

## Elegant and Stately American Beech

By Susan Camp

We live in the woods. I'm not exaggerating. We have too many trees, and a few are dangerously close to the house.

When we moved to Gloucester in 1994, our trees were small, straggly forest trees. Over the years, they have grown and filled out until we have become surrounded on three sides by heavy woods. Some of the tree varieties around the house include white, red, willow, and pin oak, holly, pine, hickory, and, my favorite, American beech. We have two large beech trees, far enough away from the house not to pose a threat, and enough in the open to display their beauty and elegance.

American beech (*Fagus grandifolia*) is a magnificent tree, tall and stately with a full, ovoid crown. The long-lived (300 to 400 years) beech tree reaches 60 to 80 feet at maturity, and can grow to 120 feet in height with a 1 ½ to 4-foot diameter trunk. A beech tree needs space to grow and spread, or it either will languish and wither or overtake and smother smaller trees and shrubs.

Native to rich, well-drained, deciduous woodlands in USDA Hardiness Zones 4 through 7, the American beech also makes a noble specimen tree. In a forest environment, the trunk of a beech will grow straight and tall, opening into a small crown. In an open location, the trunk will be short, with many horizontal branches, some touching the ground.

Beech trees require moist, acidic soil. Their shallow roots allow them to survive under wet conditions. Other plants may be blocked by the shallow roots, but beech trees sprout suckers from the roots and dense beech thickets develop around established trees.

The smooth, gray bark of the trunk and branches is compared to an elephant's hide. The thin bark invites sweethearts and hikers to carve their initials into the trunk, and the graffiti may be visible for hundreds of years. Unfortunately, defacement of the bark provides an entry point for insects and disease, leading to bark deformity and damage.

The shiny, green, 2 ½ to 6-inch-long, oblong leaves are an attractive feature, with up to 15 pairs of veins, each one ending in a sharp point at the leaf margin. The cigar-shaped winter buds look almost like long thorns, but they are composed of overlapping scales. The leaves turn brown in the fall, and may remain on the tree throughout the winter, fading to a pale tan.

American beech is monoecious, which means that both female and male flowers are borne on the same tree in the early spring. The small, yellow male flowers grow in clusters. Tiny reddish female flowers develop on new twig ends. If pollinated, the flowers will develop into small, prickled burrs, each containing two triangular, edible beech nuts, also called beech mast. Along with acorns and hickory nuts, beech mast provides a high protein, high fat food source for squirrels, raccoons, woodpeckers, purple finches, blue jays, and wild turkeys. Red-shouldered hawks, pileated woodpeckers, and other birds nest in American beech trees. Squirrels build winter dreys in beech trunk cavities.

American beech hosts many species of moth caterpillars and the larvae of wood-boring beetles. Numerous insects feed on beech leaves, including several species of aphids and various scale insects. Erineum galls, caused by a type of mite, may appear as buff-colored, felt-like patches on leaves.

European beech (*Fagus sylvatica*) is used more often in landscaping than American beech. American beech has no current cultivars, but European cultivars include weeping and dwarf specimens and foliage of various colors, including purple and chartreuse.

Beech wood is used for furniture framing and flooring. Some unusual uses are drum-making, yeast fermentation and malt-drying in the brewing industry, and for smoked ham, sausage, and cheese production.

Interesting publications include Virginia Cooperative Extension (VCE) HORT-6 “American (*Fagus grandifolia*) and European (*Fagus sylvatica*) Beeches”; VA Tech Dendrology “American Beech”; and Illinois Wildflowers “American Beech.”

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