

PRESENT STATUS OF POSTHARVEST PRACTICES AND LOSS ASSESSMENT OF BEANS, CAPSICUM, TOMATO AND BANANA IN KANDY DISTRICT OF SRI LANKA

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Fruits and vegetables possess high postharvest losses due to inappropriate postharvest practices along the supply chain. This study identified the present status of postharvest practices, supply chains and losses occurring in perishables in Kandy district. Commercially grown, tomato, beans, capsicum and banana were selected for the study. Total sample of 180, including farmers, collectors, whole sellers, retailers, transporters, and consumers were selected by stratified sampling method. Data were collected through a field survey using pre-tested questionnaires and analysed using descriptive and parametric statistics. Results revealed that 95% of farmers considered correct maturity at harvesting. Ninety percent of participants conducted grading by concerning ripeness, diseases, damages and maturity. Postharvest losses occurred throughout the conventional supply chain was 46.5% and 30.5% for vegetables and banana, respectively. Postharvest losses were significantly reduced ($p < 0.05$) with shorter supply chains. The lowest ($p < 0.05$) value of 21.3% was observed in the farmer-retailer supply chain. The highest loss ($p < 0.05$) of 18.9% for vegetables and 13.5% for banana occurred in retailer stage. The total postharvest loss of tomato, beans, and capsicum were 39.3%, 18.1% and 16.8%, respectively. Tomato showed higher losses of 5.2%, 10.1% and 9.6%, at farmer, transporter and retailer stages respectively when compared with other vegetables. Ninety five percent of distributors used polysacks, while 34.5% used wooden boxes and 18.9% used plastic crates for packaging. Results revealed that postharvest loss of tomato can be significantly reduced ($p < 0.05$) to 16.6% using plastic crates instead of wooden boxes. Participants were aware that the use of appropriate packaging in transporting reduces postharvest losses and preserves quality. High transportation cost, less availability of infrastructure, high cost of packaging materials are the major issues in postharvest handling. In conclusion, shortened supply chains reduce postharvest losses with improved postharvest practices.

Keywords: Postharvest losses, Supply chain, Supply chain actors, Vegetables