

Osyris lanceolata

Hochst. & Steud. ex A. DC.

Santalaceae

LOCAL NAMES

Afrikaans (rotslooibas,bergbas,looibas,pruimbos); Catalan (arraià, Ginestó valencià); English (East African sandalwood,Transvaal sumach,rock tannin-bush,bark bush); Spanish (bayón); Xhosa (intshakasa,intekeza,ingondotha-mpete); Zulu (umbulunyathi)

BOTANIC DESCRIPTION

Osyris lanceolata is a large, slender hardy shrub or a small tree (7-10 m tall). This multi-stemmed, evergreen hemi-parasitic plant has a round to irregular canopy and a grey smooth bark (later thick and rough).

Leaves sparse, blue-green, simple, alternate, lanceolate, sometimes egg-shaped, slightly glaucous, thick in texture, smooth with a waxy bloom, crowded along the stems; the apex is broadly tapering to rounded with a fine, sharp tip. The base is broadly tapering; lamina 2.5-7.5 cm, entire and rolled; petiole short, winged up to 0.6 cm, attachment to the stem forming ridges running down the stem. Twigs and leaves point upwards.

Flowers small, unisexual, yellow-green, becoming red when ripe; borne in leaf axils in short panicles or clusters of 2-3 flowers. Male flowers in axillary cymes, female solitary; all floral parts in fours.

Fruit small, edible, 1-seeded drupe, about 1 cm long, fleshy, egg-shaped, and green at first, turning yellow and becoming bright red to purple-black when ripe; crowned with a persistent calyx.

BIOLOGY

O. lanceolata is monoecious, flowering from March to August or even later, September to February with fruits ripening between May and September. In some areas the fruit is available throughout the year, but most abundant from July to December.



Leaves and flowers (Bart Wursten)



fruit (Bart Wursten)

ECOLOGY

Normally found in mountain slopes, rocky ridges where the original vegetation has been cleared; also found in *Brachystegia* woodlands, lowlands and lower slopes; strandveld, gorges, dry forest margins, evergreen bushland, grasslands, thickets and sometimes riverine. It occurs as isolated individuals, in close association with other woody species, and does not occur communally in large numbers. It is frost and drought-tolerant.

The species is probably a partial root parasite, growing on the roots of other plants and utilizing the root systems of these hosts, but it does produce its own chlorophyll. As a result this shrub is usually intimately associated with shrubs of other woody species.

BIOPHYSICAL LIMITS

Altitude: 900-2550 m

Temperature: 14-22°C

Rainfall: 600-1600 mm

Soil type: Prefers well drained soils exhibiting humic friable clays or deep loams

DOCUMENTED SPECIES DISTRIBUTION

Native: Kenya, South Africa, Tanzania

Exotic: Botswana, Ethiopia, Lesotho, Mozambique, Namibia, Swaziland, Zimbabwe



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: Roots and bark are used for tea and as a tonic in soup. Fruits are edible. Ripe fruits are eaten raw, with the seed discarded; only as an emergency food, especially by children or herdsman.

Medicine: A root decoction is used to treat diarrhea in Kenya; a decoction of the bark and heartwood is used to treat sexually transmitted diseases and anaemia in Tanzania. Extracts from the plant can cure certain diseases, including the killer Hepatitis B.

Timber: The wood is very hard, strong and heavy. It is used for carvings, grain mortars, pestles, pegs, and for building poles and bedsteads.

Essential oils: Roots and wood are scented and used to make cosmetics and perfume; and has a lucrative market in Germany, India, Indonesia and South Africa.

Tannin or dyestuff: The bark was used for tanning leather by the voortrekkers while the root gives a strong red dye.

Fibre: The root fibres are used in basketry.

Fuel: Also used as a source of firewood

SERVICES

Ornamental & erosion control: The tree is used as an ornamental and for soil conservation. The unusual bark and leaf combination make it an interesting subject amongst other trees in a garden; but due to its untidy growth form it is not an attractive tree in a small garden.

Other services: It was traditionally used by various Kenyan communities to preserve milk in gourds for long periods.

TREE MANAGEMENT

The tree is very slow growing, and requires shade of nurse trees in the early stages of growth. Being an endangered species, having been heavily exploited for extraction of perfume, farmers should be encouraged to plant this tree on their farmlands.

GERMPLASM MANAGEMENT

No pretreatment is required, but nicking the base of the seed improves germination. Germination reaches 60% after 6 weeks. The seeds cannot be stored hence should be sowed fresh. There are 10000-11000 seeds per kg.

PESTS AND DISEASES

The caterpillars of the Dotted Border butterfly (*Mylothris chloris agathina*) and the Common dotted border (*Mylothris agathina*) feed on this shrub as well as many beetles; though no serious damage has been reported.

FURTHER READNG

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SUGGESTED CITATION

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