

# technology transfer *fact sheet*



Center for Wood Anatomy Research

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## *Cynometra alexandri* **Family: Leguminosae** **Muhimbi**

**Other Common Names:** Muhindi (Uganda).

**Distribution:** Central and East Africa, usually representing a somewhat dry type of forest, but not uncommon as a constituent of forest swamps, normally gregarious.

**The Tree:** Reaches a height of 120 to 150 ft with a wide low-branched crown and a clear bole rarely more than 40 ft, trunk diameters about 4 to 5 ft above large plank-like buttresses; larger trees usually hollow.

### **The Wood:**

**General Characteristics:** Heartwood dull reddish brown with darker markings; sapwood grayish, turning pale yellow, clearly defined. Texture fine; grain usually interlocked; without luster; sometimes figured.

**Weight:** Basic specific gravity (ovendry weight/green volume) 0.74; air-dry density 54 pcf.

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

Moisture content (%)	Bending strength (Psi)	Modulus of elasticity (1,000 psi)	Maximum crushing strength (Psi)
Green (9)	13,700	1,430	7,030
12%	21,900	2,050	10,400
12% (1)	21,450	2,341	11,070

Janka side hardness 2,540 to 3,410 lb for dry material.

**Drying and Shrinkage:** Dries slowly with a tendency to surface and end checking, but with little warp. Kiln schedule T2-C2 is suggested for 4/4 stock and T2-C1 for 8/4. Shrinkage green to 12% moisture content: radial 2.5%; tangential 4.5%. Movement in service is rated as medium.

**Working Properties:** Fairly difficult to work with hand and machine tools, rather severe blunting effect on cutters, turns very well, moderate steam-bending properties.

**Durability:** Heartwood is rated as durable and highly resistant to termite attack. Resistant to abrasion.

**Preservation:** Sapwood permeable to preservative treatments.

**Uses:** industrial and heavy-duty flooring, heavy construction including marine work, railroad crossties.

**Additional Reading:** (1), (3), (9)

1. Banks, C.H. 1954. The mechanical properties of timbers with particular reference to those grown in the Union of South Africa. J.S. African For. Assoc. 24:44-65.
3. Bolza, E., and W.G. Keating. 1972. African timbers-the properties, used, and characteristics of 700 species. CSIRO. Div. of Build. Res., Melbourne, Australia.
9. Farmer, R. H. 1972. Handbook of hardwoods. H. M. Stationery Office. London.

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