Sterculia foetida

L.

Sterculiaceae

LOCAL NAMES
Bengali (jangli badam); Burmese (letpan-shaw); English (wild almond tree,bastard poon tree,hazel sterculia,java olive,stinky sterculia); Hindi (virhoi,asakshara,badam janjal,sembadam,goldaru,janglibadam); Indonesian (kalupat,kabu-kabu,kepoh); Javanese (kepoh); Malay (kelumpang,kelumpang jari,kayu lepong); Sinhala (telembu); Spanish (anacaguita); Tamil (pottaikavalam,gurapu-vadam,gorapu-badam); Thai (homrong,sam,chammahong,samrong); Vietnamese (tr[oo]m)

BOTANIC DESCRIPTION
Sterculia foetida is a large, straight, deciduous tree growing to 40 m in height and 3 m in girth, with the branches arranged in whorls and spreading horizontally. The bark is smooth and grey.

Leaves crowded at the ends of branchlets, digitate, with 7-9 leaflets; leaflets elliptical or elliptic-lanceolate, acuminate, 10-17 cm long, shortly petioluled, with unpleasant smell; petiole 12.5-23 cm long.

Flowers in many panicles, subterminal, 10-15 cm long; rather large, green or dull purple; unisexual, with male and female flowers on separate trees; calyx dull, orange coloured, deeply 5-partite; lobes 1-1.3 cm long. Follicles scarlet, 7.6-9 x 5 cm, very stout, ultimately woody; seeds 10-15, slate-coloured, ellipsoid, oblong, 1.5-1.8 cm with rudimentary yellow aril.

The generic name is based on the Latin word ‘stercus’, meaning ‘manure’, which refers to the smell of the flowers and leaves of some species. The malodorous nature of the tree is emphasized in the species name, ‘foetida’, meaning ‘stinking’.

BIOLOGY
In India, new leaves appear in March-April, just after flowering. The flowers, which have a foetid smell, appear in March when the tree is leafless. Fruits ripen the following February, nearly 11 months after the 1st appearance of the flowers. S. foetida is dioecious.

Fruit (David Lee, Professor and Chairperson, Department of Biological Sciences, Florida International Unive)

flower (David Lee, Professor and Chairperson, Department of Biological Sciences, Florida International Unive)

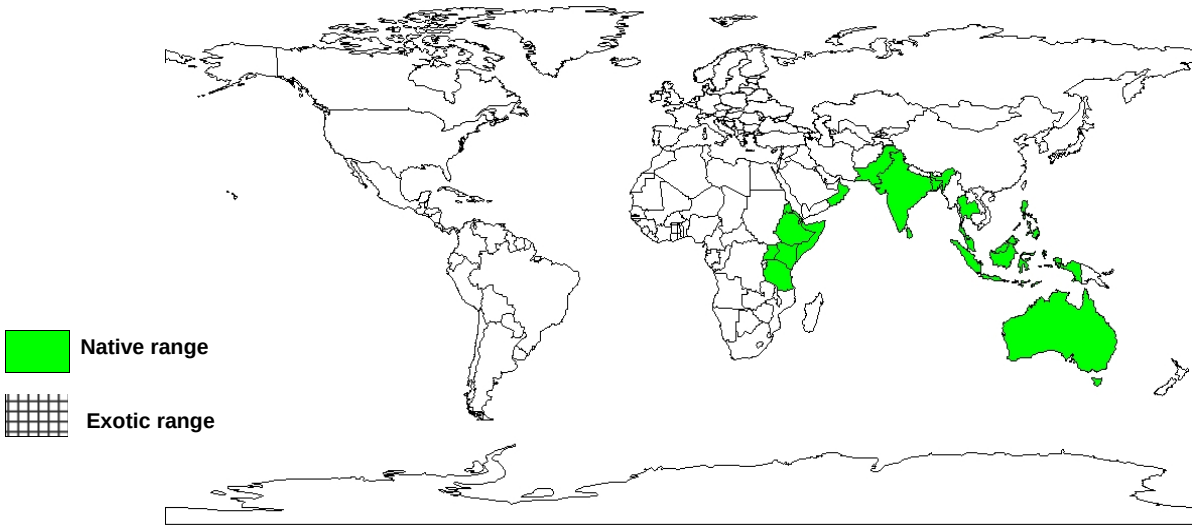
ECOLOGY
Originally from East Africa to north Australia, S. foetida grows freely in Myanmar and Sri Lanka.

BIOPHYSICAL LIMITS
Soil type: It shows good adaptability to soil, but probably needs soils with sufficient moisture for optimum development.

DOCUMENTED SPECIES DISTRIBUTION

Native: Australia, Bangladesh, Djibouti, Eritrea, Ethiopia, India, Indonesia, Kenya, Malaysia, Myanmar, Oman, Pakistan, Philippines, Somalia, Sri Lanka, Tanzania, Thailand, Uganda, Yemen, Republic of, Zanzibar

Exotic: Ghana, Puerto Rico



The map above shows countries where the species has been planted. It does neither suggest that the species can be planted in every ecological zone within that country, nor that the species can not be planted in other countries than those depicted. Since some tree species are invasive, you need to follow biosafety procedures that apply to your planting site.

PRODUCTS
Food: The seeds have a pleasant taste and are sometimes eaten. Edible oils are obtainable from the seed.

Fodder: S. foetida leaves contain up to 2.66% calcium and are also a good source of protein and phosphorus, meeting nutritional requirements of ruminants. The kernel meal contains about 31% crude protein.

Fibre: Cord is made from the bark fibre.

Timber: The timber is greyish-white and soft but is harder than most other species of the genus. It weighs 449 kg/m^3, is easy to saw and work, and finishes fairly well. It is very perishable when exposed to the weather or is in contact with the ground, although it is fairly durable for interior work. Used locally for doors of huts, dugout canoes, boat planking, guitars and carved toys.

Gum or resin: A gum that resembles 'gum tragacanth', is obtained from the trunk and branches and is used for bookbinding and similar purposes.

Lipids: An unusual feature of the seed is that oil is present in the testa as well as the kernel. The total oil content is about 34%.

Medicine: Leaves and bark have considerable medicinal value; in Ghana, seeds are taken as a purgative. Oil from the seed is extracted on a local scale to be used in medicine.

TREE MANAGEMENT
The rate of growth is fairly rapid in early stages but soon slows down. S. foetida demands light and needs a lot of space for proper development.

GERMPLASM MANAGEMENT
Seed storage behaviour is orthodox; there are no problems with long term storage. There are about 635 seeds/kg.

PESTS AND DISEASES
In India, S. foetida suffers badly from the larvae of Sylepta balteata. The mortality is very high in the nursery. During feeding, the larva, with the help of silken threads, rolls and spins up the leaf and feeds on it. After eating away the intravenous tissues, the larva moves to other portions of the leaf for feeding. The incidence of the pest varies from 70 to 80%.

FURTHER READNG

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SUGGESTED CITATION

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