



# TREES & SHRUBS

## Evergreen Trees

no. 7.403

by R.A. Cox and J.E. Klett<sup>1</sup>

### Quick Facts...

Most evergreens prefer full sun; some will tolerate partial shade.

When selecting evergreens, consider available space, soil and site conditions, and weather factors.

Evergreens have different soil moisture preferences. Group drought-tolerant types separately from those that require more moisture.

All evergreens benefit from mulches. All need sufficient water to become established after transplanting.

Most evergreens benefit from supplemental water during dry, warm or windy periods from November to 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 to deflect or intercept winter winds. (See fact sheet 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 it is a natural process. Other evergreens may have needle lifespans of two to 17 years, depending on the species.

### 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.

On smaller sites, consider smaller trees or shrubs. (See 7.418, *Small Deciduous Trees*, 7.414, *Evergreen Shrubs* or 7.415, *Deciduous Shrubs*.) Consider dwarf conifers for limited space areas. Several smaller or slower-growing evergreen cultivars are listed in Table 1, a reflection of today’s reduced lot sizes and construction styles.

### Planting

Before planting, call the utility companies to mark the location of any underground lines to avoid damaging them while digging. If there is sufficient space, use several kinds of evergreens to add variety to the landscape. Prepare soil before planting by adding organic materials (sphagnum peat moss, aged manure, shredded leaves or compost) in a 1- to 2-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 organic materials into the soil and mix well 10 to 12 inches deep before planting. (See 7.417, *How to Plant Trees and Shrubs*.)

### 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.

**Colorado  
State**  
University  
Cooperative  
Extension

*Putting Knowledge to Work*

© Colorado State University  
Cooperative Extension. 3/05.  
www.ext.colostate.edu

Evergreens that need less moisture may work well on slopes. All evergreens usable in Colorado prefer well-drained soils. Avoid planting them in swales or poorly-drained, soggy areas. Evergreens that need less moisture may 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 to allow for good root development. Sod roots compete with tree roots for air, nutrients and water in the soil. 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, benefit from supplemental water during winter dry spells. Often, such spells are accompanied 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, some of the plants listed are not adaptable. Refer to 7.423, *Trees and Shrubs for Mountain Areas* for specific recommendations. Refer to 7.421, *Native Trees for Colorado Landscapes* and 7.422, *Native Shrubs for Colorado Landscapes* for native evergreens.

**Table 1: Recommended evergreen trees for Colorado.**

Plant Name	Estimated Mature Size (H x W)	Tree Shape	Growth Rate <sup>1</sup>	Soil Moisture <sup>2</sup>	Comments and Cultural Hints
<b>Arborvitae</b>					
<i>Thuja occidentalis</i> Eastern or American arborvitae	20' x 10'	conical	s	H	Prefers higher humidity; all varieties listed below are subject to winterburn and snow damage.
‘Smaragd’ (‘Emerald’)	12' x 4'	columnar	s	H	Dense, medium green foliage.
‘Techny’	12' x 8'	broadly columnar	s	H	Better cold tolerance; dark green foliage.
<b>Fir</b>					
<i>Abies concolor</i> * White fir	60' x 20'	conical	m	M-H	Flat, blue-green needles; may winterburn in windy sites; may perform poorly in clay soils.
‘Candicans’	12' x 8'	narrowly columnar	m	M-H	Longer, silvery-blue needles.
<i>Abies koreana</i> ‘Hortsmann’s Silberlocke’	15' x 12'	broadly conical	s	M-H	Needles curved upright exposing silvery undersides, violet purple cones.
<i>Abies lasiocarpa</i> * ‘Glauca Compacta’	15' x 9'	broadly columnar	s	M-H	Slower growing with silver-blue foliage.
Blue Dwarf Rocky Mountain fir					
<i>Pseudotsuga menziesii</i> * Douglas-fir	60' x 20'	conical	m-f	M	Unique cones with “mouse-tail” bracts; more cold-tolerant and soil-adaptable.
<b>Juniper</b>					
<i>Juniperus chinensis</i> Chinese juniper					
‘Blue Point’	12' x 8'	broadly columnar	m	L	Slower growing with silver-blue foliage, blue-green fruit.
‘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.
‘Spearmint’	15' x 6'	conical	m	L	Dense, bright green foliage.
<i>Juniperus scopulorum</i> * Rocky Mountain juniper	variable	broadly columnar	s-m	L	Foliage color varies from green to blue-green.
‘Cologreen’	15' x 8'	broadly columnar	s-m	L	Dense, green foliage; abundant fruit.
‘Grey Gleam’	12' x 6'	conical	s	L	No fruit; dense, gray foliage.
‘Moonglow’	15' x 8'	broadly columnar	s-m	L	Dense, silver-blue foliage.
‘Skyrocket’	12' x 3'	narrowly columnar	s-m	L	Narrow; subject to snow damage; formerly listed as <i>J. virginiana</i> ‘Skyrocket’.
‘Tolleson’s Weeping’	18' x 10'	weeping	s-m	L	Weeping branches with silvery-blue foliage.

**Table 1, continued: Recommended evergreen trees for Colorado.**

Plant Name	Estimated Mature Size (H x W)	Tree Shape	Growth Rate <sup>1</sup>	Soil Moisture <sup>2</sup>	Comments and Cultural Hints
<b>Juniper, continued</b>					
'Welchii'	10' x 5'	broadly columnar	s-m	L	Blue-green to medium green foliage.
'Wichita Blue'	12' x 6'	broadly columnar	s-m	L	Bright blue foliage color.
<i>Juniperus virginiana</i> Eastern redcedar	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; bright green foliage.
'Manhattan Blue'	20' x 15'	broadly columnar	s-m	L	Foliage blue-green, turning medium green in winter; open growth habit.
<b>Larch</b>					
<i>Larix decidua</i> European Larch	45' x 18'	broadly columnar	m	M-H	A deciduous conifer. Needles in clusters that turn yellow in fall before dropping.
<b>Pine</b>					
<i>Pinus aristata</i> * Bristlecone pine	20' x 15'	irregular	s	L-M	Shorter, dark green needles with white resin dots; specimen plant.
<i>Pinus edulis</i> * Pinyon pine	20' x 15'	conical to rounded	s-m	L	Not suited for frequently watered lawn areas; edible seeds may not develop dependably in urban landscapes.
<i>Pinus flexilis</i> * Limber pine	40' x 20'	broadly columnar	m	L-M	Wind-tolerant; adaptable to dry soils; very flexible branches; needles about 2".
'Vanderwolf's Pyramid'	25' x 10'	conical	m	L-M	Blue-green needles with ascending branches.
<i>Pinus heldreichii</i> var <i>leucodermis</i> Bosnian Pine	18' x 10'	broadly columnar	s	L-M	Stiff, dark green needles in brush-like tufts.
<i>Pinus mugo</i> Mugo pine	variable	irregular	m	L-M	Variable growth habit; tree-like to shrubby; dwarf forms commonly sold for landscapes.
'Tannenbaum'	12' x 6'	broadly columnar	s	L-M	Good winter color and hardiness.
<i>Pinus nigra</i> Austrian pine	50' x 25'	broadly columnar	m	L-M	3-5", short dark green needles; tolerates many soil types and urban pollution.
'Arnold Sentinel'	15' x 5'	narrowly columnar	s	L-M	Dense, dark green needles.
'Teardrop'	15' x 5'	narrowly columnar	s	L-M	Dense, medium green needles.
<i>Pinus ponderosa</i> * Ponderosa pine	60' x 25'	broadly columnar	m	L	Longer, yellow-green needles; older trees develop cinnamon-brown bark.
<i>Pinus strobiformis</i> * Southwestern white pine	40' x 20'	broadly columnar	m-f	L-M	Blue-green needles; similar to limber pine; attractive elongated cones.
<i>Pinus strobus</i> Eastern white pine	50' x 20'	broadly columnar	m-f	M	Horizontal branching; fine-textured, blue-green needles; best in protected sites.
'Fastigiata'	35' x 12'	narrowly columnar	m	M	Fine textured blue-green needles.
'Pendula'	14' x 8'	weeping	m	M	Bluish-green needles on long branches that sweep the ground.
<i>Pinus sylvestris</i> Scotch pine	40' x 25'	broadly columnar	m	M	Blue-green, twisted needles; mature bark is orange-brown.
'Fastigiata'	15' x 5'	narrowly columnar	m	M	Tightly angled branches often damaged by snow storms.
<b>Spruce</b>					
<i>Picea abies</i> Norway spruce	50' x 25'	broadly columnar	m-f	M-H	Short green needles; branches droop with age.
'Cupressina'	15' x 5'	narrowly columnar	m-f	M-H	Good vertical accent; withstands snowloads.

**Table 1, continued: Recommended evergreen trees for Colorado.**

Plant Name	Estimated Mature Size (H x W)	Tree Shape	Growth Rate <sup>1</sup>	Soil Moisture <sup>2</sup>	Comments and Cultural Hints
<b>Spruce, continued</b>					
<i>Picea glauca</i> White spruce	50' x 20'	broadly columnar	m	M	Short, greenish-white needles; adaptable tree.
<i>Picea glauca var densata</i> Black Hills spruce	30' x 15'	conical	s	M	Dense, short, dark green needles.
<i>Picea pungens</i> * Colorado spruce	60' x 25'	broadly columnar	m	M-H	Needles short, sharp, green to blue-green.
<i>Picea pungens glauca</i> * Colorado blue spruce	60' x 25'	broadly columnar	m	M-H	Needles short, sharp, blue; several varieties selected for blue needles. Colorado state tree.
'Baby Blue Eyes'	15' x 8'	broadly columnar	s	M-H	Lighter blue needles, dense growth habit.
'Bakeri'	30' x 15'	broadly columnar	s	M-H	Brilliant blue needles and slightly irregular branching.
'Hoopsii'	45' x 15'	broadly columnar	m	M-H	Intense silver-blue needles.
'Fat Albert'	30' x 20'	broadly pyramidal	s	M-H	Outstanding blue-needed form with strong central leader.
'Iseli Fastigiata'	15' x 5'	narrowly columnar	s	M-H	Striking blue needles.
'R.H. Montgomery' (*Montgomery')	12' x 8'	broadly pyramidal	s	M-H	Striking silver-blue needles.
<sup>1</sup> Growth rate: s = slow; m = moderate; f = fast			<sup>2</sup> Soil moisture: H = high; M = medium; L = low		
* Native to Colorado					

<sup>1</sup>R.A. Cox, Colorado State University Cooperative Extension horticulture agent, Jefferson County; and J.E. Klett, Cooperative Extension landscape horticulturist and professor, horticulture and landscape architecture.

Colorado State University, U.S. Department of Agriculture and Colorado counties cooperating. Cooperative Extension programs are available to all without discrimination. No endorsement of products mentioned is intended nor is criticism implied of products not mentioned.