

Curcuma zedoaria Rosc.

Synonyms : *C. zerumbet* Roxb , *Amomum zedoaria* Christm.

Family : Zingiberaceae

Parts Used : Rhizome

Vernacular Names

English : Round zedoary

Malayalam : Manjakoova, Adavi-kacholam

Hindi : Kakhur

Sanskrit : Kachura, Shati.

Bengali : Sati

Tamil : Kichilikizhangu, Nirvisham

Telugu : Kacheramu



Distribution and habitat: The round zedoary or Zerumbet is mostly found in India and S. E. Asia.

Botany: Rootstock of palmately branched sessile cylindrical oblong annulate tubers, pale yellow inside, with a camphoraceous odour and bitterish spicy taste.

• **Leaves:** 4-6 with long petioles 30-60 cm long, oblong-lanceolate, finely acuminate, glabrous on both surfaces, clouded with a purple down the middle.

• **Flower:** Flowering stem 20-25 cm long, appearing before the leaves, stout, clothed with obtuse sheaths. Flowers yellow in spikes 7.5-12.5 x 5-7.5 cm; flowering bracts 3.8 cm long, ovate, recurved, cymbiform, green tinged with red; bracts of the coma reaching 5 cm long, crimson or purple. Calyx 8 mm long, obtusely 3-toothed. Corolla tube twice as long as the calyx, funnel shaped; lateral lobes oblong, the dorsal lobe larger, vaulted, arching over the anther. Lip 13 mm broad, sub orbicular, deflexed, obscurely 3-lobed deep yellow.

• **Fruit:** Capsule ovoid, 3-gonous, thin, smooth, and bursting irregularly.

• **Seeds:** Ellipsoid with a white lacerate aril.

Properties: Purgative, stomachic, diuretic, and carminative and gastrointestinal stimulant.

Chemical constituents: Essential oil from rhizomes contains α -pinene, d-camphene, cineole, d-camphor, sesquiterpenes and sesquiterpene alcohols. The novel sesquiterpenoids which have been isolated and characterised are cuzerenone, epicuzerenone, iso-furanogermerene, curcumadiol, curcumol, curcumenol, iso-curcumenol, procurcumenol, dehydrocurdione germacrone-4, 5-epoxide, germ crone, furanodienone, curcumenol, iso-curcumenol, curcumanolides A and B and curcumenone. The starch left after the extraction is purified and sold as a commodity of cottage industry in West-Bengal under the name 'Shoti'. Ethyl-p methoxy-cinnamate has been isolated from the alcoholic extract of the plant.

Uses: The rhizome of *C. zedoaria* is used as appetiser and tonic, particularly prescribed to ladies after childbirth. In case of cold, a decoction of long pepper (*Piper longum*), cinnamon (*Cinnamomum verum*), zedoary and honey is given. In Ayurveda it is an ingredient of "*Braticityadi kwatha*", used in high fever. Root is useful in flatulence and dyspepsia, and as a corrector of purgatives. Fresh root checks leucorrhoea and gonorrhoeal discharges. Root powder is a good substitute for many foreign foods for infants. For worms, the juice from the tubers is given to children. Juice of the leaves is given in dropsy. It is an odoriferous ingredient of the cosmetics used for the cure of chronic skin diseases caused by impure or deranged blood.

Agrotechnology:

Soil and Climate: *Curcuma* species are tropical herbs and can be grown on different types of soils both under irrigated and rainfed conditions. Rich loamy soils having good drainage are ideal for the crop

Propagation: The plant is propagated by whole or split mother rhizomes. Well developed, healthy and disease free rhizomes are to be selected. Rhizomes are to be treated with copper oxychloride fungicides and stored in cool, dry place or earthen pits plastered with mud and cow dung. The best season of planting is during April with the receipt of pre-monsoon showers. The land is to be prepared to a fine tilth during February-March. On receipt of pre-monsoon showers in April, beds of size 3 x 1.2 m with a spacing of 40 cm between beds are to be prepared. Small pits are to be taken in the beds in rows with spacing of 25-40 cm.

Manures and Fertilizers: Finger rhizomes are to be planted flat with buds facing upwards and covered with soil or dry powdered cattle manure. The crop is to be mulched immediately after planting and 50 days after first mulching. Cattle manure or compost is to be applied as basal dose at 20-40t/ha at the time of land preparation or by spreading over the beds after planting. Application of NPK fertilizers is beneficial and found to increase the yield considerably.

Pests and Diseases: No major incidence of pest or disease is noticed in this crop. Leaf blotch and leaf spot can be controlled by spraying bordeaux mixture or 0.2% mancozeb. Shoot borers can be controlled by spraying 0.05% dimethoate or 0.025% quinalphos.

Harvesting: Time of harvest usually extends from January-March. Harvesting is generally done at about 7-10 months after planting depending upon the species and variety. Harvested rhizomes are to be cleaned of mud and other materials adhering to them. Good fingers separated are to be used for curing.

