



Chlorophora tinctoria

Family: Moraceae

Fustic

Mora Amarilla

Other Common Names: Bois d'orange (Trinidad), Barossa, Moral (Mexico), Palo de mora (Costa Rica), Dinde, Palo amarillo (Colombia), Mora (Venezuela), Insira (Peru), Amarillo (Bolivia), Taiuva, Amarello (Brazil), Tatayiva-saiyu (Argentina).

Distribution: Widely distributed throughout tropical America. A northern form is found in coastal lowlands of southern Mexico, Central America, the West Indies, and northern South America. A southern form is found in Misiones (Argentina), Paraguay and southern Brazil, but nowhere abundant.

The Tree: Forest-grown trees are well formed, frequently 20 to 24 in. in diameter and 60 to 80 ft high with a clear trunk of 20 to 35 ft. In certain areas the trees attain diameters of 40 in. and heights of 90 to 120 ft. Open-grown trees are short, highly branched, and often with a crooked bole.

The Wood:

General Characteristics: Fresh heartwood is bright yellow, drying to golden yellow, changing upon exposure to brown or russet, sometimes with a reddish tinge; sharply demarcated from the nearly white sapwood. Luster high; texture usually fine; grain variable, often interlocked; odor and taste lacking or not distinctive.

Weight: Basic specific gravity (ovendry weight/green volume) 0.71 to 0.78; air- dry density 52 to 60 pcf.

Mechanical Properties: (First set of data based on 2-in. standard, second on 2-cm standard.)

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
Green (74)	14,840	1,590	6,860
12%	19,560	2,180	11,080
Green (30)	20,000	1,920	9,700
15%	21,600	NA	11,900

Janka side hardness 2,190 lb for green material and 2,380 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 229 in.-lb. (5/8-in. specimen).

Drying and Shrinkage: Air-dries at a moderate to fast rate with only slight checking and warping. No data on kiln-drying available but air-drying followed by a mild kiln schedule is suggested. Despite its high density, the wood has exceptionally low shrinkage. Shrinkage green to ovendry: radial 3.4%; tangential 5.4%; volumetric 7.8%.

Working Properties: The wood is somewhat difficult to work with hand and power tools but finishes smoothly and glues well.

Durability: Heartwood very durable in resistance to both white-rot and brown-rot fungi and also has excellent weathering characteristics. The heartwood is also rated as highly resistant to dry-wood termites. Data on resistance to marine-borer attack are conflicting.

Preservation: The heartwood is not responsive to preservation treatments; sapwood should treat satisfactorily if incised.

Uses: Heavy construction, decking, planking, and framing for boats, exterior and interior flooring, turnery, furniture parts, tool handles, railroad ties, and wood tanks. Also contains the dye, maclurin, long used as a yellowish-brown or khaki dye.

Additional Reading: (30), (41), (56), (74)

30. Instituto de Pesquisas Tecnológicas. 1956. Tabelas de resultados obtidos para madeiras nacionais. Bol. Inst. Pesqu. téc. São Paulo No. 31.

41. Laboratorio Nacional de Productos Forestales. 1974. Características, propiedades, y usos de 104 maderas de los altos llanos occidentales. Universidad de Los Andes, Mérida.

56. Record, S.J., and R.W. Hess. 1949. Timbers of the new world. Yale University Press, New Haven, Conn.

74. Wangaard, F.F., and A.F. Muschler. 1952. Properties and uses of tropical woods, III. Tropical Woods 98:1-190.

From: Chudnoff, Martin. 1984. Tropical Timbers of the World. USDA Forest Service. Ag. Handbook No. 607.