



Ilex spp

Family: Aquifoliaceae

Holly

The genus *Ilex* contains over 350 species native to: North America [26], Europe [1], tropical Africa [1], Australia [1], with the rest in China and Brazil. The word *ilex* is the classical Latin name of *Quercus ilex* L., holly oak, of Europe, which has holly like leaves.

Ilex ambigua-**Carolina Holly**, Large-leaf Holly, Mountain Holly, Mountain Privet, Mountain Winterberry, Myrtle Holly, Sand Holly

Ilex amelanchier-**Sarvis Holly**, Serviceberry Holly

Ilex aquifolium-**European Holly** (introduced in colonies)

Ilex cassine-Alabama Dahoon, Cassena-bush, Cassena Holly, Christmasberry, **Dahoon**, Dahoon Holly, Florida Holly, Hendersonwood, Yaupon

Ilex coriacea-Bay Gallbush, **Large Gallberry**, Sweet Gallberry

Ilex decidua-Bearberry, Curtis Possumhaw, Deciduous Holly, Meadow Holly, **Possumhaw**, Privet, Swamp Holly, Winterberry

Ilex krugiana-Krug Holly, Southern Holly, **Tawnyberry Holly**

Ilex laevigata-**Smooth Winterberry**

Ilex longipes-Chapman Holly, **Georgia Holly**

Ilex montana-Mountain Holly, **Mountain Winterberry**

Ilex myrtifolia-Dahoon, **Myrtle Dahoon**, Myrtle Holly

*Ilex opaca**-**American Holly**, Christmas Holly, Evergreen Holly, Holly, Prickly Holly, White Holly, Yule Holly

Ilex opaca var. *opaca* -**American Holly (typical)**

Ilex opaca var. *arenicola*-**Dune Holly**, Hummock Holly, Scrub Holly

Ilex verticillata-Black Alder, **Common Winterberry**, Winterberry

Ilex vomitoria-Appalachian Tea, Bassena, Carolina Tea, Cassena, Cassena-bush, Cassine, Cassioberry, Christmas Berry, Deerberry, Emetic Holly, Evergreen Cassena, Evergreen Holly, True Cassena, **Yaupon**, Yopon

*commercial species

The following is for American Holly:

Distribution

North America, from Massachusetts, Connecticut and New York, southwest to Pennsylvania, West Virginia, Ohio, Kentucky, Missouri and Oklahoma, south to Texas and east to Florida.

The Tree

Hollies have spiny evergreen leaves and red berries on the female trees. It is found in lower areas of deep, rich, moist soils in association with magnolia, oaks, sweet gum, maples and hackberry. It reaches a height of 50 feet with a 2 foot diameter. The bark is thick and relatively smooth with rough wart like processes.

The Wood

General

The sapwood of Holly is white and the heartwood is an ivory white with a bluish cast or streaks. It has no characteristic odor or taste and is heavy, hard, close grained and tough, with a low luster like ivory.

Mechanical Properties (2-inch standard)

	Specific gravity	MOE x10 ⁶ lbf/in ²	MOR lbf/in ²	Compression		WML ^a in-lbf/in ³	Hardness lbf	Shear lbf/in ²
				Parallel lbf/in ²	Perpendicular lbf/in ²			
Green	0.50	0.90	6,500	2,640	610	10.8	790	1,130
Dry	0.57	1.11	5,540	5,540	1,130	10.7	1,020	1,710

^aWML = Work to maximum load.
Reference (59).

Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	9.9	7.9	3.3
Radial	4.8	3.8	1.6
Volumetric	16.9	13.5	5.6

References: 0% MC (98),
6% and 20% MC (90).

Kiln Drying Schedules^a

Condition	Stock				
	4/4, 5/4, 6/4	8/4	10/4	12/4	16/4
Standard	T6-D4	T4-C3	-	-	-

^aReferences (6, 86).

Working Properties: It is difficult to work, but takes a high polish. It glues and screws well, but drilling should be done slowly. It takes a stain well, and can be ebonized.

Durability: Holly is susceptible to fungal attack.

Preservation: No information available at this time.

Uses: Furniture (inlay), keys for musical instruments (ebonized), scientific instruments, fixtures, brush backs, carvings, scrollwork, engravings, handles, turnery & novelties.

Toxicity: No information available at this time.

Additional Reading and References Cited (in parentheses)

1. Boone, R.S., C.J. Kozlik, P.J. Bois & E.M. Wengert. 1988. Dry kiln schedules for commercial woods - temperate and tropical. USDA Forest Service, FPL General Technical Report FPL-GTR-57.
2. Elias, T.S. 1980. The complete trees of North America, field guide and natural history. Van Nostrand Reinhold Co., New York, 948 pp.
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4. Markwardt, L.J. and T.R.C. Wilson. 1935. Strength and related properties of woods grown in the United States. USDA Forest Service, Tech. Bull. No. 479. USGPO, Washington, DC.
5. Panshin, A.J. and C. de Zeeuw. 1980. Textbook of Wood Technology, 4th Ed., McGraw-Hill Book Co., New York, 722 pp.
6. Record, S.J. and R.W. Hess. 1943. Timbers of the new world. Yale University Press, New Haven, 640 pp.
7. Simpson, W.T. 1991. Dry kiln operator's manual. USDA Forest Service, FPL Ag. Handbook 188.
8. Summitt, R. and A. Sliker. 1980. CRC handbook of materials science. Volume 4, wood. CRC Press, Inc., Boca Raton, FL. 459 pp.

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