



Alexa imperatricis

Family: Leguminosae

Haiari

Other Common Names: Haiariballi (Guyana).

Distribution: Found in the Venezuelan Guiana, Guyana, Surinam, and the Brazilian Amazon region. Often dominant on the light-colored sands of the northwest and upper Mozaruni district and the Pakaraima Mountains in Guyana.

The Tree: Unbuttressed, well formed, with small oval crowns. Grows to 36 in. in diameter and 100 ft high on favorable sites, but are usually 20 to 24 in. in diameter and less than 100 ft high. The bole is cylindrical and often 70 ft long.

The Wood:

General Characteristics: Heartwood brownish yellow but occasionally somewhat darker, not sharply differentiated from the light yellow to grayish-yellow sapwood, 3 to 4 in. wide. Luster is medium to low; generally straight grained; rather coarse textured; odorless and tasteless when dry.

Weight: Basic specific gravity (ovendry weight/green volume) reported to be 0.46 to 0.55 in Guyana; 0.41 in the Venezuelan Guiana. Air-dry density about 32 pcf.

Mechanical Properties: (1-in. standard)

Moisture content	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
12% (24)	10,590	1,580	5,620

Janka side hardness is 690 lb and the Forest Products Laboratory toughness is 118 in.-lb (5/8-in. specimen).

Drying and Shrinkage: Lumber has a marked tendency to collapse during seasoning. Close piling for air-drying and the use of high humidities and low temperatures during the early stages of kiln-drying are suggested. Veneers are slow to dry. Jet-drying of 1/16-in. veneer at 285 .F resulted in buckling, collapse, and splitting. Kiln schedule T2-C2 is suggested for 4/4 stock and T2-C1 for 8/4. Shrinkage green ovendry: radial 4.0%; tangential 8.5%; volumetric 11.7%. Movement of seasoned wood is classified as large.

Working Properties: Haiari is reported to work easily and finish satisfactorily. Nail withdrawal resistance is higher than would be expected from its density. Rotary cutting trials of 1/16-in. veneer gave smooth surfaces and uniform thickness; rough cutting occurred in 1/8-in. veneer. Reported to have rather unfavorable gluing properties when made into plywood.

Durability: Reported to be highly resistant to decay, but freshly cut logs are very susceptible to damage by pin-hole borers.

Preservation: Both sapwood and heartwood very easy to treat. Absorptions over 9 pcf with uniform penetration obtainable by hot and cold bath as well as pressure- vacuum systems.

Uses: Haiari is suitable for interior construction, boxes, crating, general construction, plywood, and other uses requiring an easily worked wood of moderate strength.

Additional Reading: (24), (46), (60)

24. Food and Agriculture Organization. 1970. Estudio de preinversion para el desarrollo forestal de la Guyana Venezolana. Informe final. Tomo III. Las maderas del area del proyecto. FAO Report FAO/SF: 82 VEN 5. Rome.
46. Longwood, F. R. 1962. Present and potential commercial timbers of the Caribbean. Agriculture Handbook No. 207. U.S. Department of Agriculture.
60. Slooten, H. J. van der. 1970. Forest industries development survey, Guyana. Evaluation study of eighteen wood species from Guyana for veneer and plywood manufacture. FAO Report FO: SF/GUY 9, Technical Report 13. Rome.

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