

## Pterocarpus erinaceus

Senegal rosewood, lancewood, cornwood, African teak, African ro:

### LOCAL NAMES

English (Gambia gum,African kino,Senegal rosewood,African rosewood,African teak,molompi wood tree,kino tree,African gum); French (apepe,hérissé,vène,palisandre du Sènegal,santal rouge d'Afrique); Trade name (lancewood,African teak,African rosewood,Senegal rosewood,cornwood)

### BOTANIC DESCRIPTION

*Pterocarpus erinaceus* is a medium-sized, generally deciduous tree 12-15 m tall, bole often of poor form, strongly fluted and gnarled, with numerous, plank-like buttresses; bark surface finely scaly fissured, brown-blackish, inner bark thin, producing red sap when cut; crown dense, domed; branchlets often lenticelled; indumentum of simple, usually short and adpressed hairs. Old trees often hollow.

Leaves alternate, imparipinnate, up to 30 cm long; stipules generally small, linear or narrowly triangular, usually early caducous; up to 11 leaflets, alternate or sometimes subopposite, entire.

Inflorescence paniculate; bracts and bracteoles small, linear to narrowly triangular. Flowers bisexual, irregular; calyx 5 mm long, turbinate to campanulate, 5-lobed, the upper 2 lobes usually larger, sometimes united; petals 5, free, clawed, 10-12 mm, generally yellow, glabrous or sparsely hairy outside, standard obovate to spatulate, keels shorter than the wings and connate at the base.

Fruit a compressed indehiscent pod, green when young, disk-like, up to 7.5 cm diameter, broadly winged or rarely slightly keeled, with a thickened central, usually woody or corky seed-bearing portion, with 1-3(4) seeds. Seed kidney-shaped to oblong, usually narrowed and curved near the minute hilum, smooth to undulate, testa brown to blackish, aril, minute.

*Pterocarpus* is based on the Greek words 'pteran' meaning a wing and, 'karpos' meaning 'fruit'.

### BIOLOGY

*P. erinaceus* flowers are bisexual.

Lam.

Fabaceae - Papilionoideae



*Pterocarpus erinaceus* foliage (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



*Pterocarpus erinaceus* slash (Joris de Wolf, Patrick Van Damme, Diego Van Meersschaut)



Fodder fed to tethered goats in Mali (Anthony Simons)

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### ECOLOGY

Found in open forest and wooded savannah. This species together with *Parkia biglobosa* is said to be one of the main components of the remnants of the former dense Sudanian forest.

### BIOPHYSICAL LIMITS

Altitude: 0-600 m, Mean annual temperature: 15-32 deg. C, Mean annual rainfall: 600-1 200 mm

Soil type: Grows on shallow soils. Growth tends to be stunted on poor soils.

### DOCUMENTED SPECIES DISTRIBUTION

Native: Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Cote d'Ivoire, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Mali, Niger, Nigeria, Senegal, Sierra Leone, Sudan, Togo

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.

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### **PRODUCTS**

**Food:** Leaves are edible, seeds also edible but need to be cooked properly to avoid emetic or intoxicating effects.

**Fodder:** Foliage and immature pods are sometimes cut down at the end of the dry season to feed cattle and sold in markets in the dry season for fattening sheep, goats, cattle and horses.

**Apiculture:** A good quality nectar is obtainable from the African gum tree.

**Fuel:** *P. erinaceus* produces a good charcoal.

**Timber:** The wood has a handsome fine-grained appearance and, once seasoned, maintains shape very well. Used for external construction, furniture including cabinets and stools. Also used in carpentry for doors window frames, decorative panelling, parquet flooring.

**Gum or resin:** Sap dries to a blood-red resin called kino, i.e. dragon-blood gum or gumkine.

**Tannin or dyestuff:** Parts of the plant are used in dyeing cotton. The dyestuff is pulverized and mixed with water, the cloth dipped and dried and shea oil or palm oil rubbed in to produce a dark purple colour. Bark is sometimes used in tannin.

**Medicine:** Leaves used in abortifacient mixtures and as a febrifuge. Bark is used for ringworm of scalp, dressing for chronic ulcers, blennorrhagia and in a gargle for tooth and mouth troubles. Bark and resin used for urethral discharge and as an astringent for severe diarrhoea and dysentery. The grated root is mixed tobacco and smoked in a pipe as a cough remedy.

### **SERVICES**

**Nitrogen fixing:** Nodulating and probably nitrogen fixing.

**Ornamental:** Considerable potential as an ornamental as copious racemes of bright golden yellow flowers completely cover the tree during the dry season, they fall to create a golden carpet beneath the trees and new leaves quickly follow so the shade is quickly restored.

**Boundary or barrier or support:** The African gum tree has a potential for use as live fencing.

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### **TREE MANAGEMENT**

The tree readily regenerates after cutting for forage and wood, and once established it requires very little attention. Pruning may help the foliage remain on the tree for a longer period.

### **GERMPLASM MANAGEMENT**

Seed storage behaviour is orthodox.

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### **FURTHER READNG**

Booth FEM, Wickens GE. 1988. Non-timber uses of selected arid zone trees and shrubs in Africa. FAO Conservation Guide. No. 19. Rome.

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### **SUGGESTED CITATION**

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