service in ACTION

Colorado State University Cooperative Extension

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Evergreen trees for Colorado landscapes

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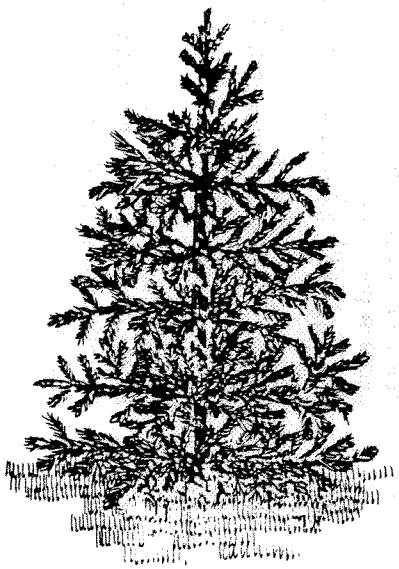
Quick Facts

- Evergreens provide texture, color and year-round beauty to the landscape.
- Most evergreens prefer full sun; some will tolerate partial shade.
- In selecting evergreens, consider available space, soil and site conditions, and weather factors.
- Evergreens have different water preferences. Group drought-tolerant types separate from those that require more moisture.
- All evergreens benefit from the use of mulches.
- All evergreens need sufficient water to become established after transplanting; this amount varies with species, soil conditions, weather and site conditions.
- Most evergreens benefit from supplemental water during dry, warm or windy periods during the winter months of November-March.

Narrowleaf evergreen ("conifer") trees give a landscape year-round interest, color and texture. Conifer trees are versatile and can be used as: specimens, hedges, privacy screens, backdrops for smaller flowering plants, or as a windbreak planted on the north and west sides of a property to deflect or intercept winter winds. (See Service in Action 7.225, *Landscaping for energy conservation*.

Evergreen refers to trees that normally retain most of their foliage (needles) through the winter. Such trees, however, do not retain all of their needles indefinitely. For example, ponderosa pine



drops needles each year that are three to five years old. These older needles are the innermost ones toward the main trunk. Younger needles, further out on the branch, are retained until they are three to five years old. This annual browning and drop of innermost, older needles can cause concern, but is a natural process. Other evergreens may have needle lifespans of two to 17 years, depending on species.

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Table 1: Relative moisture needs of evergreens

Plant Name	Approx. Mature Size (height x width)	Shape[1]	Soil Growth Rate smf[2]	Moisture HML[3]	Comments/Cultural Hints
Fir, White * (*Abies concolor)*	60' x 20'	conical	m	H	Flat blue-green needles, may winterburn in windy sites. May perform poorly in clay soils.
Fir, Subalpine or Rocky Mountain * *(Abies lasiocarpa)*	60' x 15'	conical	m	H	Very spire-like, best above 7000', shorter, blue-green needles.
Douglas-fir * *(Pseudotsuga menziesii glauca)*	60' x 20'	conical	m - f	M	Unique cones with "mouse-tail" bracts. More wind-tolerant and soil adaptable than true firs.
Juniper, Chinese *(Juniperus chinensis)*					
'Hetzi Columnaris'	10' x 5'	columnar	m	L	Bright green needles, abundant blue-green fruit producer.
'Keteleeri'	15' x 10'	broadly columnar	m	L	Abundant fruit, good screen plant.
'Robusta Green'	12' x 12'	broadly columnar	m	L	Abundant fruit, growth habit can be irregular.
'Spartan'	12' x 5'	conical	m - f	L	Dense green foliage.
Juniper, Rocky Mountain * *(Juniperus scopulorum)*	variable	broadly columnar	s - m	L	Foliage color varies from green to blue-green.
'Blue Heaven'	12' x 6'	columnar	s - m	L	Dense, blue foliage.
'Cologreen'	12' x 10'	broadly columnar	s - m	L	Dense, medium to dark green foliage, abundant fruit.
'Grey Gleam'	12' x 6'	conical	s	L	No fruit; dense, grey foliage.
'Moonglow'	15' x 10'	broadly columnar	s - m	L	Dense, silver-blue foliage.
'Pathfinder'	12' x 6'	conical	s - m	L	Sparse fruit, blue-gray foliage.
'Skyrocket'	12' x 3'	narrowly columnar	s - m	L	Very narrow & spruce-like, subject to snow damage, formerly listed as *J. virginiana* 'Skyrocket'
'Sutherland'	12' x 8'	broadly columnar	s - m	L	Dense, blue-green foliage, abundant fruit.
'Welchii'	8' x 6'	broadly columnar	s - m	L	Blue-green to medium green foliage.
'Wichita Blue'	12 x 8	broadly columnar	s - m	L	Good blue foliage color.
Juniper, Eastern Redcedar *(Juniperus virginiana)*	40' x 15'	conical	s - m	L	Open, horizontal branching, foliage turns brownish in winter.
'Canaertii'	20' x 10'	conical	s - m	L	Abundant whitish blue fruit contrasts with green foliage.
'Hillspire' 'Cupressifolia'	15' x 6'	conical	s - m	L	Columnar, with bright green foliage.
'Manhattan Blue'	20' x 15'	broadly columnar	s - m	L	Foliage blue-green becoming med. green in winter, open growth habit.
Pine, Austrian (*Pinus nigra)*	50' x 25'	broadly columnar	m	M	3-5", dark green needles, tolerates many soil types and urban pollution.
Pine, Bristlecone * (*Pinus aristata)*	20+' x 10+'	irregular	s	L - M	Shorter dark green needles with white resin dots, specimen plant.
Pine, Eastern white (*Pinus strobus)*	50' x 20'	broadly columnar	m - f	M	Horizontal branching; fine-textured blue-green needles, best in protected sites.
Pine, Limber * (*Pinus flexilis)*	40' x 20'	broadly columnar	m	L - M	Wind-tolerant and adaptable to dry soils, very flexible branches, needles about 3".

Pine, Southwestern white * *(Pinus flexilis reflexa)*	40' x 20'	broadly columnar	m - f
Pine, Lodgepole * *(Pinus contorta latifolia)*	50' x 20'	conical	m
Pine, Mugo *(Pinus mugo)*	variable	irregular	m
Pine, Pinyon * *(Pinus edulis)*	20' x 10'	broadly columnar	s - m
Pine, Ponderosa * *(Pinus ponderosa)*	60' x 25'	broadly columnar	m
Pine, Scotch *(Pinus sylvestris)*	40' x 25'	broadly columnar	m
Spruce, Colorado * *(Picea pungens)*	60' x 25'	broadly columnar	m
Spruce, Colorado Blue * *(Picea pungens glauca)*	60' x 25'	broadly columnar	m
'Hoopsii'	45' x 15'	broadly columnar	m
'Koster'	45' x 15'	broadly columnar	m
'Moorheim'	35' x 15'	broadly columnar	m
Spruce, Engelmann * *(Picea engelmannii)*	50' x 20'	broadly columnar	m
Spruce, Norway *(Picea abies)*	50' x 25'	broadly columnar	m - f
Spruce, White *(Picea glauca)*	40' x 15'	broadly columnar	m
Spruce, Black Hills *(Picea glauca densata)*	30' x 15'	conical	s
Dwarf Alberta Spruce *(Picea glauca* 'Conica')	10' x 4'	conical	s
Arborvitae, Eastern or American *(Thuja occidentalis)*	20' x 10'	conical	s
'Pyramidalis'	15' x 5'	columnar	s
'Smaragd' (Emerald)	12' x 4'	columnar	s
'Techny'	12' x 8'	broadly columnar	s

[1] Narrowly columnar; coloumnar; conical; broadly columnar
[2] *Growth rate: s = slow; m = moderate; f = fast*
[3] *Soil moisture: H = high; M = medium; L = low*
* *Native to Colorado*

L - M	Blue-green needles, very similar to Limber Pine, not readily available, should beused more.
L - M	Shorter yellowish-green needles. Best above 7000'.
L - M	Extremely variable growth habit. Some tree-like to shrubby; dwarf forms sold commonly for landscapes.
L	Not suited for frequently watered lawn areas, edible seeds may not develop dependably in urban landscapes.
L	Longer yellow-green needles. Older trees develop cinnamon-brown bark.
M	Sharp, blue-green twisted needles. Mature bark is orange-brown.
H	Needles short, sharp, green to blue-green. Colorado State Tree.
H	Needles short, sharp, blue. Several varieties selected for blue color needles.
H	Intense silver-blue needles.
H	Silver-blue needles, less dense.
H	More compact, with blue needles.
M - H	Needles blue-green, shorter and not as sharp as *P. pungens*, best above 7,000'.
M - H	Needles green, short; branches droop with age.
M	Short greenish-white needles, tree is adaptable.
M	Dense shorter foliage.
H	Subject to winterburn in windy sites; maintains dense, formal growth habit, best in protected sites.
H	Prefers higher humidity; subject to winterburn and snow damage.
H	More formal appearance; subject to winterburn and snow damage.
H	Dense, medium green foliage; subject to winterburn and snow damage.
H	Better cold tolerance, dark green foliage; subject to winterburn and snow damage.

Selection

Examine the intended planting space for good soil drainage, adequate sunlight and sufficient space to accommodate the desired evergreen tree at its mature size. Allow for clear access to driveways, sidewalks and entryways. Determine whether the tree's growth will affect any overhead utility lines.

In smaller sites, consider smaller trees or shrubs (See 7.418, *Small deciduous trees for privacy and color*; 7.414, *Evergreen shrubs for home grounds* or 7.415, *Deciduous shrubs for home grounds*.) Consider dwarf conifers for limited space areas.

Planting

Before planting, call the utility companies to mark the location of any underground lines to avoid damaging them while digging. Prepare soil before planting by adding organic materials (such as sphagnum peat moss, aged manure, shredded leaves or compost) in a 1 to 3-inch thick layer over the planting area.

Extend the planting area for several feet in all directions from the actual planting spot. Spade or rototill the organic materials into the soil and mix well before planting, 10 to 12 inches deep. (See 7.417, *How to plant trees and shrubs*.) If there is sufficient space, use several kinds of evergreens to add variety to the landscape.

Watering and Maintenance

The following list indicates the relative moisture needs of evergreens. Plant species with similar water needs in the same general area; do not mix trees with widely different water needs. Evergreens that need less moisture may work well on slopes. All evergreens usable in Colorado prefer well-drained soils; therefore, avoid planting them in swales or poorly-drained, soggy areas.

Evergreens that need less moisture do not do well in lawn areas because of the amount of water needed to sustain the lawn. Even for those trees that need more moisture and are compatible with lawn watering, leave the planting area free of sod (lawn) to allow for good root development. Sod roots will compete with tree roots for soil air, nutrients and water. An organic mulch is recommended over the entire planting area. (See 7.214, *Mulches for home grounds*).

Most evergreens growing in Colorado landscapes, whether recently transplanted or well-established, will benefit from supplemental water given during winter dry spells. Often such spells are characterized by drying winds or unseasonably warm temperatures, further emphasizing the need for watering. (See 7.211, *Fall and winter watering*, and 7.226, *Care of young transplanted trees*.

For gardeners above 6,000 feet, many of the plants listed are not adaptable. Refer to 7.408, *Trees for mountain communities* for specific recommendations.