

Carissa edulis

Vahl

Apocynaceae

LOCAL NAMES

Afrikaans (enkeldoring-noemnoem); Amharic (agam); Arabic (emir); English (simple-spined carissa, simple spined num-num, Arabian num-num); Luganda (muyonza); Swahili (mtanda-mboo); Tigrigna (agam)

BOTANIC DESCRIPTION

Carissa edulis is a spiny, much branched, small tree, shrub or scrambler, up to 5 m in height, with a milky sap. Bark grey, smooth, young branchlets with or without hairs; spines simple, straight, 2-5 cm long, usually single.

Leaves ovate to ovate-elliptic, opposite, occasionally almost circular, 2.5-6 x 1.8-3 cm, leathery, dark green above, paler green below, with or without short, soft hairs; lateral veins obscure; apex tapering, often with a bristlelike tip; base rounded to shallowly lobed; margin entire; petiole 1-4 mm long.

Flowers white tinged with purple, red or pink, up to 1.8 cm long, about 2 cm in diameter, slender, tubular, with corolla lobes overlapping to the right, sweetly scented, in terminal heads about 4 cm in diameter.

Fruits ovoid to almost spherical, up to 1.1 cm in diameter, red-black, ripening to purplish black, containing 2-4 flat seeds.

C. edulis closely resembles *C. bispinosa*, the obvious feature separating them being that *C. edulis* has straight thorns and those of *C. bispinosa* are Y-shaped. The name *Carissa* is probably derived from the Sanskrit 'corissa', a name for one of the Indian species of the genus. The specific name, *edulis*, means edible.

BIOLOGY

In southern Africa, for example, flowering occurs from September to December and fruiting from November to January. Insects pollinate the bisexual flowers. Fruits are animal dispersed.



Carissa edulis Foliage (Bob Bailis)



Carissa edulis, showing ripe fruits and foliage (Patrick Maundu)



Carissa edulis in flower (Patrick Maundu)

PRODUCTS

Food: Fruits are sweet and pleasant to eat; in Ghana, they are normally added to the food of invalids as an appetizer. Vinegar can be made from them by fermentation; in Sudan and Kenya, they are made into a jam. The roots are put into water gourds to impart an agreeable taste and are added to soups and stews for the same reason.

Fodder: Goats and camels in the dry parts of Sudan browse on *C. edulis*.

Fuel: The species is a source of excellent firewood.

Poison: In Kenya, a piece of the root is fixed into a hut roof as a snake repellent.

Medicine: Roots contain an active ingredient, carissin, that may prove useful in the treatment of cancer. The twigs contain quebrachytol and cardioglycosides that are useful as an anthelmintic against tapeworm. In Guinea, the boiled leaves are applied as poultice to relieve toothache. Root bark is mixed with spices and used as an enema for lumbago and other pains in Ghana; root scrapings are used for glandular inflammation; ground-up roots are used as a remedy for venereal diseases, to restore virility, to treat gastric ulcers, cause abortion, and as an expectorant. An infusion of roots along with other medicinal plants is used for treating chest pains, and a root decoction is also used for treating malaria.

SERVICES

Ornamental: *C. edulis* is an attractive tree that is suitable for planting in amenity areas.

Boundary or barrier or support: The abundant branching habit and the presence of spines make the plant suitable for planting as a protective hedge.

TREE MANAGEMENT

The slow-growing trees respond well to pruning.

GERMPLASM MANAGEMENT

Seeds storage behaviour is orthodox, and their viability can be maintained for more than 12 months in dry air storage at 5 deg. C. There are about 28 000-30 000 seeds/kg.

FURTHER READNG

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SUGGESTED CITATION

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