



Extension FactSheet

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Are My Trees Ash?

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Ash trees are common throughout Ohio's rural and urban landscape. They are an important component of forests throughout the state, with estimates suggesting that there may be as many as 3.8 billion ash trees growing naturally throughout Ohio's forests. Ash trees are also one of our most frequently planted ornamental trees and are found planted in yards and along streets throughout most Ohio communities.

Four species of ash are relatively common in Ohio's forests — white ash (*Fraxinus Americana*), green ash (*Fraxinus pennsylvanica*), black ash (*Fraxinus nigra*), and blue ash (*Fraxinus quadrangulata*). Most of the numerous cultivars of ash planted in the urban landscape are derived from these four species. A fifth species, pumpkin ash (*Fraxinus profunda*), is native to Ohio but not commonly found in today's forested landscape. White ash, green ash, black ash, blue ash, and pumpkin ash are all true ashes; they are members of the genus *Fraxinus*.

There are also a couple of other woody plants that have "ash" in their name, such as mountain ash, wafer ash, and prickly ash, but these plants are not true ash. They are not members of the genus *Fraxinus*. Only the true ash are known to be susceptible to emerald ash borer.

or toothed margins (Figure 8), and have an oar-shaped fruit called a samara (Figure 3). White, green, and black ash are prevalent across the state. Blue ash is more common in the western part of the state.

Differentiating between the four species of ash that are commonly found in Ohio isn't easy. However, there are some key characteristics to look for that will help you determine which ash you are examining.



Figure 1. Opposite branching on a young ash tree.

So, How Do I Know If It's an Ash?

Opposite Branching

Step One: Look at a limb on the tree and determine the branching pattern. Is the tree oppositely or alternately branched?

Figure 1 shows opposite branching on a young ash sapling. If it is alternately branched, it is not a true ash tree. If you are looking at a tree that is oppositely branched, then you are looking at either a maple, ash, dogwood, or buckeye tree.

Step Two: Look at the leaves of the tree in question. Ash trees have a pinnately (feather-like) compound leaf (see Figures 2 and 8), usually with more than seven leaflets. The only other oppositely branched tree that has a compound leaf is boxelder (*Acer negundo*), which almost always has three to five leaflets.

The ash as a genus lose their leaves in the fall, are opposite in both the branching pattern and how the leaves are attached, have pinnately compound leaves with leaflets that have either smooth



Figure 2. Pinnately compound ash leaf with 11 leaflets.



Figure 3. Ash samara — white, green, and black ash (left to right).

White Ash

(*Fraxinus Americana*)

White ash is the most common of the four ashes found in Ohio. It is more of an upland tree, with little tolerance for growing in wet areas. One of the differentiating characteristics between it and the other ashes is the scar that a fallen leaf leaves behind. The leaf scar on white ash has more of a grin to it than do the other ashes (Figure 4).



Figure 4. White ash smiling leaf scar.

Green Ash

(*Fraxinus pennsylvanica*)

Green ash can be found in a wide variety of sites across the state, but its natural habitat is more poorly drained soils, usually along streams, in bottom lands, and throughout wet woods. When comparing the leaf scar of green ash to that of white, the scar on green ash appears to be more like a semicircle with a flat line across the top (Figure 5).



Figure 5. Green ash bud and leaf scar.

Black Ash

(*Fraxinus nigra*)

Black ash is a smaller tree than either white or green ash, commonly reaching 40 to 50 feet in height. Like green ash, black ash's native habitat is that of more poorly drained sites, such as swamps, streams, and riverbanks. The terminal buds are more black when compared to the brown of either green or white ash (Figure 6).

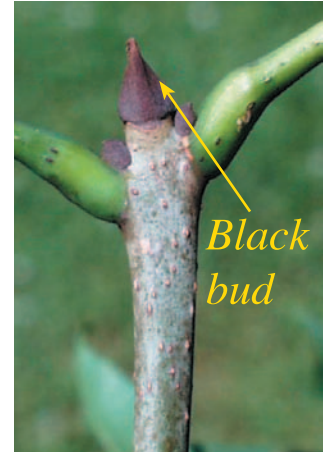


Figure 6. Black ash bud.

Blue Ash (*Fraxinus quadrangulata*)

Blue ash is commonly found on dry upland limestone sites in Ohio. It is considered a medium-sized tree with the distinctive characteristic of having twigs that appear to be square. The wings that grow on the twigs give the tree its square twig-identifying characteristic (Figure 7). The bark of blue ash is shaggier in appearance than any of the other three ashes described here.



Figure 7. Left, blue ash bud, and right, square twig.

Resources

Textbook of Dendrology. Eighth edition. William M. Harlow, Ellwood S. Harrar, James W. Hardin, and Fred M. White. 1996. McGraw-Hill Inc.

Trees of the Central Hardwood Forests of North America: An Identification and Cultivation Guide. Donald J. Leopold, William C. McComb, Robert N. Muller. 1998. Timber Press.

The Woody Plants of Ohio. E Lucy Braun. 1989. Ohio State University Press.

Acknowledgments

Figure 6 — Photo courtesy of Paul Wray, State Extension Specialist, Iowa State University.

	White Ash	Green Ash	Black Ash	Blue Ash
Leaves	8 to 12 inches long with 5 to 11 leaflets (usually 7); margin entire to partially serrate.	6 to 10 inches in length with 7 to 9 leaflets; margin serrate along entire length of leaflet.	10 to 16 inches long with 7 to 11 leaflets; margin finely serrate.	8 to 12 inches long with 7 to 11 leaflets; margin serrate.
Bark	Ashy gray and smooth when young, developing diamond-shaped narrow ridges as it ages.	Very similar to that of white but not quite as deeply furrowed.	Grayish in color and smooth when the tree is young, attaining some of the same furrows that can be seen in the bark of both green and white, but usually not as deep.	Shaggier in appearance than any of the other three ashes described here.
Fruit	Samara are 1 to 2 inches in length and 1/4-inch wide; wing partially surrounding the seed.	Samara typically 1-1/4 to 2-1/4-inches long and 1/4 inch or less in length. The wing of this samara is more pointed than that of white ash.	Samara are broad to oblong, usually 1 to 1-1/2-inches long, blunt at the base.	Samara 1 to 2 inches in length with wing completely enclosing flattened seed.

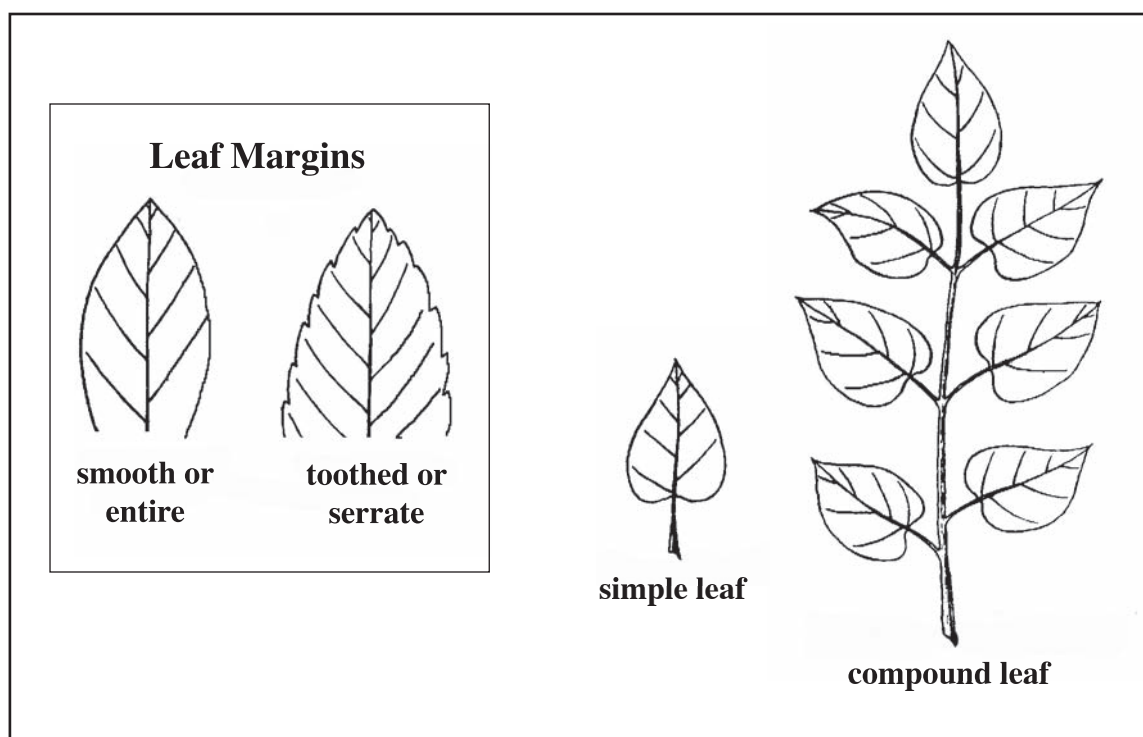


Figure 8. Leaf configurations and margins.

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