

Plant Profiles: HORT 2242 Landscape Plants II

Botanical Name: *Picea omorika*

Common Name: Serbian spruce

Family Name: Pinaceae – pine family

General Description: *Picea omorika* is a slender, graceful evergreen tree that should be used more in the landscape. Though not widely planted, it is highly recommended for use in the Chicago area. It performs well in full sun to light shade and prefers alkaline soils. It is more tolerant of heat, humidity and pollution than many other spruces and once established can withstand occasional drought. Native to Europe, Serbian spruce has one of the smallest ranges of any spruce. It resides in a small area of southern Europe with a population of less than 1000 trees and is considered a vulnerable species in the wild. It is, however, cultivated for landscape use and has several uniquely beautiful cultivars available in the trade.

Zone: 4-7

Resources Consulted:

Davis, Becke. "ILCA Presents-Spruce: A Most Elegant Evergreen." *Landscape Contractor* January 2003: 41-44. Print.

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

"Vanishing Acts Resource Guide: Serbian Spruce (*Picea omorika*)." *Science & Conservation*. Morton Arboretum, 2011. Web. 17 Feb. 2014.

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Keywords/Tags: Pinaceae, tree, conifer, cone, needle, evergreen, *Picea omorika*, Serbian spruce



Whole plant/Habit:

- Description: *Picea omorika* has a narrow pyramidal habit with short pendulous branches that ascend or “flip up” at the tip. This slender spire-like habit is distinctive and is a useful identification feature.
- Image Source: Karren Weisel, TreeTopics.com
- Image Date: May 23, 2012
- Image File Name: serbian_spruce_0477.png

**Bark:**

- Description: Thin, brownish and slightly scaly, the bark is not an important identification tool.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 19, 2014
- Image File Name: serbian_spruce_4393.png

**Branch/Twig:**

- Description: The branches have the distinctive characteristic of flipping up at the tip exposing the silvery-blue underside of the needles. The pendulous branchlets add to the overall graceful habit of this tree.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 19, 2014
- Image File Name: serbian_spruce_4411.png

**Bud:**

- Description: As with all plants in the genus *Picea* Serbian spruce has terminal buds and lateral buds. The buds are ovoid with imbricate scales that are often reflexed. The buds may or may not be resinous. Buds are not particularly useful for identification.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 8, 2011
- Image File Name: serbian_spruce_1250344.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.
- Note: This photo is meant to show general images for “flowers”. These images are of *Picea glauca*, not the species referenced in this Plant Profile.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 5, 2012
- Image File Name: white_spruce_1360064s.png



Cone:

- Description: Serbian spruce cones are produced at the tip of new growth. They are small, only 1.25 – 1.75 inches long and oblong in shape. They go through a violet, dark blue to almost black phase before maturing a cinnamon brown color. Cones will always be a good identification feature on any conifer.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 15, 2011
- Image File Name: serbian_spruce_1250724.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/Leaf Attachment:

- Description: Typical of all spruces, Serbian spruce has one needle attached to a peg (pulvini). However, Serbian is unique among spruces in that its needles are not 4-sided. They are flat, more like a hemlock leaf.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: May 23, 2012
- Image File Name: serbian_spruce_0465.png



Leaf/Leaf Attachment:

- Description: The needles are dark green on top and have very obvious glaucous white stomatal lines on the bottom. The overall effect is a beautiful silvery blue contrast of the flipped up branch tips against the dark green foliage on the rest of the tree. These foliage features provide excellent identification features.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 8, 2011
- Image File Name: serbian_spruce_1250346.png



Winter interest:

- Description: This graceful tree looks even more elegant with snow accentuating its unique branching habit.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 8, 2011
- Image File Name: serbian_spruce_1250350.png



Special ID feature(s):

- Description: The ascending or flipped up tips of the branches exposing the silvery blue underside of the flat needles will serve as excellent identification features.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 8, 2011
- Image File Name: serbian_spruce_1250348.png