



***Albizia falcataria* syn. *A. falcata***

**Family:** Leguminosae

**Batai**

**Molucca Albizzia**

**Other Common Names:** Puah (Brunei), Moluccan sau (Philippines).

**Distribution:** Native to the Molucca Islands of Indonesia and introduced throughout the tropics. A favored species for plantations in the Philippines and Malaysia.

**The Tree:** Plantation-grown trees in stands 36 years old had heights that ranged from 84 to 145 ft; trunk diameters ranged from 19 to 32 in.; and clear merchantable boles ranged from 58 to 82 ft.

**The Wood:**

**General Characteristics:** Heartwood light brown with a slight pinkish or yellowish tinge; not clearly demarcated from the sapwood. Texture rather coarse; grain usually deeply interlocked; sometimes lustrous; dried material without distinctive odor or taste.

**Weight:** Basic specific gravity (ovendry weight/green volume) 0.32; air-dry density 24 pcf.

**Mechanical Properties:** (2-in. standard)

| Moisture content<br>(%) | Bending strength<br>(Psi) | Modulus of elasticity<br>(1,000 psi) | Maximum crushing strength<br>(Psi) |
|-------------------------|---------------------------|--------------------------------------|------------------------------------|
| Green (23)              | 5,300                     | 1,080                                | 2,610                              |
| 12%                     | 8,400                     | 1,280                                | 4,490                              |

Janka side hardness 360 lb for green material and 450 lb at 12% moisture content. Forest Products Laboratory toughness 250 in.-lb for green material and 185 in.-lb at 12% moisture content (2-cm specimen).

**Drying and Shrinkage:** The timber dries rapidly with little or no degrade. No data available on kiln schedules. Shrinkage green to ovendry: radial 3.2%; tangential 6.2%; volumetric 9.5%. Movement in service is reported to be small.

**Working Properties:** Reported to dull cutters rather quickly; fuzzy grain is rather common because of tension wood. Saws well but growth stresses often cause pinching of the blade. Sharp tools are required to cut this soft wood cleanly. Dust from machining may be irritating.

**Durability:** The wood is not durable and is vulnerable to attack by termites and powder-post beetles. Lumber stains rather rapidly.

**Preservation:** Sapwood is easy to treat, heartwood absorption of about 5 pcf is obtainable using an open tank system.

**Uses:** Veneer core stock, pallets and crating, furniture components, pulp and paper, fiberboard and particleboard.

**Additional Reading:** (9), (23), (57)

- 9. Burgess, P. F. 1966. Timbers of Sabah. Sabah For. Rec. No. 6.
- 23. Gerhards, C. C. 1966. Physical and mechanical properties of Molucca albizzia grown in Hawaii. USDA For. Serv. Res. Pap. FPL 55. For. Prod. Lab., Madison Wis.
- 57. Skolmen, R. G. 1974. Some woods of Hawaii. . . properties and uses of 16 commercial species. USDA Gen. Tech. Rep. PSW-8. Pac. Southwest For. and Range Exp. Stn., Berkeley, Calif.

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