

Research Paper :

Effect of storage and prepackaging on keeping quality of vegetables

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ABSTRACT

Prepackaging help to protect the vegetables from heat and to retain the keeping quality, perforation of the polythene packages is advised from the point of a creation to retain the keeping quality. This Point into consideration 100 gauge polythene bags with (without perforation of size 30 x 25 cm) was selected for packaging vegetables. Leafy vegetables and other vegetables were stored in three different conditions. Minimum weight losses and remained in good conditions up to 7 to 8 days of storage when stored in perforated polythene bags. Ladies finger in perforated bags showed slightly more weight loss, better quality and had no off flavor imperforated polythene bags remained maximum of vitamin C content folled by perforated and open condition. Statistically highly significant differences was observed for texture, color, aroma, overall freshness, and weight losses, Vitamin C losses when stored at room temperature, open condition perforated and non perforated condition of polythene bag in all models.

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Polythene bags are very important in storage of perishable food. Many times prepackaging is done for storing vegetables. Prepackaging helps to protect the vegetables from heat and to retain the keeping quality. Polythene packages are common in use, perforation of alteration to retain the keeping quality. It increases the shelf life of vegetables and prevents the spoilage. 100 gauge polythene films for packaging of fresh leafy vegetables and 200 gauge films for packaging the fresh fruits increased shelf life of commodities at room temperature. Shelf life of commodities like brinjal, carrots, green chillies, lady's fingers, stap bean betel leaves and curry leaves would be doubled by use of polythene packaging. (Chickman, 1969). Effect of repackaging studies on okra cultivar Pusa sawni by using 400, 300, 100 gauge polythene film bags under room temperature conditions (32 + 2°C and H 70 to 75%) had a shelf life of 9 days as against 2-3 days of unpackaged produce (Singh *et al.*, 1980). Self life of two okra varieties namely, Pusa sawni and Padmini repacked in perforated and un perforated polythene bags of 400 and 200 gauge thickness. At ambient conditions (42°C and 77.5% R.H.). Fruits packed in polythene bags had minimum weight loss and remained in good conditions, up to 10 days of storage. Lady's finger in perforated bags showed slightly more weight loss, better quality and had no off flavour (Saimbi and Randhawa, 1983). Polymeric film was used to extend the post harvest

life and improve marketability of fruits and vegetables. Vegetables loose their freshness soon after their harvest because of their highly perishable nature. Shriveling of fresh vegetables owing to high temperature and low humidity is a feature commonly observed particularly in the northern parts of the country during summer (Roy and Khurdiya, 1986).

Keeping this in view, an experiment was conducted to study for 100 gauges (30 x 40cm) for leafy vegetable storage and 200 gauges (20x26 cm) for other vegetables storage under the room temperature and low cost cooling devices in perforated and un perforated polythene.

METHODOLOGY

Selection of polythene bags:

Polythene bags of hundred gauge and two hundred gauge sizes of 30 x 40 cm and 20 x 27 cm were selected to store vegetables as conditions of experiments.

The conditions were as referred and indicated below:

- Storage of vegetables in open condition – O
- Storage of vegetables in polythene bags without perforation – WP
- Storage of vegetables in polythene bags with 0.5% perforation for providing ventilation.

Development of cooling devices:

A simple technique of regarding the temperature and