

Elaeis guineensis

[Synonyms : *Elaeis dybowskii*, *Elaeis guineensis* var. *albescens*, *Elaeis guineensis* forma *androgyna*, *Elaeis guineensis* var. *angulosa*, *Elaeis guineensis* forma *caryolitica*, *Elaeis guineensis* var. *ceredia*, *Elaeis guineensis* var. *compressa*, *Elaeis guineensis* forma *dioica*, *Elaeis guineensis* forma *dura*, *Elaeis guineensis* forma *fatua*, *Elaeis guineensis* var. *gracilinux*, *Elaeis guineensis* var. *idolatraca*, *Elaeis guineensis* var. *intermedia*, *Elaeis guineensis* var. *leucocarpa*, *Elaeis guineensis* var. *macrocarpa*, *Elaeis guineensis* var. *macrocarya*, *Elaeis guineensis* var. *macrophylla*, *Elaeis guineensis* var. *macrosperma*, *Elaeis guineensis* var. *madagascariensis*, *Elaeis guineensis* var. *microsperma*, *Elaeis guineensis* var. *pisifera*, *Elaeis guineensis* forma *ramosa*, *Elaeis guineensis* var. *repanda*, *Elaeis guineensis* var. *rostrata*, *Elaeis guineensis* forma *semidura*, *Elaeis guineensis* var. *sempernigra*, *Elaeis guineensis* var. *spectabilis*, *Elaeis guineensis* forma *tenera*, *Elaeis guineensis* subsp. *virescens*, *Elaeis madagascariensis*, *Elaeis melanococca*, *Elaeis virescens*, *Palma oleosa*]

AFRICAN OIL PALM is a thorny palm. Native to tropical western Africa, it has a dense crown of thorny stalked, long arching fronds, and long clusters of yellow flowers.

It is also known as *Abura yashi* (Japanese), *Afrikanische Ölpalme* (German), *Avoira de la Guinée* (French), *Caiaué* (Brazilian, Portuguese), *Corojo de Guinea* (Spanish), *Dầu* (Vietnamese), *Dendenzeiro* (Portuguese), *Glouglou* (Creole), *Guinea oil palm*, *Gvineiskaia* (Russian), *Kelapa sawit* (Malay), *Kelapa sawit Bali* (Malay), *Macaw fat palm*, *Maslichnaia pal'ma* (Russian), *Mchikichi* (Swahili), *Miwesi* (Swahili), *Mjenga* (Swahili), *Nakhlet ez zayt* (Arabic), *Oelpalme* (German), *Oil palm*, *Oil palm dendé*, *Oliepalme* (Danish), *Oljepalm* (Swedish), *Öljypalmu* (Finnish), *Ölpalme* (German), *Paam nam man* (Thai), *Palma africana* (Spanish), *Palma avoira* (Italian), *Palma da olio* (Italian), *Palma de aceite* (Spanish), *Pal'ma maslichnaia* (Russian), *Palma oleaginosa africana* (Italian, Spanish), *Palmera de aceite* (Spanish), *Palmera dendém* (Portuguese), *Palmier à huile* (French), *Palmier à huile d'Afrique* (French), *Si htan* (Burmese), *Si ohn* (Burmese), *Wild oil palm*, and *You zong* (Chinese).

About five large rounded bunches of plum-like, pointed-tipped reddish-brown fruit are produced by a palm each year. Each bunch can weigh as much as 20 lb. and contain 200-300 fruit.

The flowers can be pollinated by weevils.

The fruit pulp yields a bright yellowish-orange cooking oil (often held to be of a quality that could almost rival olive oil, *Olea europaea*). This is called Dende Oil, Macaw Fat, Palm Oil or Palm Kernel Oil which turns rancid quickly. The seed or kernel yields a lower grade oil (similar to coconut oil *Cocos nucifera*) that is paler and ages more slowly.

Guineensis means 'of or from western Africa eg. the Guinea coast'.

For many centuries to the present day the fruit have offered Africans in western parts of their Continent a valuable local source of food and oil for cooking. The palm's sap, fruit, fruit oil and leaves continue to account for a significant part of their diet. Locally the young leaves are cooked as a vegetable and the edible oily fruit are eaten roasted (prepared this way they are said to have a lamb-like taste). The fruit can supply various grades of oil ranging from cooking oil to fuel and lubricants – but locally the fruit pulp is most often

beaten into a thick, butter-like, light yellow to orange-red fat.

The sap is tapped from the male flower clusters for toddy and to make wine and spirits. It is understood however foreshortens the palm's life as that sap would have contributed to the growth of the flower clusters.

The healthy respect in which tribes in the African Gold Coast region (now part of Ghana) hold the African oil palm is illustrated in several of their proverbs in which it plays a key role. For example one proverb translates as

The branches of the oil palm do not know a friend
which means 'they prick you if you do not take care even though you might have planted the palm'.

Determined by the circumstances in which they were used, the palm's branches also signified various things for some African tribes. On the one hand a branch would be hung before a home harbouring sickness to warn against entry as this might upset the local doctor's medicine. On the other hand a messenger sent by one warring tribe to another wore a young branch of the palm around his neck when he sought to negotiate peace terms.

Dende oil (obtained from the fruit pulp) was used in bygone days in the tin-plating process (the cleaned surface of the iron was coated with it before the tin was applied). Both then and today it has also been used for making dental products, cosmetics, and lubricants. As the latter it has long been applied to axles on Indian railways. Apart from its use in the rubber and textile industries it has also been employed in making candles and soap. Dende oil provides an important by-product glycerine too.

Today the lower grade kernel/seed oil furnishes a 'diesel' fuel used to run taxis in some tropical cities. In the West dende oil is in demand particularly for the manufacture of margarine, edible cooking fats, ice cream, commercial salad dressings, confectionery and baked products, as well as for soap and detergent.

The fronds are used locally for thatching and in Africa especially the leaf fibre has provided material for cord and fishing lines. The stems have been used for fencing.

Some records show that the hard shelled seeds were once made into cigarette holders (a stem was added to the drilled and oiled shells) and these were sold in markets in Singapore.

In regions as far apart as the Philippines and Europe the palms have long been grown as ornamental plants. In the case of Europe they made their début in conservatories there as early as 1730.

Today the palm is cultivated widely in tropical regions primarily for its oil – and by the 1970s plantations had been well established in Middle and South America as well as in the Old World. By that time of course it had provided export commodities for western Africa for over 100 years as first exports of dende oil began there in 1842. Initially the African region introduced other countries to the poorer quality kernel oil which they extracted from the fruit walls of seeds of fruit harvested from wild stands of the palms – but within about ten years the better quality dende oil from the fruit pulp was beginning to be traded as well. The palm oil's potential as a valuable commodity for trading drew European attention and the palm was introduced to the Dutch East Indies in 1848 (and at roughly the same time, the Philippines) where it was cultivated in plantations for its oil crop – whereas plantations in western Africa only emerged in the early 20th Century. These African plantations flourished and by the 1970s world production of this palm's oil had reached over 1 million tons annually mainly from western Africa and Congo regions and, behind them, Indonesia and Malaysia. It is fascinating to note that a decade later authorities realised that the African oil palm was beginning to overtake the coconut palm (*Cocos nucifera*) in importance in wet tropical regions as an oil yielding crop – not least because its fruit take half the time (of coconuts) to ripen. At the turn of the 20th and 21st Centuries however it is Malaysia not western Africa that is the prime producer of this oil

– one upon which the West relies more and more. A note of concern creeps into some records when authorities note that demand for the oil today is such that much rainforest is being destroyed in many parts of Asia in order to establish plantations of these palms. At the beginning of the 21st Century botanists suggest that the wild African palm oil trees could provide a genetic ‘blood bank’ for their cultivated version. The cake residue left after the extraction of oil from both the fruit and the kernel are used in animal feed, primarily for cattle, poultry and pigs. Medicinally, Africans have long applied the pulp oil to wounds and used it to ease rheumatism, while in India it has been prescribed to counter Vitamin A deficiency. Some records indicate that the fermented sap on the other hand has provided a source of Vitamin B for African diets and other records mention that parts of the palm have also been used for treating cancer and headaches.