

## Plant Profiles: HORT 2242 Landscape Plants II

**Botanical Name:** *Alnus glutinosa*

**Common Name:** European alder, common alder, black alder

**Family Name:** Betulaceae - birch family

**General Description:** *Alnus glutinosa* is an intermediate size tree that can be grown single stem or clump. It has been a popular plant in the landscape due to its size, shape, winter texture and ability to grow in diverse landscape settings. European black alder is especially useful for wet sites and poor infertile sites as it has the ability to fix nitrogen in nodules on its root system. However, it is a non-native tree that has escaped cultivation and can now be found along rivers and other natural habitats in the Chicago area. According to The Morton Arboretum, this plant is invasive and should not be planted.

**Zone:** 3-7

**Resources Consulted:**

"Black alder." *Trees & Plants*. Morton Arboretum, 2013. Web. 26 Feb. 2014.

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. 17 Mar. 2014.

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

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**Keywords/Tags:** *Alnus glutinosa*, European alder, black alder, deciduous, tree



**Whole plant/Habit:**

- Description: *Alnus glutinosa* is a pyramidal tree. When grown single stem it has an almost formal pyramidal shape. However, it is frequently multi-stemmed (clump-form) with a less formal, weak, narrow, pyramidal shape. In moist sites it can form a colony.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 28, 2008
- Image File Name: european\_alder\_1060823.png

**Whole plant/Habit:**

- Description: European alder is in the Betulaceae family. Most members of this family produce large numbers of thin, fine twigs creating a very full, fine-textured silhouette.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 5, 2008
- Image File Name: european\_alder\_0491.png

**Bark:**

- Description: Bark is smooth gray when young becoming more fissured with age.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 28, 2008
- Image File Name: european\_alder\_1060821.png

**Branch/Twig:**

- Description: The twig has many raised lenticels. The twig is green upon emergence turning brown at maturity.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 3, 2010
- Image File Name: european\_alder\_1200878.png





**Bud:**

- Description: The **vegetative** buds are stalked, valvate and green when first formed. They look like "duck bills".
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 3, 2010
- Image File Name: european\_alder\_1200869.png



**Bud:**

- Description: The **vegetative**, "duck-bill" buds turn reddish purple. Be sure you are looking at the buds in the upright position. The drooping brown structures are the staminate (male) catkins.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 5, 2008
- Image File Name: european\_alder\_0629.png



**Bud/Flower:**

- Description: European black alder is monoecious with **flower buds** present during the dormant winter season. This picture shows the newly formed male and female catkins. The male (staminate) flower buds are pendulous catkins in clusters of 3-5 that are produced in fall. They turn brown, hang on all winter and serve as an excellent identification feature. The female buds in this picture are the small green, ovoid structures in a cluster of three in the upper left corner.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 3, 2010
- Image File Name: european\_alder\_1200876.png



#### **Bud/Flower:**

- Description: The female (pistillate) catkins are small, ovoid and also in clusters of 3-5. The buds are become purple-brown as they mature and are insignificant in flower. Be sure you are looking at the small buds on the twigs that are pointing downward. The large bud in the upright position is a vegetative bud.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 5, 2008
- Image File Name: european\_alder\_0632.png



#### **Fruit:**

- Description: The woody “cone” is not a cone at all! The fruit of European alder is termed a nutlet or a strobile. It is an egg-shaped, woody, cone-like structure less than 1 inch in size. They persist throughout the winter and serve as an excellent identification feature. The winged seeds disperse from the nutlet upon maturity.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: April 5, 2008
- Image File Name: european\_alder\_0633.png



#### **Leaf:**

- Description: The leaf is dark green; margins are doubly serrate/dentate, with pinnate venation. The leaf notch in the top of the leaf is a good identification feature although some leaves will have a rounded apex. There is very little, if any, fall color. The leaves fall off still green. Some yellowing of the leaves may occur during a long fall season.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 3, 2010
- Image File Name: european\_alder\_1200877.png





**Winter interest:**

- Description: The distinctive form, fine textured twigs, persistent fruit and male catkins create textural interest during the winter.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: February 26, 2008
- Image File Name: european\_alder\_1020561.png



**Special ID feature(s):**

- Description: Almost too many to name! The male catkins and female “cones” are present in some form year round. The notched leaf tip, stalked “duck bill” bud, and pyramidal habit make *Alnus glutinosa* easy to identify in the landscape.
- Image Source: Karren Wcisel, TreeTopics.com
- Image Date: October 3, 2010
- Image File Name: european\_alder\_scan14a.png