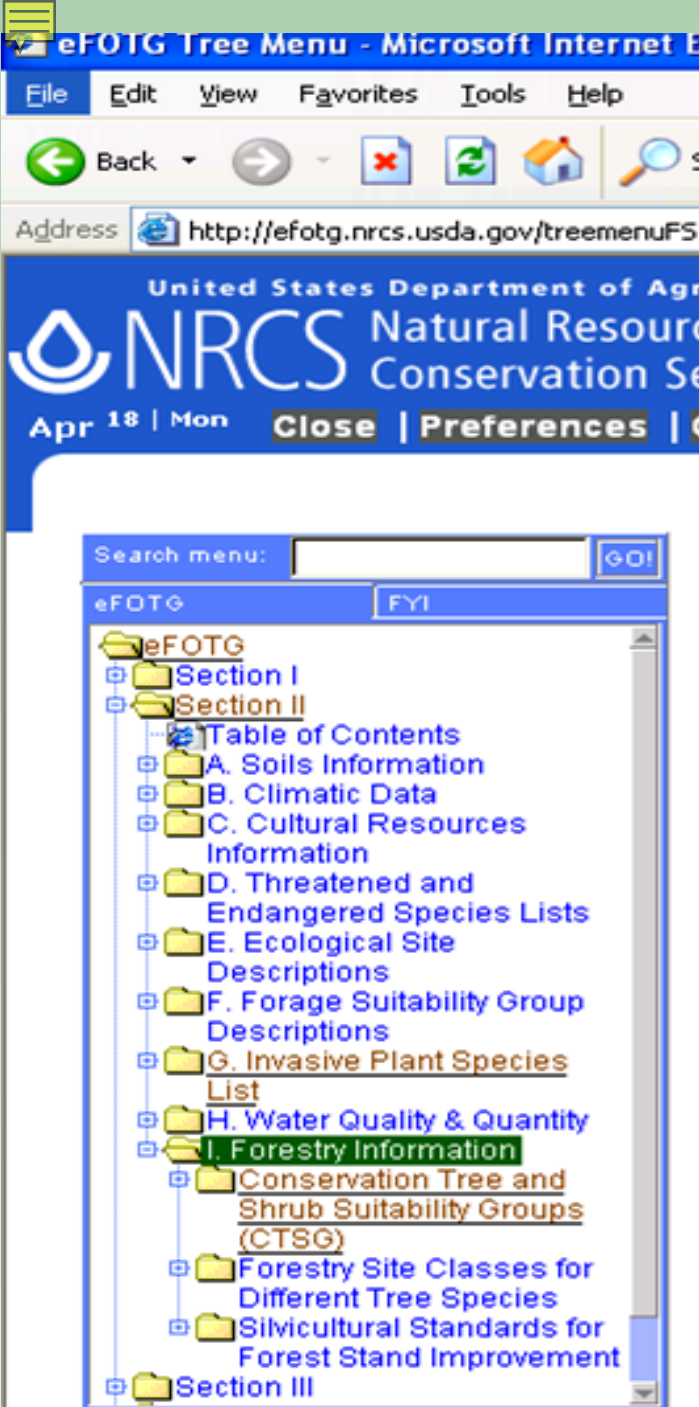


Conservation Tree/Shrub Groups

A Tool for Matching Woody Plants to Soils

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Match tree species to soils

CONSERVATION

TREE/SHRUB SUITABILITY

GROUPS at:

www.mi.nrcs.usda.gov,

eFOTG, Section II, Forestry Information.

Conservation Tree/Shrub Suitability Groups

	A	B	C	D	E	F	G	H	I
1	Soil Name	CTSG Group							
2	ABBAYE	6							
3	ABSCOTA	7W							
4	ADAMS	7							
5	ADRIAN	2H							
6	ALCONA	5S							
7	ALGANSEE	1							
8	ALGONQUIN	1							
9	ALLEDALE	1							
10	ALLOUEZ	10GA							
11	ALPENA	10S							
12	ALSTAD	1							
13	ALTMAR	1							
14	ALVIN	5							
15	AMADON	10D							
16	AMASA	5GS							
17	AMNICON	4							
18	ANGELICA	2							
19	ANNALAKE	5							
20	ANNINIAS	1							
21	ARCADIAN	10D							
22	ARKONA	1							
23	ARKPORT	5							
24	ARNHEIM	2							
25	ASHKUM	2C							
26	ASSININS	1D							
27	AUBARQUE	1K							
28	AUBBEENAUBBEE	1							

Group 1

Soils in CTSG-1 are somewhat poorly drained to moderately well drained, moderately deep to deep, and have a low to high available water capacity. The depth to a water table during the growing season is between 0.5 feet and 1.5 feet. Some soils have a restrictive layer at 20 inches to greater than 40 inches in depth, such as a fragipan or bedrock. Some soils are subject to frequent or occasionally flooding for brief to less than brief durations.

Group 2

Soils in CTSG-2 are somewhat or very poorly drained, moderately deep to deep, and have low to high available water capacities. The depth to a water table during the growing season is between 0.0 and greater than 0.5 feet from the surface. Some soils have a restrictive layer at 20 inches to greater than 40 inches in depth. Some soils may have fragipan, ortstein, or bedrock at 20 inches to 40 inches below the surface. Some of these soils may be subject to frequent or occasional flooding for long to less than long durations. This group also includes those soils that are somewhat poorly drained to well drained with long durations of flooding.

Group 3

Soils in CTSG-3 are deep loamy, moderately well drained soils with a high available water capacity. The depth to a water table during the growing season is greater than 1.5 feet. Some soils in

Conservation Tree/Shrub Suitability Groups

1	Symbol	Form	20 yr Height (ft) Range*	Scientific Name	Common Name	Region*	Conservation Tree/Shrub Soil Group**											
2	ALINR	SH	9/16	<i>Alnus rugosa</i>	speckled alder	ALL	1	2A	3A	4A	5A							10
3	ARME	SH	3/8	<i>Aronia melanocarpa</i>	black chokeberry	ALL	1	2A										10
4	ARAR	SH	3/8	<i>Aronia arbutifolia</i>	red chokeberry	ALL	1	2A	3A	4A	5A							10
5	ASTR	SH	9/16	<i>Asimina triloba</i>	pawpaw	SLP	1			3	4	5						
6	BPU4	SH	3/8	<i>Betula pumila</i>	dwarf or bog birch	ALL	1	2										10
7	CETE	SH	9/16	<i>Celtis tenuifolia</i>	dwarf hackberry	SLP	1		3K	4K	5K	6K	7					10
8	CEOC2	SH	3/8	<i>Cephalanthus occidentalis</i>	buttonbush	LP	1	2										10
9	CHCA2	SH	1/3	<i>Chamaedaphne calyculata</i>	leatherleaf	ALL	1	2										10
10	COPE80	SH	1/3	<i>Comptonia peregrina</i>	sweet-fern	UP,NLP	1					6SG	6A	7				10
11	CODR	SH	9/16	<i>Cornus drummondii</i>	roughleaf dogwood	SLP	1		3	4	5	6	7					
12	COAM2	SH	3/8	<i>Cornus amomum</i>	silky dogwood	ALL	1	2	3	4	5							
13	COFO	SH	3/8	<i>Cornus taemina</i>	gray dogwood	ALL	1		3	4	5	6	7					
14	COSE16	SH	3/8	<i>Cornus stolonifera</i>	red-osier dogwood	ALL	1	2	3	4								
15	COAM3	SH	9/16	<i>Corylus americana</i>	American hazelnut	LP	1		3	4	5G	6GS	7					
16	COCOC2	SH	9/16	<i>Corylus cornuta</i>	beaked hazelnut	UP,NLP	1		3	4	5G	6GS	7					10
17	CRPH	SH	9/16	<i>Crataegus phaenopyrum</i>	Washington hawthorn	All	1		3	4	5G	6GS	7					
18	CRATA	SH	9/16	<i>Crataegus spp.</i>	common hawthorn	ALL	1		3	4	5G	6GS	7					10
19	DIPA	SH	3/8	<i>Dirca palustris</i>	leatherwood	ALL	1		3	4	5	6	7					
20	ELUM	SH~	9/16	<i>Eleagnus umbellata</i>	autumn olive	ALL	1		3	4	5	6	7					
21	HAVI4	SH	3/8	<i>Hamamelis virginiana</i>	American witchhazel	ALL	1			4	5	6	7					
22	ILVE	SH	9/16	<i>Ilex verticillata</i>	winterberry/Michigan Holly	ALL	1	2										
23	JUCO6	SH	3/8	<i>Juniperus communis</i>	ground juniper	ALL	1			4D	5G	6GS	7					
24	JUHO2	SH	1/3	<i>Juniperus horizontalis</i>	creeping juniper	NLP, UP	1			4D	5G	6GS	7					
25	LIBE3	SH	9/16	<i>Lindera benzoin</i>	spicebush	LP	1	2H	3	4								
26	LOCA7	SH	3/8	<i>Lonicera canadensis</i>	fly honeysuckle	ALL	1	2	3	4	5	6	7					
27	MYGA	SH	3/8	<i>Myrica gale</i>	sweet gale	UP, NLP	1	2AK										10AK
28	PAQU2	VI	9/16	<i>Parthenocissus quinquefolia</i>	Virginia creeper	LP	1	2	3	4	5	6	7					
29	PHOP	SH	3/8	<i>Physocarpus opulifolius</i>	ninebark	ALL	1		3K	4K	5K	6K						
30	PRPU3	SH	1,	<i>Prunus pumila</i>	sand cherry	ALL	1				5S	6GS	7					10S

Missouri NRCS CTSGs

Series name, CTSG, soil desc. Link, parent materials, landforms, taxon. cl., off. series desc.

Series Name	CTSG	Soil Description	Parent Material(s)	Landform(s)	Taxonomic Class	Official NRCS Series Description
ACADIA	2	Official Description	Clayey Alluvium	Terraces/Sideslopes	Fine, smectitic, thermic Aeric Epiaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ACKMORE	1	Official Description	Alluvium	Floodplains	Fine-silty, mixed, superactive, nonacid, mesic Aeric Fluvaquents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ADAIR	4	Official Description	Loess/Pediment/Paleosol formed in Glacial Till	Uplands	Fine, smectitic, mesic Aquertic Argiudolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ADCO	4	Official Description	Loess/Loam Sediments	Uplands/Stream Benches	Fine, smectitic, mesic Vertic Albaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ADLER	1	Official Description	Silty Alluvium	Floodplains	Coarse-silty, mixed, active, nonacid, thermic Aquic Udifluvents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
AGNOS	4	Official Description	Cherty Dolomite Residuum	Uplands	Very-fine, mixed, active, mesic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
AHOLT	2	Official Description	Clayey Calcareous Alluvium or Clayey Lacustrine Sediments	Benches/Floodplains/Glacial Lake Plains	Very-fine, smectitic, calcareous, mesic Vertic Endoaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ALBATON	10	Official Description	Clayey Alluvium	Floodplains	Very-fine, smectitic, calcareous, mesic Typic Fluvaquents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ALLEMANDS	10	Official Description	Decomposed Herbaceous over Alluvial Clays	Marshes	Clayey, smectitic, eurio, Terrio Haplosapists	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ALLIGATOR	10	Official Description	Clayey Alluvium	Floodplain/Terrace Backswamps/Sloughs	Very-fine, smectitic, thermic Albaquic Dystraquefs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ALPED	6	Official Description	Cherty Hillslope Sediments over Clayey Residuum	Uplands	Loamy-skeletal over clayey, siliceous, semiactive, mesic Typic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ALSUP	3	Official Description	Colluvium/Loess over Shale/Siltstone/Limestone Residuum	Uplands/Sideslopes/Footslopes	Fine, mixed, active, mesic Ogaquic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ALVIN	3	Official Description	Wind or Water Deposited Loams/Sands	Dunes/Hills/Terraces/Floodplain Steps	Coarse-loamy, mixed, superactive, mesic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
AMAGON	2	Official Description	Loamy Alluvium	Terraces	Fine-silty, mixed, active, thermic Typic Endoaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
AMANA	1	Official Description	Alluvium	Floodplains	Fine-silty, mixed, superactive, mesic Aquic Hapludolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARBELA	2	Official Description	Alluvium	Floodplains/Alluvial Fans	Fine, smectitic, mesic Argiaquic Argialbolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARISBURG	2	Official Description	Loess	Uplands	Fine, smectitic, mesic Aquertic Argiudolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARISPE	2	Official Description	Loess	Uplands	Fine, smectitic, mesic Aquertic Argiudolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARKANA	4	Official Description	Colluvium/Clayey Residuum	Uplands	Very-fine, mixed, active, mesic, Mollic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARMSTER	4	Official Description	Loess/Pediment over Paleosol formed in Glacial Till	Uplands	Fine, smectitic, mesic Mollic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARMSTRONG	4	Official Description	Loess over Paleosol formed in Glacial Till	Uplands	Fine, smectitic, mesic Aquertic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ARNICA	3	Official Description	Colluvium/acid Alluvium Sediments	Footslopes	Fine-loamy, mixed, active, thermic Ogaquic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ASHTON	1	Official Description	Loamy Alluvium	Stream Terraces	Fine-silty, mixed, active, mesic Mollic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ASKEW	1	Official Description	Loamy Alluvium	Terraces	Fine-silty, mixed, active, thermic Aquic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ASLINGER	6	Official Description	Loamy/Colluvium/Clayey Alluvium	High Terraces/Valley Footslopes	Fine-loamy, mixed, active, mesic Fragiaquic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
ATKINS	10	Official Description	Acidic Alluvium from Shale/Sandstone	Alluvial Fans	Fine-loamy, mixed, acid, mesic Typic Fluvaquents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
AUXVASSE	2	Official Description	Alluvium	Stream Terraces/Floodplains	Fine, smectitic, mesic Aeric Epiaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BADO	4	Official Description	Loess over Clayey Residuum from Cherty Limestone/Dolomite	Uplands	Fine, mixed, mesic Typic Fragiaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BAHNER	4	Official Description	Loess and Cherty Dolomite Residuum	Uplands	Fine, mixed, mesic Mollic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BALDWIN	2	Official Description	Alluvium	Natural Levees	Fine, smectitic, Chromic Vertic Epiaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BALLTOWN	10	Official Description	Limestone Residuum	Uplands	Loamy-skeletal, mixed, thermic Lithic Hapludolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BARCO	5	Official Description	Acid Sandstone Residuum/Sandy/Silty Shales	Uplands	Fine-loamy, mixed, thermic Humic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BARDEN	4	Official Description	Loess/Shale Residuum	Upland Sideslopes	Fine, mixed, active, thermic Aquollic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BARFLEY	4	Official Description	Hillslope Sediments/Underlying Dolomite/Sandstone/Limestone	Upland Ridges/Sideslopes/Noseslopes	Very-fine, mixed, active, mesic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BASEHOR	10	Official Description	Sandstone Residuum	Uplands	Loamy, siliceous, active, mesic Lithic Dystrudepts	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BATES	5	Official Description	Sandstone Residuum	Ridgecrests/Sideslopes	Fine-loamy, siliceous, active, thermic Typic Argiudolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BAXTER	6	Official Description	Cherty Limestone Residuum	Ridgetops/Sideslopes	Fine, mixed, semiactive, mesic Typic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BEAR THICKET	1	Official Description	Silty Alluvium	Floodplains/Stream Terraces	Fine-silty, mixed, active, mesic Lithic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BEAUCOUP	2	Official Description	Silty Alluvium	Floodplains	Fine-silty, mixed, superactive, mesic Fluvaquentic Endoaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BEE MONT	4	Official Description	Cherty Shale/Sandstone Residuum over Bedrock	Uplands	Very-fine, smectitic, mesic Ogaquic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BELINDA	2	Official Description	Loess	Uplands/Stream Benches	Fine, smectitic, mesic Vertic Albaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BELKNAP	1	Official Description	Acid Silty Alluvium	Floodplains	Coarse-silty, mixed, superactive, acid, mesic Aeric Fluvaquents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BENDAVIS	6	Official Description	Hillslope Sediments	Uplands	Loamy-skeletal, siliceous, active, mesic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BENDER	6	Official Description	Sandstone Residuum	Uplands	Loamy-skeletal, siliceous, acid, mesic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BETHESDA	10	Official Description	Acid Regolith from Surface Mining	Surface Mined Areas	Loamy-skeletal, mixed, acid, mesic Typic Udorthents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BEULAH	7	Official Description	Loamy/Sandy Alluvium	Floodplains/Terraces	Coarse-loamy, mixed, active, thermic Typic Dystrudepts	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BEVIER	4	Official Description	Loess/Loam Sediments/Paleosol formed in Glacial Till	Uplands/Stream Terraces	Fine, smectitic, mesic Vertic Epiaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLACKOAR	2	Official Description	Alluvium	Floodplains	Fine-silty, mixed, superactive, mesic Fluvaquentic Endoaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLAKE	1	Official Description	Alluvium	Floodplains	Fine-silty, mixed, calcareous, superactive, mesic Aquic Udifluvents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLASE	2	Official Description	Alluvium	Terraces	Clayey over loamy, smectitic, mesic Aquic Hapludolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLENCOE	2	Official Description	Alluvium	Bottoms	Clayey over loamy, smectitic, mesic Aquertic Hapludolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLOOMSDALE	6	Official Description	Loamy/Clayey Alluvium	Floodplains	Loamy-skeletal, mixed, superactive, nonacid, mesic Typic Udifluvents	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLUELICK	6	Official Description	Loess over Cherty Limestone Residuum	Uplands	Fine, mixed, superactive, acid, mesic Typic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BLUYE	4	Official Description	Cherty Hillslope Sediments over Clayey Residuum	Ridgetops/Sideslopes/Noseslopes	Fine, mixed, active, mesic Typic Argiudolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BOLIVAR	6	Official Description	Acid Sandstone Residuum	Uplands	Fine-loamy, mixed, active, thermic Lithic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BONA	4	Official Description	Hillslope Sediments over Cherty Dolomite/Limestone	Ridgetops/Sideslopes	Clayey-skeletal, mixed, semiactive, mesic Typic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BONNEFEMME	4	Official Description	Loess over Residuum	Sideslopes	Fine, smectitic, mesic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BOOKER	2	Official Description	Clayey Alluvium/Lacustrine Sediments	Floodplains/Glacial Lake Plains	Very-fine, smectitic, mesic Vertic Endoaqualfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BOBKET	1	Official Description	Loamy Alluvium	Terraces	Fine-loamy, mixed, active, thermic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BOSKYDELL	6	Official Description	Colluvium from cherty limestone over shale residuum	Uplands	Clayey-skeletal, mixed, active, mesic Ogaquic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BOVDRE	4	Official Description	Clayey over Loamy Alluvium	Floodplains	Clayey over loamy, smectitic, thermic Fluvaquentic Hapludolls	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BRANDON	6	Official Description	Loess over Gravely Water Deposits	Uplands	Fine-silty, mixed, thermic Typic Hapludalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BRANSON	3	Official Description	Alluvium/Loess over Cherty Limestone/Dolomite Residuum	Uplands	Fine-silty, mixed, mesic Typic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0
BRANTLEY	1	Official Description	Alluvium	Uplands	Fine-silty, mixed, mesic Typic Paleudalfs	http://ortho.fvu.nrcs.usda.gov/cgi-bin/osd/0

Complete list of woody plants from Plants Database, CTSG Desc., Windbreak spp. list

Missouri NRCS CTSGs

CTSG	Soil Description	Parent Material(s)	Landform(s)
2	Official Description	Clayey Alluvium	Terraces/Sideslopes
1	Official Description	Alluvium	Floodplains
4	Official Description	Loess/Pedisediment/Paleosol formed in Glacial Till	Uplands
4	Official Description	Loess/Loamy Sediments	Uplands/Stream Benches
1	Official Description	Silty Alluvium	Floodplains
4	Official Description	Cherty Dolomite Residuum	Uplands
2	Official Description	Clayey Calcareous Alluvium or Clayey Lacustrine Sediments	Benches/Floodplains/Glacial Lake Plains
10	Official Description	Clayey Alluvium	Floodplains
10	Official Description	Decomposed Herbaceous over Alluvial Clays	Marshes
10	Official Description	Clayey Alluvium	Floodplain/Terrace Backswamps/Sloughs
6	Official Description	Cherty Hillslope Sediments over Clayey Residuum	Uplands
3	Official Description	Colluvium/Loess over Shale/Siltstone/Limestone Residuum	Uplands/Sideslopes/Footslopes
5	Official Description	Wind or Water Deposited Loams/Sands	Dunes/Hills/Terraces/Floodplain Steps
2	Official Description	Loamy Alluvium	Terraces
1	Official Description	Alluvium	Floodplains
2	Official Description	Alluvium	Floodplains/Alluvial Fans
2	Official Description	Loess	Uplands
2	Official Description	Loess	Uplands
4	Official Description	Colluvium/Clayey Residuum	Uplands
4	Official Description	Loess/Pedisediment over Paleosol formed in Glacial Till	Uplands
4	Official Description	Loess over Paleosol formed in Glacial Till	Uplands
3	Official Description	Colluvium/old Alluvium Sediments	Footslopes
1	Official Description	Loamy Alluvium	Stream Terraces
1	Official Description	Loamy Alluvium	Terraces
6	Official Description	LoamyColluvium/Clayey Alluvium	High Terraces/Valley Footslopes
10	Official Description	Acidic Alluvium from Shale/Sandstone	Alluvial Fans
2	Official Description	Alluvium	Stream Terraces/Floodplains

Missouri Conservation Tree/Shrub Suitability Group Descriptions

Group 1

Soils in CTSG-1 receive beneficial moisture or have a **seasonable high water table from 3 to 5 feet** during the growing season. Soil depth is greater than 40 inches to a restrictive layer. The soil may be frequently or occasionally flooded for 2 or more months during the growing season, with a duration of brief, long, or very long. If flooded, the depth to a water table during the growing season may exceed 5 feet. The **available water capacity is greater than 7.5 inches**. For all horizons to a depth of 5 feet or to the first restrictive layer there is at least slow permeability but no more than rapid permeability.

Group 2

Soils in CTSG-2 have a **seasonal high water table from 1.5 to 3 feet** during the growing season or have saturated soils in the top 3 feet for up to 3 months in a given year. The available water capacity is greater than 2 inches. Soil depth is greater than 40 inches to a restrictive layer. **Includes peat, muck, or muck-peat soils**. For all horizons to a depth of 5 feet or to the first restrictive layer there is at least slow permeability but less than rapid permeability. Includes poorly drained soils.

Group 3

Soils in CTSG-3 are loamy and silty soils with at least moderately slow permeability but less than rapid permeability. The **depth to a water table during the growing season is at least 5 feet**. The soil may be frequently or occasionally flooded or have a higher water table if it is for less than 2 months during the growing season. The **available water capacity is at least 7.5 inches**. **Soil depth is greater than 40 inches to a restrictive layer**. The bottom horizon is not sandy or gravelly.

Group 4

Soils in CTSG-4 have **some or all horizons that are clayey**. The depth to a water table during the growing season is at least 5 feet. The depth to a water table may be less than 5 feet if it is for less than 2 months during the growing season. The available water capacity is at least 3.75 inches. Soil depth is at least 20 inches to a restrictive layer. **Soils generally have at least one horizon with slow to very slow permeability**.

Group 5

Soils in CTSG-5 are **loamy, sandy or silty with at least 30 inches in depth** to a restrictive layer. Depth to the water table is at least 5 feet. If the soil is frequently or occasionally flooded or the water table is less than 5 feet, it is for less than 2 months during the growing season. The **available water capacity is between 3.75 and 7.5 inches**. For all horizons there is at least slow permeability, but not more than rapid permeability.

Group 6

Soils in CTSG-6 have a **fragipan or some or all horizons that are gravelly**. The depth to a water table during the growing season is at least 5 feet. The depth to a water table may be less than 5 feet if it is for less than 2 months during the growing season. The available water capacity is 2 inches or greater. In the surface horizon (within 8 inches) the soil has at least slow permeability but not more than rapid permeability. The **drainage class for the soil is at least moderately well drained**.

Practical Uses of CTSGs

- Tree planting practices
 - Tree/Shrub Est., 612
 - Riparian For. Buffers, 391
 - Windbreaks, 380
 - Upland W/L Hab., 645
 - Wetland Rest., 657
 - Restoration of Hab., 643
- Better woody choices & more woody choices
- Forestland Conservation Planning
 - What is the true site potential (vs. existing)
 - Good pre-site visit prep.
 - A snapshot ESD: grouping soils with similar mapunit components affecting woody plant occurrence and performance.