

## Plant Profiles: HORT 2242 Landscape Plants II

**Botanical Name:** *Picea glauca*

**Common Name:** white spruce

**Family Name:** Pinaceae – pine family

**General Description:** *Picea glauca* is a large evergreen conifer widely distributed across the northern parts of North America. It is not, however, native to the Chicago area. The straight species is not considered highly ornamental compared to other spruces but with its ability to withstand cold, heat, wind and drought it is a very serviceable tree especially when used as a wind break. There are a few varieties and cultivars available in the trade. The most commonly used cultivar is *Picea glauca* 'Conica' (sometimes listed as *P. glauca* var. *conica*).

**Zone:** 2-6

**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. 19 Feb. 2014.

**Creator:** Julia Fitzpatrick-Cooper, Professor, College of DuPage

**Creation Date:** 2014

**Keywords/Tags:** Pinaceae, tree, conifer, cone, needle, evergreen, *Picea glauca*, white spruce



**Whole plant/Habit:**

- Description: *Picea glauca* is a broad dense conical tree, especially when young. The mature habit can vary but it generally is a narrow conical form.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: September 21, 2008
- Image File Name: white\_spruce\_4039.png



#### Branch/Twig:

- Description: The stem is described as being pinkish-brown, glabrous and sometimes glaucous. Color can be relative I guess as I usually see more of a chalky white color. If you look closely at this image you will see the chalky, light colored stem peeking through the foliage.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 1, 2011
- Image File Name: white\_spruce\_1250036.png



#### Bud:

- Description: The buds of white spruce are reddish-brown with a slightly rounded tip.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: August 10, 2008
- Image File Name: white\_spruce\_2629c.png



#### Flower:

- Description: Though not true flowers, the reproductive structures on *Picea* are often referred to as such. Spruce is monoecious; producing male pollen cones and separate female seed cones all on the same plant. Male pollen cones are axillary and are either single or clustered. Female cones are produced at the tip of new growth. The color phases can vary according to species. Both images in this photo are *Picea glauca*.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 5, 2012
- Image File Name: white\_spruce\_1360064s.png





#### Cone:

- Description: All species of spruce produce cones primarily in the upper 1/3 of the tree. *Picea glauca* produces a large number of cones.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: August 10, 2008
- Image File Name: white\_spruce\_3266.png



#### Cone:

- Description: The slender, cylindrical cones of white spruce are small, especially in comparison with the cones of *Picea pungens* with which *Picea glauca* can sometimes be confused.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 1, 2011
- Image File Name: white\_spruce\_1250035.png



#### Cone:

- Description: The size, shape, color and texture of the cones of *Picea* confirm the identity of the species. Even the scale margin features can be important. Utilizing *Manual of Woody Landscape Plants: Their Identification, Ornamental Characteristics, Culture, Propagation and Uses* by Michael Dirr (or other reputable source) study the botanical descriptions of spruce cones to become proficient in species identification.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: March 28, 2011
- Image File Name: picea\_cones\_1270356.png



#### Leaf Number/Attachment:

- Description: Typical of all spruces there is one needle attached to a peg. The needles are gray green to blue green, less than 1 inch long, stiff and sharp pointed (but not as stiff and sharp as *Picea pungens*). The needles reportedly have a disagreeable odor when bruised (some say they smell like cat urine).
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: September 21, 2008
- Image File Name: white\_spruce\_4036.png



#### Winter interest:

- Description: Typical evergreen qualities in winter.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 19, 2014
- Image File Name: white\_spruce\_4533.png



#### Special ID feature(s):

- Description: *Picea glauca* can, at first glance, be confused with *Picea pungens*. However, the less prickly needles and the small, light brown, cylindrical cones help confirm the identity of *Picea glauca*.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: September 21, 2008
- Image File Name: white\_spruce\_1040612.png