



DROUGHT TOLERANT TREES FOR WESTERN NEBRASKA

Proper tree selection is important in developing drought-tolerant landscapes. Most tree species are at least somewhat drought tolerant while some species are exceptionally tolerant. In addition to species selection, other ways to help make landscape more drought resilient include proper placement in the landscape; mulching around trees; planting trees in groups; and improving soil health and organic content.

EXCELLENT DROUGHT TOLERANCE: The following species, when healthy and well-established, will likely survive moderate droughts in western Nebraska without supplemental moisture. However, for very severe droughts supplemental moisture may be necessary.

Medium/Large Deciduous Trees—typically over 30' tall

- Elm, American** - *Ulmus americana* (disease resistant varieties include 'Valley Forge' and 'New Harmony'; 50'x50')
- Elm, Japanese** - *Ulmus davidiana var. japonica* (cold tolerant; rounded; glossy green; 'Discovery' is a cultivar from Manitoba Canada; 45'x 45')
- Elm, 'Cathedral'** - tough and adaptable; developed in Wisconsin; *U. pumila x U. japonica*; 40-50'x 40-50'.
- Elm, 'Triumph'** - cross between 'Vanguard' and 'Accolade'; very adaptable; vigorous upright growth habit; 60'x 40'.
- Elm 'Vanguard'** - an improved Siberian elm hybrid; VERY tough and adaptable; glossy leaves; 50'x 45'
- Hackberry** - *Celtis occidentalis* (native; tough and reliable; distinctive warty bark; arching habit; good street tree; 50'x 50')
- Honeylocust** - *Gleditsia triacanthos* (native; very tough and reliable; provides dappled shade; 55'x 40')
- Locust, Black** - *Robinia pseudoacacia* (good on poor, dry soils and hot sites; short thorns; fragrant white flowers; 35'x 25';)
- Maple, Boxelder** - *Acer negundo* (native to G.P. floodplains; very tough and adaptable; compound leaves; 30'x 25')
- Oak, Bur** - *Quercus macrocarpa* (outstanding native; big and majestic; very tough and reliable; 60'x 75')
- Oak, Bur-gambel** - *Quercus macrocarpa x gambelii* (hybrid of gambel oak and bur oak; for west. G.P.; 25-40'x 25-45')
- Poplar, Silver** - *Populus alba* (tough & adaptable; silvery/white leaves; suckering, weedy habit; can grow up to 80' x 65')

Small Deciduous Trees—typically under 20' tall

- Apricot, Manchurian** - *Prunus mandshurica* (tough, cold hardy but short lived; attractive pink flowers; 15'x 15')
- Chokecherry** - *Prunus virginiana* (tough native; attractive white flowers in spring; good for birds; suckering habit; to 20' tall)
- Chokecherry, Amur** - *Prunus maackii* (beautiful metallic amber to dark red-brown bark; short lived; 20'x 15')
- Oak, Gambel** - *Quercus gambelii* (native to Rocky Mountains; variable multi-stem habit; prefers well-drained soils; 20'x 15')
- Oak, Wavyleaf** - *Quercus undulata* (shrubby but can be trained as a small tree; semi-evergreen; needs testing; 15'x 15')
- Privet, New Mexican** - *Forestiera neo-mexicana* (creamy-mottled bark; multi-stem habit; for western G.P.; 12'x 12')

Evergreen Trees

- Juniper, Chinese** - *Juniperus chinensis* (tight growing juniper; tree form types available include 'Keteleer'; 15-25'x 10-15')
- Juniper, Chinese** - *Juniperus chinensis* (tight growing juniper; tree form types available include 'Keteleer'; 15-25'x 10-15')
- Juniper, Rocky Mountain** - *Juniperus scopulorum* (native; blue-green foliage; prefers well drained, drier soils; 20-35'x 15-20')
- Pine, Austrian** - *Pinus nigra* (common, tough, easy to grow; attractive bark; similar to Ponderosa Pine; disease prone; 50'x 35')
- Pine, Bristlecone** - *Pinus aristata* (use on well-drained soils only; great looking "bottle-brush" branch tips; 25'x 20')
- Pine, Limber** - *Pinus flexilis* (native; slow growing; soft needles; very flexible branches; plant on well-drained soils; 50'x 30')
- Pine, Pinyon** - *Pinus cembroides var. edulis* (very stout, short needles; well-drained soils only; large edible nut; 25'x 20')
- Pine, Ponderosa** - *Pinus ponderosa* (native; best on well-drained soils; attractive cinnamon-brown-black bark; 65'x 30')
- Pine, Southwestern White** - *Pinus reflexa* (graceful five-needle pine; 'Vanderwolfs' a common form; 35'x 20')



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GOOD DROUGHT TOLERANCE: The following species will survive most “normal” years but will likely require at least some supplemental moisture during moderate and severe drought periods.

Medium/Large Deciduous Trees—typically over 40’

- Ash, Manchurian** - *Fraxinus mandshurica* (from Asia; upright growth; drought tolerant; may be resistant to EAB; 40’x 30’)
- Aspen, Quaking** - *Populus tremuloides* (native to region; attractive creamy bark & fluttering leaves turn golden-yellow; 30’x 15’)
- Buckeye, Ohio** - *Aesculus glabra* (native; very tough & adaptable; rounded form; interesting ‘buckeye’ fruit; 30’x 30’)
- Catalpa, Northern** - *Catalpa speciosa* (native; tough tree; large, heart-shaped leaves, showy flowers and long seed pods; 50’x 35’)
- Cherry, Black** - *Prunus serotina* (native; eye-catching when in flower; fast growing, adaptable; 35’x 20’)
- Coffeetree, Kentucky** - *Gymnocladus dioica* (native; amazingly adaptable; beautiful winter form; 50’x 40’)
- Cottonwood, Eastern** - *Populus deltoides* (majestic native; not for extremely dry sites; avoid most cultivars; 80’x 60’)
- Lilac, Japanese Tree** - *Syringa reticulata* (billowy white flowers in May; attractive bark; can grow to 30’x 25’)
- Linden, American** - *Tilia americana* (native; large leaves; drought tolerant; heavy shade; fragrant flowers; 60’x 40’)
- Linden, Littleleaf** - *Tilia cordata* (very tight, pyramidal form; dense shade; many cultivars available; 45’x 30’)
- Maple, Bigtooth** - *Acer grandidentatum* (Rocky Mountain relative of sugar maple; multi-stem habit; orange fall color; 30’x 20’)
- Oak, Chinkapin** - *Quercus muehlenbergii* (great native tree; tolerates high pH soils; narrow, chestnut-like leaves; 50’x 40’)
- Oak, English** - *Quercus robur* (similar to white oak; tough, reliable; long, abundant acorns; narrow types available; 60’x 50’)
- Oak, Mongolian** - *Quercus mongolica* (similar in appearance to Bur Oak; performing well in N. Dakota; 50’x 45’)
- Poplar, Silver** - *Populus alba* (tough & adaptable; silvery/white leaves; suckering, weedy habit; can grow up to 80’ x 65’)
- Walnut, Black** - *Juglans nigra* (native; proven throughout Nebraska; tough and reliable; good lumber tree; 60’x 45’)

Small Deciduous Trees—typically under 20’

- Cherry, Canada Red** - *Prunus virginiana* ‘Shubert’ (purple-leaf form of native chokecherry; suckering habit; tough; 20’x 20’)
- Crabapple, Flowering** - *Malus spp.* (a wide variety of selections with varied flower/fruit colors and size ranges available)
- Hoptree (Wafer Ash)** - *Ptelea trifoliata* (large shrub or small tree; rounded form; distinctive disc-like fruit; 15’x 15’)
- Maple, Tatarian** - *Acer tataricum* (multi-stem habit; easy to grow; drought tolerant; good fall color; 20’x 15’)

Evergreen Trees

- Douglasfir** - *Pseudotsuga menziesii* (soft blue-green needles; distinctive cones; graceful habit; avoid open sites; 50’x 30’)
- Fir, Concolor** - *Abies concolor* (attractive blue-green, long, upswept needles; most reliable fir for Nebraska; 50’x 25’)
- Pine, Austrian** - *Pinus nigra* (common, tough, easy to grow; attractive bark; similar to Ponderosa Pine; disease prone; 50’x 35’)
- Pine, Swiss Stone** - *Pinus cembra* (to 50’ tall; similar to Korean Pine; seldom seen; edible nut; soft foliage)
- Spruce, Black Hills** - *Picea glauca var. densata* (alternative to blue spruce; slower growing; native to Black Hills; 50’x 30’)
- Spruce, Colorado** - *Picea pungens* (very adaptable; common throughout Nebraska; wide size range from 45-70’x 15-35’)

For more tree and plant resources, visit plantnebraska.org.