

PRESENT STATUS OF POSTHARVEST PRACTICES OF BIG ONION IN ANURADHAPURA AND MATALE DISTRICTS OF SRI LANKA

H.M.K. Herath¹, C.A.K. Dissanayake¹ and B.N. Abeysinghe²

¹*Department of Animal and Food Sciences, Faculty of Agriculture, Rajarata University of Sri Lanka, Puliyankulama, Anuradhapura, Sri Lanka.*

²*Extension and Training Center, Department of Agriculture, Peradeniya, Sri Lanka.*

Big onion (*Allium cepa* L.) distribution from farmer to consumer through a supply chain includes diverse postharvest operations. The study aimed to study the present status of postharvest practices, supply chains, and losses of big onion in Anuradhapura and Matale districts. A pre-tested questionnaire aided field survey was carried out to collect the required information. The supply chain actors were selected randomly for the study. Data were analysed using descriptive and parametric statistics. The average cultivation area per farmer was 0.65 ha and the average yield was 26.43 t ha⁻¹. A majority of farmers (56%) harvested onions at correct time of maturity (80% neck fallen stage). After harvesting, onions were cured for 5-6 days in all sampling sites. The postharvest losses were 6.9%, 9.2%, 8.0%, 8.6%, and 10% at the farmer, collector, whole seller, retailer, and consumer, respectively. The total postharvest loss was significantly higher ($p < 0.05$) with farmers using nitrogen fertilizers higher than the recommendation. Ninety four percent of farmers practised trimming before storage and the rest practised trimming after storage. Main vehicles used to transport were two-wheel tractors and lorries. Before selling or storage, 88% of farmers and 90% of collectors graded onions. The bulb size was the main basis for grading of locally produced big onions. Grading was mainly done at the wholesale level and not at retailers. Main packaging materials were mesh/poly sacks (55%) and plastic crates (32%). Main storage locations were separate rooms in house (33%), onion stores (23%), separate huts in the field (18%), and any place available in the house (26%). Postharvest losses on onions were substantial through the supply chain. Thus, concerted efforts should be directed towards minimizing by using appropriate technologies.

Keywords: Grading, Harvesting, Nitrogen fertilizer, Postharvest losses, Storage