

Cinnamon

a. Name of crop – Cinnamon

b. Common names – Dalchini (hindi); Dalchini (Marathi),

c. Scientific name - *Cinnamomum verum*, synonym *C. zeylanicum*

d. Family- Lauraceae

e. Origin: South-East Asia

e. Mostaly grown in : India

f. Importance – The next year, about a dozen shoots will form from the roots.

- **These shoots are then stripped of their bark, which is left to dry.**
- **Only the thin (0.5 mm) inner bark is used; the outer woody portion is removed, leaving metre-long cinnamon strips that curl into rolls ("quills") on drying; each dried quill comprises strips from numerous shoots packed together.**
- **These quills are then cut into 5–10 cm lengths for sale.**

Cinnamon' trees are 10–15 m (32.8–49.2 feet) tall. The leaves are ovate-oblong in shape, 7–18 cm (2.75–7.1 inches) long. The flowers, which are arranged in panicles, have a greenish color, and have a distinct odor. The fruit is a purple 1-cm berry containing a single seed.

g. Cultivation – It cultivated thorough grafts

h. Soil and climate:

a. Soil : Dry zone, intermediate zone and wet zone

Climate: loam, sandy and gravely soils of laterite type , suitable temperature is between 20 °C-30 °C. Annual rain fall should be in the region

of 1250 mm to 2500 mm and the most favourable elevation is 300 m to 350 m from the sea level.

b. Season and months:

c. Varieties : Konkan Tej, Yercaud 1, Navashree and Nithyashree are some of the commercially cultivated species of cinnamon.

d.. Methods of cultivation- Two major methods of Cinnamon propagation

- I. Seed propagation
- II. Vegetative propagation

Whatever the method used for the propagation, selection of best mother plant is the major factor under concern. Criteria for the selection are listed below.

- Erect stems with smooth bark
- Vigorous growth
- Ease of peeling the stem bark
- Free from pest and diseases
- Good quality characteristics; sweetness, pungency, flavour etc.
- Dry bark yield (Current average yield in Sri Lanka 470/ha/yr)
- Oil yield (Leaf & Bark) (current average oil yield - 0.9% both leaf and bark oil where it could reach 3% in selected varieties)
- Oil Quality (Percentage Eugenol in leaf oil and Cinnamaldihyde in bark oil)

e. Seed rate – 1.2 m x 0.9 m spacing one acre occupies 3600 planting pits.

f. Spacing: - 3m × 3m

Pit size: 50cm × 50cm × 50cm size

g. Land preparation-

i. Sowing / planting: In Western Ghats, cinnamon flowers in January and fruits ripen during June–August. Fruits are collected from the tree and then seeds are removed and cleaned and sown without much delay as cinnamon seeds have very low viability. Seeds are sown in sand beds or polythene bags containing a mixture of sand, soil and well-powdered dried cow dung in a 3:3:1

ratio. Watering is done regularly and the seeds germinate within 10–20 days. The seedlings require artificial shading till they become 6 months old.

k .Fertilizer Management : A fertilizer dose of 20g N, 18g P₂O₅ and 25g K₂O/seedling is recommended for the first year. This dose is increased gradually to 200g N, 180g P₂O₅ and 200g K₂O for grown-up plants of 10 years and above. The fertilizers are to be applied in 2 equal split doses in May–June and September–October.

Application Methods – Ring method can used for the fertilizer application

i. Interculture operations

a. Water management : Cinnamon is a rainfed crop. But an annual rainfall of 200–250cm is ideal. In the initial 2–3 years, watering is given during summer months twice a week. The quantity of water depends upon the soil moisture level and growth of plants.

b. Crop protection –

Pest:

A. Cinnamon butterfly: *Chilasa clytia*

Management

- Spraying quinalphos 0.05% on tender and partly mature leaves

B. Leaf miners: *Conopomorpha civica*

Management

- Spraying quinalphos 0.05% during emergence of new flushes is effective in preventing the pest infestation.
- Many other leaf feeding caterpillars and beetles also occur sporadically on cinnamon feeding on tender flushes. Application of quinalphos 0.05% would keep them under check.

Diseases

Leaf spot

Leaf spot can be controlled by spraying 1 % Bordeaux mixture.

e. Weed management- Two weeding in a year (June–July and October–November) and one digging of soil around the bushes (during August–September) are done.

j. Harvesting & post harvest processing : Cinnamon is harvested by growing the tree for two years and then coppicing it.

Coppicing

Coppicing is a practice of cutting back the height of the cinnamon trees to a desired height in a commercial plantation so as to manage the plantation more effectively. Two-year-old plants are coppiced during June–July to a height of about 15cm from the stump. Afterwards, main stem produces a bunch of side shoots and subsequently the plants assume the shape of a low bush of about 2m height and a bunch of canes suitable for peeling crop up in a period of about 4 years. Regular peeling operations could be commenced in case of seedling bushes, from fourth or fifth year, depending upon the extent of development of peeler shoots. Usually coppicing is done in alternate years.

Method of harvesting – Cinnamon is ready for harvesting after 2-3 years from planting when the plant reaches height of 1.5-2 m with three to four shoots and the bark turns brown in colour. The main shoot is coppiced or cut back to a height of about 6 cm from ground level. Two to three crops are taken annually depending upon the rainfall.

Ideal time for harvesting shoots is from September to November. Side shoots having finger thickness and uniform brown colour are ideal for bark extraction. A ‘test cut’ can be made on the stem with a sharp knife to judge the suitability of time of peeling. If the bark separates readily, the cutting can be commenced immediately. The stems are cut close to the ground when they are about 2 years old, as straight as possible, 1.0–1.25m length and 1.25cm thickness. Harvested shoots are bundled together and transported to the pack house for further post harvest procedures.

k. Post harvest processing –

- **Peeling of the inner bark**
- **Drying of the Peels**
- **Grading of Cinnamon Rolls**
- **Preparation of Cinnamon Powder**

Yield: 100 g of dried bark/bush

35 kg of leaf oil/ha/year

Market availability: Throughout local and large market.