



THE NEBRASKA STATEWIDE ARBORETUM PRESENTS

EVERGREEN TREES FOR NEBRASKA

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Throughout much of the Great Plains, just a handful of species make up the majority of evergreens being planted. This makes them extremely vulnerable to challenges brought on by insects, extremes of weather, and diseases. Utilizing a variety of evergreen species results in a more diverse and resilient landscape that is more likely to survive whatever challenges come along.

Geographic Adaptability: An **E** indicates plants suitable primarily to the Eastern half of the state while a **W** indicates plants that prefer the more arid environment of western Nebraska. All others are considered to be adaptable to most of Nebraska.

Size Range: Expected average mature height x spread for Nebraska.

Common & Proven Evergreen Trees

1. **Arborvitae, Eastern** - *Thuja occidentalis* (**E**; narrow habit; vertically layered foliage; can be prone to ice storm damage; 20-25'x 5-15'; cultivars include 'Techny' and 'Hetz Wintergreen')
2. **Arborvitae, Western** - *Thuja plicata* (**E**; similar to eastern Arborvitae but not as hardy; 25-40'x 10-20; 'Green Giant' is a common, fast growing hybrid growing to 60' tall)
3. **Douglasfir (Rocky Mountain)** - *Pseudotsuga menziesii* var. *glauca* (soft blue-green needles; cones have distinctive turkey-foot bract; graceful habit; avoid open sites; 50'x 30')
4. **Fir, Balsam** - *Abies balsamea* (**E**; narrow habit; balsam fragrance; avoid open, windswept sites; 45'x 20')
5. **Fir, Canaan** - *Abies balsamea* var. *phanerolepis* (**E**; similar to balsam fir; common Christmas tree; becoming popular as a landscape tree; very graceful; 45'x 20')
6. **Fir, Concolor** - *Abies concolor* (the most reliable and easy to grow fir across Nebraska; long, soft, blue-green needles; 50'x 25')
7. **Fir, Korean** - *Abies koreana* (**E**; beautiful blue cones; very graceful; needs to be tested more; 50'x 25'; 'Silberlocke' has distinctive, curling needles showing off their white undersides.)
8. **Hemlock, Eastern** - *Tsuga Canadensis* (**E**; best in protected spots; tolerates part shade; 25'x 15')
9. **Juniper, Chinese** - *Juniperus chinensis* (very adaptable and easy to grow; tree forms include 'Spartan' and 'Keteleer'; 15-25'x 10-15')
10. **Juniper, Rocky Mountain** - *Juniperus scopulorum* (**W**, native; blue-green foliage; prefers well drained, drier soils; 35'x 20; Many cultivars of varied shapes, colors and sizes exist including 'Cologreen', 'Pathfinder', 'Wichita Blue', etc.)
11. **Pine, Bristlecone** - *Pinus aristata* (**W**; Rocky Mountain native; place on dry, well-drained soils only; distinctive "bottle-brush" branch tips and needles with white resin spots; 25'x 20')
12. **Pine, Bosnian** - *Pinus heldreichii* var. *leucodermis* (great looking tree; dark green and compact habit; similar to Austrian pine but slower growing; tolerant of clay soils; 40'x 30')
13. **Pine, Eastern White** - *Pinus strobus* (**E**; graceful; fast growth; soft, long needles; tolerates damp soils; grows big to 70'x 40'; many cultivars exist including 'Contorta', 'Fastigiata', 'Pendula', etc.)
14. **Pine, Jack** - *Pinus banksiana* (native to northern US and Canada; extremely hardy; irregular, windswept look; cones held tightly to branches and require fire to open and disperse seeds; 40'x 25')
15. **Pine, Japanese White** - *Pinus parviflora* (**E**; graceful open natural habit; tufted branches with large, attractive cones; 30'x 20')
16. **Pine, Korean** - *Pinus koraiensis* (**E**, edible nut; soft, attractive needles; attractive flaky bark; 50'x 30')
17. **Pine, Lacebark** - *Pinus bungeana* (slow growing but graceful; beautiful mottled bark; multi-stem habit; may be susceptible to pine wilt disease; 40'x 20')
18. **Pine, Limber** - *Pinus flexilis* (**W**, native to Kimball County; slow growing; very drought/wind tolerant; named for its flexible branches; plant on well-drained soils; edible seeds feed many birds; 50'x 30')
19. **Pine, Mugo** - *Pinus mugo* (variable growth habit, often considered shrubby; 'Tannenbaum' is tree form growing 20-25'x 15-25'; tough and adaptable; prone to pine sawfly damage and pine wilt disease)
20. **Pine, Pinyon** - *Pinus cembroides* var. *edulis* (**W**, very stout, short needles; well-drained soils only; large edible nut; doing well in the Panhandle; 25'x 20')
21. **Pine, Ponderosa** - *Pinus ponderosa* (our best native pine for wide-spread use; best on well-drained soils; attractive cinnamon-brown-black bark; 65'x 30')
22. **Pine, Red** - *Pinus resinosa* (**E**; northeast U.S. native; reddish bark; good specimens at Maskenthine Lake near Stanton; 40'x 30')
23. **Pine, Southwestern White** - *Pinus reflexa* (*strobiformis*) (graceful five-needle pine somewhat resembling limber pine; 'Vanderwolfs' a common cultivar with blue-green foliage; 35'x 20')
24. **Pine, Swiss Stone** - *Pinus cembra* (**E**; soft needles similar to white pine; rare in cultivation but is surviving in locations across the state; produces an edible nut favored by birds; 40'x 30')
25. **Redcedar, Eastern** - *Juniperus virginiana* (native but considered invasive in some areas; attractive bark; provides habitat for many birds/animals; 40'x 30'; 'Taylor' is a very narrow cultivar from Nebraska; 'Canaerti' has distinctive tufted branches.
26. **Spruce, Black Hills** - *Picea glauca* var. *densata* (alternative to blue spruce; native to Black Hills; can be prone to bagworms and spider mite feeding, especially when stressed; avoid wet soils; 50'x 30')
27. **Spruce, Colorado (blue)** - *Picea pungens* (very adaptable; common throughout Nebraska; wide size range from 45-70'x 15-35'; blue-forms include 'Baby Blue Eyes', 'Hoopsi', 'Moerheim' and 'Thompson')

28. **Spruce, Meyer** - *Picea meyeri* (native to east Asia; distinctive bluish color similar to Colorado spruce; may be more wet-tolerant than most spruces; 50-60'x 30-40')
29. **Spruce, Norway** - *Picea abies* (native to Europe; pendulous branch tips; tolerates moist sites; can grow quite large to 70'x 40')
30. **Spruce, Serbian** - *Picea omorika* (E; graceful, weeping habit; attractive dark cones; needles have silvery cast; slow growing to 45'x 20')
31. **Spruce, White** - *Picea glauca* (very cold hardy; shorter needles than *P. pungens* and slower grower; 50'x 30'; numerous cultivars include 'Pendula', 'Glaucula' (blue), and 'Yukon Blue')
32. **Yew, Japanese** - *Taxus cuspidata* (typically thought of as a shrub, there are tree forms of Japanese yew available that can grow to 30' tall)

Evergreen Trees for the Daring (promising but need further evaluation)

1. **Falsecypress, Sawara** - *Chamaecyparis pisifera* (E; native to Japan; somewhat like Arborvitae; 25'x 15')
2. **Fir, Corkbark** - *Abies lasiocarpa* var. *arizonica* (closely related to subalpine fir; narrow; 30'x15')
3. **Fir, Turkish** - *Abies bornmuelleriana* (E; upward pointing needles; dense and graceful habit; 25'x 15')
4. **Fir, Fraser** - *Abies fraseri* (native to Appalachia; related to balsam fir; needs consistent moisture; 40'x 20')
5. **Fir, Manchurian** - *Abies nephrolepis* (E; native to China and North Korea; light green; 35' x 20')
6. **Fir, Nikko** - *Abies homolepis* (E; native to Japan; handsome tree with glossy foliage; wet tolerant; 30'x 15')
7. **Fir, Nordman** - *Abies nordmanniana* (E; drooping branches; attractive, glossy needles; 50'x 25')
8. **Fir, Silver** - *Abies alba* (native to Europe; beautiful habit with silvery banded needles; 30'x20')
9. **Holly, American** - *Ilex opaca* (E; broadleaf evergreen; Southeast US native; attractive fruit on female plants; for protected locations only; 15-20'x 5-10')
10. **Pine, Macedonian (Balkan)** - *Pinus peuce* (E; similar to white pine; prefers moist soils; upright; 40'x 20')
11. **Pine, Chinese** - *Pinus tabulaeformis* (E; short, rounded habit; blue-green needles in pairs; 30'x 20')
12. **Pine, Domingo** - *Pinus strobus* x *ayacahuite* 'Domingo' (E; white pine hybrid showing good adaptability in eastern Nebraska; 50'x25')
13. **Pine, Himalayan White** - *Pinus wallichiana* (elegant; delicate, pendulous needles; 40'x 25')
14. **Spruce, Engelmann** - *Picea engelmannii* (W, native to higher elevations of Rocky Mountains; slow growing; 40'x 20')
15. **Spruce, Oriental** - *Picea orientalis* (E; graceful tree with short, stout needles; pendulous branches; slow growing; 45'x 20')
16. **Spruce, Red** - *Picea rubens* (E; northeast U.S. native; prefers cool, moist sites; slow growing; 40'x 25')
17. **White Cedar, Atlantic** - *Chamaecyparis thyoides* (E; native to Atlantic coast of US; showing adaptability to eastern Kansas; 40'x25')

Common Species with Disease and Insect Threats Limiting Their Use

1. **Pine, Austrian** - *Pinus nigra* (W; easy to grow; attractive silver-black bark; susceptible to needle blight; 50'x 35'; **Note:** this pine is susceptible to various diseases and is better left to the less-humid conditions of western Nebraska)
2. **Pine, Lodgepole** - *Pinus contorta* (W; sometimes encountered in the Panhandle; similar to Ponderosa Pine but with needles in twos and more twisted; highly susceptible to mountain pine beetle)
3. **Pine, Scotch** - *Pinus sylvestris* (beautiful cinnamon-orange bark; easy to grow; 40'x 25'; highly susceptible to pine wilt disease in eastern Nebraska and mountain pine beetle in western Nebraska)

Notes on Diseases, Insects and other Issues Affecting Evergreen Tree Health

- Pine wilt disease is widespread in eastern Nebraska and will likely kill most Scotch Pine and many Austrian Pines. It is unclear whether other Eurasian pines (lacebark, Bosnian, mugo, Swiss stone, etc.) will be susceptible. Planting a diversity of many types of trees is recommended.
- In recent years, damage from Mountain Pine Beetle (a naturally-occurring and cyclical part of western pine forests) has killed vast pine tracts in the Rocky Mountains and Black Hills and is becoming more of a pest in western Nebraska. Nearly all long-needled pines are susceptible, with Lodgepole Pine (*Pinus contorta*) and Scotch Pine (*Pinus sylvestris*) most affected and problems emerging on Ponderosa Pine (*Pinus ponderosa*). Austrian Pine (*Pinus nigra*) is less vulnerable, but this could change as beetle populations rise. Stressed trees are most at risk.
- Bagworm is an increasing problem on some short-needle evergreens like Black Hills Spruce, Colorado Spruce, and junipers. This native insect is cyclical in severity and more pronounced on stressed and declining trees. Bagworms can be picked by hand before becoming a major issue.
- Dothistroma needle blight and diplodia tip blight are common on pines like Austrian Pine and Ponderosa Pine and can be of concern in eastern Nebraska. While Ponderosa Pine remains a good choice throughout the state, Austrian Pine should be limited to the less humid western half.
- Most species of evergreens prefer well-drained soils and will perform poorly on wet sites and over-irrigated lawns. Some western native species such as limber pine, pinyon pine, ponderosa pine, bristlecone pine, and Rocky Mountain juniper are especially intolerant of wet soils and those with a significant clay component. Site conditions and soil adaptability is especially important when siting evergreens.
- Many deciduous trees can help block wind and increase the palette of plants available for windbreak design. Included are many oak species that hold their leaves during the winter such as shingle oak (*Quercus imbricaria*), white oak (*Quercus alba*), and black oak (*Quercus velutina*). Some large-growing broad-leaf shrubs like burkwood viburnum and Alleghany viburnum also hold their leaves and are useful in this regard.

DID YOU KNOW? The greater the variety of plants, the more resilient the landscape.
Check out Nebraska Statewide Arboretum on-line at www.plantnebraska.org

