

Stereospermum kunthianum

Cham.

Bignoniaceae

LOCAL NAMES

Amharic (washta,zana); Arabic (samr,khash,khashkhash,khashkhash abiad); Bemba (kayubule,mukulukayubule); English (pink jacaranda); Lozi (mupafu); Luganda (nemera); Nyanja (mtelezi,kavunguti,mlakanjovu,msungawantu,mwinguti); Swahili (mti-sumu,mtafuna panya); Tigrigna (adi-zana,gunki,argizana); Tongan (mutese)

BOTANIC DESCRIPTION

Stereospermum kunthianum is a deciduous shrub or tree, 3-15 m high, with a stem diameter of 25 cm; bark thin, grey to grey-black, smooth or flakes off in patches resembling the European plane tree; trunk rarely straight, mostly forked; branches twisted; branching is erect and spreading to form a light, rounded crown. Slash white or light brown.

Leaves imparipinnately compound, 25 cm long, alternate with 2-4 (max. 6) almost opposite pairs of leaflets and 1 terminal leaflet; 5-9 leaflets with short, soft hairs, oblong to oblong elliptic, stiff, 5-8(max. 10) x 3-7.5 cm, green and hairless above and yellow-green with prominent veins under; apex broadly tapering, often abruptly attenuate; base tapering; margin entire, occasionally toothed in coppice growth; petiolules almost absent; petiole up to 7 cm long, caniculate at the top; young leaves sometimes toothed and hairy.

Flowers precocious, fragrant, bisexual, showy, mauve to off-white, more usually pinkish with red streaks on the lower corolla lobes and produced in large, drooping panicles on long peduncles; corolla with a tube up to 3 cm long and spreading lobes, 3-4 cm in diameter; calyx bell shaped, irregularly 2- to 5-lobed, partially forming 2 lips; stamens 4, enclosed within the corolla tube; ovary linear-oblong, 2-chambered.

Fruits slender, flat capsules or paired pods up to 45 x 1 cm, cylindrical, greenish-purple, reddish-brown to dark brown, pendulous, spirally twisted, smooth, splitting into 2 valves to release many flat, long, narrow, winged seeds. The remnants of the capsule remain on the tree for months.

BIOLOGY

In Zambia, the bisexual flowers appear in the dry season before the new leaves, between August and October, and pods ripen between October and December.



Stereospermum kunthianum slash (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



Stereospermum kunthianum foliage (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



Stereospermum kunthianum flowers (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)

ECOLOGY

S. kunthianum is found in dry areas of deciduous forest, woodland, bush, rocky outcrops, termite mounds and margins of evergreen forests. The species is well spread all over the Sahel region and is often found near streams.

BIOPHYSICAL LIMITS

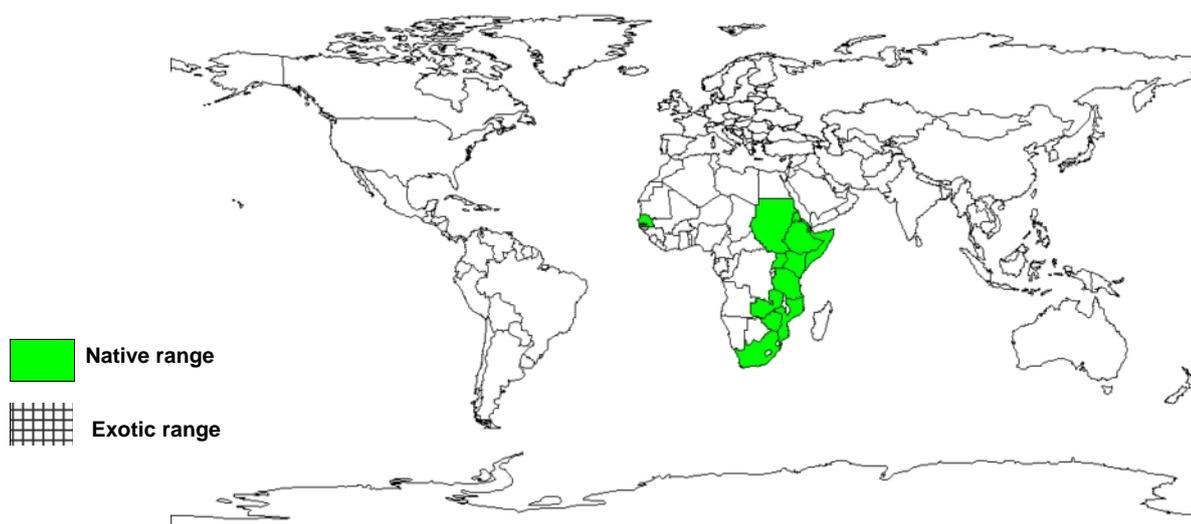
Altitude: 500-2 400 m, Mean annual temperature: Up to 40 deg. C, Mean annual rainfall: 450-900 mm

Soil type: Grows well on light silty and sandy soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Democratic Republic of Congo, Djibouti, Eritrea, Ethiopia, Kenya, Mozambique, Senegal, Somalia, 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.

PRODUCTS

Food: Fruits are edible.

Fodder: Leaves are palatable and are browsed by horses.

Apiculture: *S. kunthianum* makes a good bee forage.

Fuel: Where it occurs, the yellowish hardwood is used as firewood or low-quality charcoal that disintegrates directly into ashes.

Timber: Wood is whitish, with a medium to coarse texture, saws cleanly to true edges, planes well to a fairly smooth finish, is of moderate durability, good nail-holding capacity, takes a clear varnish finish, glues firmly, has a slight tendency to warp, strong, works well with hand and machine tools and stains well. It is used for furniture, shelving, pattern making, tool and implement handles, poles, utensils, gunstocks, mortars and platters.

Tannin or dyestuff: Chewed bark stains the lips red-brown and is used as a cosmetic.

Medicine: Pods are chewed with salt for coughs and are used in treatment of ulcers, leprosy, skin eruptions and venereal diseases; also used to cure flatulence in horses. Leaf infusion is used for washing wounds; macerated leaves are used to treat asthenia and exhaustion. Bark is used as a haemostatic and for treating wounds, and a stem-bark decoction is used to cure bronchitis, pneumonia and coughs. Venereal diseases, respiratory ailments and gastritis are treated using roots and leaves.

SERVICES

Ornamental: *S. kunthianum* has the potential of being grown as an amenity tree in parks and gardens.

Other services: In West Africa, the bark of *S. kunthianum* is powdered and taken as snuff and it is worn as a charm against witchcraft.

TREE MANAGEMENT

The species is fairly fast growing. Trees are currently being overexploited for fuelwood; therefore, protection, regeneration and planting should be encouraged.

GERMPLASM MANAGEMENT

On average, there are about 35 000 seeds/kg, with viability being maintained for 3 months at room temperature.

PESTS AND DISEASES

The wood is viable to borer, termite and fungal attack.

FURTHER READNG

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

Bein E. 1996. Useful trees and shrubs in Eritrea. Regional Soil Conservation Unit (RSCU), Nairobi, 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.

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).

Leeuwenberg AJM. 1987. Medicinal and poisonous plants of the tropics. Pudoc Wageningen.

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).

Sahni KC. 1968. Important trees of the northern Sudan. United Nations and FAO.

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

Vogt K. 1995. A field guide to the identification, propagation and uses of common trees and shrubs of dryland Sudan. SOS Sahel International (UK).

Vogt K. 1995. Common trees and shrubs of dryland Sudan. SOS Sahel International. UK.

von Maydell HJ. 1986. Trees and shrubs of the Sahel - their characteristics and uses. GTZ 6MBH, Eschborn.

SUGGESTED CITATION

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