



## Medium to Tall Broadleaf Trees for Northeastern SD communities

South Dakota Department of Agriculture and Natural Resources

Name	Height	Spread	Comments
------	--------	--------	----------

**Alder.** These trees are found in moist to wet soils and cool climates. However, there is one species, listed below, that is adapted to dry sites. The growth rate is about a foot per year. They will tolerate slightly alkaline soils.

Prairie Horizon <sup>®</sup> alder ( <i>Alnus hirsuta</i> 'Harbin')	25-35'	20-25'	Hanging purple catkins and brown cone-like strobiles.
---	--------	--------	---

**Aspen.** These trees are known for their fast growth, more than two feet per year and brilliant yellow fall foliage color. The tree will tolerate dry sites but do best on neutral soils. The summer foliage may become chlorotic if planted on alkaline soils. The tree will sucker if planted in flower or shrub beds.

Prairie Gold aspen ( <i>Populus tremuloides</i> 'NEArb')	25-30'	15-20'	Golden yellow fall foliage color; heat tolerant.
Quaking aspen ( <i>Populus tremuloides</i> )	25-35'	20-25'	Yellow fall foliage, creamy white bark.

**Birch.** These are fast-growing trees, almost two feet per year, with attractive exfoliating bark. Fall foliage colors are often a bright yellow. The trees are not heat tolerant and require supplemental irrigation during our hot, dry summer. They do not do well on alkaline soils and river birch requires acidic soils. The Asian birches should be avoided as they are susceptible to bronze birch borer.

Prairie Dream <sup>®</sup> birch ( <i>Betula papyrifera</i> 'Varen')	30-40'	20-30'	Snow-white bark, golden yellow fall foliage color.
River birch ( <i>Betula nigra</i> )	30-40'	20-30'	Cinnamon-brown exfoliating bark; needs acidic, moist soils.
Renaissance Oasis <sup>®</sup> birch ( <i>Betula papyrifera</i> 'Oenci')	30-40'	20-30'	White bark, yellow fall foliage color, more heat tolerant.
Whitespire birch ( <i>Betula populifolia</i> 'Whitespire')	25-35'	20-30'	Chalk white bark, yellow fall foliage color; neutral soils.

**Buckeye.** These trees are noted for their greenish-yellow, upright flowers clusters in late spring. They are also one of the first trees to leaf out in the spring. The trees do produce 'buckeyes,' small nuts. Growth rate is a foot per year. Buckeyes are best adapted to neutral soils.

Autumn Splendor buckeye ( <i>Aesculus</i> x 'Autumn Splendor')	25-35'	20-30'	Fall foliage color can be a brilliant red. Few nuts produced.
--	--------	--------	---

**Catalpa.** These are fast growing trees, often more than two feet per year, with attractive, trumpet-like flowers in early summer. However, some people dislike raking up the large leaves as they drop in the Fall and the long, slender pods. The tree requires moist but tolerates slightly alkaline soils. Catalpa may suffer some winter dieback in this region. There is only one species to plant:

Northern catalpa (*Catalpa speciosa*) 40-60' 20-35' Summer white flowers; green heart-shaped leaves.

**Corktree.** These are trees known for their gray, corky bark. The trees have a vase-shaped forms, a growth rate slightly more than a foot a year and are adapted to slightly alkaline soils. There is one cultivar that is commonly available:

Eyestopper™ corktree (*Phellodendron lavallei* 'Longenecker') 30-40' 30-35' Clear yellow fall foliage color, compact form.

**Elms.** There are hybrid elms that are resistant to Dutch elm disease or American elm introductions that have a high tolerance to the disease. All elms are fast-growing trees (more than two feet per year) and can tolerant the harsh South Dakota climate and soils. However, they require regular pruning while young to develop a good form. Some of the best elms for community planting are:

Accolade elm<sup>R</sup> (*Ulmus* 'Morton') 50-60' 35-45' Resistant to Dutch elm disease and elm leaf beetles.

Prairie Expedition<sup>R</sup> elm (*Ulmus americana* 'Lewis & Clark') 50-60' 40-50' Tolerant to Dutch elm disease, V-shaped form, very hardy.

St. Croix™ elm (*Ulmus americana* 'St Croix') 60-70' 50-60' Tolerant to Dutch elm disease and wide V-shaped form.

**Hackberry.** This is a fast-growing tree, about two feet per year, which is native to much of the state. The tree has gray bark and a pale-yellow fall color. The tree has few problems. It does require pruning to develop a good form. It is also affected by a small insect that produces galls on the leaves. The galls do not harm the tree. They just affect the appearance. Tolerant to drought and slightly alkaline soils. There is only one species but a cultivar:

Common hackberry (*Celtis occidentalis*) 40-60' 25-40' Interesting warty bark.

Prairie Sentinel<sup>R</sup> hackberry (*Celtis occidentalis* 'JFS=KSU1') 40-45' 10-15' Columnar form.

**Honeylocust.** These are fast-growing trees (two feet per year or more) that cast a light shade which allows lawn grasses to grow well beneath them. The trees have few problems in our state, but some cultivar selections are not hardy to this region. Honeylocust is tolerant of dry, alkaline soils. Some of the best honeylocust for community planting are:

Northern Acclaim<sup>R</sup> honeylocust (*Gleditsia triacanthos* f. *inermis* 'Harve') 35-45' 25-35' Attractive branching and very hardy to our climate.

**Kentucky coffeetree.** This is a slower growing tree, often less than a foot for several years following planting but does grow at a faster rate once established. This native tree has an open form filled with compound leaves divided into numerous leaflets. The gray-brown bark has an interesting scaly texture. Coffeetree requires moist soils but will tolerant slightly alkaline soils. The tree can sucker when planted in flower or shrub beds. There are separate male and female trees and the pods produced by the female trees are not usually desired. The below cultivars are considered male and pod-less.

Decaf <sup>R</sup> coffeetree ( <i>Gymnocladus dioica</i> 'NckBranched')	40-50'	30-40'	Attractive, dense form, pod-less tree.
True North <sup>TM</sup> coffeetree ( <i>Gymnocladus dioica</i> 'UMNSynergy')	45-60'	25-35'	Narrow form, pod-less tree.

**Lindens.** These are medium to tall shade trees that are noted for their fragrance. The trees may grow about a foot or more a year, but they all require adequate soil moisture to perform well. Irrigation during the hot, dry summers is necessary. They will tolerate a slightly alkaline soil. Lindens are a preferred food for the Japanese beetle and are often defoliated by this insect. Some of the best lindens for community planting are:

American Sentry <sup>R</sup> linden ( <i>Tilia americana</i> 'McKSentry')	30-40'	25-30'	Fragrant flowers, most resistant to Japanese beetle.
Boulevard American linden ( <i>Tilia americana</i> 'Boulevard')	50-60'	25-30'	Fragrant June flowers, pyramidal form.
Harvest Gold linden ( <i>Tilia mongolica</i> 'Harvest Gold')	25-35'	20-30'	Yellow fall foliage color, exfoliating bark.
Redmond linden ( <i>Tilia americana</i> 'Redmond')	40-60'	25-35'	Fragrant white flowers, pyramidal form. Very hardy.

**Maples.** These are popular trees in many communities due to their fast growth (the freeman and silver maples) or brilliant fall foliage color (the freemen, red, and sugar maples). However, the trees should not be planted on alkaline soils, those with a pH above 7.3 as the leaves will become yellow. They also require summer irrigation. Another issue is that maples have become too popular in South Dakota and there is a growing concern that a pest might come in from another continent and, as with elms and Dutch elm disease and ash with emerald ash borer, land leave communities once again with devastating losses. If maples are desired, some of the best are:

Autumn Fest <sup>R</sup> maple ( <i>Acer saccharum</i> 'JFS-KW8')	40-50'	30-40'	Orange-red fall foliage color, faster growing maple.
Fall Fiesta <sup>R</sup> maple ( <i>Acer saccharum</i> 'Bailsta')	40-60'	40-50'	Fall foliage color of red, orange, and yellow.
Firefall maple ( <i>Acer x freemanii</i> 'AF #1')	40-60'	30-40'	Brilliant orange-scarlet fall foliage color; fast growth.
Matador maple ( <i>Acer x freemanii</i> 'Bailston')	40-45'	25-35'	Deep red fall foliage color, and an upright form.
Sienna Glen <sup>R</sup> maple ( <i>Acer x freemanii</i> 'Sienna')	40-50'	30-40'	Yellow to red fall foliage color, very hardy, neutral soils.
Silver Cloud <sup>R</sup> maple ( <i>Acer saccharinum</i> 'Silver Cloud')	50-60'	40-50'	Yellow fall foliage color; very hardy but requires neutral soils.
Unity sugar maple ( <i>Acer saccharum</i> 'Jefcan')	30-40'	30-35'	Orange-red fall foliage color, very hardy.

**Oak.** These are long-lived trees that have an undeserved reputation of being slow growing. While they are not as rapid as willow and cottonwood, they can achieve more than one foot or more of growth a year once they are established. However, not all oaks are adapted to South Dakota climate or soils. Many oaks require a neutral or even slightly acidic soils. If planted on alkaline soils, their foliage will become pale yellow-green, and the trees will suffer dieback. The best oaks for our region, and ones that will tolerate slightly alkaline soils, are listed here:

Bur oak ( <i>Quercus macrocarpa</i> )	50-60'	40-60'	Limited fall foliage color change, but attractive rounded form.
Crimson Spire <sup>TM</sup> oak ( <i>Quercus</i> 'Crimschmidt')	30-40'	10-20'	Red-purple fall foliage color; narrow form.
Heritage <sup>R</sup> oak ( <i>Quercus x macdanielli</i> 'Clemons')	45-55'	30-40'	Glossy green leaves; pyramidal form.
Prairie Stature <sup>R</sup> oak ( <i>Quercus x bimundorum</i> 'Midwest')	40-50'	30-40'	Red orange fall foliage color; broad pyramidal form.
Urban Pinnacle <sup>R</sup> oak ( <i>Quercus macrocarpa</i> 'JFS-KW3')	40-50'	20-30'	Glossy green leaves; narrow, upright form.