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Wood Technology Transfer Fact Sheet

Gonystylus spp.

principally G. bancanus

Ramin

Family: Gonystylaceae

Other Common Names: Melawis (Malaya), Garu Buaja (Indonesia), Lanutan-Bagio (Philippines).

Distribution: Found in peat swamp forests of Malaya through parts of Sumatra, west coast of Borneo, and the Philippines.

The Tree: A tall tree free of branches to 50 to 60 ft, bole straight, cylindrical, sometimes fluted at the base; trunk diameter commonly to 2 ft.

The Wood:

General Characteristics: Heartwood and sapwood creamy white to pale straw, not differentiated. Grain generally straight or shallowly interlocked; texture fairly fine and even; low in luster. The wood has an unpleasant odor when freshly cut and this may return if dried wood becomes wet. It is suggested that this occurs only in pond-stored logs.

Weight: Basic specific gravity (ovendry weight/green volume) 0.52; air-dry density 41 pcf.

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

Moisture content Bending strength Modulus of elasticity Maximum crushing strength

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

Green (35) 10,300 1,470 5,620

12% 19,400 2,030 10,500

12% (52) 17,700 2,170 8,650

Janka side hardness 640 lb for green material and 1,300 lb for dry. Amsler toughness 193 in.-lb at 12% moisture content (2-cm specimen).

Drying and Shrinkage: Dries readily with little warp but with a marked tendency to end splitting and surface checking, end coating of boards is suggested. Kiln schedule T3-C2 is suggested for 4/4 stock and T2-C1 for 8/4. Shrinkage green to oven-dry: radial 4.3%; tangential 8.7%; volumetric 13.4%. Movement in service is rated as large.

Working Properties: The timber is easy to saw and machine, dresses smoothly, glues and finishes satisfactorily. The wood has a marked tendency to split on nailing.

Durability: The wood is highly susceptible to attack by decay fungi, prone to blue stain; not resistant to termite attack. Freshly felled logs are liable to immediate attack by ambrosia beetles.

Preservation: The wood is easily treated using either open tank or pressure- vacuum systems; absorptions are over 25 pcf (creosote).

Uses: Furniture, joinery, moldings, paneling, flooring, turnery, plywood, nonstriking handles (brooms), dowels, picture frames, a general utility wood.

Additional Reading: (9), (17), (35), (52)

9. Burgess, P. F. 1966. Timbers of Sabah. Sabah For. Rec. No. 6.

17. Farmer, R. H. (Editor). 1972. Handbook of hardwoods. H. M. Stationery Office, London.

35. Lavers, G. M. 1967. The strength properties of timbers. For. Prod. Res. Bull. No. 50. H. M. Stationery Office. London.

52. Sallenave, P. 1971. Proprietes physiques et mecaniques des bois tropicaux. Deuxieme Supplement. Centre Tech. For. Trop., Nogent-sur-Marne.

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