EFFECT OF PACKAGING MATERIAL ON SHELF-LIFE EXTENSION OF GREEN BEANS UNDER LOW TEMPERATURE STORAGE

Kirushananth N.*and Mahendranathan C.
Department of Botany, Faculty of Science, Eastern University of Sri Lanka, Sri Lanka
**kshananth31@gmail.com*

The green bean is any of a variety of legumes widely cultivated for their edible seeds and seedpods. Poor handling methods have resulted in a serious postharvest loss of this agricultural produce, in addition to a loss of time and money spent. There are many postharvest technologies that extend the marketable life of fruits and vegetables. The study was conducted to evaluate the effect of packing materials on the storage life and quality of green beans. Three different types of packaging materials were selected (kraft paper bags, cotton cloth bags, and polyethylene bags) without packaging as a control. Physiological weight loss (PWL), decay percentage, acceptability, total soluble solids (TSS), pH, and vitamin C content were assessed every seven days of storage at 20 ºC. Compared to control treatments, the lowest physiological weight loss of 3.9% was recorded from the polythene bag at the end of 21 days of storage. Moreover, the lowest (20%) decay percentage was recorded from the polythene bag at 21 days of storage. The overall acceptability score of beans was also highest on a polythene bag, and the lowest was obtained from the control treatment at the end of storage. Vitamin C concentrations are also high in beans packed in polythene bags. It can be concluded that packaging beans in polythene bags resulted in extending storage life and maintain the quality of the produce.

Keywords: *Green beans, Packaging material, Quality, Storage life.*