

Products from the trees

Fruits are sweet and pleasant to eat. *Carissa edulis* was ranked 3rd and 4th among indigenous fruit trees in Teso and Lango respectively.

In other regions, its fruits are added to food as appetizer. Vinegar can be made from them by fermentation as well as Jam. The roots are put into water guards to add a pleasant taste and are mixed in soup and stews for the same reason.

Goats browse on *Carissa edulis* foliage.

The species is also a source of excellent firewood.

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

Roots also contain an active ingredient called carissin, that may prove useful in the treatment of cancer. Roots are also used in various ways in the treatment of lumbago, gastric ulcers, chest pain and malaria.

The twigs contain substances useful against tapeworm. Boiled leaves are used as to relieve toothache.

Services provided by the tree

Carissa edulis is an attractive tree that is suitable for planting as an ornamental.

The abundant branching habit and presence of thorns make the species suitable for planting as a protective hedge.

Conclusion and acknowledgement

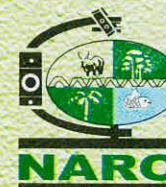
The importance of *Carissa edulis* has resulted in widespread exploitation of the tree for fruits as well as medicine. Extraction methods that include digging up of roots render the species endangered. As natural stands disappear, the future of this precious tree species lies in deliberate effort geared towards its propagation and multiplication on-farm.

After determining the importance of indigenous species, current research and development work aims at documenting knowledge about these species as a way of increasing awareness about them.

The Agroforestry programme of FORRI is grateful to the COARD project of DFID, for facilitating phenology and propagation studies currently being undertaken on priority indigenous species in Teso and Lango.

For more information contact:

**Agroforestry Programme of the Forestry
Resources Research Institute (FORRI)
P.O.Box 1752 Kampala, Uganda**



Carissa edulis

Aimuria (Ateso)

Acuga (Luo)

Simple spined numnum (English)



***Indigenous trees and shrubs
with potential for Agroforestry
in the Teso and Lango
farming systems***

Introduction

A study conducted in Kumi, Katakwi and Lira districts in 2002 identified *Carissa edulis* as an important fruit as well as medicinal species. It is known that with good management, the thorny species can be useful as a hedge barrier. The tree produces lots of seed which facilitates propagation.

It is in view of these attributes that *Carissa edulis* has been identified as one of the most important indigenous tree species with potential for agroforestry in the Teso and Lango farming systems.

Description of the tree

Carissa edulis *Carissa edulis* is a thorny, much branched, small tree or shrub growing up to 5m in height. It has milky sap and a smooth, grey bark. The thorns are straight and single measuring 2-5cm long.

Its fruits are nearly spherical in shape and measure about 1cm in diameter. They are red-black in colour, ripening to purplish black and contain 2-4 seeds.

The name "*carissa*" is derived from "*corissa*" a name for one of the Indian species of the genus. The specific name "*edulis*" means edible.

Where does it grow?

Carissa edulis is found in a belt stretching from Arabia through Tropical Africa to Transvaal in the south. It is an indigenous tree in many parts of Africa including Uganda, Botswana, Cameroon, Ethiopia, Ghana, Guinea, Kenya, Namibia, Nigeria, South Africa, Senegal, Sudan and Tanzania.

In Uganda, the tree is commonly found in Teso and Lango farming systems. It usually exists on termite mounds in wooded grasslands especially in low lying areas, and also in thickets in woodlands, forest edges and secondary shrub. The shrub however, prefers dryish conditions.

It grows at altitudes of 1000 to 2000 metres above sea level and tolerates most soils including black cotton.

How is the tree propagated?

Seed storage behaviour is orthodox (i.e. seeds can be kept at less than 0°C without damage) and their viability can be maintained for more than 12 months in air dry storage at 5°C. There are about 28000 to 30000 seeds / kg.

Although the trees are difficult to establish, they can be grown from seed. No treatment is necessary before planting. The germination of fresh seed is good. Artificial regeneration using seedlings and wildings is also possible.

How is the tree managed?

The slow-growing tree responds well to pruning.