

Prosopis africana

[Synonyms : *Coulteria africana*, *Prosopis lanceolata*, *Prosopis oblonga*, *Pygeum africanum*]

GUELE is an evergreen tree. Native to tropical Africa (particularly Cameroon, Ghana, Kenya, and Sudan) and to Madagascar, it has small fragrant, creamy-white flowers.

It is also known as African cherry, African mesquite, African plum tree, African stinkwood, *Ekiki* (Ugandan), *Kijing* (Ugandan), *Liso* (Ugandan), Pygeum, Red stinkwood, *Rooistinkhout* (Afrikaans), and *Zingili* (Ugandan).

The glossy, dark greyish-green leaflets smell faintly of almonds when crushed. The seeds rattle when the fruit pods are ripe. The tree is drought-resistant when mature.

This tree is endangered in the wild and subject to strict regulations on its harvesting and trade, especially in Cameroon and Madagascar.

Africana means ‘of or from Africa’.

Although in 1997 the United Nations Convention on International Trade listed guele as a tree in danger of extinction in the wild and classified it under Endangered Species of Wild Fauna and Flora (CITES) Appendix II this has attracted little regard on the ground. By the year 2000 the tree had an estimated lifetime of five to ten years. Bureaucrats recognised that most harvesters are probably blissfully unaware of these guidelines (let alone the threat to their valuable tree) and a smaller knowledgeable number simply flaunt them. It was also appreciated that so many of the trees are not sufficiently accessible for abuses to be monitored. For local people the tree is a traditional source of condiment, fish poison, food, forage, fuel and medicine – and for wildlife, including some rare birds, it offers nesting, cover and food. Add on the need for grazing and arable land achieved in a slash-and burn culture, the ever-expanding international market for the tree’s drug for sufferers of prostate problems which encourages complete stripping of all a tree’s bark (as opposed to the traditional judicious approach of local medicine men) thus dooming the plant to death (or the felling of it which comes to the same thing) – and the local and national incomes generated from all of this for the tree’s host nations – and it becomes dramatically apparent why guele’s continued existence is in the balance.

[There are other remedies for prostate cancer including pumpkin-seed oil (*Cucurbita*) but most of them have unpleasant side effects not experienced with guele. Perhaps it should be noted that two other plants have actually been used in prostate treatments, the purplish-black fruit of saw palmetto (*Serenoa repens*) and the roots of small nettle (*Urtica urens*) and some medical research suggests that the addition of either of them to guele enhances the latter’s efficacy.]

Fruit pods and seeds are eaten locally. In Nigeria the seeds are fermented to make a ubiquitous condiment known as *Ogiri* or *Ukpehe*, which is high in protein and is believed to be relied upon by roughly 15 million people.

Birds and mammals also enjoy the fruit and help to distribute the seed. Young leaves, shoots and pods have also provided a popular local fodder – to the extent that in the second part of the dry season the herders have even lopped branches from the trees to make access easier for their livestock.

The bark yields a red dye that is applied to leather.

And as already mentioned it is the bark too which contains a drug sought after worldwide for treating prostate problems which can often lead to prostate cancer. Prostate problems are believed to be experienced by at least 50% of men, usually over 50, in the Western world – a world with an aging population (and an overall growing enthusiasm for and trust in ‘natural’ remedies) thus an ever-increasing demand. At the turn of the 20th and 21st Centuries this substance seems to be almost exclusive to *Prosopis africana* and export of the bark from which it is extracted adds significantly to the coffers of the host nation’s exchequer. Great demand for the drug has been anticipated until at least 2020 as apparently it is not readily synthesisable. Urgent research has thus been ongoing with on the one hand consideration of the tree’s ecology with a view to reforestation programmes, and on the other the tree’s domestication and husbandry for agricultural schemes. (It is interesting to note that only about 40 trees of 60,000 wild species have ever been domesticated successfully and that tree breeding of commercial tree species only began in the mid-20th Century.) One of the problems which needed to be overcome in this instance was the time, 15-20 years, that this species needs to produce seed in the wild and reports already indicate that scientists have managed to adapt a technology applied for fruit trees’ seeds and reduce that period from 15 years to 3. The bark takes 12-15 years to grow and contain the drug.

Locally the leaves are held to be a male aphrodisiac.

The pounded and dried fruit have provided a fish poison for local fishermen.

In South Africa the tree is cultivated as an ornamental for its shade.

The very hard, heavy and durable, paler streaked, yellowish-brown to dark reddish-brown wood has been used for turning, boatbuilding and construction, and has been made into railway sleepers, agricultural implements, paving blocks, tool handles, furniture and household utensils. It has also been used for making charcoal. Some authorities have noted that this wood lends itself to carving and is sought after in various places.

Medicinally, local herbalists have used the bark to ease chest pains and stomach aches, and to treat malaria. The leaves have been used as an inhalant for treating fever and, in infusion, as an appetite enhancer.