Del.

Loganiaceae

#### LOCAL NAMES

Amharic (inguachia,merenz); Bemba (mulungikome,mulungi); English (monkey orange,dull-leaved strychnos,wild orange,dull-leaved mukwakwa); Lozi (muzimbikolo); Lunda (mukunkampombo); Nyanja (kabulukulu,kambeli,kamwelalumba,mteme,mtulutulu); Swahili (mkwakwa,mgulungungulu,mtonga); Tigrigna (unguaka,unguak-hebay); Tongan (muteme,kalungi,mutu)

#### **BOTANIC DESCRIPTION**

Strychnos innocua is a small, straight-stemmed tree 3-14 m in high, with a smooth, green or yellowish-white, powdery bark; branchlets stout and smooth.

Leaves simple, alternate, leathery, subsessile or shortly petiolate, obovate, elliptic or oblong-elliptic, 4-15 x 2-9 cm, coriaceous; rounded-emarginate or subacute at the apex; widely to very narrowly cuneate or rarely rounded at the base; glabrous to pubescent beneath; venation finely reticulate on both surfaces with 3-7 nerves arising from the leaf base that are prominent beneath; petiole 2-6 mm long.

Flowers greenish-white or yellowish, up to 8 mm long, produced in axillary cymes; stalks short, 2-5 mm long; calyx lobes short and broad.

Fruits globose, 6-10 cm in diameter, with a hard rind, glabrous, bluishgreen when young, yellowish or orange when ripe, with a thick woody shell, containing many seeds embedded in a yellowish pulp. Seeds yellowish-white, tetrahedral, stony hard, 1.5-1.8 cm in diameter.

'Strychnos', meaning 'deadly', is an ancient Greek name for a certain poisonous member of the Solanaceae family. Linnaeus, who founded the genus Strychnos on the Indian species S. nux-vomica, which yields strychnine, possibly associated the deadly qualities of both groups when he named the genus. The specific epithet means harmless (lacking poisonous properties, spines etc).

### BIOLOGY

The species hybridizes with S. pungens. Flowering and fruiting occur concurrently, starting in the dry season and extending into the rainy season. It takes about a year from flower fertilization to fruit ripening.

### **ECOLOGY**

Occurs in savannah forests all over tropical Africa in open woodland and rocky hills.

#### **BIOPHYSICAL LIMITS**

Altitude: 0-1 520 m., Mean annual temperature: 19-31 deg. C, Mean annual rainfall: 400-800 mm

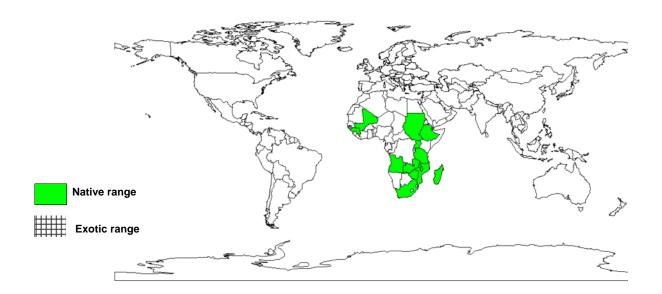
Soil type: Occurs on light yellowish-brown to reddish-yellow, gritty sandy clay loams derived from granite and granodiorite rocks.

### DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Ethiopia, Guinea, Madagascar, Malawi, Mali, Mozambique, South Africa, Sudan, Tanzania,

Uganda, Zambia, Zimbabwe

Exotic:



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.

# Loganiaceae

### **PRODUCTS**

Food: The sweet-sour fruit pulp is edible.

Fodder: Leaves are eaten by livestock.

Fuel: Provides excellent firewood that burns even when wet.

Timber: The cream or pale yellow hardwood is inclined to split; it is used for tool handles and other small articles.

Poison: A mixture of ground roots and oil is rubbed on the skin as a fly repellent.

Medicine: A root decoction is taken as a remedy for gonorrhoea; fresh roots are used to treat snakebite. The bark and twigs are pounded, soaked in cold water and the infusion drunk to facilitate birth. The fruit pulp is used as a remedy for dysentery and as eardrops. Seeds have emetic properties.

Other products: Oil from the fruit pulp and seeds is used in making soap.

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# TREE MANAGEMENT

Protection of the natural habitat from forest fires helps in promoting natural regeneration. Seedlings should be planted where there has been partial clearing of herbaceous vegetation, and management practices carried out include pruning, lopping and pollarding.

# GERMPLASM MANAGEMENT

There are about 1800 seeds/kg. Seed can be stored for 2 months with no loss in viability.

#### **FURTHER READNG**

Beentje HJ. 1994. Kenya trees, shrubs and lianas. National Museums of Kenya.

Bekele-Tesemma A, Birnie A, Tengnas B. 1993. Useful trees and shrubs for Ethiopia. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

Coates-Palgrave K. 1988. Trees of southern Africa. C.S. Struik Publishers Cape Town.

Dale IR, Greenway PJ. 1961. Kenya trees and shrubs. Buchanan's Kenya Estates Ltd.

Eggeling. 1940. Indigenous trees of Uganda. Govt. of Uganda.

FAO. 1983. Food and fruit bearing forest species. 1: Examples from Eastern Africa. FAO Forestry Paper. 44/1. Rome.

Hines DA, Eckman K. 1993. Indigenous multipurpose trees for Tanzania: uses and economic benefits to the people. Cultural survival Canada and Development Services Foundation of Tanzania.

Katende AB et al. 1995. Useful trees and shrubs for Uganda. Identification, Propagation and Management for Agricultural and Pastoral Communities. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

Kokwaro JO. 1976. Medicinal plants of East Africa. East African Literature Bureau.

Maghembe JA. 1994. Germination studies on seed of fruit trees indigenous to Malawi. Forest Ecology and Management. 64(2-3): 111-125.

Mbuya LP et al. 1994. Useful trees and shrubs for Tanzania: Identification, Propagation and Management for Agricultural and Pastoral Communities. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

Storrs AEG. 1995. Know your trees: some common trees found in Zambia. Regional Soil Conservation Unit (RSCU).

#### SUGGESTED CITATION

Orwa C, A Mutua, Kindt R, Jamnadass R, S Anthony. 2009 Agroforestree Database:a tree reference and selection guide version 4.0 (http://www.worldagroforestry.org/sites/treedbs/treedatabases.asp)