

LOCAL NAMES

Arabic (taraya); English (barwood)

BOTANIC DESCRIPTION

Pterocarpus lucens is a deciduous shrub, 3-4 m, occasionally a tree up to 18 m in height, straight trunk. Bark dark grey-brown, fissured and scaly; slash red-purplish or pale grey, thin, exuding a red coagulating gum.

Leaves alternate almost opposite, imparipinnate; petiole naked, 6-20 cm long; stipules linear 2-3 mm long, caducous; leaflet numbers varying between 1 and 11, generally 5-7, opposite or subopposite with 1 terminal, elliptic or orbicular, cuneate or rounded at the base, 4-10 x 2.4-4.8 cm; leaflet form very variable, oval-elliptic, 2-3 x 1-2 cm, but occasionally up to 8 x 7.5 cm, light green, drooping; apex broadly tapering, rounded or notched, asymmetric; base tapering, asymmetric; margin entire; petiolules and petiole present.

Flowers pale yellow, with long peduncles, 8-15 mm, glabrous, pea-shaped, sweetly scented, in long, slender, lax, delicate racemes, 6-30 cm long; calyx about 6 mm long, shortly lobed, glabrous outside, hairy at the mouth of the tube inside, exuding a reddish gum; petals 10-14 mm long, yellow, fragrant.

Pods glabrous, pale creamy brown occasionally with a reddish tinge, flat and papery thin, 2.5-5 x 3 cm, with a conspicuous swelling over the seed case and surrounded by a hard membranous wing; stipitate, obovate to obovate-elliptic; apex rounded, reticulate, asymmetric, tapering to the base, persistent (a prominent species characteristic), with one seed only, indehiscent. Seeds 1.5 x 1 cm.

All the material occurring south of the Zambezi is placed in the ssp. *antunesii* (Taubert).

All members of the genus have once-compound leaves, made up of several or many pairs of leaves and a terminal leaflet, often with beautifully distinct veining; pea flowers in racemes or panicles; and with winged or rigid pods that give the genus its name. *Pterocarpus* is based on the Greek words 'pteran' meaning a wing and, 'karpos' meaning 'fruit'. The specific epithet means shining.

BIOLOGY

In the Sahel region, flowering occurs between January and June; in southern Africa, the flowering period is short, often only a few days, and occurs from November to December, and fruiting from January to May; in Sudan, it flowers between March and June, and fruiting occurs between January and April. Flowers are borne with or before the leaves. Trees drop their leaves soon after the rains.

ECOLOGY

Typical species of the Sudan-Sahel region, from Senegal to Sudan, Ethiopia, Central African Republic, Cote d'Ivoire and Guinea. On dry sites it occurs as a monospecific bush. The species, which is associated with *Combretum micranthum* and *Dalbergia melanoxylon*, occurs in low-altitude woodlands. It also occurs on rocky hills with high rainfall or tall grass savannah. It is a protected plant in South Africa.

BIOPHYSICAL LIMITS

Altitude: 0-3 000 m, Mean annual rainfall: 300-700 mm

Soil type: Frequently found on hills, stony, gravelly soils and laterite, but prefers deep sandy soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Central African Republic, Congo, Cote d'Ivoire, Democratic Republic of Congo, Ethiopia, Gabon, Ghana, Guinea, Senegal, South Africa, Sudan, 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: Fresh leaves are used for sauces and as a vegetable.

Fodder: Good fodder for camels and goats with a feed value similar to *P. erinaceus*.

Fuel: *P. lucens* is a suitable source of firewood.

Timber: The wood is light yellow, hard and does not split. It is used to make wheel rims, tool handles, pestles, beams, rafters, houses, low-quality furniture and poles.

Medicine: Bark extracts are used for the treatment of diarrhoea and dysentery, while leaves are used for abdominal problems.

GERMPLASM MANAGEMENT

Seed storage behaviour is orthodox, and seeds can be stored for up to 4 years under favourable conditions. There are about 5 000 seeds/kg.

FURTHER READNG

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

El Amin HM. 1990. Trees and shrubs of the Sudan. Ithaca Press, Exeter.

Hong TD, Linington S, Ellis RH. 1996. Seed storage behaviour: a compendium. Handbooks for Genebanks: No. 4. IPGRI.

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

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>)