Cardamom (Amomum villosum)

Common Names: Grains-of-Paradise, cardamom.

Location: This herb can be found in Vietnam and portions of China.

Description: The seedpods of this herb are used medicinally.

Properties: Cardamom can be used to ease indigestion and the bodily functions of excretion. If this herb is taken in essential oil form it can

be used for an antifungal and antibacterial purposes.

Uses: Use cardamom to help treat tuberculosis and urinary incontinence.

Doses: This herb can be ingested as a tea, tincture or fresh spice.

#### Also known as

Elettaria cardamomum, Amomum cardamomum, Bai Dou Kou, Cardamon, Cardomomi Fructus, Ela.

#### Introduction

The sweetly aromatic cardamom is the fruit of a tropical plant related to ginger, and one of the world's most expensive spices, after saffron and vanilla. Growing cardamom is extremely labor intensive. The tall plants, grown on plantations in Guatemala or India, flower for eight or nine months of the year. Each pod, or capsule, ripens slowly, but must be plucked when it is three-quarters ripe. After harvest, the pods are washed and dried. The method of drying dictates the final color. White indicates the pods have been dried for many days in the sun leaving them bleached. Green pods have been dried for one day and night in a heated room. It is the three seeds inside each pod, however, that are considered the spice. Cardamom is essential to the cuisines of the Middle East and Scandinavia. Cardamom coffee or gahwa is a symbol of Arab hospitality. Cardamom flavors ground meat in Norway and baked goods in Sweden. Cooks all over the world combine cardamom with cloves and cinnamon. Cardamom lends its distinctive flavor to chai. You can find cardamom in the market in several forms. You can purchase whole pods and remove the seeds as needed. This form of the herb retains its aroma and flavor longest. You can also buy cardamom seeds (decorticated cardamom) or cardamom powder, but they do not keep as long as the pods.

### Constituents

The essential oil contains a-terpineol (45%), myrcene (27%), limonene (8%), menthone (6%), b-phellandrene (3%), 1,8-cineol (2%), sabinene (2%), and smaller amounts of heptane.

### **Parts Used**

The seed, removed from the pod, and ground. Whole pods may be used as well.

### **Typical Preparations**

Usually in cooking, but also in teas, tinctures, and infusions.

# Summary

Cardamom has been used medicinally for centuries in India and China as a carminative, stimulant, and to treat urinary problems. The Egyptians chewed the seed as a tooth cleaner. In the Middle East it was considered an aphrodisiac, and is mentioned frequently in One Thousand and One Nights. In India it was known as the "Queen of spices" to black pepper's title as the "King of spices". Also in India, during the 11th century, it was listed as one of the ingredients in the "Five fragrance betel chew" in the Book of Splendour. Preliminary findings from laboratory research suggest that regular use of cardamom might help prevent colon cancer, and in the Ayurvedic formula Unmadnashak Ghrita, cardamom, along with brahmi, gardenia, asafetida, and ghee, may be a mild sedative. Cardamom oil is used to flavor pharmaceuticals, and as a fragrance in soaps, detergents, perfumes and other body care products.

# **Precautions**

None.

## Botanical: Elettaria cardamomum (MATON) Family: N.O. Zingiberaceae (Scitamineae)

- Description
- Constituents
- Medicinal Action and Uses
- Dosages
- Adulterations
- Other Species
- ---Synonyms---Amomum Cardamomum. Alpinia Cardamomum. Matonia Cardamomum. Cardamomum minus. Amomum repens. Cardamomi Semina. Cardamom Seeds. Malabar Cardamums. Ebil. Kakelah seghar. Capalaga. Gujatatti elachi. Ilachi. Ailum.
- ---Part Used---The dried, ripe seeds.
- --- Habitat--- Southern India.

---Description---The large perennial herb. yielding Cardamom seeds is known in its own country as 'Elattari' or 'Ilachi,' while 'Cardamomum' was the name by which some Indian spice was known in classical times.

It has a large, fleshy rhizome, and the alternate, lanceolate leaves are blades from 1 to 2 1/2 feet long, smooth and dark green above, pale, glaucous green and finely silky beneath. The flowering stems spread horizontally near the ground, from a few inches to 2 feet long, and bear small, loose racemes, the small flowers being usually yellowish, with a violet lip. The fruits are from 2/5 to 4/5 of an inch long, ovoid or oblong, bluntly triangular in section, shortly beaked at the apex, pale yellowish grey in colour, plump, and nearly smooth. They are three-celled, and contain in each cell two rows of small seeds of a dark, reddish-brown colour. These should be kept in their pericarps and only separated when required for use. Though only the seeds are official, the retention of the pericarp is an obstacle to adulteration, while it contains some oil and forms a good surface for grinding the seeds. The value is estimated by the plumpness and heaviness of the fruits and the soundness and ripeness of the seeds. Unripe seeds are paler and less plump. The unbroken fruits are gathered before they are quite ripe, as the seeds of fruits which have partially opened are less aromatic, and such fruits are less valued. The seeds have a powerful, aromatic odour, and an agreeable, pungent, aromatic taste, but the pericarps are odourless and tasteless.

There is some confusion as to the different kinds, both botanically and commercially, different writers distinguishing them in varied ways.

The official Cardamums in the United States are stated to be *only* those produced in India, chiefly in Malabar and Mysore, but in Britain the seeds corresponding most closely to the official description are recognized, in spite of their names, as being imported from Ceylon.

The Cardamom is a native of Southern India, and grows abundantly in forests 2,500 to 5,000 feet above sea-level in North Canara Coorgi and Wynaad, where it is also largely cultivated. It flowers in April and May and the fruit-gathering lasts in dry weather for three months, starting in October. The methods of cultivating and preparing vary in different districts.

In the Bombay Presidency the fruits are washed by women with water from special wells and pounded soap nut (a kind of acacia). They are dried on house-roofs, the stalks clipped, and sometimes a starchy paste is sprinkled over them, in addition to the bleaching.

Bombay ships about 250,000 lb. annually to the London market. They were formerly known by their shapes as *shorts, short-longs*, and *long-longs*, but the last are now rarely seen. One hundred parts of the fruit yield on an average 74 parts of seeds and 26 of pericarp. The powdered seeds may be distinguished from the powdered fruit by the absence of the tissues of the pericarp.

The seeds are about 1/5 of an inch long, angular, wrinkled, and whitish inside. They should be powdered only when wanted for use, as they lose their aromatic properties.

In Great Britain and the United States Cardamums are employed to a small extent as an ingredient of curry powder, and in Russia, Sweden, Norway, and parts of Germany are largely used for flavouring cakes and in the preparation of liqueurs, etc. In Egypt they are ground and put in coffee, and in the East Indies are used both as a condiment and for chewing with betel. Their use was known to the ancients. (There are constant references to Cardamom Seeds in The Arabian Nights. - EDITOR) In France and America the oil is used in perfumery.

### [Top]

---Constituents---The seeds contain volatile oil, fixed oil, salt of potassium, a colouring principle, starch, nitrogenous mucilage, ligneous fibre, an acrid resin, and ash. The volatile oil contains terpenes, terpineol and cineol. Good 'shorts' yield about 4-6 per cent. It is colourless when fresh, but becomes thicker, more yellow, and less aromatic. It is very soluble in alcohol and readily soluble in four volumes of 70 per cent. alcohol, forming a clear solution.

Its specific gravity is 0.924 to 0.927 at 25 degrees C. (77 degrees F.). It is not used medicinally, but solely for pharmaceutical purposes, being employed as a flavouring in the compound spirit and compound elixir of Cardamums, and in other elixirs and mixtures. It is largely adulterated, owing to the high price of the seeds and the small percentage of volatile oil found in them.

---Medicinal Action and Uses---Carminative, stimulant, aromatic, but rarely used alone; chiefly useful as an adjuvant or corrective.

The seeds are helpful in indigestion and flatulence, giving a grateful but not fiery warmth. When chewed singly in the mouth the flavour is not unpleasant, and they are said to be good for colic and disorders of the head.

In flavouring they are combined with oils of Orange, Cinnamon, Cloves, and Caraway.

The substitution of glycerine for honey in the 1880 United States' formula for compound tincture increased its stability.

- ---Dosages---15 to 30 grains of the powdered seeds. Of tincture, 1/2 to 1 fluid drachm. Of compound tincture, B.P., 1/2 to 1 fluid drachm. Fluid extract, 5 to 30 drops.
- ---Adulterations---Various unofficial Cardamums are included, the product of otherspecies. Orange seeds and unroasted grains of coffee are also admixed. The oil is said to be no longer distilled from *Eiettaria cardamomum*. It is often factitious, and composed of oils of Cajuput, Nutmeg, etc.

### [Top]

### ---Other Species---

MADRAS CARDAMUMS, exported from Madras and Pondicherry.

ALEPPY CARDAMUMS, exported from Aleppy and Calicut, are also recognized in Britain, the former being paler and 'short-longs' and the latter 'shorts.'

CEYLON WILD CARDAMOMS are the fruits of *E. cardamomum* var. *major*, imported from Ceylon, and sometimes called Long Wild Natives. They are cultivated in Kandy, and sometimes called in the East, Grains of Paradise, but they are not the product known by that name in Europe and America.

ROUND or SIAM CARDAMUMS are probably those referred to by Dioscorides, and called *Amomi uva* by Pliny. They are the fruits of *A. cardamomum* and *A. globosum*, growing in Java, Siam, and China, etc., and are nearly the size of a cherry. In their natural clusters they are the *amomum racemosum* or *amome en grappe* of the French, and in Southern Europe are sometimes used in the same way as the official kinds.

BENGAL CARDAMOMS, from A. subulatum, are sometimes called Winged Bengal Cardamums, Morung elachi, or Buro elachi. They are oblong or oval, and about an inch long.

NEPAL CARDAMUMS, of unknown origin, are like the Bengal species, but usually stalked, and have a long, tubular calyx.

WINGED JAVA CARDAMOMS, from *A. maximum*, growing in the Malay islands, are about an inch long, and when soaked in water show from 4 to 13 ragged wings on each side. They are feebly aromatic, and are usually sent abroad from the London markets.

KORARIMA CARDAMOMS, from A. kararima, have recently become known.

MADAGASCAR CARDAMUMS, of A. angustifolium, have pointed, ovate flattened capsules. The flavour of the seeds resembles the official variety.

BASTARD CARDAMUMS, from A. Xanthioides looks like the real kind, but is greenish in colour, and tastes like crude camphor.

Cardamomum Siberiense (Star Aniseed), Annis de Siberie of the seventeenth century and badiane of the French, is from *Illicium verum*, the fruit of which is chiefly used in preparing a volatile oil resembling the official oil of Anise.