



United States  
Department of  
Agriculture



Natural  
Resources  
Conservation  
Service

In cooperation with  
Minnesota Agricultural  
Experiment Station

# Soil Survey of Sherburne County, Minnesota



**Nebish and similar soils***Extent:* 2 percent of the unit**Soils that have a substratum of sand or gravel***Extent:* 1 percent of the unit**204B—Cushing fine sandy loam, 2 to 8 percent slopes*****Component Description*****Cushing and similar soils***Extent:* 90 percent of the unit*Geomorphic description:* Hills on moraines*Position on the landform:* Backslopes and summits*Slope range:* 2 to 8 percent*Texture of the surface layer:* Fine sandy loam*Depth to restrictive feature:* Very deep (more than 60 inches)*Drainage class:* Well drained*Parent material:* Till*Flooding:* None*Wet soil moisture status is highest (depth, months):*  
3.6 feet (April)*Wet soil moisture status is lowest (depth, months):*  
More than 6.7 feet (January, February, July, August, September)*Ponding:* None*Available water capacity to a depth of 60 inches:* 9.0 inches*Content of organic matter in the upper 10 inches:* 1.1 percent*Typical profile:*

A—0 to 6 inches; fine sandy loam

E,B/E—6 to 22 inches; fine sandy loam

Bt,BC—22 to 44 inches; clay loam

C—44 to 80 inches; loam

***Additional Components*****Talmoon and similar soils***Extent:* 4 percent of the unit**Bluffton and similar soils***Extent:* 3 percent of the unit**Beltrami and similar soils***Extent:* 2 percent of the unit**Soils that have a sandy substratum***Extent:* 1 percent of the unit**204C—Cushing fine sandy loam, 8 to 15 percent slopes*****Component Description*****Cushing and similar soils***Extent:* 95 percent of the unit*Geomorphic description:* Hills on moraines*Position on the landform:* Shoulders and backslopes*Slope range:* 8 to 15 percent*Texture of the surface layer:* Fine sandy loam*Depth to restrictive feature:* Very deep (more than 60 inches)*Drainage class:* Well drained*Parent material:* Till*Flooding:* None*Depth to wet soil moisture status:* More than 6.7 feet all year*Ponding:* None*Available water capacity to a depth of 60 inches:* 9.0 inches*Content of organic matter in the upper 10 inches:* 1.2 percent*Typical profile:*

Ap—0 to 7 inches; fine sandy loam

E—7 to 21 inches; fine sandy loam

Bt—21 to 44 inches; clay loam

C—44 to 80 inches; sandy loam

***Additional Components*****Bluffton and similar soils***Extent:* 2 percent of the unit**Beltrami and similar soils***Extent:* 1 percent of the unit**Soils that have a substratum of sand or gravel***Extent:* 1 percent of the unit**Talmoon and similar soils***Extent:* 1 percent of the unit**258B—Sandberg loamy coarse sand, 1 to 6 percent slopes*****Component Description*****Sandberg and similar soils***Extent:* 95 percent of the unit*Geomorphic description:* Hills on stream terraces

*Position on the landform:* Summits, shoulders, and backslopes  
*Slope range:* 1 to 6 percent  
*Texture of the surface layer:* Loamy coarse sand  
*Depth to restrictive feature:* Very deep (more than 60 inches)  
*Drainage class:* Excessively drained  
*Parent material:* Outwash  
*Flooding:* None  
*Depth to wet soil moisture status:* More than 6.7 feet all year  
*Ponding:* None  
*Available water capacity to a depth of 60 inches:* 3.9 inches  
*Content of organic matter in the upper 10 inches:* 2.5 percent  
*Typical profile:*  
 Ap,A—0 to 14 inches; loamy coarse sand  
 Bw—14 to 32 inches; gravelly coarse sand  
 C—32 to 80 inches; sand

#### ***Additional Components***

##### **Soils that have a sandy substratum**

*Extent:* 3 percent of the unit

##### **Duelm and similar soils**

*Extent:* 1 percent of the unit

##### **Isan and similar soils**

*Extent:* 1 percent of the unit

#### **258C—Sandberg loamy coarse sand, 6 to 12 percent slopes**

#### ***Component Description***

##### **Sandberg and similar soils**

*Extent:* 95 percent of the unit  
*Geomorphic description:* Hills on stream terraces  
*Position on the landform:* Shoulders and backslopes  
*Slope range:* 6 to 12 percent  
*Texture of the surface layer:* Loamy coarse sand  
*Depth to restrictive feature:* Very deep (more than 60 inches)  
*Drainage class:* Excessively drained  
*Parent material:* Outwash  
*Flooding:* None  
*Depth to wet soil moisture status:* More than 6.7 feet all year  
*Ponding:* None  
*Available water capacity to a depth of 60 inches:* 3.6 inches

*Content of organic matter in the upper 10 inches:* 2.0 percent

##### *Typical profile:*

Ap—0 to 11 inches; loamy coarse sand  
 Bw—11 to 26 inches; coarse sand  
 C—26 to 80 inches; coarse sand

#### ***Additional Components***

##### **Soils that have a sandy substratum**

*Extent:* 2 percent of the unit

##### **Duelm and similar soils**

*Extent:* 1 percent of the unit

##### **Isan and similar soils**

*Extent:* 1 percent of the unit

##### **Soils that have a substratum of sandy loam**

*Extent:* 1 percent of the unit

#### **258E—Sandberg loamy coarse sand, 12 to 35 percent slopes**

#### ***Component Description***

##### **Sandberg and similar soils**

*Extent:* 95 percent of the unit  
*Geomorphic description:* Hills on stream terraces; escarpments  
*Position on the landform:* Shoulders and backslopes  
*Slope range:* 12 to 35 percent  
*Texture of the surface layer:* Loamy coarse sand  
*Depth to restrictive feature:* Very deep (more than 60 inches)  
*Drainage class:* Excessively drained  
*Parent material:* Outwash  
*Flooding:* None  
*Depth to wet soil moisture status:* More than 6.7 feet all year  
*Ponding:* None  
*Available water capacity to a depth of 60 inches:* 3.6 inches  
*Content of organic matter in the upper 10 inches:* 2.0 percent  
*Typical profile:*  
 A—0 to 11 inches; loamy coarse sand  
 Bw—11 to 27 inches; coarse sand  
 C—27 to 80 inches; gravelly coarse sand

#### ***Additional Components***

##### **Soils that have a sandy substratum**

*Extent:* 3 percent of the unit

*Depth to restrictive feature:* Very deep (more than 60 inches)

*Drainage class:* Poorly drained

*Parent material:* Outwash

*Flooding:* None

*Wet soil moisture status is highest (depth, months):* 0.5 foot (April, May)

*Wet soil moisture status is lowest (depth, months):* 2.0 feet (August, September)

*Ponding:* None

*Available water capacity to a depth of 60 inches:* 4.8 inches

*Content of organic matter in the upper 10 inches:* 6.5 percent

*Typical profile:*

Ap,A—0 to 18 inches; sandy loam

AB,Bg—18 to 29 inches; loamy sand

Cg—29 to 80 inches; coarse sand

#### **Additional Components**

#### **Soils that have a surface layer of muck**

*Extent:* 6 percent of the unit

#### **Duelm and similar soils**

*Extent:* 4 percent of the unit

### **1223—Sandberg-Arvilla complex, 0 to 3 percent slopes**

#### **Component Description**

#### **Sandberg and similar soils**

*Extent:* 60 percent of the unit

*Geomorphic description:* Stream terraces

*Position on the landform:* Slight rises

*Slope range:* 1 to 3 percent

*Texture of the surface layer:* Loamy coarse sand

*Depth to restrictive feature:* Very deep (more than 60 inches)

*Drainage class:* Excessively drained

*Parent material:* Outwash

*Flooding:* None

*Depth to wet soil moisture status:* More than 6.7 feet all year

*Ponding:* None

*Available water capacity to a depth of 60 inches:* 3.9 inches

*Content of organic matter in the upper 10 inches:* 2.5 percent

*Typical profile:*

Ap—0 to 11 inches; loamy coarse sand

Bw,BC—11 to 35 inches; gravelly coarse sand

C—35 to 80 inches; gravelly coarse sand

#### **Arvilla and similar soils**

*Extent:* 30 percent of the unit

*Geomorphic description:* Stream terraces

*Position on the landform:* Flats

*Slope range:* 0 to 2 percent

*Texture of the surface layer:* Coarse sandy loam

*Depth to restrictive feature:* Very deep (more than 60 inches)

*Drainage class:* Somewhat excessively drained

*Parent material:* Outwash

*Flooding:* None

*Depth to wet soil moisture status:* More than 6.7 feet all year

*Ponding:* None

*Available water capacity to a depth of 60 inches:* 4.1 inches

*Content of organic matter in the upper 10 inches:* 2.5 percent

*Typical profile:*

Ap,A—0 to 14 inches; coarse sandy loam

Bw—14 to 17 inches; coarse sandy loam

2Bw,2C—17 to 80 inches; gravelly coarse sand

#### **Additional Components**

#### **Soils that have a sandy substratum**

*Extent:* 5 percent of the unit

#### **Soils that have a gravelly surface layer**

*Extent:* 3 percent of the unit

#### **Duelm and similar soils**

*Extent:* 1 percent of the unit

#### **Isan and similar soils**

*Extent:* 1 percent of the unit

### **1224—Hubbard-Verndale complex, 0 to 3 percent slopes**

#### **Component Description**

#### **Hubbard and similar soils**

*Extent:* 60 percent of the unit

*Geomorphic description:* Stream terraces and outwash plains

*Position on the landform:* Slight rises

*Slope range:* 0 to 3 percent

*Texture of the surface layer:* Loamy coarse sand

*Depth to restrictive feature:* Very deep (more than 60 inches)