

American Beech

Fagus grandifolia

Common name:

American Beech

Pronunciation:

FA-gus gran-di-FO-li-a

Family:

Fagaceae

Genus:

Fagus

"But, taken in all seasons and judged by all that makes a tree noble -- strength combined with grace, balance, longevity, hardiness, health -- the Beech is all that we want a tree to be. And more besides, for it is a tree deep-rooted in the history of our people, in this new world and the old one, and figures beloved to us both in fable and fact move under its ancient boughs."

(excerpt from Donald Culross Peattie, A Natural History of Trees of Eastern and Central North America)

Audubon's painting of the Passenger Pigeon has a pair of these iconic American birds perched on a beech branch with brown, fall leaves hanging down.

Quick ID Tips

- Smooth, blue-gray bark
- Leaves feel thin, and veins spread from midrib in parallel lines to the coarsely toothed margin
- Dried thin brown leaves stay attached in winter
- Sharp, elongated, pointed brown buds

Details

- Broadleaf deciduous tree, 50-70 ft. tall (max.120 ft.), spreading, width may equal or be somewhat less than the height, short trunk, stately and graceful.
- Bark thin, smooth, and blue-gray upon which, unfortunately, many initials have been carved.
- Buds large (2-2.5 cm long). Sharply pointed winter buds are very distinct and are sometimes said to resemble cigars..
- Leaves simple, alternate, small-toothed margins, 5-13 cm long, acuminate apex (pointed), parallel veins, 9-14 pairs (*F. sylvatica* has 5-9 pairs). Glossy dark green

on leaf upper surface; petiole about 0.5 cm long, smooth. Paper-thin brown leaves often adhere to branches throughout the winter, especially on younger trees.

- Flowers open as leaves are expanding, male and female types on the same tree, male (staminate, pollen) in greenish-yellow, ball-like heads about 2.5 cm in diameter, on 5 cm stalks, female (pistillate, seed) usually in reddish-brown, 2-flowered clusters on short stalks, about 1.5 cm long.
- The fruit has a prickly reddish-brown husk (involucre), 2 cm long, opening into 4 parts, usually revealing a pair of nuts, each shaped like a 3-sided pyramid, about 20 mm long.
- The edible beechnuts are excellent food for wildlife, including ruffed grouse, wild turkey, raccoons, foxes, deer, rabbits, squirrels, opossums, black bears, and porcupines. Beech nuts were one of the primary foods for the now-extinct passenger pigeon.
- Fruit of *F. grandifolia* is smaller and its leaves have more veins (9-14 pairs vs. 5-9 pairs) than the commonly-planted landscape species, the European Beech (*F. sylvatica*).
- Because of its preference for well-drained moist, rich acid soils, the Beech was seen by Early Americans as an indicator of fertile agricultural soil. Fares best in full sun but will withstand part shade. Although robust in well-drained, moist acid soil, it will not stand compaction. Beech are difficult to grow turf under because of their shallow root system.
- Beech bark disease, caused by the beech scale insect and a *Neonectria* fungus, has become a major killer of beech trees in the Northeastern U.S., including in Massachusetts.
- Hardy in USDA Zone 4-7. Native range from New Brunswick to Ontario, south to Florida and Texas.



Tree



Plant Habit



Leaves



Leaves and Fruit



Young Leaves in Fall



Fall Leaf Color



Bark



Winter Bud



Beech Bark Disease Signs

Source:

- Oregon State University Landscape Plants
<https://landscapeplants.oregonstate.edu/plants/fagus-grandifolia>
- David Sibley, *The Sibley Guide to Trees* (Knopf 2009)