

TREES & SHRUBS

Evergreen Trees

by R.A. Cox and J.E. Klett 1

no. 7.403

Ouick 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.





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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.

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. 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 7.833, The Science of Planting 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 ¹	Soil Moisture ²	Comments and Cultural Hints
		•	Arborv	itae	
Thuja occidentalis Eastern or American arborvit	20' x 10' ae	conical	S	Н	Prefers higher humidity; all varieties listed below are subject to winterburn and snow damage.
'Smaragd' ('Emerald')	12' x 4'	columnar	S	Н	Dense, medium green foliage.
'Techny'	12'x 8'	broadly columnar	S	Н	Better cold tolerance; dark green foliage.
			Fir		
Abies concolor* 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.
Abies koreana 'Hortsmann's Silberlocke'	15' x 12'	broadly conical	S	M-H	Needles curved upright exposing silvery undersides, violet purple cones.
Abies lasiocarpa* 'Glauca Compacta' Blue Dwarf Rocky Mountain f	15′ x 9′ fir	broadly columnar	S	M-H	Slower growing with silver-blue foliage.
Pseudotsuga menziesii* Douglas-fir	60' x 20'	conical	m-f	М	Unique cones with "mouse-tail" bracts; more cold-tolerant and soil-adaptable.
			Junip	er	
Juniperus chinensis 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.
Juniperus scopulorum* 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 J. virginiana '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.

	Estimated				
Plant Name	Mature Size (H x W)	Tree Shape	Growth Rate ¹	Soil Moisture ²	Comments and Cultural Hints
i idiit ivaiiie	(11 × VV)	эпаре	Juniper, cor		Comments and Cultural Finits
'Welchii'	10' x 5'	broadly	s-m	L	Blue-green to medium green foliage.
WeiCilli	10 X 3	columnar	2-111	L	blue-green to medium green lonage.
'Wichita Blue'	12' x 6'	broadly	s-m	L	Bright blue foliage color.
		columnar			
Juniperus virginiana	40' x 15'	conical	s-m	L	Open, horizontal branching; foliage turns
Eastern redcedar					brownish in winter.
'Canaertii'	20' x 10'	conical	s-m	L	Abundant whitish-blue fruit contrasts with green
4.00 . 446	451 61				foliage.
'Hillspire' ('Cupressifolia') 'Manhattan Blue'	15' x 6'	conical	s-m	L	Columnar; bright green foliage.
Mannattan Blue	20' x 15'	broadly columnar	s-m	L	Foliage blue-green, turning medium green in winter; open growth habit.
		Columnal	Larcl		winter, open growth habit.
arix decidua	4E' v 10'	broadly			A deciduous conifer. Needles in clusters that turn
Larix decidua European Larch	45' x 18'	broadly columnar	m	M-H	yellow in fall before dropping.
Luiopean Laich		Columnai	Pine	<u> </u>	yellow in rail before dropping.
	201 651	t I			Chamban dankana II (1) 11
Pristlesene pine	20' x 15'	irregular	S	L-M	Shorter, dark green needles with white resin
Bristlecone pine Pinus edulis*	20' x 15'	conical to	s-m	L	dots; specimen plant. Not suited for frequently watered lawn areas;
Pinyon pine	20 X 13	rounded	3-111	_	edible seeds may not develop dependably in
i iiiyon piile		rouriaca			urban landscapes.
inus flexilis*	40' x 20'	broadly	m	L-M	Wind-tolerant; adaptable to dry soils; very
Limber pine		columnar			flexible branches; needles about 2".
'Vanderwolf's Pyramid'	25' x 10'	conical	m	L-M	Blue-green needles with ascending branches.
inus heldreichii var leucodern					
Bosnian Pine	18' x 10'	broadly	S	L-M	Stiff, dark green needles in brush-like tufts.
inus mugo		columnar			
inus mugo Mugo pine	variable	irregular	m	L-M	Variable growth habit; tree-like to shrubby;
Mugo pine	variable	irregulai	****	C-1VI	dwarf forms commonly sold for landscapes.
'Tannenbaum'	12' x 6'	broadly	S	L-M	Good winter color and hardiness.
		columnar			
Pinus nigra	50' x 25'	broadly	m	L-M	3-5", short dark green needles; tolerates many
Austrian pine		columnar			soil types and urban pollution.
'Arnold Sentinel'	15' x 5'	narrowly	S	L-M	Dense, dark green needles.
/T/	15/5/	columnar	_	1.04	D
'Teardrop'	15' x 5'	narrowly columnar	S	L-M	Dense, medium green needles.
Pinus ponderosa*	60' x 25'	broadly	m	L	Longer, yellow-green needles; older trees
Ponderosa pine	00 X Z J	columnar	111	L	develop cinnamon-brown bark.
Pinus strobiformis*	40' x 20'	broadly	m-f	L-M	Blue-green needles; similar to limber pine;
Southwestern white pine		columnar			attractive elongated cones.
Pinus strobus	50' x 20'	broadly	m-f	M	Horizontal branching; fine-textured, blue-green
Eastern white pine		columnar			needles; best in protected sites.
'Fastigiata'	35′ x 12′	narrowly	m	М	Fine textured blue-green needles.
'Dandula'	14/40/	columnar	n-	N 4	Physich group poodles on land have been the
'Pendula'	14' x 8'	weeping	m	М	Bluish-green needles on long branches that sweep the ground.
Pinus sylvestris	40' x 25'	broadly	m	М	Blue-green, twisted needles; mature bark is
Scotch pine	10 1 2 3	columnar	111	.*1	orange-brown.
'Fastigiata'	15' x 5'	narrowly	m	М	Tightly angled branches often damaged by
		columnar			snow storms.
			Sprud	ce	
Picea abies	50' x 25'	broadly	m-f	M-H	Short green needles; branches droop with age.
Norway spruce	30 A 23	columnar			z g. zz zzależ, złaneneż droop with uge.
'Cupressina'	15' x 5'	narrowly	m-f	M-H	Good vertical acent; withstands snowloads.
		columnar			

Table 1, continued: Recommended evergreen trees for Colorado.

Estimated Mature Size (H x W)	Tree Shape	Growth Rate ¹	Soil Moisture ²	Comments and Cultural Hints
		Spruce, cor	itinued	
50' x 20'	broadly columnar	m	М	Short, greenish-white needles; adaptable tree.
30' x 15'	conical	S	М	Dense, short, dark green needles.
60' x 25'	broadly columnar	m	M-H	Needles short, sharp, green to blue-green.
60' x 25'	broadly columnar	m	M-H	Needles short, sharp, blue; several varieties selected for blue needles. Colorado state tree.
15' x 8'	broadly columnar	S	M-H	Lighter blue needles, dense growth habit.
30' x 15'	broadly columnar	S	M-H	Brilliant blue needles and slightly irregular branching.
45′ x 15′	broadly columnar	m	M-H	Intense silver-blue needles.
30' x 20'	broadly pyramidal	S	M-H	Outstanding blue-needled form with strong central leader.
15' x 5'	narrowly columnar	S	M-H	Striking blue needles.
12' x 8'	broadly pyramidal	S	M-H	Striking silver-blue needles.
	(H x W) 50' x 20' 30' x 15' 60' x 25' 15' x 8' 30' x 15' 45' x 15' 30' x 20' 15' x 5'	(H x W) Shape 50' x 20' broadly columnar 30' x 15' conical 60' x 25' broadly columnar 60' x 25' broadly columnar 15' x 8' broadly columnar 30' x 15' broadly columnar 45' x 15' broadly columnar 30' x 20' broadly pyramidal 15' x 5' narrowly columnar 12' x 8' broadly	(H x W) Shape Rate¹ Spruce, con 50'x 20' broadly m columnar 30'x 15' conical s 60'x 25' broadly m columnar 60'x 25' broadly m columnar 15'x 8' broadly s columnar 30'x 15' broadly s columnar 45'x 15' broadly m columnar 45'x 15' broadly s columnar 30'x 20' broadly s pyramidal 15'x 5' narrowly s columnar 12'x 8' broadly s	(H x W) Shape Rate¹ Moisture² Spruce, continued 50'x 20' broadly m M columnar 30'x 15' conical s M 60'x 25' broadly m M-H columnar 60'x 25' broadly m M-H columnar 15'x 8' broadly s M-H columnar 30'x 15' broadly s M-H columnar 45'x 15' broadly m M-H columnar 45'x 15' broadly s M-H columnar 15'x 5' narrowly s M-H columnar 15'x 5' narrowly s M-H columnar 12'x 8' broadly s M-H

¹Growth rate: s = slow; m = moderate; f = fast * Native to Colorado

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