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Tarrietia javanica Bl.

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Tarrietia javanica Bl.

Taxonomy and nomenclature

Family: Sterculiaceae

Synonyms : *Heritiera javanica (*Bl.) Kosterm.

Vernacular/common names: mengkulang jari (Indonesia and Malaysia); hao (Laotian); huynh (Vietnam); lumbayau (Philippines).

The genus consist of about 35 species, most of which are distributed in SE. Asia - Pacific. It is closely related to *Heritiera* and is sometimes placed in that genus (cf. synonym).

Distribution and habitat

Wide distribution in Malaysia, Indonesia (to New Guinea), Thailand, Indochina and the southern Philippines (Mindanao). In Vietnam, Cambodia and Laos commonly found in moist semi-deciduous to evergreen lowland forest <800 m.a.s.l. with annual rainfall about 2000 mm. Usually growing on well-drained clay or lateritic soil. In natural forests often in the upper storey. The species is a long-lived pioneer. Used as a plantation species in e.g. Quang Binh province in Central Vietnam.

Uses

Good general purpose timber, fairly resistant to fungi, termites and salt water. Suitable for indoor construction, furniture, flooring and joinery. Also used for ship building and outdoor construction purposes such as telegraph poles, sleepers and bridges.

Botanical description

Large tree to 30-45 m high. Often straight, round bole. Bark silver white. Dense canopy. Leaves palmately compound with 3-7 leaflets, glabrous on upper surface but with tufts of hairs in the axils of secondary veins; petioles 5-10 cm long, blade 7-15 cm long, obovate with pointed apex.

Inflorescences are axillary panicles. Flowers lacking corolla, small, reddish, unisexual, in large (to 13 cm long) terminal panicles. Male and female flowers usually bear sterile organs of the other sex.

Fruit and seed description

Fruit: samara including wing 6.2 cm by 1.5 - 3 cm, contains one seed. 1 kg contains 1000 - 1200 fruits.

Seed: seed handling unit is the samara, usually after removal of the wing. 2-3 cm by 1-1.5 cm. 1 kg contains 1200 - 1600 seeds.

Flowering and fruiting habit

Flowers unisexual, trees monoecious. Flowering starts at the age of 5-6 years. In central Vietnam trees flower in February-March and fruiting is in July-August. Development from flower to fruit takes about 5 months. Seed yield of 10-year old stand is 15 kg/ha.

Mature fruits, Vietnam. Photo: Lars Schmidt

Harvest

Seeds are easiest collected from the ground after natural fall, but climbing the trees to shake the branches will increase the number of harvestable seed. Seeds are mature and fruits fall while the fruit is still green, but the wing is starting to turn yellowish brown. Cutting test of mature seed should show a firm, not soft, interior. Moisture content when collecting typically around 18-20%. Collect in stands of >10 years.

Processing and handling

After-ripening of fruits until they turn brown, then sun drying to reduce moisture content. Wing can be removed to reduce bulk. 2-2.5 kg fruit gives 1 kg dried fruits.

Storage and viability

Orthodox. Moisture content for storage should be reduced to 9-10%. Under ambient storage conditions seeds will lose viability within 6 months. Storage at 5-10˚C can maintain viability for >1 year.

Dormancy and pretreatment

There is no dormancy, but the pericarp exhibits some restriction to water uptake. Removal of the outer

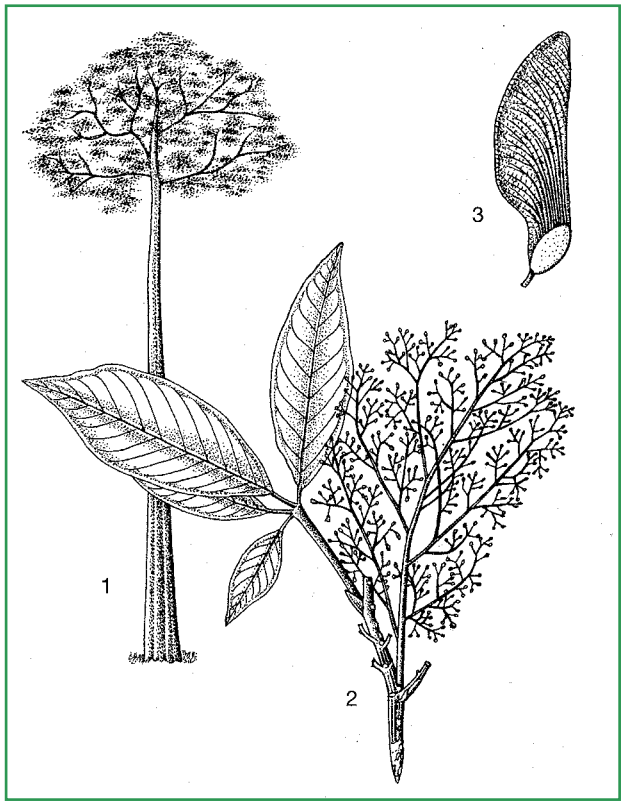
pericarp or/and soaking in water of 35˚C for 8 hours may enhance germination.

Sowing and germination

Sowing in seed bed or poly-pots covered with about 1 cm soil. Germination is hypogeal. First germination after 7 days. End of germination after 20 days. Germination rate >70% for fresh seed.

Phytosanitary problems

Seeds appear little prone to attack by insects.



1, tree habit; 2, flowering twig; 3, fruit. From: PROSEA 5(1).

Selected readings

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THIS NOTE WAS PRODUCED IN COLLABORATION WITH VIETNAM TREE SEED PROJECT

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