

**Effect of storage techniques on quality of green chili**

Prasannath K.<sup>1</sup>, Vaveenthiran Y.<sup>1</sup>, Premakumar K.<sup>1\*</sup>

The research was conducted to study the effect of different storage techniques on the quality and the storage stability of green chili (*Capsicum annum*) in Batticaloa district. The objectives were to reduce the qualitative post-harvest losses and to increase the storability of green chillies. The treatments included chili pods stored with pedicel and without pedicel in baskets and carton boxes at ambient temperature ( $30 \pm 2^{\circ}\text{C}$ ) and refrigeration temperature ( $7 \pm 0.5^{\circ}\text{C}$ ). The green chili samples were analyzed for physico-chemical properties such as Ascorbic acid, total soluble solids, pH, colour, physiological weight loss and percentage of decay at weekly interval for a storage period of three weeks. The results revealed that Ascorbic acid content, total soluble solids and pH of green chillies stored with pedicel at ambient temperature were significantly ( $p < 0.05$ ) higher than the values of other treatments due to high degree of ripening of pods. In refrigeration storage, percentage of physiological weight loss of pods increased to maximum of 17.6% during the course of experiment. In the storage of pods without pedicel, only 2% of decay was observed for chili stored in carton boxes at refrigeration temperature. Slow rate of colour change from green to red and retention of weight of pods were found to be superior in basket packages in refrigerator. In ambient temperature storage, colour change of pods and percentage of physiological weight loss, lower percentage of decay and higher storability indicate the delay in ripening of green chili stored without pedicel. Chili pods stored with pedicel showed higher percentage of physiological weight loss, more decay and higher rate of colour change. Therefore, keeping chili pods without pedicel in refrigerator was a suitable storage technique to extend the storability of green chili pods, because of better retention of biochemical properties, slower rate of colour change and lower decay.

**Key words:** Storage techniques, Physico-chemical properties, Green chili

1. Department of Agricultural Chemistry, Faculty of Agriculture, Eastern University Sri Lanka, Chenkalady, Sri Lanka.