

Syzygium aromaticum

[Synonyms : *Caryophyllus aromaticus*, *Eugenia aromatica*, *Eugenia caryophyllata*, *Eugenia caryophyllus*, *Jambosa caryophyllus*, *Myrtus caryophyllus*]

CLOVE is an evergreen shrub or tree. Native to south-eastern Asian islands (particularly the five small islands of the Moluccas) it has yellow buds opening to crimson or pale purplish-green flowers with many feathery, white stamens and a strong refreshing smell.

It is also known as *Bunga cengkih* (Malay), *Chengkeh* (Chinese, Javanese), *Chiodi di garofano* (Italian), *Choji* (Javanese), *Clavo* (Spanish), *Clou de girofle* (French), Clove-tree, *Cravo* (Portuguese), *Dinh hu'o'ng* (Vietnamese), *Garofano* (Italian), *Gewürznelke* (German), *Gewürznelkenbaum* (German), *Giroflier* (French), *Grambu* (Malayalam), *Gvozdika* (Russian), *Karabu* (Singhalese, Tamil), *Karabu-netti* (Singhalese, Tamil), *Kembang lawang* (Indonesian), *Klujooff* (West Indian), *Kirambu* (Tamil), *Kruidnagel* (Dutch), *Kryddnejlika* (Swedish), *Labang* (Oriya), *Laung* (Hindi, Punjabi, Urdu), *Lavang* (Gujarati), *Lavanga* (Kannada, Sanskrit), *Lavangalu* (Telugu), *Lawang* (Bengali), *Luvang* (Marathi), *Mausteneilikka* (Finnish), *Qaranful* (Arabic), *Raja* (Spanish), *Ting-hsiang* (Chinese), and Zanzibar red head; and in flower language it is said to be a symbol of dignity.

The unopened pink flower buds (cloves) are gathered from five-year old-and older trees just before they open and are immersed in boiling water for a few seconds. The stalks are then removed and the buds are dried in the sun (or other source of heat) when they turn reddish-brown. The cloves are either left whole or ground. Essential oil is obtained by steam distillation. Leaves and stalks are sometimes harvested (some contend they are more pungent than the oil) for processing to produce a coarser oil.

Warning – oil if used to ease toothache should not have prolonged contact as the gums can be seriously irritated (inflamed). Handling the cloves can cause dermatitis. Whole cloves should be removed from culinary dishes before serving them.

Aromaticum is derived from Greek *aroma* (spice) meaning 'aromatic, fragrant or scented'.

The nail-shaped appearance of the dried flower buds led to them being christened Cloves from a Latin word for 'nail' (*clovus*) or a French word *le clou*.

Chinese physicians who were using it as early as 260 BC have the first known records of the clove-tree which was respected by them for its medicinal as much as its culinary qualities. The Chinese are also believed to have viewed it as an aphrodisiac – and may still do so. Apparently during the Han dynasty (206 BC-220 AD) it was the practice to keep a clove in the mouth when addressing the emperor as only those with sweet breath were allowed to approach him. (The use of cloves as a breath sweetener has long been a widespread practice throughout Asia.)

Although the Chinese are understood to have long obtained their supplies of cloves from the Ganges basin in eastern India it seems a little surprising to learn that cloves only became a part of food in southern India from about the 1st Century AD and that according to some authorities their first appearance in Egypt was even later in 176. Clove is not thought to have been familiar to the ancient Greeks but the spice was popular with the Romans who imported it via Arab traders. Not long before his death in 335 Pope Sylvester I was presented with a gift of sealed vessels containing 150 lb. of cloves by the Roman

Emperor, Constantine I (c.274-337), also known as Constantine the Great, after Christianity had become the state religion. For the Romans the spice was not only valued for its culinary advantages but also as a medicinal panacea. Although it was spread by them further into Europe, when the Roman Empire finally collapsed cloves disappeared from the European Continent again and only re-appeared there either with the Arabs in about the 10th Century when they conquered Sicily or on the return home of some of the Crusaders from the Middle East.

Certainly according to records cloves were among imports listed as liable for duty at both Marseilles and Barcelona by 1228 – traded by the Venetians who themselves bought them from the Arabs. [Clove was to be one of the spices brought home after his Oriental travels by one of Venice's most famous sons the reputed traveller, Marco Polo (1254-1324).] During the Middle Ages however the spice started to appear in many of the western European kitchens of the rich – and European herbalists also recognized medicinal properties. It was thought that an orange studded with cloves could give protection against plague and citizens in Naples attributed aphrodisiacal advantages to clove pastilles. But to this point in time cloves were primarily a preserve of the wealthy as like other spices they were in relatively short supply and extremely expensive not least because of the vagaries of transportation from their native land.

It was not until the 16th Century with the emergence of the famous European explorers (who led long distance sea voyages to faraway lands and returned laden with new spices and tales of unusual customs) that clove became more widely known in western Europe – and access to them was no longer dependent upon Asian caravan routes and the Venetian traders who had like the Arabs diligently protected their sources and their considerable income.

The next two centuries saw trade wars between various European countries which were fought because of an individual country's monopoly of a spice's (or other exotic commodity's) source – not least over cloves. The Portuguese would appear to have been the first western Europeans to find a sea route that would neutralize the Venetian/Arabian stranglehold, once their famous navigator, Vasco da Gama (c.1469-1525) had rounded South Africa's Cape of Good Hope and begun to explore the 'eastern seas'. Da Gama's exploits were combined with subsequent good fortune when his successor, Alfonso d'Albuquerque (1453-1515) a Portuguese viceroy of the Indies, had one of his ships wrecked. Her captain was picked up by a clove trader on his way to the Molucca islands to replenish his cargo. This led to the Portuguese control of Ceylon (now Sri Lanka), the Moluccas, the island of Ormuz – and the spice supplies. They were wrested from the Portuguese by the Dutch in 1605. Dutch traders were initially able to protect their control of the clove market by confining and guarding the tree's cultivation within a limited area and destroying any found growing within range outside it. It should be mentioned at this point that as elsewhere in the world where European colonizers and exploiters appeared, here under the aegis of both the Portuguese and the Dutch, the local population were subdued mercilessly. And the bloodshed was set to continue.

The Dutch had previously expelled any Englishmen from their area but now they had to contend with the East India Company. By chance in 1587 when Sir Francis Drake (c.1540-1596) the English pirate and navigator, had sacked Cadiz in Spain he acquired documents that had been on board a Portuguese carrack. These provided information about the East India trade and ended up in the hands of City of London merchants. The documents became part of the inspiration for the establishment of the East India Company on 31st December 1600 by a group of City merchants under a fifteen-year royal charter from Queen Elizabeth I (1533-1603). Trading began from a factory set up on the Indian sub-Continent which was supported by a fleet of five armed ships. Its immediate

success led to the Dutch formation of the Dutch East India Company from local associations in the East which had assumed control of the Spice Islands (the Moluccas). But the British appeared to take no active interest in the spice areas and the Dutch ruthlessly removed any other competition and dealt with any audacious local princelings who attempted to oppose their control. The measures taken included releasing alien wild animals on their islands as an additional security measure. They tortured and executed English traders in 1623 in Amboina, Indonesia (who it is noted had been expressly permitted to trade) with ten Japanese and one Portuguese. They razed communities to the ground eg. the old Moslem town in a Batavian colony and massacred other communities. Back in northern Europe the Dutch taunted the British and even went so far as to sail a fleet up the Thames in London with a broom secured to the flagship's prow as a symbol of their mastery of the seas. Gradually and inexorably however the autonomous East India Company (whose fleet had now grown to 200 ships) took over islands in the Indian Ocean – as well as assuming control of some ports and areas of mainland India and agreeing trading arrangements with various countries such as Japan. At the same time at home Britain exacted damages from the Netherlands for their Amboina exploit and in 1651 introduced a new Navigation Act under which goods imported into Britain from Africa, the Americas and Asia had to be transported direct on English ships. To cap this in 1657 the East India Company's trading Charter was renewed.

During the next one hundred years Dutch influence in the East and on the spice trade began to be eroded. In 1798 it ceased to exist and the British East India Company was left – notwithstanding unrelated and ineffectual flurries of activity from the French East India Company and her successors. Early in the 19th Century the East India Company itself was to experience considerable change – but that is another story.

The French interest in the area and its valuable spice trade was independent of the wrangles between the Dutch and the British – and ended triumphantly. In 1767 after many vicissitudes a scholarly traveller and naturalist, Pierre Poivre (c.1718-1786) was sent out to be governor to the Mascarene Islands. He had always been obsessed with clove trees and managed with local help to smuggle five of them to Île de Réunion (the French island of Réunion) from the Moluccas. Only one survived malicious damage by the trial garden's director but this proved to be sufficient. It became the parent of clove trees on Île de Réunion, Cayenne, San Domingo, Martinique, Zanzibar, Seychelles, Comores and Madagascar. In Zanzibar they thrived particularly well. Not only was their scent carried far on offshore breezes to create wonder in later years but the Country itself was also to become a world trading centre for cloves. The area still aspires to leadership in meeting world demands for this spice and in 1972 (eight years after Zanzibar's political attachment to neighbouring Tanganyika to form today's Tanzania) the Island declared it to be a capital offence to smuggle cloves out – and in that same year 15 people were duly sentenced to death for this. In the Moluccas today sadly few clove trees exist.

A brown dye can be obtained from the fruit wall. This becomes grey with the addition of iron. Today cloves are still employed widely as a spice especially in sauces. In the West citrus fruit studded with cloves are a common ingredient in hot Winter punches and several traditional sauces depend upon clove-studded onions for their preparation. For the Chinese it is one of the 'Five Spices' [the others are aniseed (*Pimpinella anisum*), cinnamon (*Cinnamomum verum*), star anise (*Illicium verum*), and fennel (*Foeniculum vulgare var. dulce*)] familiar in their cooking. Today too cloves are used on a commercial scale by the perfumery industry in scents and by the toiletry industry as well, the latter as an ingredient in tooth powders, toothpastes, soaps and body lotions. It provides a flavouring ingredient and antiseptic properties in proprietary medicines. While oil of

cloves is added to cigarettes in Indonesia eg. 'kretaks' and India eg. 'beedis' – and the drinks industry uses it in liqueurs,

Medicinally, herbalists recommended a powder or an infusion for treating nausea or indigestion, and the oil was used for treating respiratory problems and toothache. Today Western medicinal use of cloves is mainly confined in the form of oil for easing toothache.