy sand	rapid	0.06 to 0.11 in	7.4 to 8.4
C1,C2 -- 12 to 60 in	very gravelly sand	rapid	0.96 to 1.92 in	7.4 to 8.4

P38C--Thurman sandy loam, 6 to 12 percent slopes

Thurman

Extent: 85 to 95 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): 3

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,A -- 0 to 10 in	sandy loam	moderately rapid	1.28 to 1.48 in	6.1 to 6.5
AC -- 10 to 20 in	sandy loam	moderately rapid	1.23 to 1.43 in	6.1 to 7.3
C1,C2 -- 20 to 60 in	sand	rapid	0.80 to 2.78 in	6.1 to 7.8

Map Unit Description (MN)

Murray County, Minnesota

P42A--Whitewood silty clay loam, 0 to 2 percent slopes

Whitewood

Extent: 65 to 80 percent of the unit

Landform(s): hills on till plains

Slope gradient: 0 to 2 percent

Parent material: alluvium

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,Bw -- 0 to 25 in	silty clay loam	moderately slow	4.79 to 5.54 in	6.1 to 7.3
Bg1,Bg2 -- 25 to 43 in	silty clay loam	moderately slow	3.01 to 3.54 in	6.6 to 7.8
Bkg -- 43 to 60 in	silty clay loam	moderately slow	2.88 to 3.39 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P43A--Wilmonton silty clay loam, 1 to 3 percent slopes

Wilmonton

Extent: 80 to 90 percent of the unit

Landform(s): hills on till plains

Slope gradient: 1 to 3 percent

Parent material: loess over 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 15 in	silty clay loam	moderate	2.99 to 3.89 in	6.1 to 7.3
Bw -- 15 to 20 in	loam	moderate	0.92 to 1.23 in	6.1 to 7.3
2Bw -- 20 to 25 in	clay loam	moderately slow	0.72 to 0.92 in	6.1 to 7.3
2Bk -- 25 to 55 in	clay loam	moderately slow	4.19 to 5.39 in	7.4 to 8.4
2BC1,2BC2 -- 55 to 80 in	clay loam	moderately slow	3.47 to 4.46 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P44E--Shindler clay loam, 15 to 45 percent slopes

Shindler

Extent: 80 to 90 percent of the unit

Landform(s): hills on till plains

Slope gradient: 15 to 45 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) .20

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 7 in	clay loam	moderately slow	1.13 to 1.28 in	7.4 to 8.4
Bw -- 7 to 11 in	clay loam	moderately slow	0.55 to 0.63 in	7.4 to 8.4
Bk1,Bk2 -- 11 to 35 in	clay loam	moderately slow	3.36 to 3.84 in	7.4 to 8.4
BC -- 35 to 60 in	clay loam	moderately slow	3.47 to 3.97 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P45E--Moneta clay loam, 15 to 45 percent slopes

Moneta

Extent: 80 to 90 percent of the unit

Landform(s): hills on till plains

Slope gradient: 15 to 45 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) .24

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 9 in	clay loam	moderately slow	1.27 to 1.63 in	7.4 to 8.4
BA -- 9 to 13 in	clay loam	moderately slow	0.55 to 0.71 in	7.4 to 8.4
Bk,BC1 -- 13 to 53 in	clay loam	moderately slow	5.62 to 7.23 in	7.4 to 8.4
BC2 -- 53 to 80 in	clay loam	moderately slow	3.75 to 4.82 in	7.4 to 8.4

P48A--Allendorf silty clay loam, 0 to 2 percent slopes

Allendorf

Extent: 80 to 90 percent of the unit

Landform(s): flats on outwash plains

Slope gradient: 0 to 2 percent

Parent material: loess over 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) .24

Land capability, nonirrigated 2s

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 14 in	silty clay loam	moderate	2.69 to 3.12 in	6.1 to 7.3
Bw1,Bw2,Bw3 -- 14 to 34 in	silty clay loam	moderate	3.35 to 3.94 in	6.1 to 7.3
2BC,2C1 -- 34 to 60 in	very gravelly loamy coarse sand	very rapid	0.52 to 1.04 in	6.1 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P48B--Allendorf silty clay loam, 2 to 6 percent slopes

Allendorf

Extent: 80 to 90 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 2 to 6 percent

Parent material: loess over 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) .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,A -- 0 to 14 in	silty clay loam	moderate	2.69 to 3.12 in	6.1 to 7.3
Bw1,Bw2,Bw3 -- 14 to 34 in	silty clay loam	moderate	3.35 to 3.94 in	6.1 to 7.3
2BC,2C1 -- 34 to 60 in	very gravelly loamy coarse sand	very rapid	0.52 to 1.04 in	6.1 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P51C2--Everly-Moneta-Talmo complex, 6 to 12 percent slopes, moderately eroded

Everly, moderately eroded

Extent: 35 to 45 percent of the unit

Landform(s): hills on till plains

Slope gradient: 6 to 12 percent

Parent material: loess 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) .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	silty clay loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bw -- 8 to 26 in	silty clay loam	moderate	2.72 to 3.08 in	6.1 to 7.3
2Bk,2BC -- 26 to 80 in	clay loam	moderately slow	7.55 to 9.71 in	7.4 to 8.4

Moneta, moderately eroded

Extent: 15 to 25 percent of the unit

Landform(s): hills on till plains

Slope gradient: 8 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) .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	moderately slow	1.10 to 1.42 in	7.4 to 8.4
Bk -- 8 to 38 in	clay loam	moderately slow	4.24 to 5.46 in	7.4 to 8.4
BC -- 38 to 80 in	clay loam	moderately slow	5.84 to 7.51 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P51C2--Everly-Moneta-Talmo complex, 6 to 12 percent slopes, moderately eroded

Talmo, moderately eroded

Extent: 15 to 25 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) .10

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>
A -- 0 to 6 in	gravelly sandy loam	moderately rapid	0.59 to 0.71 in	6.1 to 8.4
C -- 6 to 60 in	very gravelly sand	rapid	1.08 to 2.16 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P52D2--Moneta-Everly-Talmo complex, 12 to 18 percent slopes, moderately eroded

Moneta, moderately eroded

Extent: 35 to 45 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) .24

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>
A -- 0 to 7 in	clay loam	moderately slow	0.99 to 1.28 in	7.4 to 8.4
Bk -- 7 to 30 in	clay loam	moderately slow	3.20 to 4.11 in	7.4 to 8.4
Bck -- 30 to 80 in	clay loam	moderately slow	7.00 to 9.00 in	7.4 to 8.4

Everly, moderately eroded

Extent: 15 to 25 percent of the unit

Landform(s): hills on till plains

Slope gradient: 12 to 18 percent

Parent material: loess 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 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	silty clay loam	moderate	1.34 to 1.50 in	6.1 to 7.3
Bw -- 8 to 16 in	silty clay loam	moderate	1.24 to 1.41 in	6.1 to 7.3
2Bw -- 16 to 38 in	clay loam	moderately slow	3.09 to 3.97 in	6.7 to 7.3
2Bk,2BC -- 38 to 80 in	clay loam	moderately slow	5.84 to 7.51 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P52D2--Moneta-Everly-Talmo complex, 12 to 18 percent slopes, moderately eroded

Talmo, moderately eroded

Extent: 15 to 25 percent of the unit

Landform(s): hills on outwash plains

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): 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 8 in	gravelly sandy loam	moderately rapid	0.79 to 0.94 in	6.1 to 8.4
C --	8 to 60 in	very gravelly sand	rapid	1.04 to 2.08 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P53C2--Everly-Moneta complex, 6 to 12 percent slopes, moderately eroded

Everly, moderately eroded

Extent: 50 to 60 percent of the unit

Landform(s): hills on till plains

Slope gradient: 6 to 12 percent

Parent material: loess 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 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	silty clay loam	moderate	1.67 to 1.87 in	6.1 to 7.3
Bw -- 10 to 18 in	silty clay loam	moderate	1.24 to 1.41 in	6.1 to 7.3
2Bk,2BC -- 18 to 80 in	clay loam	moderately slow	8.65 to 11.13 in	7.4 to 8.4

Moneta, moderately eroded

Extent: 20 to 30 percent of the unit

Landform(s): hills on till plains

Slope gradient: 8 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) .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	clay loam	moderately slow	0.99 to 1.28 in	7.4 to 8.4
Bk -- 7 to 33 in	clay loam	moderately slow	3.64 to 4.68 in	7.4 to 8.4
BC -- 33 to 80 in	clay loam	moderately slow	6.56 to 8.43 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P54D2--Moneta-Everyly complex, 12 to 18 percent slopes, moderately eroded

Moneta, moderately eroded

Extent: 40 to 50 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) .24

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>
A -- 0 to 9 in	clay loam	moderately slow	1.27 to 1.63 in	7.4 to 8.4
BA -- 9 to 13 in	clay loam	moderately slow	0.55 to 0.71 in	7.4 to 8.4
Bk,BC1 -- 13 to 53 in	clay loam	moderately slow	5.62 to 7.23 in	7.4 to 8.4
BC2 -- 53 to 80 in	clay loam	moderately slow	3.75 to 4.82 in	7.4 to 8.4

Everyly, moderately eroded

Extent: 35 to 45 percent of the unit

Landform(s): hills on till plains

Slope gradient: 12 to 18 percent

Parent material: loess 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) .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 10 in	silty clay loam	moderate	1.67 to 1.87 in	6.1 to 7.3
Bw -- 10 to 15 in	silty clay loam	moderate	0.77 to 0.87 in	6.1 to 7.3
2Bw -- 15 to 44 in	clay loam	moderately slow	4.08 to 5.24 in	6.7 to 7.3
2Bk,2BC -- 44 to 80 in	clay loam	moderately slow	5.02 to 6.45 in	7.4 to 8.4

Map Unit Description (MN)

Murray County, Minnesota

P56A--Kanaranzi silt loam, 0 to 2 percent slopes

Kanaranzi

Extent: 75 to 85 percent of the unit

Landform(s): flats on outwash plains

Slope gradient: 0 to 2 percent

Parent material: loess over 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) .32

Land capability, nonirrigated 3s

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	silt loam	moderate	1.56 to 1.70 in	6.1 to 7.3
BA,Bw -- 7 to 20 in	loam	moderate	2.60 to 2.86 in	6.1 to 7.3
2C1-3 -- 20 to 80 in	very gravelly coarse sand	rapid	1.20 to 2.39 in	6.1 to 8.4

P56B--Kanaranzi silt loam, 2 to 6 percent slopes

Kanaranzi

Extent: 75 to 85 percent of the unit

Landform(s): hills on outwash plains

Slope gradient: 2 to 6 percent

Parent material: loess over 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) .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	silt loam	moderate	1.56 to 1.70 in	6.1 to 7.3
BA,Bw -- 7 to 20 in	loam	moderate	2.60 to 2.86 in	6.1 to 7.3
2C1-3 -- 20 to 80 in	very gravelly coarse sand	rapid	1.20 to 2.39 in	6.1 to 8.4

Map Unit Description (MN)

Murray 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>
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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.