

Introduction of a mobile fruits and vegetables stall for retail sell

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Fruits and vegetables suffer 30-45% heavy losses of total production due to use of improper postharvest practices in Sri Lanka. It was estimated around 15% to 20% losses occurred at retail selling. Therefore, provisions of proper conditions i.e. low temperature and relatively high RH at retail selling improve the quality and shelf-life of fruits and vegetables. Improved mobile stall maintain favorable conditions for extent shelf-life of fruits and vegetables. An ice bath is used in order to cool the products. 15kg of Ice cubes per day was required to maintain the cool temperature around 23C^o - 24 C^o inside the mobile stall. And also RH 85% to 95% condition was maintained while ambient temperature was observed around 33C^o and RH 65% to 80%. Papaya, guava as fruits and egg fruit, tomato as vegetables were used for testing the performance of the stall. The fruits and vegetables were stored in improved retail stall and as an existing retail selling method. Weight loss percentage, color change, firmness, pH and total soluble solid (TSS) of stored fruits and vegetables under both conditions were measured at one day interval. The results revealed that weight loss percentage of selected fruits and vegetables were significantly reduced at P< 0.01 in improved mobile stall in comparison to the control treatment. Color, TSS and firmness of selected fruits and vegetables were showed a significant improvement at P< 0.05 under treated conditions. However the pH level did not show a significant difference between both conditions. Selected fruits and vegetables can be kept for seven days without quality deteriorations in improved stall where control samples withstand only three days. Finally it can be concluded that prototype retail mobile stall can extend the shelf life of selected fruits and vegetables while minimizing the postharvest losses.