

Ilex opaca: American Holly¹

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Introduction

A popular landscape plant since the beginning of American history, this broad-leaved evergreen has served a variety of uses through the years. The American Indians used preserved holly berries as decorative buttons and were much sought after by other tribes who bartered for them. The wood has been used for making canes, scroll work and furniture, and has even been substituted for ebony in inlay work when stained black.

General Information

Scientific name: *Ilex opaca*

Pronunciation: EYE-lecks oh-PAY-kuh

Common name(s): American holly

Family: Aquifoliaceae

USDA hardiness zones: 5B through 9 (Figure 2)

Origin: native to the eastern half of the United States

UF/IFAS Invasive Assessment Status: native

Uses: street without sidewalk; specimen; hedge; reclamation; screen; parking lot island 100–200 sq ft; parking lot island > 200 sq ft; tree lawn 3–4 feet wide; tree lawn 4–6 feet wide; tree lawn > 6 ft wide; sidewalk cutout (tree pit); urban tolerant; highway median; Bonsai



Figure 1. Full Form—*Ilex opaca*: American holly

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Figure 2. Shaded area represents potential planting range.

Description

Height: 35 to 50 feet

Spread: 15 to 25 feet

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

Crown shape: pyramidal

Crown density: dense

Growth rate: slow

Texture: medium

Foliage

Leaf arrangement: alternate

Leaf type: simple

Leaf margin: pectinate, entire, spiny

Leaf shape: elliptic (oval), lanceolate

Leaf venation: banchidrome; pinnate

Leaf type and persistence: evergreen, broadleaf evergreen

Leaf blade length: 2 to 4 inches

Leaf color: dark green and shiny on top, lighter green underneath

Fall color: no color change

Fall characteristic: not showy



Figure 3. Leaf—*Ilex opaca*: American holly

Flower

Flower color: dull green to creamy white

Flower characteristics: pleasant fragrance; inconspicuous and not showy; male—emerges in clusters on 3–7 cymes; female—fragrant, emerges solitary from leaf axils

Flowering: spring

Fruit

Fruit shape: round

Fruit length: ¼ inch

Fruit covering: fleshy drupe

Fruit color: shiny, bright red

Fruit characteristics: attracts birds; no significant litter problem; persistent on the tree; showy

Fruiting: ripens in fall



Figure 4. Fruit—*Ilex opaca*: American holly

Trunk and Branches

Trunk/branches: bark is thin and easily damaged from mechanical impact; droop as the tree grows, and will require pruning for vehicular or pedestrian clearance beneath the canopy; not particularly showy; should be grown with a single leader; no thorns

Bark: light gray and smooth

Pruning requirement: needs little pruning to develop a strong structure

Breakage: resistant

Current year twig color: green, brown

Current year twig thickness: medium

Wood specific gravity: 0.61



Figure 5. Bark—*Ilex opaca*: American holly
Credits: Gitta Hasing

Culture

Light requirement: full sun to full shade

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

Drought tolerance: high

Aerosol salt tolerance: high

Soil salt tolerance: moderate

Other

Roots: not a problem

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

Outstanding tree: not particularly outstanding

Ozone sensitivity: tolerant

Verticillium wilt susceptibility: not known to be susceptible

Pest resistance: long-term health usually not affected by pests

Use and Management

American holly is a beautifully shaped tree, with a symmetrical, dense, wide pyramidal form. The spiny, dull green leaves are accented with clusters of red berries which persist throughout the fall and winter. Male and female flowers appear on separate trees and trees of both sexes must be located in the same neighborhood to ensure production of berries on the female plants. American holly is ideal for use

as a street or courtyard tree (with lower branches removed), framing tree, specimen, barrier planting or screen. Roots are shallow and finely branched, and rarely invasive due to their great number and relatively small diameter. This native tree is ideal for naturalizing on moist, slightly acid soils, and the fruit is very attractive to wildlife, serving as an excellent food source. A 35-foot-tall tree can be 20 feet wide in 40 years.

Growing well in full sun to partial shade, American holly should be located on fertile, well-drained but moist, slightly acid soils below 6.5 pH. Berry production is highest in full sun on female trees. American holly foliage thins during drought but insect and disease infestations are usually minimal.

Hundreds of cultivars of American holly have been developed and hybridized over the years, providing variety of form, leaf characteristics, and fruit color. The following is a list of some available cultivars and hybrids: 'Carolina #2' has dark green leaves and abundant fruit; 'George E. Hart' has a narrow conical growth habit with small dark green leaves; 'Hume No. 2' has compact, dark green foliage, and heavy fruit; 'Croonenburg' has dark green, slightly glossy foliage and abundant fruit; 'Howard' has dense, glossy green leaves with few spines, large fruit, and a more compact form; 'Greenleaf' is softer in form than 'Croonenburg', fast-growing, and responds well to shearing; 'Jersey Knight', a male cultivar, is very hardy and has excellent foliage; 'Jersey Princess', a female cultivar, has excellent form and shining dark green leaves; 'Rotunda' has an upright growth habit, smooth, entire, glossy green leaves, and is profusely fruiting; 'Ft. McCoy', 'Dupre', 'Lake City', 'Savannah', and 'Taber' all have quite spiny leaves. 'Savannah' also has wavy curved foliage and dark, heavy fruit; 'East Palatka', a female cultivar, is actually *Ilex x attenuata*, a cross of *Ilex cassine* x *Ilex opaca*, and has only a small spine at the leaf tip. Those with yellow berries include: 'Xanthocarpa', 'Canary', and 'Morgan Gold'.

Those cultivars particularly adapted for the south include: 'Amy'—female, abundant fruit; 'Bountiful'—cone-shaped, compact, dark red fruit annually; 'Calloway'—yellow fruit; 'Miss Helen'—dark red, abundant fruit; 'Slim Jim'—open, slender Holly with narrow leaves; 'Steward's Cream Crown'—creamy, marginal venation; 'Yellow Jacket'—cadmium orange fruit.

Propagation is by cuttings or grafting.

Pests

Holly leaf miner larvae mines out the leaf middle leaving yellow or brown trails.

Scales of various types may infest holly.

Spider mites cause discoloration and speckling of holly foliage.

Diseases

Tar spot may occasionally cause small yellow spots on the leaves in early summer. Eventually the spots turn reddish brown with narrow yellow borders. Leaves may not drop prematurely but the infected areas drop out leaving holes in the leaves. Gather up and destroy badly infected leaves.

Many different fungi cause leaf spots on holly. Reduce the injury caused by leaf spots by keeping trees healthy. Dispose of diseased leaves.

Cankers caused by several different fungi lead to sunken areas on stems and plant dieback. Keep trees healthy and prune out infected branches.

Spine spot is small gray or yellow spots with purple margins and is caused by spines of one leaf puncturing an adjacent leaf.

Chlorosis symptoms are light green or yellowish leaves with darker green veins. This problem is often due to a high pH leading to iron deficiency. Use acidifying fertilizers and sulfur to bring down the pH. Sprays of iron chelate will green up plants.

In northern climates, hollies sometimes scorch during the late winter due to rapid and wide temperature fluctuations. Shade plants during the winter to prevent the problem.

Purple blotches on the leaves are caused by some environmental factor such as nutrient deficiencies, drought, and winter injury.

Black root rot can be damaging.

Reference

Koeser, A. K., Hasing, G., Friedman, M. H., and Irving, R. B. 2015. Trees: North & Central Florida. Gainesville: University of Florida Institute of Food and Agricultural Sciences.