

## Nontechnical Soil Descriptions Benton County, Missouri

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units.

---

### 13B Sampsel silty clay loam, 2 to 5 percent slopes

Sampsel soils are formed from colluvium and/or residuum weathered from shale and occur on the footslopes of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is poorly drained. The slowest permeability is slow. The available water capacity for plants is moderate and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 9 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 13C Sampsel silty clay loam, 5 to 9 percent slopes

Sampsel soils are formed from colluvium and/or residuum weathered from shale and occur on the footslopes of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is poorly drained. The slowest permeability is slow. The available water capacity for plants is moderate and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 9 inches. This map unit is assigned to the nonirrigated land capability classification 3e.

### 15 Ashton silt loam, occasionally flooded

Ashton soils are formed from silty alluvium and occur on high bottomlands in stream valleys. The surface water runoff class is low and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is very high and the soil has a low shrink-swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 2w.

### 20B Creldon silt loam, 2 to 5 percent slopes

Creldon soils are formed from loess over residuum weathered from cherty limestone and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is moderately well drained. The slowest permeability is very slow. The available water capacity for plants is moderate and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 27 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 20C Creldon silt loam, 5 to 9 percent slopes

Creldon soils are formed from loess over residuum weathered from cherty limestone and occur on the backslopes of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is moderately well drained. The slowest permeability is very slow. The available water capacity for plants is moderate and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 27 inches. This map unit is assigned to the nonirrigated land capability classification 3e.

### 23F Goss cherty silt loam, 14 to 45 percent slopes

Goss soils are formed from residuum weathered from cherty limestone and occur on the backslopes of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 7e.

## Nontechnical Soil Descriptions Benton County, Missouri

### 30 Verdigris silt loam, occasionally flooded

Verdigris soils are formed from silty alluvium and occur on high bottomlands in stream valleys. The surface water runoff class is low and the natural drainage condition of the soil is moderately well drained. The slowest permeability is moderate. The available water capacity for plants is very high and the soil has a moderate shrink-swell potential. This soil is occasionally flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 2w.

### 32 Racket silt loam, occasionally flooded

Racket soils are formed from alluvium and occur on bottomlands in stream valleys. The surface water runoff class is low and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is moderate and the soil has a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 57 inches. This map unit is assigned to the nonirrigated land capability classification 2w.

### 33 Quarles silt loam, occasionally flooded

Quarles soils are formed from silty alluvium and occur on high bottomlands in stream valleys. The surface water runoff class is high and the natural drainage condition of the soil is poorly drained. The slowest permeability is slow. The available water capacity for plants is high and the soil has a high shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 9 inches. This map unit is assigned to the nonirrigated land capability classification 2w.

### 50B McGirk silt loam, 2 to 5 percent slopes

McGirk soils are formed from colluvium and occur on the footslopes of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is poorly drained. The slowest permeability is slow. The available water capacity for plants is high and the soil has a high shrink swell potential. The top of the seasonal high water table is at 15 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 51C Claiborne silt loam, 5 to 9 percent slopes

Claiborne soils are formed from colluvium and occur on the footslopes of hillsides. The surface water runoff class is medium and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is high and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 3e.

### 52B Deepwater silt loam, 2 to 5 percent slopes

Deepwater soils are formed from loess over residuum weathered from shale and occur on the summits of hillsides. The surface water runoff class is low and the natural drainage condition of the soil is moderately well drained. The slowest permeability is moderate. The available water capacity for plants is high and the soil has a low shrink-swell potential. The top of the seasonal high water table is at 45 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 52C Deepwater silt loam, 5 to 9 percent slopes

Deepwater soils are formed from loess over residuum weathered from shale and occur on the backslopes of hillsides. The surface water runoff class is medium and the natural drainage condition of the soil is moderately well drained. The slowest permeability is moderate. The available water capacity for plants is high and the soil has a low shrink-swell potential. The top of the seasonal high water table is at 45 inches. This map unit is assigned to the nonirrigated land capability classification 3e.

## Nontechnical Soil Descriptions Benton County, Missouri

### 53B Mandeville silt loam, 2 to 5 percent slopes

Mandeville soils are formed from residuum weathered from acid shale and occur on the summits of hillsides. The surface water runoff class is low and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is moderate and the soil has a low shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 2e.

### 54 Moniteau silt loam, rarely flooded

Moniteau soils are formed from silty alluvium and occur on high bottomlands in stream valleys. The surface water runoff class is medium and the natural drainage condition of the soil is poorly drained. The slowest permeability is moderately slow. The available water capacity for plants is very high and the soil has a moderate shrink-swell potential. This soil is rarely flooded and is not ponded. The top of the seasonal high water table is at 6 inches. This map unit is assigned to the nonirrigated land capability classification 3w.

### 55B Barco loam, 2 to 5 percent slopes

Barco soils are formed from residuum weathered from sandstone and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 2e.

### 55C Barco loam, 5 to 9 percent slopes

Barco soils are formed from residuum weathered from sandstone and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 3e.

### 56C Bolivar fine sandy loam, 5 to 9 percent slopes

Bolivar soils are formed from residuum weathered from sandstone and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 3e.

### 56D Bolivar fine sandy loam, 9 to 14 percent slopes

Bolivar soils are formed from residuum weathered from sandstone and occur on the backslopes of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 4e.

### 58 Hartwell silt loam, 0 to 2 percent slopes

Hartwell soils are formed from loess over residuum weathered from shale and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is somewhat poorly drained. The slowest permeability is slow. The available water capacity for plants is high and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 12 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

## Nontechnical Soil Descriptions Benton County, Missouri

### 58B2 Hartwell silt loam, 1 to 3 percent slopes, eroded

Hartwell soils are formed from loess over residuum weathered from shale and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is somewhat poorly drained. The slowest permeability is slow. The available water capacity for plants is high and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 12 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 58B3 Hartwell silty clay loam, 1 to 3 percent slopes, severely eroded

Hartwell soils are formed from loess over residuum weathered from shale and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is somewhat poorly drained. The slowest permeability is slow. The available water capacity for plants is high and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 12 inches. This map unit is assigned to the nonirrigated land capability classification 3e.

### 60B Barden silt loam, 1 to 5 percent slopes

Barden soils are formed from loess over residuum weathered from shale and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is moderately well drained. The slowest permeability is slow. The available water capacity for plants is moderate and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 30 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 60B2 Barden silt loam, 1 to 5 percent slopes, eroded

Barden soils are formed from loess over residuum weathered from shale and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is moderately well drained. The slowest permeability is slow. The available water capacity for plants is moderate and the soil has a high shrink-swell potential. The top of the seasonal high water table is at 30 inches. This map unit is assigned to the nonirrigated land capability classification 3e.

### 63B Union silt loam, 2 to 5 percent slopes

Union soils are formed from loess over residuum weathered from cherty limestone and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is moderately well drained. The slowest permeability is slow. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The top of the seasonal high water table is at 27 inches. This map unit is assigned to the nonirrigated land capability classification 2e.

### 63C Union silt loam, 5 to 9 percent slopes

Union soils are formed from loess over residuum weathered from cherty limestone and occur on the summits and backslopes of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is moderately well drained. The slowest permeability is slow. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The top of the seasonal high water table is at 27 inches. This map unit is assigned to the nonirrigated land capability classification 3e.

### 66C Doniphan cherty silt loam, 3 to 9 percent slopes

Doniphan soils are formed from colluvium over residuum weathered from clayey shale and occur on the summits of hillsides. The surface water runoff class is medium and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 3s.

## Nontechnical Soil Descriptions Benton County, Missouri

### 66D Doniphan cherty silt loam, 9 to 14 percent slopes

Doniphan soils are formed from colluvium over residuum weathered from clayey shale and occur on the summits of hillsides. The surface water runoff class is medium and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 4s.

### 67C Bardley cherty silt loam, 3 to 9 percent slopes

Bardley soils are formed from colluvium over residuum weathered from dolomite and occur on the summits of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 4e.

### 67E Bardley very cherty silt loam, 9 to 35 percent slopes

Bardley soils are formed from colluvium over residuum weathered from dolomite and occur on the backslopes of hillsides. The surface water runoff class is high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is very low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 7e.

### 68C Eldon cherty silt loam, 3 to 9 percent slopes

Eldon soils are formed from residuum weathered from cherty limestone and occur on the summits of hillsides. The surface water runoff class is medium and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is moderate and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 4s.

### 68D Eldon cherty silt loam, 9 to 14 percent slopes

Eldon soils are formed from residuum weathered from cherty limestone and occur on the backslopes of hillsides. The surface water runoff class is medium and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is moderate and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 6s.

### 72C Gasconade-Rock outcrop complex, 2 to 9 percent slopes

Gasconade soils are formed from residuum weathered from limestone and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is somewhat excessively drained. The slowest permeability is moderately slow. The available water capacity for plants is very low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 6s.

### 72F Gasconade-Rock outcrop complex, 9 to 50 percent slopes

Gasconade soils are formed from residuum weathered from limestone and occur on the backslopes of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is somewhat excessively drained. The slowest permeability is moderately slow. The available water capacity for plants is very low and the soil has a moderate shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 7s.

## Nontechnical Soil Descriptions Benton County, Missouri

### 74C Knobby-Rock outcrop complex, 3 to 9 percent slopes

Knobby soils are formed from residuum weathered from dolomite and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is very low and the soil has a low shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 7s.

### 74F Knobby-Rock outcrop complex, 9 to 50 percent slopes

Knobby soils are formed from residuum weathered from dolomite and occur on the summits of hillsides. The surface water runoff class is very high and the natural drainage condition of the soil is well drained. The slowest permeability is moderate. The available water capacity for plants is very low and the soil has a low shrink-swell potential. The seasonal high water table is at a depth of more than 6 feet. This map unit is assigned to the nonirrigated land capability classification 7s.

### 80 Osage silty clay loam, occasionally flooded

Osage soils are formed from clayey alluvium and occur on bottomlands in stream valleys. The surface water runoff class is very high and the natural drainage condition of the soil is poorly drained. The slowest permeability is very slow. The available water capacity for plants is moderate and the soil has a very high shrink-swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 6 inches. This map unit is assigned to the nonirrigated land capability classification 3w.