



**Pacific yew**  
*Taxus brevifolia*

**Small** conifer tree or large shrub with a square or twisted stem and a broad crown of slender horizontal branches. Young stems are often square in profile, eventually becoming cone-shaped with age. Yew wood is used for archery bows and canoe paddles. A chemical called taxol, extracted from yew bark, was found to be an effective cancer treatment.

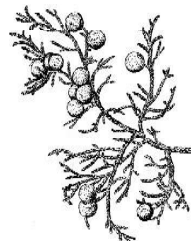
**RANGE:** Southern British Columbia, the Cascades of Washington and Oregon, northern Sierras, eastern Oregon and Washington, northern Idaho, and northwestern Montana.

**HEIGHT:** Up to 40' in the Blue Mountains.

**NEEDES:** 1" long. Have a distinctive pointed tip and form two opposite rows along branches.

**FRUITS:** Poisonous. Coral-red fleshy (berry-like) cup that is open at one end and contains a single seed.

**BARK:** Outer bark scales are thin and purplish, covering a reddish inner bark.



**Western juniper**  
*Juniperus occidentalis*

**Small** conifer tree or a large shrub, often with branches extending all the way to the ground. Old trees become scraggly and gnarled with age. Western juniper occupies the driest and hottest forest environments in eastern Oregon.

**RANGE:** Central and southeastern Washington, south through most of eastern Oregon, and in northeastern California along the eastern slopes of the Sierras.

**HEIGHT:** Up to 75' in the Blue Mountains.

**NEEDES:** A combination of scale-like and awl-like needles. The back of each needle has a white or clear resin dot.

**FRUITS:** Small, round, blue "berry" with a bluish-white coating that can be rubbed off. The resin inside these berries has a strong distinctive odor.

**BARK:** Thin, reddish-brown, furrowed (on older trees) and fibrous or shredded.



**Engelmann spruce**  
*Picea engelmannii*

**Tall** conifer tree found on moist sites at moderate elevations in the mountains, and on cold sites at high elevations where it forms mixed forests with subalpine fir. Branches in the upper crown generally stick straight out whereas branches near the ground tend to droop.

**RANGE:** Throughout the mountainous west, including central and southern British Columbia and the Rockies and Cascades in the United States (Montana and Washington south to New Mexico and Arizona).

**HEIGHT:** Up to 210' in the Blue Mountains.

**NEEDES:** 1" long. Bluish-green, four-sided, sharp and stiff. Protruding from all sides of the twigs. Has a strong, pleasant odor when crushed.

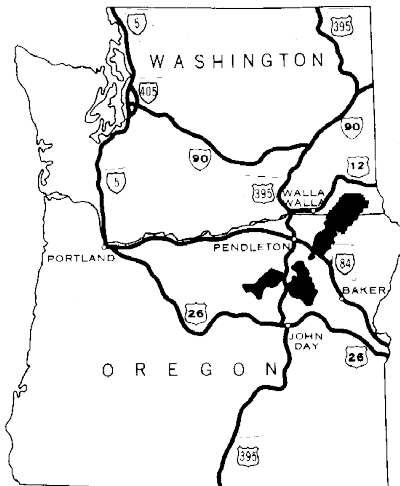
**CONES:** Up to 3" long. Cones hang down from the upper branches and are yellowish to purplish-brown. The thin, papery cone scales have a ragged outer edge.

The Umatilla National Forest includes a wide variety of coniferous forests of ponderosa, lodgepole, and western white pines; grand, subalpine, and Douglas firs; as well as Engelmann spruce and Western larch. The Forest encompasses about 1.4 million acres ranging in elevation from about 1,900 feet to over 7,000 feet.

Interstate 84 roughly divides the Umatilla National Forest into two distinct areas. The north half is characteristically wetter with deep incisive valleys and is compromised of the moist-forest tree types such as grand and subalpine firs. The southern half of the Forest is generally dryer with flat to rolling topography and hosts extensive stands of lodgepole pine and park-like groves of ponderosa pines. Lower elevations across the Forest primarily consist of ponderosa pines, while mid-elevation habitats include mixed stands of grand fir, Douglas-fir, lodgepole pine and western larch trees. Above 5,000 feet there are stands of subalpine fir and Engelmann spruce.

Western white pines are usually scattered among other trees instead of occurring in pure stands, although an introduced disease, white pine blister rust, has seriously reduced its numbers. Western juniper occupies the driest and hottest forest environments in eastern Oregon, often occurring in the zone between low elevation sagebrush and ponderosa pine. Western juniper has expanded greatly in the last 50 years and is expected to become the most common forest type in Oregon. Pacific yew is generally found in the understory in moist cool sites.

In autumn, western larch or tamarack trees provide most of the fall color in the Blue Mountains since deciduous hardwood species such as quaking aspen and black cottonwood are relatively uncommon to the area. The fall color of western larch trees varies from year to year from lemon yellow to a tawny, russet color.



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## Conifer Trees of the Umatilla National Forest



United States  
Department of  
Agriculture



Forest Service  
Pacific Northwest  
Region

Umatilla  
National  
Forest



**Ponderosa pine**  
***Pinus ponderosa***

Old trees have a thick, stout stem and an open, flat-topped crown. Ponderosa pine is highly resistant to wildfire because of its thick bark, deep roots, open stands, and clear stems free of lower limbs.

**RANGE:** One of the most widely distributed conifers in the west, extending from South Dakota to the Pacific coast, and from southern British Columbia to northern Mexico.

**HEIGHT:** Up to 190' in the Blue Mountains.

**NEEDLES:** 5-10" long in bundles of 3. Medium-green.

**CONES:** 3-6" long. Woody, oval cones with a sharp tip on each cone scale.

**BARK:** Dark brown or black on young trees, and yellow, orange, or cinnamon on old trees. Older trees have grooved, flat flaky plates that look like jigsaw puzzle pieces.



**Western white pine**  
***Pinus monticola***

Large conifer tree with a straight stem and a narrow, open crown of slightly drooping branches. In the Blue Mountains, western white pine is usually scattered among other trees instead of occurring in pure stands.

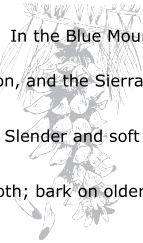
**RANGE:** Southern British Columbia, northwestern Montana, northern Idaho, Washington, Oregon, and the Sierras of California.

**HEIGHT:** Up to 200' in the Blue Mountains.

**NEEDLES:** 2-4" long in bundles of 5. Bluish-green with a whitish tinge or cast on one surface. Slender and soft to the touch.

**CONES:** 6-12" long. Narrow and curving, generally red-brown or gray-brown in color.

**BARK:** Dark gray on older trees, and gray-green on younger trees. Young bark is thin and smooth; bark on older trees occurs as thick plates that are square or rectangular in a "checkerboard" pattern.



**Lodgepole pine**  
***Pinus contorta***

Small conifer tree with a straight, slender stem and a short crown at the top. Often occurs in dense thickets following wild-fires because some cones are sealed with resin and may not open until heated by fire. Often used by Native Americans for tipi poles.

**RANGE:** Occupies the widest range of altitudes and latitudes in North America from Alaska and the Yukon south to northern New Mexico.

**HEIGHT:** Up to 120' in the Blue Mountains.

**NEEDLES:** 1-3" long in bundles of 3. Dark or lime green needles are slightly twisted and have a sharp tip.

**CONES:** 1-3" long. Egg-shaped cones cling closely to the branches, often occurring in knobby clusters. The cone scales have sharp prickles at the tips.



**Douglas-fir**  
***Pseudotsuga menziesii***

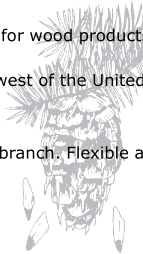
Large conifer tree with a dense, thick crown and ascending, drooping branches. Highly valued for wood products and is a popular Christmas tree variety.

**RANGE:** Western North America from southern British Columbia, throughout the mountainous west of the United States, and as far south as central Mexico.

**HEIGHT:** Up to 180' in the Blue Mountains.

**NEEDLES:** 1½" long. The dark-green or blue-green needles stick out in all directions from the branch. Flexible and soft to the touch.

**CONES:** 2-4" long with 3-pointed bract protruding from between scales.



**Grand fir**  
***Abies grandis***

Tall, stately conifer tree with a dense, thickly layered crown. On older trees, the crown may often appear domelike. Like other true firs, grand fir has thin bark and other traits that make it susceptible to forest fires. "Grand" refers to its large size.

**RANGE:** The Pacific coast region from British Columbia to California, and central Idaho and eastern Oregon.

**HEIGHT:** Up to 200' in the Blue Mountains.

**NEEDLES:** 1-2" long. Flat with rounded and notched tips. Dark-green on top with two white bands underneath, forming two opposite rows along branches.

**CONES:** 2-4" long. Barrel-shaped cones are produced erect on the upper branches. Yellowish-green or tan to light brown.

**BARK:** Smooth and grayish brown on young trees, eventually turning an ashy brown color and becoming deeply furrowed on older trees. The bark of young trees produces large "blisters" (pouches) containing a fragrant, sticky resin called balsam.



**Subalpine fir**  
***Abies lasiocarpa***

Medium-sized conifer with a slender, spire-like crown that sheds heavy snows. May be dwarfed and shrubby near upper treeline where the weather is harsh.

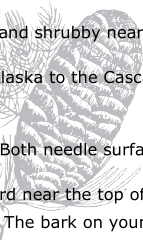
**RANGE:** Western North America at high elevations in the mountains, ranging from Yukon and Alaska to the Cascade Mountains, east to Montana and Wyoming, and south in the Rocky Mountains to New Mexico and Arizona.

**HEIGHT:** Up to 150' in the Blue Mountains.

**NEEDLES:** Short, bluish-green needles twist so that even the lower ones point toward the sky. Both needle surfaces have whitish bands.

**CONES:** 2-4" long. The purplish, seed-bearing cones stand upright instead of hanging downward near the top of the tree.

**BARK:** Gray and smooth on young trees, becoming broken into large blocks or plates with age. The bark on young trees has



**Western larch**  
***Larix occidentalis***

The needles of this unusual conifer turn a brilliant yellow color in autumn and drop off the tree. Because of its thick bark, deep roots, open crown, and low flammability, it is considered the most fire-resistant conifer in the Blue Mountains.

**RANGE:** Interior Pacific Northwest, including southern British Columbia northern and central Idaho, northwestern Montana, and eastern Oregon and Washington.

**HEIGHT:** Up to 190' in the Blue Mountains.

**NEEDLES:** 1" long, soft green needles in bunches of 15 to 30 on a short woody stub on the stem.

**CONES:** 1½" long. Brown, round or oval with short, slender bracts protruding between scales.

**BARK:** Thick and deeply furrowed on older trees.

