


# Sclerocarya birrea

Sclerocarya birrea	
	
Scientific classification	
Kingdom:	Plantae
(unranked):	Angiosperms
(unranked):	Eudicots
(unranked):	Rosids
Order:	Sapindales
Family:	Anacardiaceae
Genus:	Sclerocarya
Species:	<i>S. birrea</i>
Binomial name	
<i>Sclerocarya birrea</i> (A. Rich.) Hochst.	
Synonyms	
<i>Poupartia birrea</i> (A. Rich.) Aubrév <i>Spondias birrea</i> (A. Rich.)	

*Sclerocarya birrea*, the **marula**, (Greek σκληρός, *sklēros*, "hard", and κάρυον, *káryon*, "nut", in reference to the stone inside the fleshy fruit) is a medium-sized dioecious tree, indigenous to the miombo woodlands of Southern Africa, the Sudano-Sahelian range of West Africa, and Madagascar. The tree is a single stemmed tree with a wide spreading crown. It is characterised by a grey mottled bark. The tree grows up to 18 m tall mostly in low altitudes and open woodlands. The fruits are used in the liqueur Amarula. The distribution of this species throughout Africa and Madagascar has followed the Bantu in their migrations, as it has been an important item in their diet since time immemorial.



Green marula fruits

The fruits which ripen between December and March have a light yellow skin, with white flesh, rich in vitamin C—about eight times the

amount found in an orange—are succulent, tart with a strong and distinctive flavour. Inside is a walnut-sized, thick-walled stone. These stones, when dry, expose the seeds by shedding 2 (sometimes 3) small circular plugs at one end. The seeds have a delicate nutty flavour and are much sought-after, especially by small rodents who know to gnaw exactly where the plugs are located.

**Relationships:** Belongs to the same family Anacardiaceae as the mango, cashew, pistachio and sumac, and is closely related to the genus *Poupartia* from Madagascar.

**Common names:**

Tshivenda: mafula

English: jelly plum, cat thorn, morula, cider tree, marula, maroola nut/plum

Afrikaans: Maroela

Bambara: nkuna, nkuntan

Portuguese (Mozambique): canhoeiro

Hausa: dania

Sotho: *Morula*

Swahili: mng'ongo

Shona: mutsomo, mukwakwa, mushomo, muganu, mupfura; [fruits] pfura; [tree] mufura, mafuna, marula

Tswana: Morula

Northern/Southern Ndebele: iganu, ikanyi, umganu, umkano

Swazi: [fruits] emaganu, [tree] umganu

Zulu: Umganu, [fruits] amaganu, [seeds, tree] umganu

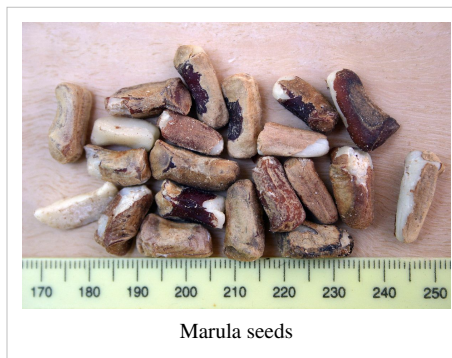
Other: Boran (Kenya) – didissa ; Kamba (Kenya) – muua; Kwangali – ufuongo; Lovedu – marula; Maasai (Kenya) – ol-mangwai; Meru (Kenya) – mura; Pedi [fruits] – lerula, marula; Pedi [tree] – morula, merula; Pokot (Kenya) – oruluo; Ronga (Mozambique) – ncanhi; Sebei (Kenya) – katetalum; Shangaan – nkanyi, inkanyi; Diga (Kenya) – mngongo; Tonga: tsua, tsula, umganu; Tugen (Kenya) – tololokwo; Dinka (Sudan) – Gummel; Nuer (Sudan) – Kamel, Omel; Moru (Sudan) – Kyele; Luo (Kenya) Ong'ono.

The Marula tree is protected in South Africa.

## Traditional Uses

While little known globally, the fruit is traditionally used for food in Africa, and has considerable socioeconomic importance.

The seed kernels are high in protein and fat, with a subtle nutty flavour, and constitute an important emergency food. Marula oil, made from the seed kernel, is a delicious additive to meals in Africa. It contains antioxidants and oleic acid. The bark is used both as treatment and a prophylaxis for malaria. An infusion of the inner bark of the marula tree may be applied to scorpion stings and snake bites to alleviate pain. The leaves are chewed on to help indigestion and to treat heartburn. Marula oil, made from the seed kernel, can be used as a type of skin care oil. Products of fruits and the tree are useful in crafts and agriculture. Gums exudates from the stem are mixed with water and soot to make



Marula seeds



Marula trunk

ink by certain tribes in the region. The bark also yields a red-brown dye used in colouring traditional craft ware. The fruit infusion is used to bathe tick-infested livestock. The fruit is regarded as a potent insecticide. Wikipedia: Citation needed

## Commercial Uses

On an industrial level the fruit of the marula tree is collected from the wild by members of rural communities on whose land the trees grow. This harvest and sale of fruit only occurs during two to three months but is an important income to poor rural people. The fruit is delivered to processing plants where fruit pulp, pips, kernels and kernel oil are extracted and stored for processing throughout the year.

The most important industrial product is Amarula which is probably still the second largest selling cream liquor in the world. Mirma, based in Phalaborwa, assembles and processes 4,000 tons a year of fruit. They produce a pulp from the skin and flesh which is refrigerated and shipped to Distel<sup>[1]</sup> in the Cape Winelands. Here it is fermented, distilled, matured, blended and bottled before being internationally distributed.

Another fruit based product is a frozen marula puree, which is produced by Bronpro<sup>[2]</sup> in Nelspruit. Bronpro supply puree to food manufacturers who use it as an ingredient in their products. The best known of these products is Marula Mania a juice blend produced by The Ceres Beverage Company<sup>[2]</sup> under the Liquifruit label.

The third largest marula fruit based industry, is the production of marula oil as an ingredient for cosmetics. This tends to be scattered amongst many producers although PhytoTrade Africa<sup>[3]</sup> is probably the leading "supplier" to the cosmetics industry through its integration of the production of many producers.

## Popular culture

The alcoholic distilled beverage (maroela mampoer) made from the fruit is referenced in the stories of the South African writer Herman Charles Bosman.

The marula fruit is also eaten by various animals in Southern Africa. In the movie *Animals Are Beautiful People* by Jamie Uys, released in 1974, some scenes portray elephants, warthogs and monkeys becoming intoxicated from eating fermented marula fruit. Later research showed that these scenes, at least in large animals were improbable and, in all probability, staged. Elephants would need a huge amount of fermented marulas to have any effect on them, and other animals prefer the ripe fruit. The amount of water drunk by elephants each day would also dilute the effect of the fruit to such an extent that they would not be affected by it. Reports of elephants becoming intoxicated from marula fruit, however, are persistent.

Marula fruit is used to make Amarula liqueur.

## Etymology

The generic name *Sclerocarya* is derived from two Greek words, 'skleros' and 'karyon', meaning 'hard' and 'nut', respectively, and refers to the hard stone of the fruit. The specific epithet 'Birrea' comes from 'birr', the common name for the tree in Senegal.<sup>[4]</sup>

## References

[1] <http://www.distell.co.za/>

[2] <http://www.bronpro.co.za/products.html>

[3] <http://phytotrade.com/about-us/>

[4] [url=http://ecoport.org/ep?Plant=45894&entityType=PL\\*\\*\\*\\*&entityDisplayCategory=full](http://ecoport.org/ep?Plant=45894&entityType=PL****&entityDisplayCategory=full)

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## External links

- *Sclerocarya birrea* ([http://www.westafricanplants.senckenberg.de/root/index.php?page\\_id=13&preview=true&searchTextMenu=Sclerocarya+birrea&search=Wikitable](http://www.westafricanplants.senckenberg.de/root/index.php?page_id=13&preview=true&searchTextMenu=Sclerocarya+birrea&search=Wikitable)) in West African plants – A Photo Guide. (<http://www.westafricanplants.senckenberg.de/>)
- <http://www.swazisecrets.com/marulaafricanoils.asp>

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