



***Magnolia* spp.**

Family: Magnoliaceae

Magnolia

Magnolia (*Magnolia* spp.) consists of about 80 species from Asia [50], West Indies [8], Central/South America [10] and North America [8]. Some species separations are possible based on microanatomy. The genus *Magnolia* is dedicated to Pierre Magnol (1638_1715), professor of botany and medicine and director of the botanic garden at Montpellier, France.

*Magnolia acuminata**-black lin, black linn, blue magnolia, cowcumber, cucumber, cucumber magnolia, **cucumbertree**, cucumberwood, elkwood, magnolia, mountain magnolia, pointed-leaved magnolia, yellow cucumbertree, yellow-flower magnolia, yellow lin, yellow linn, yellow poplar, wahoo, wauhoo

Magnolia ashei-**ashe magnolia**, cucumbertree, sandhill magnolia

Magnolia fraseri-cucumber, cucumbertree, earleaf cucumber, earleaf cucumbertree, earleaf umbrella-tree, **Fraser magnolia**, Fraser umbrella, Indian bitters, Indian physic, long-leaf cucumbertree, magnolia, mountain-cucumber, mountain magnolia, mountain-oread, North Carolina bay-tree, umbrella-tree, water-lilly-tree, whahoo

*Magnolia grandiflora**-bat-tree, bull-bay, big-laurel, black lin, cucumberwood, evergreen magnolia, great laurel, large-flower magnolia, laurel, laurel bay, laurel-leaved magnolia, magnolia, mountain magnolia, **southern magnolia**, sweet magnolia

Magnolia macrophylla-big-bloom, **bigleaf magnolia**, cowcumber, cucumber, cucumbertree, elkbark, great-leaved magnolia, large-leaf cucumbertree, large-leaf magnolia, longleaf cucumber, long-leaved magnolia, mountain magnolia, pyramid magnolia, royal-oread, silverleaf, silverleaf magnolia, southern cucumbertree, umbrella-tree, large-leaved umbrella-tree, white cucumbertree

Magnolia pyramidata-mountain magnolia, mountain-oread, **pyramid magnolia**, southern cucumbertree, wood-oread

Magnolia tripetala-cucumber, cucumbertree, elk-browse, elkwood, Japanese magnolia, magnolia, **umbrella magnolia**, umbrella-tree, wahoo

*Magnolia virginiana**-bat-tree, bay, bay-tree, beaver-tree, big laurel, black lin, bullbay, cucumberwood, Indian-bark, laurel magnolia, magnolia, mountain magnolia, small magnolia, southern sweetbay, swampbay, swamp-laurel, swamp magnolia, swamp sassafras, **sweetbay**, sweet magnolia, sweetbay magnolia, Virginia magnolia, white-bay, white-laurel

* commercial species

Distribution

North America

The Tree

Magnolia trees can reach heights of 80 ft (24 m), with a diameter of 3 ft (1 m).

The Wood

General

The sapwood of magnolia is creamy white, while the heartwood is light to dark brown, often with greenish to purple-black streaks or patches. The wood is even-textured and moderately heavy, fairly hard and straight grained. It resembles yellow poplar (*Liriodendron* spp.). Magnolia is moderately stiff, high in shock resistance, and low in shrinkage. It has no characteristic odor or taste.

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			
<i>Magnolia acuminata</i> (cucumbertree)								
Green	0.44	1.56	7,400	3,140	330	10.0	520	990
Dry	0.48	1.82	12,300	6,310	570	12.2	700	1,340
<i>Magnolia fraseri</i> (Fraser magnolia)								
Green	0.40	-	-	-	-	-	-	-
Dry	0.44	-	-	-	-	-	-	-
<i>Magnolia grandiflora</i> (southern magnolia)								
Green	0.46	1.11	6,800	2,700	460	15.4	740	1,040
Dry	0.50	1.40	11,200	5,460	860	12.8	1,020	1,530
<i>Magnolia virginiana</i> (sweetbay)								
Green	-	-	-	-	-	-	-	-
Dry	-	1.64	10,900	5,680	560	-	-	1,680

^aWML = Work to maximum load.

^bReference (90,98).

^cReference (59).

Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
<i>Magnolia acuminata</i> (cucumbertree)			
Tangential	8.8	7.0	2.9
Radial	6.6	5.3	2.2
Volumetric	8.3	-	-
<i>Magnolia grandiflora</i> (southern magnolia)			
Tangential	5.2	4.2	1.7
Radial	5.4	4.3	1.8
Volumetric	4.7	-	-
<i>Magnolia virginiana</i> (sweetbay)			
Tangential	13.6	10.9	4.5
Radial	12.3	9.8	4.1
Volumetric	12.9	-	-

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
<i>Magnolia grandiflora</i> and <i>Magnolia virginiana</i>					
Standard	T10-D4	T8-D3	-	-	-

^aReferences (6, 86).

Working Properties: Magnolia has average nail-holding ability, is readily worked, and glues, paints, and finishes well.

Durability: Rated as slightly or nonresistant to heartwood decay.

Preservation: No information available at this time.

Uses: Lumber, veneer, furniture (upholstery frames), boxes, interior trim, cabinetry, doors, slats for venetian blinds, plywood.

Toxicity: The bark and leaves can be irritating (64), while the wood has been reported to cause bronchial asthma and rhinitis (40).

Additional Reading and References Cited (in parentheses)

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