



Botanic Gardens COLLEGE OF AGRICULTURE & NATURAL RESOURCES

HOLLY (Ilex) Genus Overview

Ilex is a genus of about 400 species. It is widespread throughout the temperate and subtropical regions of the world. It includes species of trees, shrubs, and climbers, with evergreen or deciduous foliage and inconspicuous flowers. Plants in this genus have simple, alternate glossy leaves, typically with a spiny toothed or serrated leaf margin. Flowers are primarily dioecious, which refers to the fact that male and female flowers occur on separate plants. The small, white flowers are generally lost among the foliage when they appear during mid spring to early summer. The fruit of hollies are commonly called berries, but are more correctly termed drupes, since they feature a hard inner layer (endocarp). These ripen by late summer or fall and can be black, red, orange or even yellow depending on the species or cultivar. Another interesting trait is that most hollies respond courageously to drastic pruning. Large plants can be cut back to the ground and subsequently produce vigorous new shoots from older, mature wood. Mature specimens can be "rejuvenated" if they become too large, open or leggy. Hollies are among the most versatile group of hardy ornamental plants and are frequently utilized as accent or foundation plants, screens or as lone specimens. There is truly a holly for almost any landscape application.

1: Ilex aquifolium

The English Holly is an upright, broadleaf evergreen tree that can reach 30 to 50 feet with a dense growing habit, even in old age. Native to a large area of Europe and western Asia, the species has been horticulturally important for centuries and now boasts over 200 cultivars with varying characteristics. It prefers part-full sun and acidic, well-drained soil. The species exhibits dark green, lustrous leaves with undulating, spiny margins. However, many named cultivars have been selected for myriad leaf shapes and patterns of variegation. These typically include those with leaves edged in creamy white to shades of bright gold. They range from 1 to 3 inches long and 3/4 to 2.5 inches wide. Tiny white flowers appear in May and female plants bear red, 1/4 inch diameter drupes that persist well into winter. The UDBG features eleven different selections of English Holly. 'N.Y.B.G. No. 2' is a smaller-statured cultivar offering a neat, compact growth habit and excellent cold hardiness. It has graced the UDBG's holly collection for over 50 years. Originating at the New York Botanical Garden, this cultivar also sports exceptionally glossy foliage and prodigious fruit production. A mature specimen (64-14*2) can be found among the English Holly cultivars just west of Townsend Hall. A younger example (09-76*1) resides beneath the large Swamp White Oak (*Quercus bicolor*) just north of Fischer Greenhouse.

2: Ilex cornuta

The Chinese Holly is a dense, rounded, bushy evergreen shrub that is native to eastern China. The plant can reach mature height between 8–10 feet, but can reach the height of 25 feet in its native environment. The coarse textured deep green leaves are alternately arranged on the smooth gray stems. It will produce dull white, four-petaled flowers. In addition, Chinese Holly produces bright red fruits that persist through winter based on the different cultivars. Both heat and drought tolerant, Chinese Holly is a commonly-used plant in contemporary landscaping. The cultivar 'Rotunda', one of nineteen different Chinese Holly

cultivars and hybrids, is a particularly handsome plant that is well suited to such use. An exemplary specimen (Accession #95-19*1) resides along Roger Martin Lane between the UDBG office and the Herbaceous Garden. This 20-year-old plant exhibits the dense, compact growth habit and size to be expected at landscape maturity.

3: Ilex latifolia

Lusterleaf Holly is relatively uncommon in Mid-Atlantic landscapes, but certainly deserves wider attention from the horticulture industry and gardeners alike. This picturesque evergreen tree is native to southern Japan and hardy to USDA zones 7 to 9. The plant prefers full sun to partial shade and well drained soils but can tolerate drier conditions. It can reach heights of 20-25 feet at maturity, and forms a dense, pyramidal specimen with age. The thick, leathery leaves are among the largest of any holly species and measure up to 6–8 inches long and 3–4 inches wide. The resulting textural effect stands out in almost any landscape situation. The small, yellow-green flowers of late spring are followed by bright red fruit (drupes) borne in dense clusters during the fall and persisting well into mid winter. *Ilex latifolia* has been used extensively in breeding by the U.S. National Arboretum to produce hardy female hybrids such as 'Agena' and 'Venus'. A particularly handsome cross is that of *Ilex latifolia* and the aforementioned *Ilex aquifolium* (English Holly) that goes by the name *Ilex ×koehneana*. UDBG is fortunate to hold a stunning specimen of *Ilex ×koehneana* 'Wirt L. Winn' (95-17*1) in the rear corner of the Herbaceous Garden. One look demonstrates why this handsome clone should be on any holly aficionado's "Top 5" list.

4: Ilex opaca

The American Holly is a dioecious, slow growing, broadleaf evergreen tree with a conical cylindrical to conical growth habit, reaching 45 feet in height and as much as 20 feet in width. Native to the eastern United States, it is very commonly seen in woodlands and landscapes from Pennsylvania south through Florida and is hardy in zones 5–9. For dense vigorous growth it prefers full sun but it naturally competes very well in the understory so it will tolerate a fair amount of shade. It prefers acidic, well drained, aerated soil but will tolerate a variety of soil conditions. The thick, 1-inch evergreen leaves consist of 5–9 thorny lobes and maintain their deep green color all year round. The flowers of American Holly are not ornamentally important, but very notable are the red drupes that measure up to 1/2 inch in diameter. The fruit display is often quite prolific and attractive on female plants when a male pollen source is present. Scores of cultivars have been selected for the color, size and persistence of the fruit. Numerous songbirds also prize the fruit of American Holly and descend in throngs to devour the softening drupes each spring. The smooth, gravish bark on mature trees is also somewhat ornamental but is often masked by branches and foliage extending down to the ground. I. opaca is very popular in the nursery industry and is used as a specimen tree or evergreen screen in many landscapes. The collection at UDBG has thirteen different cultivars that were originally planted by Dr. Charles Dunham to evaluate fruit production for holiday sale. Perhaps the most unusual variety of American Holly is 'Maryland Dwarf' (formerly known as 'Maryland Spreader'). In stark contrast to its upright brethren, this plant features a uniquely mounded to spreading habit, and matures at about 6-8 feet tall and twice as wide after many years. Our specimen (Accession #78-10*1) is easily distinguished from the taller cultivars found in the northern portion of the Clark Garden across from Townsend Hall.

5: Ilex ×attenuata

Promiscuous hybridization between related holly species is quite common and has been exploited by horticulturists for many years. A prime example, Foster's or Topal Holly, is a naturally occurring hybrid of two indigenous holly species. The first, *Ilex cassine*, is known as dahoon and is native to the Southeastern coastal plain. The other parent is the more widely distributed and hardier American Holly (*I. opaca*). The foliar traits of *Ilex ×attenuata* are generally intermediate between its parents and feature pale olive to dark, glossy green leaves that are usually elliptic to oblong in shape and 1.5 to 3 inches long. Like its parents, this holly produces persistent red drupes that become an ornamental focal point during the winter months. The most common *I. ×attenuata* cultivar in this area is 'Foster #2' (a.k.a. 'Fosteri'). It has enjoyed decades of popularity thanks to rapid growth, lustrous foliage, copious fruit and cold hardiness. A uniquely charming cultivar with a local pedigree, 'Longwood Gold', boasts bright yellow fruit that ripens into prominence by mid October. Three lovely specimens of 'Longwood Gold' (07-14*1, 2 & 3) grace the northwestern corner of the UDBG office.

Work Cited

Dirr, Michael. (1975). *Manual of Woody Landscape Plants* (6th ed.). Champaign, IL: Stipes Publishing LLC.

Please reference Holly Featured Selections Map pdf for locations of these hollies at UDBG.