Trees for Oregon Cities: About Conifers

photo by Chris Schnepf, University of Idaho, courtesy www.forestryimages.org

Western Hemlock (Tsuga heterophylla)

photo by Dave Powell, US Forest Service, courtesy forestryimages.org

Engelmann spruce (Picea engelmannii)

Research consistently shows that trees growing in urban areas improve air quality, increase property values, and reduce crime. When we think of planting trees in cities, we often think of hardwoods - those shade and flowering trees that lose their leaves every fall. But since Oregon's native forest is primarily made up of evergreens - or conifers, these types of trees form the backdrop of our visual landscape. This publication includes a matrix of conifer trees suitable for planting in Oregon cities. These trees and their characteristics were compiled to help decision makers in Oregon cities determine optimum conifer selection for parks, roadways, housing and new development.

Why use a tree selection matrix? That's easy: "Right tree, Right place." The bottom line is, if you plant a thoughtfully-selected tree in a well-chosen site, that tree will, in due course, gracefully frame the entry to your home - or shade the front of your storefront. Research shows that you can sell your house for more money, and expect to have more shoppers paying higher prices for the goods they buy in business districts. Also, well-chosen, well-placed trees in parking lots provide shade for cars and reduce the amount of gasoline volatilized on hot days.

Although we don't recommend evergreen trees for most street-tree situations, they can provide visual interest and year-round shade near buildings and in parks. The Pacific Northwest has several native conifers that do well in many design situations. Additionally, native trees add a "sense of place" to new residential and industrial developments, along with providing visual and sound barriers between neighbors and different land uses.

While this matrix cannot make the tree choices for you, it can help you narrow down your tree "candidates" to a more manageable number. We have compiled the information on this matrix with homeowners, urban foresters, developers and builders, public works and planning professionals, parks specialists, and landscape designers in mind.

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Common Name	Botanical Name	Parking Strip Minimum Width (ft)	Powerline Compatible	Mature Height (ft)	Mature Spread (ft)	Poor Drainage Tolerant	Drought Tolerant	PNW Native	Maintenance Needs	View Obstruction potential?	Comments
Alaska-cedar	Chamaecyparis nootkatensis	10	N	60	25	N	N	Y	L	Y	Best in moist sites, away from direct sun
Atlas Cedar	Cedrus atlantica	10	N	70	40	N	Y	N	L	Y	Glauca' is natural blue-tinged variety
Austrian Black Pine	Pinus nigra	10	N	70	40	Y	Y	N	L	Y	Widely-planted urban pine
China-fir	Cunningham lanceolata	10	N	75	30	N	N	N	M	Y	Not cold-hardy; can have a "disheveled" look
Coast Redwood	Sequoia sempervirens	10	N	300	40	Y	N	Y	L	Y	Not happy in dry climates
Colorado Spruce	Picea pungens	10	N	60	20	N	Y	N	L	Y	**Caution:** highly insect prone
Dawn Redwood	Metasequoia glyptostroboides	10	N	100	25	Y	N	N	L	S	Deciduous conifer, may block views in summer
Deodar Cedar	Cedrus deodara	10	N	100	60	N	Y	N	L	Y	Widely-spreading tree with graceful drooping branches
Douglas-fir	Pseudotsuga menziesii	10	N	150	50	Y	Y	Y	L	Y	Oregon's state tree; needs good drainage
Engelmann Spruce	Picea engelmannii	10	N	100	25	N	N	Y	L	Y	Better for higher drier altitudes, shade tolerant
Giant Sequoia	Sequoiadendron giganteum	10	N	300	50	Y	Y	N	L	Y	Very fast growing, popular tree
Himalayan White Pine	Pinus wallichiana	10	N	120	80	Y	Y	N	M	Y	Does well in Hoyt arboretum; not widely planted
Hinoki Falsecypress	Chamaecyparis obtusa	10	N	75	20	N	N	N	L	Y	Ornamental with flattened sprays of leaves
Incense-cedar	Calocedrus decurrens	10	N	200	40	N	Y	Y	L	Y	Good for drier areas; very adaptable and trouble-free
Japanese Black Pine	Pinus thunbergiana	10	N	80	40	N	Y	N	L	Y	Does well in Portland area, not for dry sites
Japanese Cryptomeria	Cryptomeria japonica	10	N	100	40	N	N	N	L	Y	Graceful, feathery appearance; needs regular water
Lacebark Pine	Pinus bungeana	10	N	75	35	N	Y	N	L	Y	Has lovely mottled bark, good specimen tree for urban parks
Lodgepole Pine	Pinus contorta 'var.'	10	N	80	30	N	Y	Y	M	Y	Straight-trunk variety for Eastern OR areas
Noble Fir	Abies procera	10	N	100	25	Y	N	Y	L	Y	Grown for Xmas trees, better for higher elevations
Norway Spruce	Picea abies	10	N	120	40	N	N	N	L	Y	Lovely ornamental spruce; slow growing
Ponderosa Pine	Pinus ponderosa	10	N	150	40	N	Y	Y	L	Y	Plant natural variety, "valley pine," in Willamette Valley
Port Orford-cedar	Chamaecyparis lawsoniana	10	N	60	20	N	N	Y	L	Y	**Caution:** highly susceptible to root disease.
Scotch Pine	Pinus sylvestris	10	N	80	40	N	Y	N	M	Y	**Caution:** Does not age well
Shore Pine	Pinus contorta 'var.'	10	M	30	20	N	Y	Y	M	Y	Short and twisted form for coastal areas
Sitka Spruce	Picea sitchensis	10	N	180	40	N	N	Y	L	Y	Best for coastal parks, fog-loving
Spanish Fir	Abies pinsapo	10	N	25	10	N	Y	N	L	Y	Slow-growing; may be hard to find in trade
Western Hemlock	Tsuga heterophylla	10	N	150	40	Y	N	Y	L	Y	Shade- and moisture-loving tree
Western Juniper	Juniperus occidentalis	10	N	60	20	N	Y	Y	L	Y	Slow growing tree native to very dry areas
Western Larch	Larix occidentalis	10	N	150	40	Y	N	Y	L	S	Aka 'tamarack'; deciduous conifer, native to E Oregon
Western redcedar	Thuja plicata	10	N	200	40	Y	Y	Y	L	Y	Good for shady, moist areas
Western White Pine	Pinus monticola	10	N	60	30	N	Y	Y	L	Y	Avoid planting near Ribes (gooesberry) species - blister rust disease
White Fir	Abies concolor	10	N	100	40	Y	Y	Y	L	Y	Culitvar "Candicans" has very blue-white foliage

Landscaping: A note about fire safety and prevention

Conifers tend to be more flammable due to their oil and pitch content, while deciduous plants tend to be less flammable because their leaves have higher moisture content. Although there is no plant that will not burn given enough heat and the proper environmental conditions, fire-resistent landscape plants are essential when reducing wildfire risk. You can best prepare for wildfire, significantly reduce loss from wildlife, and make the area safer for firefighters by combining fire-resistent landscaping with fire-resistent construction and defensible space around property or homes.

What are fire-resistant plants?

Fire-resistant plants are plants that don't readily ignite from a flame or other ignition sources. Although fire-resistant plants can be damaged or even killed by fire, their foliage and stems don't contribute significantly to the fuel and fires' intensity.

Fire resistant does not mean fire proof.

Plants that are fire-resistant have the following characteristics:

- Leaves are moist and supple.
- Plants have little dead wood and tend not to accumulate dry, dead material.
- Sap is water-like and does not have a strong odor.

Most deciduous trees and shrubs are fire-resistant.

However, its important to remember that even fire-resistant plants can burn, particularly if they are not maintained in a healthy condition. Examples of such trees are ash, oak, maple, honeylocust.

In contrast, plants that are highly flammable have these general characteristics:

- Contain fine, dry or dead material within the plant such as twigs needles, and leaves.
- Leaves, twigs, and stems contain volatile waxes, terpenes, or oils.
- Leaves are aromatic (strong smell when crushed).
- Sap is gummy, resinous and has a strong odor.
- May have loose or papery bark.

Both ornamental and native plants can be highly flammable. An example of a highly flammable ornamental shrub often planted in home landscapes is ornamental juniper. Examples of highly flammable native shrubs include bitterbrush, manzanita, sagebrush, and ceanothus. Avoid planting these plants around your home.

Also, remember that trees and shrubs that have dead branches and leaves at or close to ground level create fuel ladders that can carry a fire from the ground into the canopy. You should disrupt the fuel ladder by pruning plants up off the ground and removing dead wood - using proper pruning techniques, of course - and isolate trees and large shrubs from their neighbors to disrupt fuel continuity in the crowns.

The giant sequoia - an Oregon Heritage tree - is located in Mt. Angel, Oregon, and was planted in 1893.

More Information:

For more information about trees, tree care, and urban forestry, see these online resources:

http://www.arborday.org/

http://oregonstate.edu/Dept/hort/

http://www.oregoncommunitytrees.org/

http://egov.oregon.gov/ODF/URBAN_FORESTS/urban_forests.shtml

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For more information:

Oregon Department of Forestry
2600 State St.
Salem, OR 97310
Phone: 503.945.7391
Fax: 503.945.7416