

PRESENT STATUS OF POSTHARVEST MANAGEMENT PRACTICES OF MANGOSTEEN (*Garcinia mangostana*) IN SRI LANKA

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Mangosteen (*Garcinia mangostana*) is an economically significant, seasonal fruit which is having good export potential. Mangosteens are distributed from grower to consumer through the supply chain via supply chain actors with different postharvest management practices, leading to high postharvest losses. Therefore, the present study aimed to investigate the present status of postharvest management practices, associated issues, and existing supply chains for mangosteen in Sri Lanka. A total of 200 participants, including growers, collectors, wholesalers, retailers, exporters, and consumers were stratified and randomly selected from *Kalutara* and *Kandy* districts. Data were collected through a survey using pre-tested questionnaires, key informant interviews and secondary sources. Results were analysed using descriptive and parametric statistics. The study revealed that the mangosteen supply chain follows the conventional chain, including farmer, collector, wholesaler, retailer, and consumer, but with slight deviations. Harvesting, sorting, grading, transporting, and temporary storing were the major postharvest practices followed for the local market. In addition, the cleaning and packaging of fruits were practiced for export purposes. The main maturity index used was the colour of the pericarp of the fruit. Postharvest loss of mangosteen (22%) was significantly lower ($p < 0.05$) than general postharvest loss of fruit in Sri Lanka (35%). The highest postharvest loss ($p < 0.05$) was observed at the collector (8.46%) and retailer (7.28%) stages. The most common retail outlets were roadside outlets, fruit and vegetable markets, weekly fairs, and supermarkets. The majority (75%) of consumers purchased one kilogram of mangosteen per time. Lack of infrastructure facilities, physical damages by bruising during harvesting, accumulation of yellow colour latex inside the fruits, inadequate storage facilities at the wholesale market and inadequate knowledge of postharvest management practices were the major problems identified in the mangosteen supply chains in Sri Lanka. Thus, action needs to be taken to solve issues present at different supply chain actors.

Keywords: Collectors, Postharvest losses, Postharvest practices, Supply chain, Supply chain actors