

Aleurites moluccana

[Synonyms : *Aleurites ambinux*, *Aleurites javanica*, *Aleurites moluccana* var. *serotina*, *Aleurites triloba*, *Aleurites trisperma*, *Croton moluccanum*, *Jatropha moluccana*]

CANDLE NUT OIL TREE is an evergreen tree. Native to south-eastern Asia (particularly China) it has very small fragrant, pale cream flowers.

It is also known as *Akshota* (Sanskrit), *Albero della vernice* (Italian), *Aleurite* (French), *Arbre à vernis* (French), *Balucanat*, *Bancoule* (French), *Bancoulier* (French), *Bancoulnuss* (German), *Bangla-akrôt* (Indian), *Bankul* (French-speaking Asia), *Bankulnussbaum* (German), *Bengal walnut*, *Candleberry*, *Candlenut*, *Candle nut tree*, *Cila ag* (Turkish), *Country walnut*, *Girda-gâne-hindi* (Persian), *Hindi-akhrot-higgle-badam* (Indian), *Indian walnut*, *Indischer Nussbaum* (German), *Jangli akhrot* (Bengali, Hindi), *Jouze-barri* (Arabic), *Kamari* (Malay), *Kamira* (Malay), *Kemiri* (Javanese, Malay), *Kukui* (Hawaiian), *Lama* (Samoan), *Lauci* (Fijian), *Lichtnussbaum* (German), *Lúmbang* (Filipino/Tagalog), *Mayow* (Thai), *Mehlbaum* (German), *Munchang* (Sundanese), *Natakrotu* (Telugu), *Nattakkarottu* (Tamil), *Otaheite walnut*, *Shih-li* (Chinese), *Tel-kekuna* (Singhalese), *Tuitui* (Tongan) and *Varnish tree*.

The walnut-like seeds yield a pleasant smelling, clear, light yellow oil known as *Candle nut oil*, *Chinese wood oil* or *lumbang oil* ie. drying oils and artists' oil. An essential oil can also be obtained from the fruit skin.

Warning – the raw seed can cause purging, vomiting, stomach pain, diarrhoea, slowed breathing and death. The milky juice or sap can cause dermatitis. Residual seed cake (after extraction of oil) can be poisonous and is not fed to livestock.

Moluccana means 'of or from the Moluccas or Indonesian Spice Islands'.

This was one of the plants that the Polynesians are believed to have introduced to Hawaii from south-eastern Asia on the opposite side of the Pacific Ocean in about 750 AD. As will be seen Hawaiian life would have been significantly poorer without it. Occasionally the trunk was fashioned into a canoe – and the grey bark was used to tan their fishing nets which not only strengthened them and delayed any decay but also made them less conspicuous to the fish. When out fishing Hawaiians chewed the tree's fruit kernels to release the oil and spat the mush over the water. This had the effect of smoothing the ripples on the water surface.

Back on land root bark, tree bark and fruit shells all provided different sources of dye in Hawaiian and other traditions. Bark dye was used for tattooing, while gum obtained from cuts in the tree bark was made into a waterproof coating to cover and protect dyed material. In Tonga and Samoa material was dyed black with the soot from the burning skewered oily fruit.

Lighting was a further benefit obtained from roasted kernels or oil (the latter made by grinding the fruit in stone mortars) which was presented in different forms. For example the Hawaiians tended to use kernels or oil in torches or stone lamps, and the Samoans strung nuts together with a coconut leaf mid-rib for burning in their huts or on their canoes when fishing at night.

Some of the Australian-Aborigine tribes used the oil as a preservative and rubbed it on their spears.

In addition in Hawaii despite the tree's poisonous qualities roasted fruit are made into various dishes and the tree sap or the flowers have provided the Islanders with some medicines. Jewellery was made from the polished fruit shells which some authorities claim have had a similar appearance to that of jet when finished. The fruit also featured in Hawaiian custom. If a thief did not come forward and admit his guilt while three nuts were burnt separately on a ritually prepared fire, universal proclamation of the theft followed and (with the community's collective concentration) the culprit was willed to death.

Candle nut oil tree is an emblem of Hawaii and was adopted there in 1959.

For the Chinese the processed nuts are enjoyed as an aphrodisiac.

In the Malay Peninsular the tree has a similar popularity to that of the horse-chestnut (*Aesculus hippocastanum*) in England. Its fruit (which have exceptionally hard shells) are played like 'conkers', and rich in oil which burns with an unpleasant smell they are sometimes strung together and used as candles (hence the reference in some of its names like Candlenut). The soot from these candles was used for staining their eyelids. The oil has also been used with appropriate ritual in Malaysia in the treatment of tuberculosis.

The Javanese people (now part of Indonesia) have used small quantities of the processed seeds in sauces and the roasted and pounded kernels from the nuts have been included in relishes. (They rely on coconut-water as an antidote for poisoning in the event that the seeds have been inadequately prepared to neutralize their toxic qualities.) The seed oil has also been used in Java as a hair oil.

Malaysian cooking incorporates the seeds in curries. Malaysian rituals (particularly those associated with newborn babies or dried new rice) involve use of the fruit together with a cockleshell and an iron nail.

In Sri Lanka the leaves are gathered and ploughed into the fields as a fertilizer.

In the Philippines the oil has been used extensively in soap, marine paints and lamp oils.

Australians have experimented with the wood for use as paper pulp.

Candle nut oil tree's wood is used in commerce for manufacturing plywood and making packing cases, and kitchen utensils.

The tree itself has been cultivated on dunes in some regions to stabilize them.

Today this tree's oil is used commercially in varnishes, paints (including protective coatings for small marine craft bottoms), and soaps. It is also being used by the cosmetic and pharmaceutical industries.

Medicinally, various parts of the candle nut oil tree have been used in local treatments for dysentery, diarrhoea, tuberculosis, asthma, stomach upsets, headaches, ulcers, rheumatism and piles.