

American beech

(*Fagus grandifolia*)



Description: Only species of this genus found in North America.

Habit: A medium to large tree up to 100 feet tall with a rounded crown. Old trees may be surrounded by a ring of young beech.

Mast: Nuts are found in pairs within a woody husk covered with spines. They are irregularly triangular and shiny brown.

Leaves: Alternate, simple, 11 to 14 pairs of veins, with each vein ending with a sharp tooth; shiny green and waxy above, slightly paler below.

Stems: Very slender, zigzag pattern, light brown; buds are long (3/4 inch), light brown, slender, covered with overlapping scales, widely divergent from the stems, looking like long thorns. Bark is smooth, thin, and gray in color.

Flowers: Male flowers borne from a slender 1 inch stalk; female flowers borne on shorter spikes.

Habitat: Forests

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Ruffed Grouse, Porcupine

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Beaked hazelnut

(*Corylus cornuta*)



Description: Considered imperiled globally due to its rarity by The Nature Conservancy.

Habit: Small shrub, often in clumps reaching up to 6 feet tall.

Mast: Nuts are enclosed in a bristly, leafy husk with a long protruding tube-like beak that resembles a gourd.

Leaves: Alternate, simple, oval, 2 to 4 inches long, serrated edges, heart-shaped or rounded base; dark green and slightly fuzzy above, paler below.

Stems: Slender, zigzag pattern, light brown, hairless and develop a crisscross pattern; buds are two-toned, grayish-brown with scales near the base being darker brown.

Flowers: Male flowers are light brown-yellow catkin clusters near branch tips, 3/4 to 1 inch long; female flowers have bright red threads protruding from gray-brown buds.

Habitat: Forests, forest edges

Wildlife: Moose, Elk, Beaver, Black Bear

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Bitternut hickory

(*Carya cordiformis*)



Description: Usually cut and sold in mixture with the true hickories. It is the shortest lived of the hickories, living to about 200 years. The dark brown close-grained hardwood is highly shock resistant which makes it excellent for tools.

Habit: A medium to large tree capable of reaching over 100 feet tall with an open, rounded top.

Mast: Husk is thin and 4-winged above the middle, often dusty-yellow looking; nut is slightly flattened and partially split from the middle to the sharp-pointed tip.



Leaves: Alternate, pinnately compound, 7 to 11 leaflets with serrated edges; dark green above, paler below.

Stems: Leaf scars are 3-lobed; terminal bud is sulfur-yellow to brown in color. Bark is thin and tight, initially smooth and silvery gray, later has shallow furrows and interlacing ridges.



Flowers: Male flowers are yellow-green drooping catkins with 3 hanging from one stalk, 3 to 4 inches long; female flowers are short, 4-angled, on a terminal spike.

Habitat: Coves, stream benches, terraces, slopes, rock ledges, sites with good drainage

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Black oak

(*Quercus velutina*)



Description: Its wood, sold as red oak, is commercially valuable for furniture and flooring.

Habit: A medium sized tree up to 80 feet tall with an irregular crown.

Mast: Egg-shaped acorns, 1/3 to 1/2 enclosed in a bowl-shaped cap; cap scales are loosely attached, light brown, and fuzzy.

Leaves: Alternate, simple, bristle-tipped lobes; leaf shape is variable, with some having large gaps and some with shallow gaps; shiny green above, paler with scruffy hairs below.



Stems: Stout and red-brown to gray-green; buds are very large (1/4 to 1/2 inch long), fuzzy, pointed and distinctly angular. Bark is at first gray and smooth, becoming thick and rough, nearly black and deeply vertically furrowed with horizontal breaks.



Flowers: Male flowers are slender yellow-green catkins; female flowers are red-green on short spikes near leaf origin.

Habitat: Forests, woodlands

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Elk, Ruffed Grouse, Bobwhite Quail, Pheasant

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Black walnut

(*Juglans nigra*)



Description: Considered one of the scarcest and most coveted native hardwoods. The wood is used to make furniture, flooring, and rifle stocks, and oil is pressed from the seeds.

Habit: A medium to large tree up to 100 feet tall that develops a straight, narrow crown under competition.

Mast: Round, with a thick green husk 2 to 2.5 inches across. The husk contains a nut that is irregularly furrowed with sweet, oily meat.

Leaves: Alternate, pinnately compound, 10 to 24 leaflets (poorly formed or missing terminal leaflet), finely serrated edges, yellow-green above, slightly paler below.

Stems: Stout, light brown; buds are tan, and large with a few hairy scales; leaf scars are 3-lobed. Bark is brown on surface, darker brown when cut, ridged and furrowed with a rough diamond pattern.

Flowers: Male flowers are single-stemmed catkins, 2 to 5 inches long; female flowers are on short spikes near twig end, yellow-green in color.

Habitat: Disturbed areas, forests, meadows and fields

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Bur oak

(*Quercus macrocarpa*)



Description: Largest acorns of all native oaks and is very drought resistant. The wood is commercially valuable and marketed as white oak.

Habit: A large tree that often reaches over 100 feet tall. In the open it becomes a very wide, spreading tree.

Mast: Large acorn 1/2 enclosed in a warty cap with hairy ends.

Leaves: Alternate, simple, with many lobes. The two middle lobe gaps nearly reach the center vein dividing the leaf in half. The lobes near the tip resemble a crown; green above, paler and fuzzy below.

Stems: Stout, yellow-brown, often with ridges; multiple terminal buds are round and may be hairy. Bark is ashy gray to brown in color and quite scaly, ridged vertically.

Flowers: Male flowers are yellow-green, drooping slender catkins, 2 to 4 inches long; female flowers are green and red and appear as single short spikes.

Habitat: Floodplains, forests, swamps

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Elk, Ruffed Grouse, Bobwhite Quail, Pheasant

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Butternut

(*Juglans cinerea*)



Description: Valued more for its nuts than for lumber.

Habit: A small to medium sized tree up to 60 feet with a forked or crooked trunk and wide-spreading branches.

Mast: Lemon shaped, with a yellow-green sticky husk; husk contains a nut that is irregularly-ribbed with sweet, oily meat.

Leaves: Alternate, pinnately compound, 11 to 17 leaflets with serrated edges; green above and paler below.

Stems: Stout, yellow-brown to gray, may be hairy; buds are large and covered with a few light colored hairy scales; leaf scars are 3-lobed, a tuft of hair is present above the leaf scar. Bark is ashy gray with shiny ridges, develops diamond shaped patterns.

Flowers: Male flowers are single-stemmed, yellow-green catkins, 2 to 5 inches long; female flowers are green-yellow, and on a short spike near the end of the twig.

Habitat: Disturbed areas, floodplains, forests

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Northern red oak

(*Quercus rubra*)



Description: Considered one of the more important lumber species of red oak.

Habit: A medium to large tree that reaches up to 90 feet tall, develops a short trunk and round crown when open grown. Straight with a long trunk when grown with competition.

Mast: Acorns are nearly round; cap is flat and thick, covering 1/4 or less of the acorn, resembling a beret.

Leaves: Alternate, simple, with 7 to 11 bristle-tipped lobes, generally very uniform in shape; dull green to blue-green above and paler below.

Stems: Stout, red-brown; multiple large conical terminal buds, covered with red-brown scales. Bark has shallow furrows that resemble ski-tracks.

Flowers: Male flowers are yellow-green slender catkins, 2 to 4 inches long; female flowers are on short spikes.

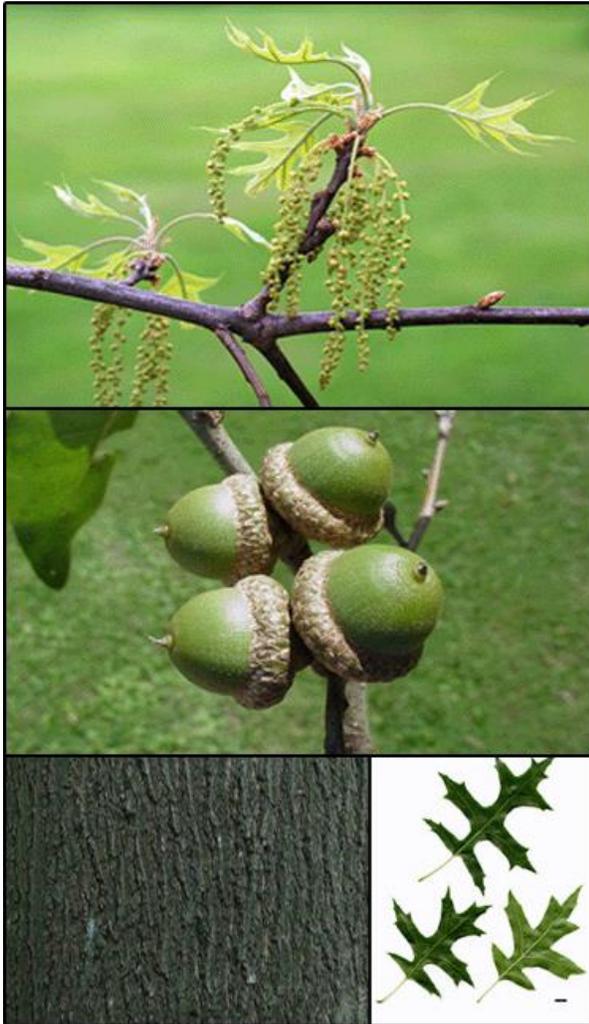
Habitat: Forests, woodlands

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Elk, Ruffed Grouse, Bobwhite Quail, Pheasant

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Pin oak

(*Quercus palustris*)



Description: Planted as a shade tree and ornamental. Not considered a valuable lumber species.

Habit: A medium sized tree with middle branches that grow at right angles, typically pyramidal in shape.

Mast: Acorns are slightly striped, round, but flattened at the cap. Cap is thin and saucer-like, covered with red-brown scales.

Leaves: Alternate, simple, 5 to 9 bristle-tipped lobes with large gaps that extend nearly to the center vein. Major lobes form a U-shape. Bright green above and pale below with hair tufts at branching veins.

Stems: Slender, red-brown and shiny; multiple terminal buds are small, pointed, and chestnut brown. Bark is gray-brown, very tight and thin, remains smooth for many years, eventually develops thin ridges and furrows.

Flowers: Male flowers are yellow-green catkins; female flowers are red-green, and on short spikes near leaf origin.

Habitat: Floodplains, forests, shorelines, swamps

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Elk, Ruffed Grouse, Bobwhite Quail, Pheasant

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Shagbark hickory

(*Carya ovata*)



Description: The wood is tough and resilient, making it suitable for products subject to impact and stress. Along with pignut hickory, it furnishes the bulk of the commercial hickory industry.

Habit: A tall tree reaching over 120 feet tall with a straight trunk and an open round crown.

Mast: Nearly round, 1.5 to 2 inches, with a very thick husk; nut is distinctly 4-ribbed.



Leaves: Alternate, pinnately compound, 5 to 7 leaflets, terminal leaflets are much larger than the laterals; green above and paler below.

Stems: Stout and somewhat hairy near terminal bud; terminal bud is large, brown, and hairy, covered with 3-4 brown scales. Leaf scars raised and 3-lobed. Bark at first smooth and gray, later broken into long, wide plates.



Flowers: Male flowers are yellow-green catkins, hanging in groups of 3; female flowers are very short, and in clusters at the end of branches.

Habitat: Forests, ridges, ledges, woodlands

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

Swamp white oak

(*Quercus bicolor*)



Description: Its hard, strong wood is commercially valuable and is usually cut and sold as white oak.

Habit: A medium size tree up to 80 feet tall, irregular crown, often with lower limbs remaining.

Mast: Acorns grow on long stems as individuals or in pairs, bowl-shaped cap may have short fringed hairs and covers about 1/3 of the nut.

Leaves: Alternate, simple, lobes are irregular and blunt; dark green and shiny above, very pale below.

Stems: Stout, light brown; terminal buds are short, blunt and light brown. Bark is gray and scaly, later developing irregular fissures and ridges.

Flowers: Male flowers are yellow-green catkins, 2 to 4 inches long; female flowers are green to red and very small, near leaf origin.

Habitat: Floodplains, forest edges, forests, swamps

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Elk, Ruffed Grouse, Bobwhite Quail, Pheasant

Credits: Virginia Tech Vtree, U.S.D.A Forest Service

White oak

(*Quercus alba*)



Description: Considered the most important lumber tree of the white oak group. Its high-grade wood is useful for many things, an important one being staves for barrels, hence its alternate name, stave oak.

Habit: A very large tree up to 100 feet tall. When open grown it will have an irregular crown that is wide spreading, with a stocky trunk.

Mast: Oblong acorn, cap is warty and bowl-shaped, covers 1/4 of nut; cap always detaches at maturity.



Leaves: Alternate, simple, 7 to 10 rounded finger-like lobes, lobe gaps vary from deep to shallow, base is wedge-shaped; green to blue-green above, pale white below.

Stems: Red-brown to gray, even a bit purple, hairless and often shiny; terminal buds are red-brown, small, rounded and hairless. Bark is ashy-gray, varying from scaly on smaller trees to irregularly blocky on large trees.



Flowers: Male flowers are yellow-green catkins, 2 to 4 inches long; female flowers are reddish green and appear as very small single spikes.

Habitat: Floodplains, forests, swamps, woodlands

Wildlife: White-Tailed Deer, Black Bear, Wild Turkey, Elk, Ruffed Grouse, Bobwhite Quail, Pheasant

Credits: Virginia Tech Vtree, U.S.D.A Forest Service