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Afzelia quanzensis

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SEED LEAFLET

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Afzelia quanzensis Welw.

Taxonomy and nomenclature

Family: Fabaceae (Ceasalpinioideae)
Synonyms: *Intsia quanzensis* Kuntze ex. Engl.
Vernacular/common names: lucky bean tree, pod mahogany (Eng.); Mbamba-Kofi, Mkumbakusi (Swahili); afzelia, chamfuti (trade names).

Distribution and habitat

Natural distribution in eastern and southern Africa in low altitude woodland and dry forest, 0-1800 m altitude, with a mean annual rainfall around 1000 mm and a temperature range of 17-30°C. Prefers medium to light soil or sand and does not tolerate waterlogging. It is very drought resistant but frost sensitive and slow growing in colder areas. The species has been heavily logged for railway sleepers and is now protected in South Africa.

Pods and cleaned seeds, Tanzania. Photo: Dorthe Jøker, DFSC.

Uses

The light red-brown timber is hard, works well and has a fine polish. It is used for construction, furniture and carvings. The leaves are eaten as a vegetable and the roots used in medicine. The seeds are used for decorative purposes e.g. necklaces.

Botanical description

A medium to large tree, usually 12-15 m tall, sometimes reaching 35 m. Bark greyish-brown, flaking in rounded, woody scales leaving pale patches. Leaves up to 30 cm long, alternate, compound, with 4-9 pairs of opposite to sub-opposite leaflets; leaflets oblong-elliptic, 2-9 cm long, 1,5-6 cm wide, leathery, shiny dark green above, pale below. Flowers in simple sprays, sweet-scented; one large petal, 2-3 cm wide, green on the outside, pink-red with yellow veins on the inside.

Fruit and seed description

Fruit: a large, flat, woody pod, 10-25 cm long, dark brown, dehiscent; inside a white pith in which the 6-10 seeds are embedded. **Seed:** shiny black or brown, oblong, up to 4 cm long, with a bright orange to scarlet aril covering the lower third to half of the seed. There are 250-500 seeds per kg.

Flowering and fruiting habit

A prolific seeder that produces a crop every year.

	Flowering	Fruiting
Kenya	Mar-Apr	Oct-Dec
Zambia	July-Nov	1 year later
S. Africa	Oct-Dec	Apr-Aug

Harvest

The seeds are mature when the pods change colour from green to black/brown. Within a week the pods will open and the seeds be dispersed. After dispersal the seeds are quickly eaten by monkeys and birds so the collection period is short and must be well timed. The pods can be cut from the tree using looping shears or shaken from the tree and then collected on the ground.

Processing and handling

The pods are spread out on a tarpaulin to dry in the sun until they open and the seed is extracted by shaking or beating the pods in a bag with a stick. Seeds are dried directly in the sun until the moisture content is 6-10%. It is recommended to remove the aril before storage to reduce the bulk and prevent fungal attack. After extraction the seed can be cleaned in an air-screen cleaner.

Storage and viability

The seed is orthodox and stores well even at room temperature in airtight containers. If stored with moisture content of 6-10% at +3°C, the seed will remain viable for several years.

Dormancy and pretreatment

It is normally not necessary to pretreat the seed but scarification can speed up germination. A small scratch in the outer black layer of the seed coat is enough to remove dormancy.

Sowing and germination

The seeds are sown in flat seedling trays with a 5:1 mixture of river sand and compost and kept moist. Germination is good, reaching 90% after 28 days. When the seedlings have reached the 2-leaf stage, they are ready for outplanting. They must be protected from cold wind for the first 2 seasons.

Dry woodland type. Kigwe Forest Reserve, Tanzania. Photo: Henrik Keiding, DFSC.

Phytosanitary problems

Fungi and larvae of a certain moth may cause problems during storage. The larva enters the seed through the aril and it is possible that removal of the aril can reduce insect as well as fungus attacks.

Selected readings

Albrecht, J. (ed.), 1993. *Tree Seed Handbook of Kenya*. GTZ Forestry Seed Centre Muguga, Nairobi, Kenya.

ISTA, 1998. *Tropical and subtropical tree and shrub seed handbook.*

Kokowaro, J.O., 1976. *Medicinal Plants of East Africa*. East African Literature Bureau.

Mbuya, L.P. et al., 1994. *Useful Trees and Shrubs for Tanzania*. RSCU, SIDA.

Palgrave, K.C., 1983. *Trees of Southern Africa*. Struik Publishers, South Africa.

THIS NOTE WAS PREPARED IN COLLABORATION WITH NTSP, TANZANIA

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