



Ostrya virginiana American Hophornbeam¹

Edward F. Gilman and Dennis G. Watson²

INTRODUCTION

This shade-tolerant tree slowly grows to 50 feet in height with a 25 to 30-foot spread but is often 25 to 40 feet tall, forming an oval or round canopy (Fig. 1). Hophornbeam has a lovely yellow fall color, and the small nutlets, which ripen in summer and fall, are used by birds and mammals during the winter. Bark is an attractive orange or grayish brown peeling off in longitudinal strips. The finely-textured crown casts a medium or dense shade in full sun, but is more open in the shade casting a light shadow.

GENERAL INFORMATION

Scientific name: *Ostrya virginiana*

Pronunciation: OSS-tree-uh ver-jin-ee-AY-nuh

Common name(s): American Hophornbeam, Eastern Hophornbeam

Family: *Betulaceae*

USDA hardiness zones: 3 through 9A (Fig. 2)

Origin: native to North America

Uses: container or above-ground planter; large parking lot islands (> 200 square feet in size); wide tree lawns (>6 feet wide); medium-sized parking lot islands (100-200 square feet in size); medium-sized tree lawns (4-6 feet wide); recommended for buffer strips around parking lots or for median strip plantings in the highway; near a deck or patio; reclamation plant; screen; shade tree; narrow tree lawns (3-4 feet wide); specimen; sidewalk cutout (tree pit); residential street tree; tree has been successfully grown in urban areas where air pollution, poor drainage, compacted soil, and/or drought are common

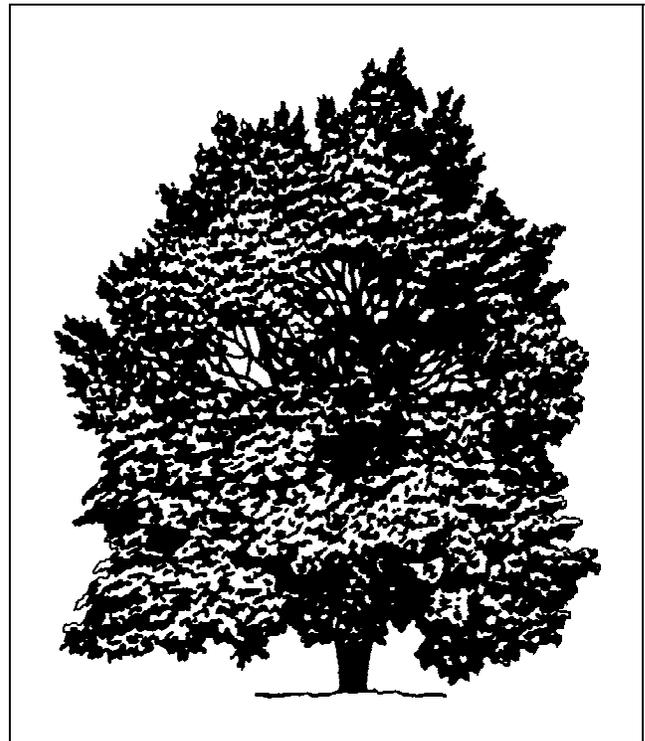


Figure 1. Middle-aged American Hophornbeam.

Availability: somewhat available, may have to go out of the region to find the tree

DESCRIPTION

Height: 30 to 40 feet

Spread: 25 to 30 feet

Crown uniformity: symmetrical canopy with a regular (or smooth) outline, and individuals have more or less identical crown forms

1. This document is adapted from Fact Sheet ST-428, a series of the Environmental Horticulture Department, Florida Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida. Publication date: October 1994.
2. Edward F. Gilman, associate professor, Environmental Horticulture Department; Dennis G. Watson, associate professor, Agricultural Engineering Department, Cooperative Extension Service, Institute of Food and Agricultural Sciences, University of Florida, Gainesville FL 32611.



Figure 2. Shaded area represents potential planting range.

Crown shape: oval; round

Crown density: moderate

Growth rate: slow

Texture: fine

Foliage

Leaf arrangement: alternate (Fig. 3)

Leaf type: simple

Leaf margin: double serrate; serrate

Leaf shape: elliptic (oval); ovate

Leaf venation: pinnate

Leaf type and persistence: deciduous

Leaf blade length: 4 to 8 inches; 2 to 4 inches

Leaf color: green

Fall color: yellow

Fall characteristic: showy

Flower

Flower color: brown; green

Flower characteristics: showy; summer flowering

Fruit

Fruit shape: elongated

Fruit length: 1 to 3 inches

Fruit covering: dry or hard

Fruit color: brown; green

Fruit characteristics: attracts birds; attracts squirrels and other mammals; no significant litter problem; persistent on the tree; showy

Trunk and Branches

Trunk/bark/branches: droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; routinely grown with, or trainable to be grown with, multiple trunks; showy trunk; tree wants to grow with several trunks but can be trained to grow with a single trunk; no thorns

Pruning requirement: needs little pruning to develop a strong structure

Breakage: resistant

Current year twig color: brown

Current year twig thickness: thin



Figure 3. Foliage of American Hophornbeam.

Culture

Light requirement: tree grows in part shade/part sun;
tree grows in the shade; tree grows in full sun

Soil tolerances: clay; loam; sand; acidic; alkaline;
well-drained

Drought tolerance: high

Aerosol salt tolerance: none

Soil salt tolerance: poor

Other

Roots: surface roots are usually not a problem

Winter interest: tree has winter interest due to unusual form, nice persistent fruits, showy winter trunk, or winter flowers

Outstanding tree: tree has outstanding ornamental features and could be planted more

Invasive potential: little, if any, potential at this time

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: no pests are normally seen on the tree

USE AND MANAGEMENT

This is a rugged tree, tolerant of poor soil conditions found in urban areas and should be grown and planted more. Can be purchased as a single or multi-trunked specimen. Multi-stemmed trees have a dramatic impact in the landscape with bright bark and wonderful form. Great for climbing.

Hophornbeam has a shallow root system and will grow in most soils except those that are wet. It is well adapted to downtown city plantings provided soil drainage is good. Often found on dry, rocky slopes with little soil, Hophornbeam is quite tolerant of drought and needs little care once established. Locate it close to people so they can enjoy the wonderful bark and foliage.

Pests

No pests of this tree are usually serious.

Two-lined chestnut borer may infest Hophornbeam. Keep trees healthy by regular fertilization and irrigate soil around tree during drought periods to reduce susceptibility to borer attack.

Scales are usually controlled with horticultural oil.

Basswood leafminer may cause some leafmining damage to foliage.

Orange-humped mapleworm may be found feeding on *Ostrya* north of Pennsylvania.

Diseases

No diseases of this tree are usually serious.

Canker diseases can cause dieback of individual branches or entire trees. Prune out diseased branches, fertilize regularly, and water during dry weather.

Leaf blister causes blistered or deformed leaves but is not something which needs control.

Leaf spots are generally not serious. Rake up and destroy infected leaves at the end of the growing season, if you wish.

Powdery mildew makes a white coating on the leaves but is otherwise harmless.