

LOCAL NAMES

English (African walnut)

BOTANIC DESCRIPTION

Coula edulis is an evergreen, medium-size to large tree reaching 25 m, with a large, dense crown casting a deep shade. Form of the bole is generally short, bossed, branched low down, and sometimes slightly swollen at the base, not usually exceeding 6 m in length and 0.8 m in diameter. Bark thin, rather smooth, lenticillate, greenish-brown, slightly fissured; slash sepia or yellow; in young trees whitish and resinous.

Leaves alternate, simple, exstipulate, oblong or elliptic, coriaceous, 10-30 x 4 cm. Secondary nerves impressed on the upper surface and prominent on the lower surface. Young shoots and leaves covered with rust-coloured, stellate hairs.

Flowers small, in short axillary racemes and covered with rusty tomentum. They are tetramerous or pentamerous, with rather thick, glabrous, greenish-yellow petals.

Fruit an ellipsoidal drupe, 3-4 cm long, with an extremely hard kernel. Flesh surrounding the kernel green or reddish, 5-6 mm thick and smooth.

The specific name, 'edulis', means edible.

BIOLOGY

The tree is evergreen. Flowering takes place from April to June and the fruit is available from August to January. Fruit is usually found under the mother trees.



Fruits for sale at roadside near Mbalmayo, Cameroon (Anthony Simons)

ECOLOGY

C. edulis has its main distribution in the rain forest. It tolerates moderate shade and is normally a constituent of the upper reaches of the lower storey but is also found in the upper canopy. It is semi-gregarious and does not appear to be selective about sites.

BIOPHYSICAL LIMITS

Soil type: The tree has no special soil requirements.

DOCUMENTED SPECIES DISTRIBUTION

Native: Democratic Republic of Congo, Nigeria, Sierra Leone

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 oily kernel has a taste comparable to that of a chestnut or hazelnut. It can be eaten raw, grilled or boiled. It contains 50% fat, of which 87% is oleic acid.

Fuel: Wood produces suitable charcoal.

Timber: The sapwood is pinkish-brown, the heartwood is dark red or violet brownish-red. It is extremely hard, heavy, close-grained, and resists water well. It is also resistant to insect attack, particularly termites. It has the disadvantage of being liable to shake and crack. It is used for making piles for bridges and railway ties.

TREE MANAGEMENT

C. edulis can be used as a plantation tree with a final spacing of 10 x 12 m. Shading is beneficial when plants are young.

PESTS AND DISEASES

C. edulis is very resistant to marine borers.

FURTHER READNG

FAO. 1982. Fruit-bearing forest trees: technical notes. FAO-Forestry-Paper. No. 34. 177 pp.

Savill PS, Fox JED. 1967. Trees of Sierra Leone. Forest Department, Freetown.

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>)