

# ASHES *The Important Distinctions*



	<b>White Ash</b> <i>Fraxinus americana</i>	<b>Green Ash*</b> <i>Fraxinus pennsylvanica</i>	<b>Black Ash</b> <i>Fraxinus nigra</i>
<b>LEAVES</b>			
LEAFLETS	5–9, usually 7	7–9	7–11
DESCRIPTION	Leaflets are mostly entire, borne on stalks, without hairs below. Turn purple in autumn	Leaflets borne on stalks. Hairy below and on rachis. Turn yellow or bronze in autumn.	Toothed leaflets which are without stalks except the one at the end. Hairs lacking below except for buff-colored hairs at the junction of the leaflets and the rachis. Turn yellow in autumn.
<b>BUDS</b>			
SIZE	1/8 inch	1/8 inch	Less than 1/4 inch
SHAPE	Blunt-pointed	Cone-shaped	Sharply-pointed
COLOR	Brown	Brown with rusty or dull red hairs	Black or very dark
<b>FRUIT</b>			
WINGS	Wing terminal	Seed body grading gradually into wing	Flat, completely surrounds seed body
SEED BODY	Cigar-shaped	Funnel-shaped	Slightly twisted, less than half the length of the fruit
<b>TWIGS</b>			
TEXTURE	Smooth and shiny, often with slight bloom, very brittle	Somewhat covered with downy hairs	Smooth, not shiny
COLOR	Gray or greenish-brown, inner bark bright brick red	Greenish-gray, inner bark cinnamon-colored	Pale gray, inner bark dirty white

\*Specimens of green ash which lack hairs on the twigs or leaflets, but otherwise fit the above description, were formally designated as var. lanceolata. They are now designated under the species due to the many gradations of the hairiness character.





## WHITE ASH *Fraxinus americana* L.



*White ash is one of Maine's valuable timber trees and is found commonly throughout the state.*

**W**hite ash is one of Maine's valuable timber trees and is found commonly throughout the state. Best growth occurs on rich, rather moist soil of low hills. It grows to a height of 60–70 feet and a diameter of 15–30 inches. The branches are upright or spreading, forming a narrow top in the forest.

The **bark** pattern resembles a woven basket; it is broken into broad, parallel ridges by deep furrows, and is dark brown or deep gray.

The **leaves** are opposite, 8–12 inches long and consist of 5–9 (usually 7) leaflets. The leaflets are 3–5 inches long, oval to lance-shaped, borne on short stalks, edges remotely toothed towards the tip, dark green and often shiny on the upper surface. In fall, they turn to a soft, velvety purple.

The **fruit** is a single samara occurring in clusters. The seed body is cigar-shaped and has a terminal wing.





MAINE REGISTER OF  
BIG TREES 2008

**White Ash**  
**Circumference:** 244"  
**Height:** 95'  
**Crown Spread:** 70'  
**Location:** South Waterford

*White ash twigs are hairless and have deeply notched leaf scars.*

The **twigs** have a smooth, shiny bark which is grayish, greenish or maroon on the surface. The inner layer of the bark is brick red. The terminal buds are rounded or dome-shaped.

The **wood** is hard, strong and tough. It is used for agricultural implements, tool handles, oars, furniture, interior finish, dowels, pulp and firewood, and sporting goods including baseball bats, hockey sticks and snowshoe frames.





## GREEN ASH *Fraxinus pennsylvanica* Marsh.



**G**reen or red ash occurs over much of the state, particularly along the major rivers. It is not as abundant as the white and black ash, but is fairly common in central Maine. Sometimes mistaken for black ash, it grows near the banks of streams and lakes on rich, moist soil. It has stout branches that bend downward on older trees and form an irregular, compact head in the forest. It seldom exceeds a height of 50–60 feet and a diameter of 16–20 inches.

*The quality of green ash wood is not as good as white ash.*





*Green ash twigs are often hairy and do not have deeply notched leaf scars.*

MAINE REGISTER OF BIG TREES 2008
<b>Green Ash</b>
<b>Circumference:</b> 115"
<b>Height:</b> 63'
<b>Crown Spread:</b> 65'
<b>Location:</b> Mechanic Falls

The **bark** on the trunk of old trees is dark gray or brown, and firm and furrowed like that of the white ash.

The **leaves** are 10–12 inches long, opposite, with 7–9 leaflets borne per stalk. Leaflets are 4–6 inches long, entire or wavy, or sometimes toothed, particularly on the upper-half of the leaflets, yellow-green on the upper surface, hairy below and on the rachis, and oval to elliptical.

The **fruit** has a funnel-shaped seed body gradually blending into the terminal wing.

The current year **twigs** are greenish-gray and covered with numerous hairs, although sometimes there are no hairs. Inner bark is cinnamon red.

The **wood** is hard, heavy, fairly strong, coarse-grained and brittle. It is used in the same ways as white ash.





## BLACK ASH *Fraxinus nigra* Marsh.



**B**lack or brown ash occurs statewide. It grows almost entirely on rich, moist ground or in cold, wet swamps and along the banks of streams.

It is a tall, slender tree with a short, narrow head. It grows to a height of 50–60 feet and a diameter of 10–20 inches. The trunk is often without branches for a considerable distance from the ground.

The **bark** is gray to dark gray, corky and spongy, with more or less parallel ridges. It rubs off freely with the hand.

*Black ash wood is used for interior finishing, cabinet work, baskets and, to a limited extent, pulp.*





*The wing of black ash fruit completely surrounds the seed body.*

The **leaves** are 12–15 inches long, opposite, and have 7–11 leaflets that are 4–5 inches long, and without stalks except the one at the tip. Leaflets are lance-shaped and have remotely-toothed margins. The upper surface is dark green. There are buff-colored hairs at the junction of the leaflets and rachis.

The **fruit** is a single samara occurring in clusters. The seed is flattened and completely surrounded by the wing.

The **twigs** are smooth, gray to olive-green. The buds are black or brown and pointed at the tip. The inner layer of the bark is dirty white.

The **wood** is coarse-grained, heavy, tough, durable and pliable. It is used for interior finishing, cabinet work, baskets and, to a limited extent, pulp. In the past it was used to make barrel hoops.



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**Black Ash**

**Circumference:** 139"

**Height:** 82'

**Crown Spread:** 56'

**Location:** Waterboro



AREA OF  
OCCURRENCE





## AMERICAN BASSWOOD *Tilia americana* L.



**A**merican basswood or linden occurs as scattered specimens throughout the state. It grows to a height of 50–70 feet and a diameter of 2–3 feet. The branches are slender, somewhat pendulous, comparatively small and numerous, forming a broad and rounded head.

The **bark** on the trunk of old trees is deeply and irregularly furrowed. On young trees, it is smooth or slightly fissured and has a grayish appearance.

The **leaves** are alternate, 5–6 inches long with uneven bases. They are broadly egg-shaped to heart-shaped in outline, and toothed; the upper surface

*Light, soft, easily worked and carved, American basswood is used for molding, yardsticks, veneer, dowels, furniture, carvings and pulp.*







*The fruit of American basswood is attached to a distinctive leaf-like bract.*



is dark green, while the lower is yellow-green and shiny.

The **flowers** are greenish-yellow, borne on a slender stalk that is attached to a rather long, yellowish, leaf-like bract. They are fragrant, contain an abundance of nectar and open in July.

The **fruit** is clustered, spherical, covered with short buff-colored hairs, woody and about as large as a pea. It remains attached to the leaf-like bract when it falls.

The **twigs** have a zigzag pattern and bright red buds.

The **wood** is light, soft, easily worked and carved. It is used for molding, yardsticks, veneer, dowels, furniture, pattern stock, carvings and pulp. Traditionally it was used to make butter box molds, dough bowls and other kitchen items that touched food.

In Germany, basswood is called the bee tree. Bees make an excellent grade of honey from the flowers. The young fruit and flowers ground into a paste make an excellent substitute for chocolate.

The **European linden** (*Tilia europaea* L.) and **Little-leaf linden** (*Tilia cordata* Mill.) are commonly planted as shade trees. They are smaller in height than our native species and with smaller leaves. Baxter Boulevard in Portland is lined with both of these species.



MAINE REGISTER OF BIG TREES 2008  
American Basswood Circumference: 224" Height: 85' Crown Spread: 63' Location: Strong





## AMERICAN ELM *Ulmus americana* L.



**A**merican elm is one of our largest and most graceful trees; it occurs throughout the state, although its numbers have been severely reduced by Dutch elm disease. It is found most often on rich bottomland and moist soil along streams, but sometimes grows on higher ground. It grows quickly, attaining a height of 60–70 feet and a diameter of 2–4 feet.

The trunk often divides into numerous limbs, which form a vase-shaped or spreading, round-topped head with graceful, drooping branches.

*The number of American elms in Maine has been severely reduced by Dutch elm disease.*





The **bark** on the trunk is separated into broad ridges by deep fissures and is ashy-gray on the surface. It shows alternate layers of chocolate brown and buff coloration beneath.

The **leaves** are alternate, 3–6 inches long, with coarsely doubly-toothed margins and uneven bases. The upper surface is dark green and sandpaper-like.

The **flowers** appear in April before the leaves.

The **fruit** consists of a small, winged seed which ripens about the end of May, before the leaves have fully developed. It has a wide, open notch at the apex and a hairy margin.

The **wood** is spiral and coarse-grained, hard, heavy, strong, tough and hard to split. It is used for flooring, railroad ties and pulp. In the past it was used to make barrel hoops, barn stall flooring, door thresholds and wheel hubs.

**Slippery elm**, *Ulmus rubra* Muhl, has been recorded in Franklin and York counties, but these records are historical. A few specimens have been found in association with cultural settings, but it is not known if these populations are native or escaped. If it still occurs naturally in the state, it is undoubtedly quite rare. Slippery elm is most easily distinguished from American elm by the winter buds which are covered with rusty hairs. In the past, the inner bark of the slippery elm was chewed to relieve sore throats.



*American elm twigs have a zigzag pattern and slightly flattened buds.*



MAINE REGISTER OF BIG TREES 2008

American Elm Circumference: 244" Height: 110' Crown Spread: 120' Location: Yarmouth



*Loads of logs were  
"snubbed" when going  
downhill to prevent  
the horses from being  
overtaken by the load.*

