

# Cloves

**Botanical:** *Eugenia caryophyllata* (THUMB.)

**Family:** N.O. Myrtaceae

## Synonym

*Eugenia Aromatica.*

## Part Used

Undeveloped flowers.

## Habitat

Molucca Islands, Southern Philippines.

## Description

A small evergreen tree, pyramidal, trunk soon divides into large branches covered with a smooth greyish bark; leaves large, entire, oblong, lanceolate (always bright green colour), which stand in pairs on short foot-stalks, when bruised very fragrant. Flowers grow in bunches at end of branches.

At the start of the rainy season long greenish buds appear; from the extremity of these the corolla comes which is of a lovely rosy peach colour; as the corolla fades the calyx turns yellow, then red. The calyces, with the embryo seed, are at this stage beaten from the tree and when dried are the cloves of commerce. The flowers have a strong refreshing odour. If the seeds are allowed to mature, most of the pungency is lost. Each berry has only one seed. The trees fruit usually about eight or nine years after planting. The whole tree is highly aromatic. The spice was introduced into Europe from the fourth to the sixth century.

The finest cloves come from Molucca and Pemba, where the trees grow better than anywhere else, but they are also imported from the East and West Indies, Mauritius and Brazil.

In commerce the varieties are known by the names of the localities in which they are grown. Formerly Cloves were often adulterated, but as production increased the price lowered and fraud has decreased. Cloves contain a large amount of essential oil which is much used in medicine. When of good quality they are fat, oily, and dark brown in colour, and give out their oil when squeezed with the finger-nail. When pale colour and dry, they are of inferior quality and yield little oil. Clove stalks are some times imported, and are said to be stronger and more pungent even than the Cloves.

Clove trees absorb an enormous amount of moisture, and if placed near water their weight is visibly increased after a few hours; dishonest dealers often make use of this knowledge in their dealings, and the powdered stems are often sold as pure powdered Cloves.

## **Constituents**

Volatile oil, gallotannic acid; two crystalline principles - Caryophyllin, which is odourless and appears to be a phylosterol, Eugenin; gum, resin, fibre.

## **Medicinal Action and Uses**

The most stimulating and carminative of all aromatics; given in powder or infusion for nausea emesis, flatulence, languid indigestion and dyspepsia, and used chiefly to assist the action of other medicines. The medicinal properties reside in the volatile oil. The oil must be kept in dark bottles in a cool place. If distilled with water, salt must be added to raise the temperature of ebullition and the same Cloves must be distilled over and over again to get their full essence.

The oil is frequently adulterated with fixed oil and oil of Pimento and Copaiba. As a local irritant it stimulates peristalsis. It is a strong germicide, a powerful antiseptic, a feeble local anaesthetic applied to decayed teeth, and has been used with success as a stimulating expectorant in phthisis and bronchial troubles. Fresh infusion of Cloves contains astringent matter as well as the volatile oil. The infusion and Clove water are good vehicles for alkalies and aromatics.

## **Dosages**

Fluid extract, 5 to 30 drops. Oil extract, 1 to 5 drops. Infusion, B.P., 1/2 to 1 OZ.