

LOCAL NAMES

French (ouokisse); Hausa (gyadar kurmi,gunduru); Igbo (nturukpa); Yoruba (gbengbe)

BOTANIC DESCRIPTION

Pterocarpus santalinoides is a tree 9-12 m tall, 1 m DBH, with low straggling branches. Bark thin and flaking in small patches, slash yellowish-white exuding drops of red gum.

Leaves compound, 5-9 leaflets ovate-elliptic, abruptly acuminate, rounded at the base or slightly cuneate, glabrous, glossy, rather coriaceous with about 8 pairs of prominent main lateral nerves looping away from the margin, leaf stalk slender, glabrous stalk 10-20 cm long, leaflet stalk stout 2-5 mm long.

Flowers orange-yellow, fragrant in axillary racemes and panicles, inflorescence branches finely hairy, individual flowers with short stalks. Calyx rather narrowly cup-shaped, petals densely hairy outside, about 7 mm long including the prominent triangular teeth, standard petal about 12 mm long and broad.

Fruit a light brown glabrous pod, 3.5-6 cm across including the soft, fleshy narrow wing which extends about three quarters way round the body.

Pterocarpus is based on the Greek words 'pteran' meaning a wing and, 'karpos' meaning 'fruit'. The specific epithet 'santalinoideis' refers to its likeness to *P. santalinus* found in Asia.

BIOLOGY

P. santalinoides is monoecious, flowering from December-March, fruits ripening between March-April.

ECOLOGY

P. santalinoides is a shade tolerant tree commonly found along riverine forests in Africa and tropical South America.

BIOPHYSICAL LIMITS

Altitude: 200-500 m

Mean annual temperature: 26 deg C

Mean annual rainfall: 1 600 mm

Soil type: Prefers well drained soils.

DOCUMENTED SPECIES DISTRIBUTION

Native: Brazil, Cameroon, Ghana, Nigeria, Senegal

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: The leaves are eaten as a vegetable.

Fodder: Livestock browse its young shoots and leaves.

Timber: Wood white or yellow, not hard but termite-resistant.

Gum or resin: Cuttings on the stem exude a red gum.

Tannin or dyestuff: The bark contains tannins and dyes used for dyeing.

Medicine: The tree bark is used as a stomach ache remedy.

SERVICES

Erosion control: An important species for soil conservation in water catchment areas.

Shade or shelter: A good windbreak around settled areas and farms.

Nitrogen fixation: *P. santalinoides* forms nodules with nitrogenase activity. The nodules are generally spherical but occasionally elongate.

Soil improver: Leaf litter from *P. santalinoides* on decomposition slowly releases N and significantly increases soil exchangeable Ca and Mg in the soil.

Ornamental: A beautiful tree with good gardening attributes its; showy flowers, beautiful foliage and form make it a suitable ornamental tree.

Boundary or barrier or support: Poles from *A. santalinoides* are used for fencing.

TREE MANAGEMENT

Pollarding, coppicing and lopping are recommended management practices for *P. santalinoides*.

FURTHER READING

Keay RW. 1989. *Trees of Nigeria*. Clarendon Press Oxford.

Ogan MT. 1990. The nodulation and nitrogenase activity of natural stands of mangrove legumes in a Nigerian swamp. *Plant and Soil*. 123(1): 125-129.

Tian G, Kang BT and Buissaard L. 1992. Effects of chemical composition on N, Ca and Mg release during incubation of leaves from selected agroforestry and fallow plant species. *Biogeochemistry*. 16(2): 103-119.

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>)