



PROCESSING OF CINNAMON

Cinnamon (<i>Cinnamomum Verum</i>)	
Main countries of Production:	Sri Lanka, Seychelles, Malaysia, India
Optimal climate:	27-30°C
Rainfall:	1900-2100mm
Elevation:	Up to 500m above sea level

Agricultural and botanical aspects

Cinnamon is an evergreen tree that is kept as a bush to a height of 2-3m. The soil conditions are very important, as a waterlogged soil will produce a bitter cinnamon bark.

Harvesting

The plant is harvested during the wet season since the rains facilitate the peeling of the bark. Harvesting involves the removal of the stems. This takes place early in the morning.

Processing

- The tender stems (with diameters of less than 1.2cm) are removed and used for mulching.
- Stems with diameters of more than 5cm are not used to prepare cinnamon bark.
- The leaves are removed and can be used for oil distillation.
- The soft outer bark is stripped off using a fine rounded rasp knife.
- The stripped stem is rubbed with a brass rod to loosen the inner bark.
- Cuts are made around the stem at 30cm intervals using a small pointed knife. This knife should be stainless steel or brass to prevent staining.
- The longitudinal cuts are made on either side of the stem and the bark carefully eased off using pointed knife and rubbing rod.
- The curled pieces of peeled bark (quills) are placed one inside another to make 1m long 'compound quills'. The best quills are placed on the outside and broken and small pieces in the centre.

Drying

The 'compound quills' are placed on coir rope racks and dried, in the shade to prevent warping.

Grinding

Grinding may add value but must be done carefully as there are difficulties. A whole, intact product can be easily assessed for quality whereas a ground product is more difficult. There is a market resistance to ground spices due to fear of adulteration or the use of low quality cinnamon. This can only be overcome by producing a consistently high quality product and gaining the confidence of customers.

Packaging & Packaging materials

Packaging of cinnamon, especially if ground requires polypropylene. Polythene cannot be used as the flavour components diffuse through it.

Simple sealing

The bags can be sealed simply by folding the polypropylene over a hacksaw blade and drawing it slowly over the flame of a candle. However, this is extremely uncomfortable as the hacksaw blade heats up and burns the hands of the operator. This is, however, a very common technique.

Sealing machines

A sealing machine will speed this operation up considerably and produce a much tidier finish (which is very important).

The cheapest machines have no timing mechanism to show when the bag is sealed and they have a tendency to overheat.

Sealing machines with timers are desirable. The machines come in many sizes. For most work, an 8 inch (20cm) sealer is sufficient. Eye catching labels should be sealed above the product in a separate compartment and holed so the package can be hung-up in the shop.

Wholesale export

For wholesale export the quills are packed in compact cylindrical bales of 50kg and wrapped in jute cloth.

Standards

The quality of the product is dependant on the thickness of the bark, the appearance and the aroma and flavour.

The Sri Lankan grading system divides the cinnamon quills into four groups:

- Alba Less than 6mm in diameter
- Continental Less than 16mm in diameter
- Mexican Less than 19mm in diameter
- Hamburg Less than 32mm in diameter

These groups are further divided into specific grades, eg, Mexican is divided into M00 000 special, M000000 and M0000 depending on quill diameter and number of quills per kg.

Any pieces of bark less than 106mm long is categorised as quillings. Featherings are the inner bark of twigs and twisted shoots. Chips are trimmings of quills, outer and inner bark that cannot be separated or the bark of small twigs.

The British Pharmacopoeia defines cinnamon as the dried bark of the cinnamomum zeylanicum tree. It should contain less than 2% foreign matter by weight, not less than 1% volatile oil.

Cassia

Cassia is very similar to cinnamon. It is the dried bark of a different species of cinnamomum. It is generally regarded as being inferior to cinnamon.

Reference and further reading

Spice, Practical Action Technical Brief
Cardamom, Practical Action Technical Brief
Cumin, Practical Action Technical Brief
Nutmeg and Mace, Practical Action Technical Brief
Turmeric, Practical Action Technical Brief