

**IFIT**  
***Intsia bijuga* (Colebr.) O.  
Kuntze**

Plant Symbol = INBI

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### Alternate Names

*Synonyms: Afzelia bijuga Albizia bijuga, Intsia retusa, Macrobium bijugum, Eperua decandra*

*Common names:* ifit, ifet ifil, ipil, Moluccan ironwood, Bornec teak, merbau ipil, ife-lele, kwila, kayu besi, Vesi, Go Nuoc, bendora, lumpaw, and marabow.

### Uses

*Ethnobotanic:* The ifit tree plays an important role in Polynesian life during cultural celebrations, woodcarving, canoe building, and home construction.

*Commercial:* Ifit was an important forest pre-World War II species used in churches, houses, and other large wooden structures. Ifit wood flooring, beams, and windowsills were common in almost all of the homes before the war. Other wood uses include: high class exterior windows, solid panel doors, interior trim, framing, weatherboarding, furniture, stairs, handrails, poles, turnery, carving, musical instruments, building bridges, wharves, sluices and sheet piles.

*Wildlife:* The tree is good for bird nesting and grazing for feral deer and pigs.

*Medical:* The leaves and bark are used medicinally and the seeds are edible.

### Status

Please consult the PLANTS Web site and your State Department of Natural Resources for this plant's current status, such as, noxious status, and wetland indicator values.

### Description

*General:* Family (Leguminosae). Ifit is a medium to large, slow growing, evergreen tree. At maturity, it ranges in height from 7 to 45 m tall, but rarely exceeds 25 m in Guam. The trunk is usually 0.5 to 5m, crooked, and often buttresses at the base. The buttresses are formed by woody roots expanding vertically creating radial walls extending from the sides of the trunk. The rooting system allows the tree to cover large areas containing rocks and thin soil, reduce competition, and increase its resistance to uprooting during cyclones.

The wood is strong and reddish brown with the heartwood yellow to orange brown. It has a high resistance to attacks by termites. Aging bark is red or bronze. The bark contains tannins, and a dye can be extracted from both the wood and bark.

The crown in full sunlight is usually upright, however, under shady conditions the crown will spread. The alternate compound leaves are 7-15 cm long, with 1-2 pairs of opposite, broadly elliptic to subrotund dark green coriaceous leaflets, each about 8-12 cm long and 5-8 cm wide on short petiolules, apex obtuse, and slightly symmetric sides.

Flowers grow in puberulent, terminal clusters of corymbose panicles, 6-10 cm long. Single petals are

white, or slightly pinkish, with three stamens. The filaments are about 2.5 cm long.

The fruit are long, thick, rigid, leathery, oblong or pear-shaped green pods up to 30 cm long and 10 cm wide, which become dark brown at maturity. Each pod can contain 2 to 8 seeds varying in size and shape from round to slightly kidney shape.

*Distribution:* Ifit is native from the Indian Ocean eastward to Polynesia. It is found throughout American Samoa, Australia, Burma, Cambodia, India, Indonesia, Madagascar (at low altitudes in the west), Malaysia, Myanmar, Pacific Islands, Papua New Guinea, Philippines, Seychelles, Tanzania, Thailand, and Vietnam. For current distribution, please consult the Plant Profile page for this species on the PLANTS Web site.

### **Establishment**

*Adaptation:* Ifit grows best in areas receiving 2000 mm of rainfall annually, but will tolerate long dry seasons. It prefers rocky well-drained soils, strongly acidic to strongly alkaline. While intolerant to saline soils, ifit will tolerate a wide range of soil types including inundated inland sites.

Although, it is a lowland, tropical rain forest tree often in areas bordering mangroves, swamps, rivers, or floodplains, ifit will grow inland up to 600 m.

*Propagation by seed:* Ifit is easily propagated from seed or stem cutting. Its seed coat is very hard and impermeable to water. A variety of treatments are available to pretreat the seed prior to sowing, allowing water to enter the internal seed tissue. One effective seed pretreatment involves nicking the seed with a large nail clipper or filing the outer seed coat, opposite the hilum (scar), then soaking for 12-24 hours to ensure the seeds swell with water. Sow pretreated seed in a vertical orientation with the hilum down and at least 2.5cm deep. Treated seeds should germinate in four-to-seven days while untreated seeds could take two months or more because of the water repelling seed coat.

*Seedling production:* Treated seeds should be sowed in trays or individual planting containers. If directly sowed in trays, seeds should be sown in a moist potting medium with hilum positioned downward. There should be 5cm between seeds and 15 cm between rows. Care should be taken to lightly tamp the seed to ensure all sides are lightly covered with the potting medium. Ifit seed will germinate in 7-9 days after sowing. After germination, prick out the seedling after seed leaves have dropped off to avoid

stunting. Young seedlings should be held for 10-18 months before outplanting

Containerized seedlings produced for large-scale reforestation should be started by sowing one treated seed into a ridge one-gallon root-trainer container. Seedling production in root-trainer pots and grow bags allows adequate root growth in a confined space, increases root to shoot ratio, and reduces wind throw and shock during extraction and replanting. The potting medium can be screened "top soil" with rocks, large organic matter, and hard soil clods removed. Top soil potting medium must be amended with the proper proportion of composted organic matter and sand. Irrigation must be used if seedlings are planted during the dry season or if the potting medium becomes dry. Seedlings are usually ready for outplanting in the field in about 12 weeks. Seedling should be 25 to 16 cm

*Propagation by cuttings:* Propagation is primarily through bare root seedling, although stump cutting has been used.

### **Management**

*General:* Young ifit plantings must be protected from wind if they are expected to produce merchantable stems within 80-100 years. Planting around or near the beach should be avoided because of salt spray and the plant's intolerance to saline conditions. Trees growing around homes, public buildings, parks, and other common areas should be protected from lawn mowers and other lawn equipment. Under natural conditions, ifit appears to perform well because of its wide growing range and tolerance of differing environmental conditions. Trees managed for high value timber in both natural and planted areas must be thin to a level that will support maximum production based on land use and soil type.

*Pest:* The most notable pest of ifit is the psyllid. They feed on the young expanding leaves and stems during the period of stem extension and on small developing flowers during panicle growth. This feeding can result in defoliation and growth loss.

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Edited: 06apr00lmm; 20jul05 rln; 4Aug2005 rln; 3mar06 jsp

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