

Post harvest Management of Large Cardamom (*Amomum subulatum* Roxb.) in Hilly Regions

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Abstract—Amomum subulatum Roxb is one of the world's ancient spices grown in the eastern Himalayan countries viz., Nepal, Bhutan and in the Indian states of Sikkim, Nagaland, Uttaranchal, Darjeeling district of West Bengal at altitudes ranging from 1000 to 2000 m MSL. Guatemala leads in the production of large cardamom followed by India and Bhutan while the major share of India's production comes from Sikkim. It grows best in well-drained forest loamy soils rich in organic matter, nitrogen, phosphorous and potash with pH range of 6-7. Some popular cultivars grown in hilly areas include Varlangey, Seremna, Ramsey, Sawney and Golsey. Chirke and Foorkey are the most dreaded diseases vectored by the aphid, Rhopalosiphum maidis and Micromyzus kalimpongensis. It is propagated through seed and suckers. Planting is done at a spacing of 1.5 x 1.5 mts during May–July, flowering starts from March–May and harvesting begins from September–October. Curing is the most crucial step in processing as capsule quality largely depends on curing conditions and methods. Optimum curing temperature is 45–55°C and is usually done in traditional bhattis. Dried capsules are usually packed in polythene-lined jute bags for storage at 11% moisture content. Cured capsules are commercially graded in local markets as badadana (big capsules), chotadana (small capsules), kainchi-cut (capsule tail removed) and non-kainchi-cut (capsule tail intact). The postharvest management and value chain consists of growers, collectors, traders, and exporters. The primary processing steps required by the present market are curing, tail cutting, and grading. Curing is carried out by the farmers, and the remaining steps are done by wholesalers. India exports large cardomom to Australia, Canada, Pakistan, UK, etc. Singtam, Gangtok, Jorethang, Gyalshing, Naya Bazar, Rongli, and Mangan are the major local markets in Sikkim while Siliguri is the main trade junction from where it goes to Guwahati, Kolkata and Delhi.

Keywords: *Amomum subulatum Roxb., Management, Post harvest.*
