

Package of Practice

Cinnamon Cultivation



ADVANCING
NORTH EAST

An Initiative of North Eastern Council (NEC)

Implemented by North Eastern Development Finance Corporation Limited (NEDFi)

Cinnamon
Cinnamomum zeylanicum
Lauraceae



The Cinnamon popularly known as Dalchini. The most useful part of the cinnamon tree is the outer bark which is generally used as a spice and for several natural medicinal applications. It is a very good source of iron, calcium and dietary fiber as well as manganese. The bark of Cinnamon is used in cookery as a condiment and flavouring material. It is carminative, astringent, stimulant, antiseptic in action.

Climate & Soil:

Cinnamon requires a warm and humid climate with a well distributed annual rainfall of around 2000-2500 mm, and average temperatures of about 27°C. Well-drained soil rich in humus content, Sandy loam soils is most suitable. The ideal soil pH is 4.0-6.0

Varieties: Navashree, Nithyashree, Konkan Tej, Sugandhini, PPI-1 and Yercaud 1

Propagation: Cinnamon is generally propagated by seed, cutting, layering and micro-propagation methods.

Planting: Pits of 50 cm are dug at a spacing of 3 x 3 m filled with compost and topsoil before plantation. Seedlings are transplanted when they are about 12 months old at a distance of about 2 metres between plants and rows.

Time of Planting: The planting is done in suitable weather conditions, preferably in June-July to get benefit of monsoon for the establishment of seedlings.

Spacing: Cinnamon is planted in a spacing of 2m X 2m or 3m X 3 m.

Manures and Fertilizers: Application of 20 g N, 18 g P₂O₅, and 25 g K₂O/seedling during first year. Subsequently, add 29 kg F.Y.M., 4 kg neem cake, 150 g N, 75 g P₂O₅ and 150 g K₂O per plant of Three years after planting. The fertilizers are applied in two doses during first week of September and in March.

Training and pruning:

The time, when the seedlings are 2-3 years old, the shoot is cut from the height of 30 cm from ground level so that side shoots can be produced.

Weed Management: In the first 3-4 years, weeding is done 3-4 times in a year. Subsequently one or two weedings are required during June to July and October to November.

Water Management: It is raised mostly as unirrigated crop. The newly planted seedling should be regularly irrigated. In the initial 2-3 years, watering is given during summer months twice a week.

Harvesting and Yield: Cinnamon is harvested when they are three years old, one year after pruning. Cinnamon bark is harvested twice a year immediately after each of the rainy seasons when the humidity makes the bark peel more easily. The side stems that are about three years old are removed and the bark is stripped off. Cinnamon bark is only obtained from stems that are between 1.2 and 5cm in diameter. The yield varies with type of variety and age. 3-4 year and onwards - 62 to 125 kg quills/ha. 10-11 year and onwards - 225 to 300 kg quills/ha.

Post Harvest Management: Cinnamon quills are normally cut into pieces of 10 cm in length and packed into moisture-proof polypropylene bags for sale. Dried cinnamon quills must be stored in

moisture-proof containers away from direct sunlight. If they have absorbed moisture, they should be re-dried to a moisture content of 10%.

Plant Protection Measures:

Diseases:

Leaf spot and die-back: With the initiation of the disease, spray the crop with Bordeaux mixture (5:5:50) or copper oxychloride (0.3%) or combination of mancozeb (0.25%) and carbendazim (0.1%) and repeat at 14 days interval.



Bark Canker: Soil application of sulphur has been recommended for the control of this disease.



Stem rot: It is a fungus disease causing flaking-and rotting. It can be controlled by spraying 1 % Bordeaux mixture.

Pests:

Psyllid bug: It feeds on leaves. It can be controlled by spraying 0.05 % endosulphan or 0.05 % quinolphos.



Stem Borer: It feeds on bark. It can be controlled by spraying Lindane powder.



Leaf Miner and Tussock Caterpillar: It can be controlled by spraying 05 % quinolphos.

Cost and Returns of Cinnamon Crop (Rs/ ha.)

Particulars	Approx. amount of Cost/Returns (Rs)
Land Preparation & development	20000
Cost of Planting materials	18000
Manures & fertilizer cost	17000
Plant Protection cost	16500
Cost of Irrigation	14500
Cost of Labour wages (Planting, intercultural operations)	15000
Cost of Farm machinery hiring charges and agril equipment	5000
Rental cost of land	20000
Cost of Harvesting	8000
Cost of Marketing	5000

Model Project Profile

Miscellaneous cost	2000
Total cost of cultivation	134000
Average Yield	300kg quills/ha
Average selling price of Cinnamon	Rs.1200/kg
Average Total Income / Return	360000
Net Income	226000
