

## Plant Profiles: HORT 2242 Landscape Plants II

**Botanical Name:** *Pseudotsuga menziesii*

**Common Name:** Douglasfir, Douglas-fir, Douglas fir

**Family Name:** Pinaceae – pine family

**General Description:** *Pseudotsuga menziesii* is highly valued as a timber tree, as a stately forest tree and as an ornamental tree for the landscape. It is native to North America throughout the Rocky Mountains and Pacific coast where it is typically the largest tree in the forest. *Pseudotsuga menziesii* is considered one of the largest trees in the world. Even under cultivation here in the Midwest it can reach well over 40 foot tall. The Rocky Mountain geographical variety *Pseudotsuga menziesii* var. *glauca* is considered the best choice for use in the Chicago area as it has better winter hardiness. Douglasfir is best used on large scale sites, in full sun and in moisture retentive soils. Wind and drought is problematic for this plant. There are several cultivars available from specialty nurseries, primarily selected for foliage and form qualities. The cultivars may be better suited for the residential landscape than the species.

**Zone:** (3)4-6

**Resources Consulted:**

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

*Missouri Botanical Garden*. Missouri Botanical Garden, n.d. Web. 19 Feb. 2014.

"The PLANTS Database." *USDA, NRCS*. National Plant Data Team, Greensboro, NC 27401-4901 USA, 2014. Web. 19 Feb. 2014.

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**Creation Date:** 2014

**Keywords/Tags:** Pinaceae, tree, conifer, cone, needle, evergreen, *Pseudotsuga menziesii*, Douglasfir



**Whole plant/Habit:**

- Description: *Pseudotsuga menziesii* is a conical to pyramidal tree. Dense when young, it becomes more open with age with most of the foliage near the top half of the tree. It looks very much like a spruce from afar but has a slightly softer texture and color.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 6, 2011
- Image File Name: douglas\_fir\_1220198.png



#### **Bark:**

- Description: The bark is reddish-brown to gray and becomes fissured with age. It is not a reliable identification feature.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: May 8, 2011
- Image File Name: douglas\_fir\_1300767.png



#### **Branch/Twig:**

- Description: The twigs are yellowish to gray-brown and may be slightly pubescent or glabrous.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 10, 2011
- Image File Name: douglas\_fir\_1250359.png



#### **Bud:**

- Description: Douglasfir has the most beautiful buds of all the conifers (in my humble opinion). They are reddish-brown with imbricate scales and pointed. No other conifer in the Chicago area has buds like this. They look more like the buds on a deciduous tree and will serve as an excellent identification feature.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: December 28, 2010
- Image File Name: douglas\_fir\_1240351.png





#### Flower:

- Description: Though not true flowers, the reproductive structures on *Pseudotsuga* are often referred to as such. *Pseudotsuga* is monoecious; producing male pollen cones and separate female seed cones all on the same plant. Male pollen cones are axillary and pendulous.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: May 8, 2011
- Image File Name: douglas\_fir\_1300772.png



#### Flower:

- Description: Female cones are produced at the tip of new growth and are a beautiful pink to purple color when immature maturing tan-brown. Cones are pendulous and mature in one season.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 29, 2013
- Image File Name: douglas\_fir\_4444.png



#### Cone:

- Description: The cone has a 3-parted bract emerging from under the scales. The bract looks like a "snake tongue" or like a mouse has crawled into the cone! Douglasfir is the only tree to have a cone like this.
- Note: This is an immature cone color phase.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: June 1, 2008
- Image File Name: douglas\_fir\_1120.png



#### Leaf/Leaf Attachment:

- Description: Douglasfir has one needle attached to the stem by a small petiole. Needles leave a small round raised leaf scar on the stem when they fall. The needles are soft and flat with stomata lines on the underside. Needle color can vary but the var. *glauca* used in the Chicago area is blue green.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: December 28, 2010
- Image File Name: douglas\_fir\_1240350.png



#### Winter interest:

- Description: Douglasfir has typical evergreen qualities in winter.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 19, 2014
- Image File Name: douglas\_fir\_5678.png



#### Special ID feature(s):

- Description: The 3-parted bracts on the cone are the best identification feature and, luckily, there are almost always cones on or under the tree!
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: June 1, 2008
- Image File Name: douglas\_fir\_1116.png