



Rosewood popular name for the ornamental wood of several species of tropical trees, especially for the heartwood of certain leguminous trees of the genus *Dalbergia* of the family Leguminosae (pulse family). Brazilian rosewood, or jacaranda (*D. nigra*), is one of Brazil's finest woods, important in commerce for 300 years but now close to extinction. It is obtained from the purplish-black heartwood of old trees, is rather oily, fragrant—whence the name—and durable and is used whole or in veneers for piano casings and other kinds of cabinetwork and for tools, instruments.

Dalbergia nigra

Brazilian Rosewood

Jacaranda

Family: Leguminosae

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Other Common Names: Palissandre du Bresil (French), Jacaranda de Brasil (Spanish), Cabiuna, Caviuna, Jacaranda (Brazil).

Distribution: Of scattered occurrence in the eastern forests of the State of Bahia and southward to Espirito Santo and Rio de Janeiro and inland to include Minas Gerais. Because of long-time exploitation, the tree has become very scarce in the more accessible regions.

The Tree: Sometimes attains a height of 125 ft, with short irregular bole, often buttressed, trunk diameters 3 to 4 ft. Old trees are generally hollow and also lose much of their volume when the undesired sapwood is hewed off. Old defective stems yield the most attractive wood.

The Wood:

General Characteristics: Heartwood is various shades of brown to chocolate or violet irregularly and conspicuously streaked with black; dark specimens with oily or waxy appearance and feel; sharply demarcated from the white sapwood. Grain generally straight; texture medium to rather coarse; luster medium; fragrant rose-like odor, taste distinctive.

Weight: Basic specific gravity (ovendry weight/green volume) ranges from 0.62 to 0.73; air-dry density 47 to 56 pcf.

Mechanical Properties: (2-in. standard)

Moisture content Bending strength Modulus of elasticity Maximum crushing strength

(%) (Psi) (1,000 psi) (Psi)

Green (75) 14,140 1,840 5,510

12% 18,970 1,880 9,600

Janka side hardness 2,440 lb for green material and 2,720 lb at 12% moisture content. Forest Products Laboratory toughness average for green and dry material is 151 in.-lb. (5/8-in. specimen). Above values for Brazilian Dalbergia with a basic specific gravity of 0.80.

Drying and Shrinkage: The timber needs to be dried slowly to prevent checking. Once seasoned it absorbs moisture slowly and is dimensionally stable in service. Kiln schedule T3-C2 is suggested for 4/4 stock and T3-C1 for 8/4. Shrinkage green to ovendry: radial 2.9%; tangential 4.6%; volumetric 8.5%.

Working Properties: This wood has excellent working properties and veneers well. Some specimens may be too oily to take a good polish.

Durability: Heartwood is very resistant to decay and insect attack.

Preservation: No data available (the uses of this species are such that a preservation treatment would not be desirable even if the wood would be receptive).

Uses: Decorative veneers, fine furniture and cabinets, parts of musical instruments brush backs, knife and other handles, fancy turnery, piano cases, marquetry.

Additional Reading: (22), (56), (75)

M 150 282-3 Logs are delivered to a sawmill in southern Nigeria. African mahogany (mostly *Khaya ivorensis*) is in high demand on overseas markets. Export of logs from this region, as well as from most other tropical areas, is being restricted.

M 150 282-2 Band mills in Ghana are designed to handle logs 5 feet and more in diameter. Obeche or Wawa (*Triplochiton scleroxylon*) logs yield lumber favored for joinery and millwork.

M 150 273-14 In many areas of the tropics, fast-growing species are being introduced for future supplies of fuel wood and industrial wood. Batai (*Albizia falcataria*) is a favored plantation species in the Philippines.

M 150 273-13 *Shorea* spp. is still the major timber group harvested in Southeast Asia. With modern chain saws, fellers no longer need scaffolding to get above large buttresses.

M 150 281 Felling of white lauan or almon (*Shorea almon*) with axes in the early 1900s in the Philippines. Most hardwood plywood now imported into the USA is

produced from species of Shorea.

[M 150 273-9 Plywood mill in San Jose, Costa Rica, produces rotary-cut veneers mostly from banak (Virola spp.) and crabwood or cedro macho (Carapa guianensis). Logs trucked in from the Caribbean coast.]

M 150 273-21 Mahot or Tauary (Couratari spp.) grows from Panama south to the Brazilian Amazon. Trunk diameters may exceed 4 feet above the stout buttresses. In tropical American moist forests, single species usually make up less than 5 percent of the stand volume.