

## Cordeauxia edulis

yeheb-nut

Hemsley

Fabaceae - Caesalpinioideae

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### LOCAL NAMES

Amharic (yicib); English (yeheb nut); Somali (yeheb-nut); Trade name (yeheb-nut)

### BOTANIC DESCRIPTION

*Cordeauxia edulis* is an evergreen, multistemmed shrub up to 4 m high. A taproot system up to 3 m deep with small secondary rhizomes near the surface and nodules on younger roots.

Leaves pinnate; leaflets ovate to oblong-ovate; leathery, with red glands on the lower surface.

Flowers yellow.

Pods each contain 1-4 round or ovoid seeds, mistakenly called nuts, 2.0-3.5 cm long.

The specific name, 'edulis', means edible.

### BIOLOGY

Flowering takes place just before the rainy season in its native range. The floral parts fall off after pollination, leaving a fertilized ovary that can remain undeveloped for up to 4-5 months if rains fail. The fruit matures in 10-14 days.

yeheb-nut

**ECOLOGY**

The terrain preferred is a gently undulating ground, never in alluvial flats where water and silt collect. It is found in the Haud-type mixed bush (synonymous to the Somalia-Masai Acacia-Commiphora deciduous bushland and thicket), which unites different bush types growing in the Haud. *C. edulis* patches are 1 expression of this plant community. The *C. edulis* sites are often covered with open grass (e.g. *Aristida kelleri*) and scattered but dense clumps of dominant *C. edulis* bushes and shrub species, mainly of *Acacia* and *Commiphora*, besides *Cordia* spp., *Cordyla somalensis* and *Grewia* spp. Intermingled are taller trees: *Acacia tortilis*, *Albizia anthelminthica* and *Delonix elata*.

**BIOPHYSICAL LIMITS**

Altitude: 100-1 000 m, Mean annual temperature: 27-30 deg. C, Mean annual rainfall: 250-400 mm

Soil type: The soils range from coarse, deep, red sands ('Haud' in Somali) to the slightly alkaline (pH 6.7-8.4) poor soils, extremely low in nitrogen.

**DOCUMENTED SPECIES DISTRIBUTION**

Native: Ethiopia, Somalia

Exotic: Israel, Kenya, Sudan, Tanzania, Yemen, Republic of



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:** The seeds are edible. The carbohydrate and protein content of the seeds is lower than in pulses and other legumes, but they are richer in sugars and fats, hence providing a balanced diet and high energy. The seeds are eaten fresh, dried, roasted or boiled; they have a smooth consistency and an agreeable taste like cashew nut or chestnut. *C. edulis* is such a hardy species that during drought it is sometimes the only food left for the nomads; thus the plant can provide a valuable food for hot, dry regions, especially with low, uncertain rainfall.

**Fodder:** During the dry season, due to its evergreen nature, it is one of the few palatable fodder species available and provides abundant fodder. At that time, it is the mainstay of livestock, especially camels and goats. It, however, cannot withstand long-term heavy browsing pressure. Herdsmen say that it gives a taste to the meat of livestock that have browsed it. In the rainy season, it is avoided by camels, goats, sheep and cattle because the plants have hard leathery leaves that are high in tannins.

**Fuel:** Villagers and nomads use the hard wood for firewood. It burns well, even when still wet.

**Tannin or dyestuff:** Leaves contain a brilliant red dye, cordeauxiaquinone, that stains the hands and is used in dyeing of fabrics. Cordeauxiaquinone also forms coloured insoluble combinations with many metals.

**Poison:** Freshly picked seeds are roasted or boiled and used to kill insects.

**Medicine:** Cordeauxiaquinone is used medicinally to stimulate hemopoensis.

**Other products:** A substance between liquid oil and fat, less pleasant than olive oil but useful for soap making is extracted from it.

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### **GERMPLASM MANAGEMENT**

The orthodox seed storage behaviour is questionable; viability is completely lost after a few months of open storage at room temperature. Even under the best conditions, seeds remain viable for only a few months.

### **PESTS AND DISEASES**

Weevils and moth larvae attack seeds.

**FURTHER READING**

Bekele-Tesemma A, Birnie A, Tengnas B. 1993. Useful trees and shrubs for Ethiopia. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

Crane E, Walker P. 1984. Pollination directory for world crops. International Bee Research Association, London, UK.

FAO, UNEP. 1983. Notes on trees and shrubs in arid and semi-arid regions. EMASAR phase II. FAO, Rome.

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.

Mbuya LP et al. 1994. Useful trees and shrubs for Tanzania: Identification, Propagation and Management for Agricultural and Pastoral Communities. Regional Soil Conservation Unit (RSCU), Swedish International Development Authority (SIDA).

National Academy of Sciences. 1979. Tropical legumes: resources for the future. National Academy Press. Washington D.C.

Wickens GE (ed.). 1995. Non-wood forest products 5; Edible nuts. FAO, Rome.

**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>)