



## *Gleditsia triacanthos*

Family: Leguminosae

### Honeylocust

The genus *Gleditsia* contains about 14 species native to the warm temperate and tropical regions. There are two species in North America, which hybridize. All species look alike, with respect to wood anatomy. The word *gleditsia* is a Latinized name, honoring Johann Gottlieb Gleditsch (1714-1786), director of the Berlin Botanic Garden.

*Gleditsia triacanthos*-Common Honeylocust, Confederate Pintree, Honey, **Honeylocust**, Honeyshucks, Shucks Honeylocust, Squeak-bean, Sweet-bean, Sweetlocust, Thornlocust, Thorn-tree, Thorny Acacia, Thornylocust, Three-thorned Locust

*Gleditsia aquatica*- Blacklocust, Honeylocust, Swamp Waterlocust, **Waterlocust**

#### Distribution

Honeylocusts range extends from Pennsylvania west to South Dakota, Nebraska, south to Texas, east to Alabama and Georgia, northeast along the Appalachians to Pennsylvania.

#### The Tree

Honeylocust trees can reach heights of 80 feet, with a diameter of 3 feet.

#### The Wood

##### General

The sapwood of Honeylocust is yellowish and wide, while the heartwood is light red to reddish brown. It has no characteristic odor or taste. It is very heavy and very hard, tough, strong, with a high luster. The texture is moderately coarse, with straight to irregular grain.

##### Mechanical Properties (2-inch standard)

	Specific gravity	MOE x10 <sup>6</sup> lbf/in <sup>2</sup>	MOR lbf/in <sup>2</sup>	Compression		WML <sup>a</sup> in-lbf/in <sup>3</sup>	Hardness lbf	Shear lbf/in <sup>2</sup>
				Parallel lbf/in <sup>2</sup>	Perpendicular lbf/in <sup>2</sup>			
Green	.60	1.29	10200	4420	1150	12.6	1390	1660
Dry	.67	1.63	14700	7500	1840	13.3	1580	0000

<sup>a</sup>WML = Work to maximum load.

<sup>b</sup>Reference (98).

<sup>c</sup>Reference (59).

## Drying and Shrinkage

Type of shrinkage	Percentage of shrinkage (green to final moisture content)		
	0% MC	6% MC	20% MC
Tangential	6.6	5.3	2.2
Radial	4.2	3.4	1.4
Volumetric	10.8	8.6	3.6

<sup>a</sup>Birch shrinks considerably during drying. References: 0% MC (98), 6% and 20% MC (90).

### Kiln Drying Schedules<sup>a</sup>

No information available at this time

**Working Properties:** Honeylocust is not easy to work, but finishes smoothly.

**Durability:** Reported as fairly durable. (9)

**Preservation:** No information available at this time.

**Uses:** Fence posts and rails, general construction, furniture, interior trim.

**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.
  3. Funk, D.T. 1957. Gleditsia (honeylocusts) USDA Forest Service, FS-135.
  4. Hausen, B. M. 1981. Wood Injurious to Human Health: A Manual. Walter deGruyter & Co., Berlin, Germany; New York, NY.
  5. Little, Jr., E.L. 1979. Checklist of United States trees (native and naturalized). USDA Forest Service, Ag. Handbook No. 541, USGPO, Washington, DC.
  6. 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.
  7. Mitchell, J.; Rook, A. 1979. Botanical Dermatology: Plants and Plant Products Injurious to the Skin. Greenglass Ltd., 691 W. 28th Ave., Vancouver, British Columbia, Canada V5H 2H4.
  8. Panshin, A.J. and C. de Zeeuw. 1980. Textbook of Wood Technology, 4th Ed., McGraw-Hill Book Co., New York, 722 pp.
  9. Record, S.J. and R.W. Hess. 1943. Timbers of the new world. Yale University Press, New Haven, 640 pp.
  10. Simpson, W.T. 1991. Dry kiln operator's manual. USDA Forest Service, FPL Ag. Handbook 188.
  11. Summitt, R. and A. Sliker. 1980. CRC handbook of materials science. Volume 4, wood. CRC Press, Inc., Boca Raton, FL. 459 pp.
  12. USDA Forest Service, FPL. 1974. Wood handbook: wood as an engineering material. Ag. Handbook 72.
  13. Woods, B.; Calnan, C. D. 1976. Toxic Woods. British Journal of Dermatology; 95(13):1-97 Published by Blackwell Scientific Publications, Oxford, England OX2 OEL.
- Harry A. Alden, 1994