

Nontechnical Soil Descriptions

Nontechnical soil descriptions describe soil properties and management considerations for a specific soil map unit. These descriptions are written in terminology that nontechnical users of soil survey information can understand.

Nontechnical soil descriptions are a powerful tool for creating reports. These reports can be generated by conservation planners and other NRCS employees for distribution to land users.

This subsection contains:

- **Nontechnical soil descriptions for county soil map units**

NONTECHNICAL SOIL DESCRIPTIONS
Johnson County, Missouri

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand. Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

BaB Barco Loam, 2 To 5 Percent Slopes

Barco soil makes up 85 percent of the map unit. This map unit is in the Cherokee Prairies Major Land

Resource Area. This soil occurs on a gently sloping to moderately sloping ridge summit on uplands.

The runoff class is very high. The parent material consists of residuum weathered from sandstone and

shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The

slowest permeability is moderate. It has a low available water capacity and a moderate shrink

swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a

depth of more than 6 feet. It is in the nonirrigated land capability classification 2e.

BaC Barco Loam, 5 To 9 Percent Slopes

Barco soil makes up 85 percent of the map unit. This map unit is in the Cherokee Prairies Major Land

Resource Area. This soil occurs on a moderately sloping to strongly sloping backslopes on

uplands. The runoff class is very high. The parent material consists of residuum weathered from

sandstone and shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well

drained. The slowest permeability is moderate. It has a low available water capacity and a

moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high

water table is at a depth of more than 6 feet. It is in the nonirrigated land capability

classification 4e.

Bk Blackoar Silt Loam, Occasionally Flooded

Blackoar soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep

Loess Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood

plains. The runoff class is low. The parent material is silty alluvium. This soil is poorly drained. The

slowest permeability is moderate. It has a very high available water capacity and a low shrink

swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high

water table is at 6 inches. It is in the nonirrigated land capability classification 3w.

BoC2 Bolivar Loam, 5 To 9 Percent Slopes, Eroded

Bolivar soil makes up 90 percent of the map unit. This map unit is in the Ozark Border Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from sandstone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 4e.

BoD2 Bolivar Fine Sandy Loam, 9 To 14 Percent Slopes, Eroded

Bolivar soil makes up 85 percent of the map unit. This map unit is in the Ozark Border Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from sandstone and shale. The soil is 20 to 40 inches deep to bedrock (lithic). This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6e.

Br Bremer Silty Clay Loam, Rarely Flooded

Bremer soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping stream terraces. The runoff class is medium. The parent material consists of silty alluvium. This soil is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is rarely flooded and is not ponded. The top of the seasonal high water table is at 18 inches. It is in the nonirrigated land capability classification 2w.

DpB Deepwater Silt Loam, 2 To 5 Percent Slopes

Deepwater soil makes up 85 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping shoulders on uplands. The runoff class is low. The parent material consists of loess over residuum weathered from shale. This soil is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 45 inches. It is in the nonirrigated land capability classification 2e.

DpC2 Deepwater Silt Loam, 5 To 9 Percent Slopes, Eroded

Deepwater soil makes up 85 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslopes on uplands. The runoff class is medium. The parent material consists of loess over residuum weathered from shale. This soil is moderately well drained. The slowest permeability is moderate. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 45 inches. It is in the nonirrigated land capability classification 3e.

Dt Dockery Silty Clay Loam, Frequently Flooded

Dockery soil makes up 93 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plains. The runoff class is low. The parent material consists of silty alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a very high available water capacity and a moderate shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 24 inches. It is in the nonirrigated land capability classification 2w.

Fs Freeburg Silt Loam, Rarely Flooded

Freeburg soil makes up 95 percent of the map unit. This map unit is in the Ozark Border Major Land Resource Area. This soil occurs on a nearly level to gently sloping stream terraces. The runoff class is low. The parent material consists of silty alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is rarely flooded and is not ponded. The top of the seasonal high water table is at 21 inches. It is in the nonirrigated land capability classification 2w.

GoC2 Gorin Silt Loam, 5 To 9 Percent Slopes, Eroded

Gorin soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslope hill on upland. The runoff class is medium. The parent material consists of loess over till. This soil is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 24 inches. It is in the nonirrigated land capability classification 4e.

Hg Haig Silt Loam

Haig soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping ridges on uplands. The runoff class is high. The parent material consists of loess. This soil is poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 18 inches. It is in the nonirrigated land capability classification 2w.

Hp Haplaquents-Urban Land Complex

Haplaquents soil makes up 68 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping hill on upland. The runoff class is high. This soil is poorly drained. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification .

HtA Hartwell Silt Loam, 0 To 2 Percent Slopes

Hartwell soil makes up 95 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a nearly level to gently sloping ridges on uplands. The runoff class is high. The parent material consists of loess over residuum weathered from shale. This soil is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. It is in the nonirrigated land capability classification 2w.

HtB2 Hartwell Silt Loam, 2 To 5 Percent Slopes, Eroded

Hartwell soil makes up 97 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping ridges on uplands. The runoff class is high. The parent material consists of loess over residuum weathered from shale. This soil is somewhat poorly drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 12 inches. It is in the nonirrigated land capability classification 2e.

HxC Higginsville Silt Loam, 4 To 7 Percent Slopes

Higginsville soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping backslopes on uplands. The runoff class is medium. The parent material consists of loess.

This soil is

somewhat poorly drained. The slowest permeability is moderate. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 27 inches. It is in the nonirrigated land capability classification 3e.

Ka Kanima Shaly Silty Clay Loam, 30 To 60 Percent Slopes

Kanima soil makes up 95 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a steep to very steep backslopes on uplands. The runoff class is high. The parent material is shale. This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 7s.

Lg Lightning Silt Loam, Occasionally Flooded

Lightning Silt Loam soil makes up 90 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a nearly level flood plains. The runoff class is high. The parent material consists of clayey alluvium. This soil is poorly drained. The slowest permeability is impermeable. It has a high available water capacity and a high shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 12 inches. It is in the nonirrigated land capability classification 3w.

MaB Macksburg Silt Loam, 1 To 4 Percent Slopes

Macksburg soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping summit ridge on upland. The runoff class is medium. The parent material consists of loess. This soil is somewhat poorly drained. The slowest permeability is moderately slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 36 inches. It is in the nonirrigated land capability classification 2e.

MdB Mandeville Silt Loam, 2 To 5 Percent Slopes

Mandeville soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping summit hill on upland. The runoff class is very high. The parent material consists of residuum weathered from acid shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is

moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. It is in the nonirrigated land capability classification 2e.

MdC Mandeville Silt Loam, 5 To 9 Percent Slopes

Mandeville soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from acid shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is moderately well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. It is in the nonirrigated land capability classification 4e.

Nd Nodaway Silt Loam, Occasionally Flooded

Nodaway soil makes up 92 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plains. The runoff class is low. The parent material consists of silty alluvium. This soil is moderately well drained. The slowest permeability is moderate. It has a very high available water capacity and a moderate shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil is in the irrigated land capability class 2w. It is in the nonirrigated land capability classification 2w.

NoD Norris Shaly Silt Loam, 5 To 14 Percent Slopes

Norris soil makes up 90 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from shale. The soil is 4 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 6e.

NoF Norris Shaly Silt Loam, 14 To 35 Percent Slopes

Norris soil makes up 90 percent of the map unit. This map unit is in the Cherokee Prairies Major Land Resource Area. This soil occurs on a moderately steep to steep backslopes

on uplands. The

runoff class is very high. The parent material consists of residuum weathered from shale. The soil

is 4 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability

is moderate. It has a very low available water capacity and a low shrink swell potential. This

soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6

feet. It is in the nonirrigated land capability classification 7e.

PoB Polo Silt Loam, 2 To 5 Percent Slopes

Polo soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess

Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping shoulders

on uplands. The runoff class is low. The parent material consists of loess over residuum

weathered from shale. This soil is well drained. The slowest permeability is moderate. It has a

high available water capacity and a moderate shrink swell potential. This soil is not flooded and

is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the

nonirrigated land capability classification 2e.

PoC2 Polo Silt Loam, 5 To 9 Percent Slopes, Eroded

Polo soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess

Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping

backslopes on uplands. The runoff class is low. The parent material consists of loess over

residuum weathered from shale. This soil is well drained. The slowest permeability is moderate.

It has a high available water capacity and a moderate shrink swell potential. This soil is not

flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It

is in the nonirrigated land capability classification 3e.

SaB Samsel Silty Clay Loam, 2 To 5 Percent Slopes

Samsel soil makes up 95 percent of the map unit. This map unit is in the Iowa and Missouri Deep

Loess Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping

summits on uplands. The runoff class is high. The parent material consists of residuum

weathered from shale. This soil is somewhat poorly drained. The slowest permeability is slow. It

has a moderate available water capacity and a high shrink swell potential. This soil is not

flooded and is not ponded. The top of the seasonal high water table is at 9 inches. It is in

the nonirrigated land capability classification 2e.

SaC Samsel Silty Clay Loam, 5 To 9 Percent Slopes

Samsel soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep

Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping

backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from shale. This soil is somewhat poorly drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. It is in the nonirrigated land capability classification 3e.

SaC3 Sampsel Silty Clay Loam, 5 To 9 Percent Slopes, Severely Eroded

Sampsel soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from shale. This soil is somewhat poorly drained. The slowest permeability is slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. It is in the nonirrigated land capability classification 3e.

ShB Sharpsburg Silt Loam, 2 To 5 Percent Slopes

Sharpsburg soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping summits on uplands. The runoff class is medium. The parent material consists of loess. This soil is moderately well drained. The slowest permeability is moderately slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. It is in the nonirrigated land capability classification 2e.

SnD2 Snead Silty Clay Loam, 7 To 16 Percent Slopes, Eroded

Snead soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from calcareous shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is moderately well drained. The slowest permeability is slow. It has a very low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

SoD Snead-Rock Outcrop Complex, 5 To 14 Percent Slopes

Snead soil makes up 80 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to

moderately steep

backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from calcareous shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is moderately well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

SoF Snead-Rock Outcrop Complex, 14 To 35 Percent Slopes

Snead soil makes up 70 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a moderately steep to steep backslopes on uplands. The runoff class is very high. The parent material consists of residuum weathered from calcareous shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is moderately well drained. The slowest permeability is slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 10 percent calcium carbonate. It is in the nonirrigated land capability classification 6e.

Wa Wabash Silty Clay, Frequently Flooded

Wabash soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a nearly level flood plains. The runoff class is negligible. The parent material consists of alluvium. This soil is very poorly drained. The slowest permeability is very slow. It has a moderate available water capacity and a very high shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 8 inches. It is in the nonirrigated land capability classification 3w.

WdB Weller Silt Loam, 2 To 5 Percent Slopes

Weller soil makes up 95 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping summits on uplands. The runoff class is high. The parent material consists of loess. This soil is moderately well drained. The slowest permeability is slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 36 inches. It is in the nonirrigated land capability classification 3e.

WfB Winfield Silt Loam, 2 To 5 Percent Slopes

Winfield soil makes up 92 percent of the map unit. This map unit is in the Iowa and Missouri Deep

Loess Hills Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping

summits on uplands. The runoff class is low. The parent material consists of loess. This soil

is moderately well drained. The slowest permeability is moderate. It has a high available water

capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The

top of the seasonal high water table is at 33 inches. It is in the nonirrigated land capability

classification 2e.

WfC Winfield Silt Loam, 5 To 9 Percent Slopes

Winfield soil makes up 90 percent of the map unit. This map unit is in the Iowa and Missouri Deep

Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping

backslopes on uplands. The runoff class is medium. The parent material consists of loess.

This soil is moderately well drained. The slowest permeability is moderate. It has a high available

water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded.

The top of the seasonal high water table is at 33 inches. It is in the nonirrigated land

capability classification 3e.

WfC3 Winfield Silty Clay Loam, 5 To 9 Percent Slopes, Severely Eroded

Winfield soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep

Loess Hills Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping

backslopes on uplands. The runoff class is medium. The parent material consists of loess.

This soil is moderately well drained. The slowest permeability is moderate. It has a high available

water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded.

The top of the seasonal high water table is at 33 inches. It is in the nonirrigated land

capability classification 3e.

Zk Zook Silty Clay Loam, Frequently Flooded

Zook soil makes up 85 percent of the map unit. This map unit is in the Iowa and Missouri Deep Loess

Hills Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plains

The runoff class is negligible. The parent material consists of alluvium. This soil is poorly drained. The slowest permeability is slow. It has a high

available water capacity and a high shrink swell potential. This soil is frequently flooded and is not

ponded. The top of the seasonal high water table is at 6 inches. It is in the nonirrigated

land capability

classification 2w.