Prosopis africana

LOCAL NAMES
Arabic (abu surung, abu suruj); English (iron wood); Hausa (kiriya); Wolof (jaxon-jaxon, ir)

BOTANIC DESCRIPTION
Prosopis africana reaches 4-20 m in height; has an open crown and slightly rounded buttresses; bark is very dark, scaly, slash orange to red-brown with white streaks.

Foliage drooping; leaves alternate, bipinnate; rachis 10-15 cm long with 3-6 pairs of opposite pinnae (5-8 cm long); 9-16 pairs of leaflets, oblong-lanceolate, 12-30 mm, pubescent; a typical gland between pairs of pinnae and leaflets.

Flowers greenish-white to yellow, fragrant, in dense 6-10 cm long axillary spikes; calyx pubescent but petals glabrous; 10 free-standing stamens; anthers with a small apical gland.

Pods dark brown, cylindrical, thick and hard, shiny, up to 15 x 3 cm, with woody walls, compartmented; about 10 loose, rattling seeds per pod with a thin, intermarginal line around.

BIOLOGY
In its natural habitat, flowering occurs just prior to the rainy season. Seeds mature between February and March.
Prosopis africana

ECOLOGY
P. africana is the only tropical African Prosopis species, occurring from Senegal to Ethiopia in the zone between the Sahel and savannah forests. Due to extensive overexploitation, it has disappeared from extensive parts of the southern Sahel and the adjacent Sudan savannahs.

BIOPHYSICAL LIMITS
Altitude: Up to 1 000 m, Mean annual temperature: 0-40 deg C, Mean annual rainfall: Up to 500 mm
Soil type: Frequently on fallow land, on sandy clayey soils over laterite. It fairly tolerates most soil types.

DOCUMENTED SPECIES DISTRIBUTION
Native: Benin, Cameroon, Central African Republic, Chad, Cote d'Ivoire, Egypt, Ethiopia, Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Senegal, Sierra Leone, Sudan, Tanzania, Togo, Uganda
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: In many areas, the fermented seeds are used as a food condiment.

Fodder: Young leaves and shoots are a fodder that is highly sought after towards the end of the dry season. Consequently, branches are frequently broken off or lopped. Cattle eat the pods.

Fuel: The wood has a high calorific value of about 1720 joules/kg and produces excellent charcoal and firewood.

Timber: The wood is hard, medium heavy to heavy, with fine grain. Sapwood is narrow, light yellow to light brown, clearly distinguished from the dark red-brown heartwood. The latter assumes a dark wine-red colour after drying. Pleasant fragrance when freshly cut. The wood is difficult to saw and plane and blunts the cutting tools. It cannot be nailed without predrilling; however, it is durable and easy to carve, turn and glue. It has many uses over the entire area of its distribution, depending to the dimensions in which it is available. In Senegal it is preferred for art and craft work, while in Ghana it is used for pestles, mortars, mallets, cudgels, furniture, joinery, sleepers in the construction of railway lines, boat building and axe handles.

Gum or resin: P. africana yields a gum.

Tannin or dyestuff: The bark and roots contain 14-16% tannin and a colouring matter that gives a reddish tint to leather.

Poison: Pounded dry fruits are suitable as a fish poison.

Medicine: Almost all parts of the tree are used in medicine, the leaves in particular for the treatment of headache and toothache as well as various other head ailments. Leaves and bark are combined to treat rheumatism. Remedies for skin diseases, caries, fevers and eyewashes are obtained from the bark. The roots are a diuretic and are used to treat gonorrhoea, tooth and stomach-ache, dysentery and bronchitis.

In Mali the leaves, bark, twigs and roots are used to treat and relieve bronchitis, dermatitis, tooth decay, dysentery, malaria and stomach cramps. In Ghana, boiled roots serve as a poultice for sore throat, root decoction for toothache, and bark as a dressing or lotion for wounds or cuts.

Other products: In Ghana the pod ashes of P. africana are a source of potash for soap making.

SERVICES
Erosion control: Soil conservation is enhanced by planting P. africana.

Shade or shelter: Suitable for shade in homesteads in dry areas.

Nitrogen fixing: Has the potential to improve soil fertility as it can fix atmospheric nitrogen.

Soil improver: Provides a useful mulch for the soil.

Ornamental: Suitable as an avenue tree.

Intercropping: P. africana has great potential for parkland agroforestry systems and for improved agroforestry technologies in the Sahel, where it grows well in valleys and rocky soils.
TREE MANAGEMENT
Like several other arid-zone species, P. africana produces a deep taproot with few lateral shoots; therefore, pruning seedlings in the pots is necessary. Can be grown as a plantation tree but should be pruned while young to get a clean bole. It resprouts vigorously after coppicing.

GERMPLASM MANAGEMENT
Seed storage behaviour is orthodox. There are 7 500-8 000 seeds/kg.
**PROSOPIS AFRICANA**

**TAUBERT**

**FABACEAE - MIMOSOIDEAE**

---

**FURTHER READING**


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).

Peter G von Carlowitz.1991. Multipurpose Trees and Shrubs-Sources of Seeds and Innoculants. ICRAF. Nairobi, Kenya

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


---

**SUGGESTED CITATION**