

LOCAL NAMES

Afrikaans (koffiehardepeer); English (walking stick,panda's strychnos,Natal teak,coffee hard pear,coffee bean strychnos); Zulu (umqalothi,umnono,umdunye)

BOTANIC DESCRIPTION

Strychnos henningsii is a small erect, much-branched tree, 2-12 m tall with a clean green-reddish stem. Bark peeling, crown compact with dark green, glossy foliage. Twigs with pale ashy or straw coloured waxy skin splitting lengthwise. Lenticels few and inconspicuous.

Leaves opposite, subsessile, ovate, 2.5-6.5 cm long and 0.8-4.5 cm wide, margins entire, leaf tips acuminate. Leaves strongly 3-5 nerved from base, cuneate or rarely subcordate at base.

Floral cymes borne on flat clusters in the leaf axils, 2-2.5 mm long, 4 mm wide when open, scented, yellowish-green in colour turning orange with age. Ovary globose; style short.

Fruit up to 1.9 cm long and 6-11 mm broad, oblong or roundish, 1-2 seeded (coffee-like); red, brown or orange when ripe.

The genus *Strychnos* has about 190 species mainly found in the tropics. The specific epithet honours Professor Paul Christoph Henning, 1841-1908, a mycologist at the Royal Botanic Gardens, Berlin-Dahlem.

BIOLOGY

S. henningsii is hermaphroditic but reproduces cleistogamously in some localities.

ECOLOGY

S. henningsii commonly occurs in dry or moist forests, wooded hillsides, evergreen thickets on rocky hills, coastal forests and stream banks. It is often associated with *Olea* and *Podocarpus* spp.

BIOPHYSICAL LIMITS

Altitude: 340-2 000 m

DOCUMENTED SPECIES DISTRIBUTION

Native: Angola, Kenya, Mozambique, South Africa, Swaziland, Tanzania, 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 East Africa *S. henningsii* is used in the preparation of fatty-meat and milk soups.

Timber: Its valued timber is brown to dark grey, heavy, hard, durable and termite-resistant. Wood used for fencing, hut poles, and tool handles.

Poison: The bark contains a poisonous bitter alkaloid causing paralysis. Despite this the plant still has significant medicinal uses.

Medicine: *S. henningsii* is used in African traditional medicine to treat various ailments including rheumatism, syphilis, gastrointestinal disorders (purgative) and snake bites. The ground bark is a mouth antiseptic and applied onto wounds in cattle and horses to hasten healing. Some of the applications can be explained partially by the presence of retuline-like alkaloids. *S. henningsii* has potential in the development of new antinociceptive and antispasmodic drugs.

SERVICES

Erosion control: The species is important in protecting soils from water erosion in highland areas.

Shade or shelter: *S. henningsii* is an important shade tree.

Ornamental: The physical attributes of *S. henningsii*, shiny foliage, pleasant shade and fragrant flowers make it a suitable choice for gardening.

Boundary or barrier or support: *S. henningsii* is used as a live fence and its poles are good for fencing.

TREE MANAGEMENT

Coppices well; normally managed through coppice.

GERMPLASM MANAGEMENT

Pulp should be removed from the seed before sowing. Seeds exhibit orthodox storage behaviour.

FURTHER READING

Chapman L, Johns T and Mahunnah RLA. 1997. Saponin-like in vitro characteristics of extracts from selected non-nutrient wild plant food additives used by Maasai in meat and milk based soups. *Ecology of Food and Nutrition*. 36(1): 1-22.

ICRAF. 1992. A selection of useful trees and shrubs for Kenya: Notes on their identification, propagation and management for use by farming and pastoral communities. ICRAF.

Palmer E, Pitman N. 1972. *Trees of Southern Africa Vol. 2*. A.A. Balkema Cape Town.

Tits M, Damas J, Quetin-Leclercq J and Angenot L. 1991. From ethnobotanical uses of *Strychnos henningsii* to antiinflammatories, analgesics and antispasmodics. *Journal of Ethnopharmacology*. 34(2-3): 261-267.

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>)