

Plant Profiles: HORT 2242 Landscape Plants II

Botanical Name: *Pinus ponderosa*

Common Name: ponderosa pine, western yellow pine

Family Name: Pinaceae – pine family

General Description: As the botanical and common name implies, *Pinus ponderosa*, is native to western United States where it grows in diverse habitats and elevations. It is a valuable timber tree and one of the largest pines in western forests. Ponderosa pine seems to struggle in the Chicago area and is not regularly planted in the landscape.

Zone: 3-6 or 7

Resources Consulted:

Dirr, Michael A. *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses*. Champaign: Stipes, 2009. Print.

"The PLANTS Database." *USDA, NRCS*. National Plant Data Team, Greensboro, NC 27401-4901 USA, 2014. Web. 21 Jan. 2014.

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Keywords/Tags: Pinaceae, tree, conifer, cone, needle, evergreen, *Pinus ponderosa*, ponderosa pine



Whole plant/Habit:

- Description: *Pinus ponderosa* can vary in habit but is often a broad pyramidal shape when young with dense foliage.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: August 22, 2010
- Image File Name: ponderosa_pine_1180413.png



Whole plant/Habit:

- Description: Mature ponderosa pines generally have a narrow crown with an irregular shaggy appearance.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: August 29, 2008
- Image File Name: ponderosa_pine_1040312.png



Bark:

- Description: The mature bark is scaly and gray/black. It almost looks reptilian. Books often describe the bark as having phases with cinnamon or yellowish color but the bark I have seen on mature trees is mostly gray.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: August 29, 2008
- Image File Name: ponderosa_pine_3119.png



Branch/Twig:

- Description: The stems of ponderosa pine are stout. The bottom image illustrates the stem color of a young stem. The top image shows a more mature stem turning almost black. The stems reportedly smell like vanilla when bruised.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: September 7, 2008 - October 4, 2008
- Image File Name: ponderosa_pine_3596s.png





Bud:

- Description: The bud is oblong/cylindrical, reddish brown and resinous. The bud is not a distinctive identification feature. Notice, however, the immature female cone already showing the sharp prickle on the umbo.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 1, 2008
- Image File Name: ponderosa_pine_0268.png



Flower:

- Description: Though not true flowers the reproductive structures on pines are often referred to as such. Pines are monoecious; producing male pollen cones (on left) and separate female seed cones (on right) all on the same plant. Male pollen cones are clustered at the base of new growth. Female cones form near the tip of new growth. The color phases can vary according to species. Note: This photo is meant to show general images for “flowers”. The images are not from the same pine species and may not be of the same species referenced in this Plant Profile.
- Image Source: Karren Wcisel – TreeTopics.com
- Image Date: Early June
- Image File Name: pinus_flower-00.png



Cone:

- Description: The cone of ponderosa pine is distinctive and is a good identification tool. It is 3-6 inches long, yellowish brown, with a sharp prickled umbo.
- NOTE: The thickened exposed part of each cone scale is called the *apophysis*. The *umbo* is the terminal protuberance on the tip of the apophysis. The umbo may be prickled or just slightly raised or pointed.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: January 29, 2011
- Image File Name: ponderosa_pine_1240923.png



Leaf Number/Attachment:

- Description: *Pinus ponderosa* is a 2 and 3-needle pine. It is common to find bundles of 2 needles and bundles of 3 needles all on one stem. This is an excellent identification feature.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 1, 2008
- Image File Name: ponderosa_pine_0274s.png



Leaf Number/Attachment:

- Description: The dark green to gray-green needles are long (5-10 inches), curved and stiff. They persist for 3 years and are crowded near the tip of the stems.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: August 29, 2008
- Image File Name: ponderosa_pine_3123.png



Winter interest:

- Description: Ponderosa pine has a gray cast to the needles and bark and a shaggy appearance throughout the year. However, some find the longer needles of ponderosa pine offer a textural and visual interest to the winter landscape.
- Image Source: Karren Wcisel – TreeTopics.com
- Image Date: October 1, 2008
- Image File Name: ponderosa_pine_1050137.png



Special ID feature(s):

- Description: Bundles of 2 and 3 needles on a stem confirms the identification of *Pinus ponderosa*. The sharp prickled umbo is another excellent identification feature.
- Image Source: Karren Wcisel – TreeTopics.com
- Image Date: August 29, 2008
- Image File Name: ponderosa_pine_3128.png