

Plant Profiles: HORT 2242 Landscape Plants II

Botanical Name: *Pinus flexilis*

Common Name: limber pine

Family Name: Pinaceae – pine Family

General Description: *Pinus flexilis* is a slow growing pine native to western United States. It is especially common in the Rocky Mountains where it grows at high elevations in rocky, dry, harsh conditions. Long-lived, there are specimens in the west considered to be well over 1000 years old. In the Chicago area, limber pine is a useful landscape plant tolerant of wind, alkaline soils, and occasional drought. Less sensitive to urban conditions than *Pinus strobus*, limber pine could prove a suitable substitute. There are several cultivars available in the trade; most noteworthy is 'Vanderwolf's Pyramid' a compact upright pyramidal tree with blue-green foliage.

Zone: 4-7

Resources Consulted:

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

Johnson, Kathleen A. "Pinus flexilis." *In: Fire Effects Information Systems*. U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station, Fire Sciences Laboratory (Producer), 2001. Web. 20 Jan. 2014.

"The PLANTS Database." *USDA, NRCS*. National Plant Data Team, Greensboro, NC 27401-4901 USA, 2014. Web. 20 Jan. 2014.

Swink, Floyd, and Gerould Wilhelm. *Plants of the Chicago Region*. Indianapolis: Indiana Academy of Science, 1994. Print.

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



Whole plant/Habit:

- Description: *Pinus flexilis* is a broad pyramidal tree becoming more flat-topped with age.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: May 16, 2009
- Image File Name: limber_pine_1130630.png

**Bark:**

- Description: Mature bark is gray, fissured and scaly.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: March 16, 2008
- Image File Name: limber_pine_1020855.png

**Branch/Twig:**

- Description: The smooth gray stems and needles crowded at the tip look similar to *Pinus strobus*. However, the needles of limber pine are much thicker and darker green and the young stems are very flexible. They can actually be tied in knots!
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: March 6, 2009
- Image File Name: limber_pine_1110594.png

**Bud:**

- Description: The narrow buds are pointed. They are not usually used as an identification tool.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: September 7, 2008
- Image File Name: limber_pine_3585.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 cones of limber pine are typical of a 5-needle pine in that they are longer than broad. However, the limber pine cone is chunky. The tips (apophyses) of the scales are thick and have heavy drops of white resin. It is easy to identify this species by cone.
- 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: limber_pine_1240912.png



Cone/Seed:

- Description: The seeds of limber pine are thick and have very little, if any, wing on the seed. If seeds are not present will still see large depression on scales where the seeds formed. Not important for identification but interesting.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: January 29, 2011
- Image File Name: limber_pine_1240914.png

**Leaf Number/Attachment:**

- Description: *Pinus flexilis* is a 5-needle pine. The needles are thick and crowded near the tip of the branch.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: March 6, 2009
- Image File Name: limber_pine_1110597.png

**Leaf Number/Attachment:**

- Description: The needles are dark green to slightly blue-green due to the stomatal lines on the needle. The thick needles sometimes clump together so upon first inspection there does not appear to be 5 needles in the bundle.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: November 14, 2010
- Image File Name: limber_pine_1230221.png

**Winter interest:**

- Description: The dark green foliage adds to the winter landscape.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: December 28, 2010
- Image File Name: limber_pine_1240390.png



Special ID feature(s):

- Description: The silhouette of *Pinus flexilis* can look very similar to *Pinus strobus*. To identify limber pine look for the dark, thick leaves and flexible stems that can be twisted and tied. But don't do this on a cold day or damage could occur! The thick scaled cone with resin is also a good identification tool.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: March 6, 2009
- Image File Name: limber_pine_1110600.png