ENH42

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IFAS Extension

Hollies in Florida[1]

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Hollies are among the most common landscape plants in the United States with over 500 cultivated *Ilex* varieties. Several *Ilex* species are native to the United States but many were introduced from South America and Asia.

DESCRIPTION

Most hollies are evergreen. There are deciduous species within the genus but few are grown in Florida. Hollies range from large upright specimens to dwarf spreading plants.

This diversity in size and form within *Ilex* species offers great variety for planting in residential landscapes. Certain species perform well in informal or formal hedges, while other hollies are best suited as accent of specimen plants. Dwarf species are ideal for foundation plantings. See Table 1.

Hollies are dioecious plants which means male and female flowers are located on separate plants. Female plants produce berries while male plants do not. Berries are an attractive feature of many hollies and nursery operators interested in berry production should propagate only female hollies. Many selections or cultivars are female plants which produce attractive fruit. Most dwarf cultivars do not produce berries since they are commonly propagated vegetatively from male plants. A male plant must be in the vicinity to pollinate the female holly. Pollen is transported primarily by bees from distances up to 1 1/2 to 2 miles (2.4 to 3.2 km).

GENERAL CULTURE

Hollies generally prefer partial shade, but most will tolerate full sun. Well-drained soils are essential and slightly acidic soils with high fertility are desirable.

Planting

Hollies are best planted between November and March. However, container grown hollies can be planted any time of the year with proper post-planting care. The planting hole should be 1 foot (30 cm) wider than the root ball and as deep as the root ball is tall. Care must be taken to plant hollies at the same depth they were previously grown. The root system should be watered thoroughly after transplanting to settle soil around the roots. A saucer-like basin 4 to 6 inches (10 to 15 cm) high should be formed around the plant to maximize watering efficiency. A 2 to 3 inch (5 to 8 cm) organic mulch added to the soil surface will decrease soil temperature fluctuations,

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conserve moisture and help control weeds. More detailed transplanting procedures are presented in Extension Circular 858 "Selecting and Planting Trees and Shrubs."

Watering

Irrigation is necessary for optimum holly growth during extended dry periods. Hollies transplanted during the dry season into deep sandy soils may require watering of the root mass twice a week. Care should be taken not to waterlog the soil since holly roots require good aeration. Established hollies should be watered generally every 7 to 10 days during dry periods to wet the soil to a depth of 14 to 18 inches (35 to 45 cm).

Fertilization

Fertilize established hollies in March and in September with a complete fertilizer with a ratio of approximately 3:1:2 or 3:1:3 (e.g., 15510 or 15515). One-half cup (118 cm^3) should be applied per application to hollies with a stem diameter less than 1 inch (2.5 cm). Hollies greater than 1 inch (2.5 cm) in stem diameter should receive approximately 1 cup (236 cm^3) per application. The fertilizer should be spread evenly on the soil around the plant to about one foot (30 cm) beyond the end of the branches. Do not place fertilizer close to the main stem of the plant. Fertilizers should be watered into the soil immediately after application. Apply enough water to thoroughly dilute the soluble nitrogen and potassium and move it into the root zone.

Pruning

Hollies require minimal pruning except to train the plants for special purposes, or to remove diseased or dead branches. Pruning may be necessary to maintain a single leader in a specimen holly. Detailed pruning techniques are presented in Extension Circular 853 "Pruning Landscape Trees and Shrubs."

Propagation

Holly can be grown from seed, but is seldom propagated commercially from seed due to increased production time and seedling variability. Hollies are primarily propagated vegetatively from tip cuttings in order to produce plants with the characteristics of the parent plant. Cuttings should be 3 to 5 inches (7-15 cm) long and treated with a rooting hormone. A humid environment to minimize water loss and tissue desiccation is required for optimum rooting.

PESTS

Diseases and insects are not a major problem on hollies receiving optimum cultural care. Poor performance is usually associated with inadequate growing conditions such as poor soil aeration, drought, improper planting or lack of fertilization.

The most common insect pests found on hollies include scale, leaf miners, mites and spittlebugs. Many different scale insects injure hollies by sucking plant juices from leaves and stems. A substance called honeydew is secreted by some scales and a sooty mold fungus grows on the honeydew. Besides the unattractive appearance of sooty mold, hollies infested with scale become weak and unproductive.

Leaf miners are small chewing insects that feed inside the leaf between the upper and lower surfaces. Blotch or serpentine mines appear on the upper surface or infested leaves. New leaves infested with leaf miners are often stunted and deformed.

Spider mites are found on the underside of holly leaves, especially during hot and dry weather. Infested leaves turn gray or brown and fall from the plant.

Spittlebugs are 9 to 10 mm long, black-brown in color and oval shaped with two orange bands across their wings. They feed on young holly leaves and stems by sucking plant juices. Leaves often are killed and drop from the plant. Insecticide and miticide recommendations can be obtained from your County Extension Office.

Diseases known to attack hollies include twig dieback, stem gall, and root rot. Various fungi cause twigs and stems of holly to die. Twig dieback starts at twig tips and gradually progresses inward. Leaves often wilt and drop from the plant. Stem galls develop within a few centimeters of the tip. Stems enlarge and initiate an abnormal number of shoots producing a witches broom. Infected stems should be removed several centimeters below the lowest visible symptom

and burned. Fungicides will not control these diseases after they have become established.

Root rots usually are associated with hollies planted in poorly drained, wet soils. Poor aeration weakens holly roots and the fungi can then cause considerable damage. Hollies with this disease appear weak, and branches, sections of the plant, or the whole plant can die. When examination of the stem between the bark and the wood shows a white layer of fungal growth, mushroom root rot is involved. Mushroom fruiting bodies may appear near the soil line in advanced stages of infection. Dead or dying plants should be removed with as much of the root system as possible, and the soil should be replaced before replanting.

Table 1.

Table 1. Hollies for Florida				
Name	Height/Spread	Foliage	Fruit	Zone*
Small Tree or Large Shrub				
Ilex cassine (Dahoon Holly)	20-40'/15-20'	Flat, leathery, dark green; margins entire or sparsely spined	Red or yellow	NCS
Comment: Florida native; generally pest free				
var. *myrtifolia*	20-40'/15-20'	Narrow, linear and leathery; margins entire	Red, yellow or orange	NC
Comment: Florida native; leaf narrower than Dahoon Holly				
Ilex cornuta (Chinese Holly)	20-40'/15-20'	Leathery, dark glossy green; 1 to 3 spines/margin	Bright red	NCS
Comment: Susceptible to scale and leaf miner				
`Burfordii'	10-20'/8-10'	Dark, glossy green; single terminal spine	Bright red	NCS
Comment: Abundant fruit producer; susceptible to scale and leaf miner				
Ilex latifolia (Lusterleaf Holly)	40-60'/20-30'	Wide, flat, glossy green	Dull red	NC
Comment: Pyramidal form; fruit not showy; relatively slow growing				
Ilex opaca (American Holly)	40-50'/15-30'	Medium, flat leathery, dull or glossy green	Bright red	NC
Comment: Florida native; pyramidal form; attractive fruit				
`East Palatka'	40-50'/15-25'	Small, thick, flat, glossy green	Bright red	NC
Comment: Upright conical form with narrow base; abundant fruit				
`Howard'	40-50'/15-30'	Medium, glossy dark green	Bright red	NC
Comment: Compact growth; good fruit producer, named for UF professor				
`Hume #2'	40-50'/15-30'	Medium, shiny light green; sparsely spined	Dark red	NC

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Name	Height/Spread	Foliage	Fruit	Zone*
Comment: Named for UF professor				
`Lake City'	30-35'/15-20'	Medium, light green	Bright orange	NC
Comment: Open branching habit				
`Savannah'	40-50'/15-25'	Medium, dull green	Dark red	NC
Comment: Upright, columnar form				
`Taber #3'	40-50'/15-30'	Medium, dull green	Red	NC
Comment: Upright, conical form, named for Florida nurseryman				
Ilex rotunda (Round Holly)	30-40'/12-15'	Medium, glossy dark green; no spines	Bright red	NCS
Comment: Upright conical; open branched form				
`Lord'	30-40'/15-20'	Medium, glossy green; no spines	Bright red	NCS
Comment: Upright spreading form; selected by UF professor				
Ilex vomitoria (Yaupon Holly)	20-25'/10-15'	Small, glossy green top surface; leaves toothed, no spines	Bright red or yellow	NCS
Comment: Branches have gray pubescence; new growth is usually burgundy; heavy fruit producer				
Medium shrubs				
Ilex cornuta `Dwarf Burford'	6'/4-5'	Dark glossy green; single apical spine	Bright red	NCS
Comment: Dwarf selection of `Burfordii'; few pest problems				
Ilex crenata `Hetzii'(Hetz Japanese Holly)	6'/8-10'	Larger, glossy green; cupped slightly downward	Black	N
Comment: Densely branched; compact; excellent landscape plant				
`Rotundifolia'(Roundleaf Japanese Holly)	6-8'/6'	Larger, glossy green; flat slightly toothed	Black	N

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Name	Height/Spread	Foliage	Fruit	Zone*
Comment: Densely branched; compact; excellent landscape plant				
Ilex glabra (Inkberry)	10'/3-5'	Larger, glossy medium green	Black	NCS
Comment: Clumping form; can become a pest; Florida native				
Dwarf shrubs				
Ilex cornuta `Rotunda'	4-5'/5-6'	Medium, glossy green; 5-7 marginal spines with 5 distinct lobes	Red; not often present	N
Comment: Compact, spreading; heavily armed shrub				
`Carissa'	4-5'/5-6'	Larger, glossy green; single apical spine; rough texture	None	N
Comment: Similar to Natal plum; coarse texture; patented cultivar				
Ilex crenata `Helleri'	3-4'/4-5'	Small, dark green; toothed margin; new growth is green	Black; not often present	N
Comment: Compact growth; sensitive to nematode attack; mass plantings are excellent				
`Convexa' (Convexleaf Holly)	4-5'/5-6'	Small, glossy green; cupped downward	Black; not often present	N
Comment: Excellent foundation plant; inspect for spider mites in cupped leaf				
Ilex vomitoria `Nana'(Dwarf Yaupon)	4-5'/5-6'	Small, dark green; toothed margin; new growth often burgundy	Red; not often present	NCS
Comment: Excellent dwarf shrub				
`Stokes Dwarf'	4-5'/5-6'	Small, dark green; toothed margin; similar to `Nana'	Red; not often present	NCS
Comment: Thought to be same as 'Shilling Dwarf'; excellent dwarf shrub				
*N = North Florida; C = Central Florida; S = South Florida				