

# *Kaempferia galanga* Linn.

**Synonyms** : *K. sessilis* , *K. plantaginifolia* , *Alpinna sessili*

**Family** : Zingiberaceae

**Group** : Stomach disorders/carminatives/laxative

**Parts Used** : Leaf, Rhizome, Root stalk

## **Vernacular Names**

English : Galanga

Malayalam : Kacholam, Kacchuri, Kacchoram

Hindi : Candramula

Sanskrit : Karcurah

Assamese : Hingurupriyali

Bengali : Chandumula

Tamil : Kaccolum

Telugu : Candramula



**Distribution and Habitat:** More or less throughout India.

**Botany:** The plant is stemless perennial aromatic herb with tuberous, aromatic root stock.

• **Leaves:** 2 or more, spreading horizontally, lying flat on the surface of the ground, rotund ovate, deltoid, acuminate, thin, deep green, 10-12 ribbed, the margins not thickened nor coloured; petioles short channeled.

• **Flowers:** White with purplish spots in axillary fascicles. Calyx as long as the outer bracts. Corolla tube 2.5 cm long; lobes lanceolate, pure white, a little shorter than the tube.

• **Rhizome:** Underground rhizome has one or more prominent, vertically oriented tuberous root stock and many small secondary tubers and roots, their tips becoming tuberous

**Properties:** Stimulant, expectorant, diuretic, carminative

**Chemical constituents:** n-pentadecane ethyl-trans-p-methoxy cinnamate, 1, 8-cineole ,  $\alpha$ -carene and borneol , Terpenoid constituents

**Uses:** Skin diseases, wounds, bad odour, malarial fever, asthma, inflammatory tumour, nasal obstruction, splenopathy, pharyngodynia, ophthalmia, swellings, fever and rheumatism

**Formulations:** Dasamularistam, Valiya Rasnadi Kasayam

## **Agrotechnology**

**Soil and Climate:** It requires a warm humid climate. It thrives well up to an elevation of 1500 m. A well distributed annual rainfall of 1500-2500 mm during growing period and dry spells during land preparation and harvesting are ideal. Rich loamy soil with good drainage is suitable for cultivation of crop. Laterite soil with heavy application of organic matter is also suited. It is susceptible to waterlogging.

**Propagation:** Plant is propagated by division of rhizomes. For planting mother rhizomes are better than finger rhizomes. Seed rhizomes are stored in cool dry place or in pits dug under shade. Smoking of rhizomes prior to planting is beneficial for better germination and establishment of sprouts. With receipt of pre-monsoon showers in May, land is ploughed and beds of 1-2 m width, 25 cm height and convenient length are taken and sprouted seeds are planted at 15-30 cm spacing. Seed rate is 500-750 kg/ha. Kacholam responds well to organic manuring.

**Manures and Fertilizers:** Application of 30 tonnes/ ha of FYM or compost and mulching with leaves or straw at 15-20 tonnes/ ha are recommended. Application of 50-75 kg each of N, P<sub>2</sub>O<sub>5</sub> and K<sub>2</sub>O in 2-3 splits is beneficial.

**Harvesting:** Crop is harvested 6-7 months after planting when leaves start drying up. Rhizomes are dug out, cleaned and washed to remove adhering soil particles.

**Plant protection:** Insect pests are not commonly reported in this crop. Leaf spot and rhizome rot diseases occur particularly during rainy months which could be controlled by drenching and spraying with 1% Bordeaux mixture.

**Processing:** Clean rhizomes are sliced to circular pieces of uniform size and dried for 3-5 days. Sliced and dried rhizomes are marketed. Yield, on an average, is 5-8 tonnes/ ha of fresh rhizomes which on drying yields 1.5-2 tonnes/ ha of dry rhizomes. Driage varies from 23 to 28%. Sliced and dried rhizomes on steam distillation for 3-5 hours yield 2-3% of essential oil. Frothing is noticed during distillation due to presence of starch in rhizome.

