

Carpinus caroliniana (American Hornbeam) Birch Family (Betulaceae)

Introduction:

A fine-textured tree that is related to the birches, American hornbeam is the only North American native of the genus *Carpinus*. The trunk and branches of this tree have ridges that look like muscles. American hornbeam is a wonderful addition to a natural landscape. It will tolerate flooding. Songbirds are attracted to its forked branches, dense crown and tasty seeds. Its fall foliage can be beautiful.

Culture:

American hornbeam tolerates wet sites. It does well in shade, and will perform admirably in full sun, where it becomes more dense and uniform with the proper amount of moisture. It will withstand flooding, and is more tolerant of heat than other members of this genus. It likes deep, fertile, moist, slightly acidic soils, and is hardy to Zone 3.

American hornbeam will not tolerate compacted soils, and should not be planted in areas that have undergone grade changes. Although some cankers and leaf spots bother this tree, it is basically disease- and insect-free.

Additional information:

American hornbeam is a wonderful addition to small yards, and is also perfect for a natural landscape or as a specimen tree.

The hard wood of American hornbeam is used to make golf clubs, tool handles and mallets.

American hornbeam is more difficult to transplant than European hornbeam. It should be transplanted balled-and-burlapped in the spring.

The smooth, gray, muscular-looking bark of American hornbeam is attractive year-round. The tree's look is enhanced by its crooked trunk and pendulous, zig-zagging branches, which help attract wildlife. Finches, ruffed grouse and wild turkeys eat American hornbeam nutlets. The shape of the bud is an identifying difference between the American hornbeam and the closely related European hornbeam (*Carpinus betulus*). European hornbeam has a curved bud. American hornbeam has a straight bud.

The largest known American hornbeam in the U.S. is 69 feet tall and 2½ feet in diameter. It is located in Ulster County, New York.



Botanical Characteristics:

Native habitat: Nova Scotia to Florida and west to Texas and Minnesota.

Growth habit: Can be grown as a multistemmed shrub or a single-stemmed tree. More narrow and upright than European hornbeam.

Tree size: 20 to 40 feet tall, 20 to 30 feet wide. Growth rate is slow, about 1 foot a year.

Flower and fruit: Flowers are green catkins and bloom from April until June. Monoecious. Male flowers are 1 to 1½ inches long; female flowers are 2 to 3 inches long with three-lobed bracts. Fruit is a 1/3-inch winged nutlet attached to three-lobed bracts.

Leaf: Simple, alternate, 2 to 5 inches long. Spring foliage changes from crimson to green, then becomes deep green in summer. Fall foliage ranges from yellow to a scarlet tinge.

Hardiness: Winter hardy to USDA Zone 3.