

Shelf Life Extension of Papaya Fruit by Shrink Wrapping

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ABSTRACT

Papaya (*Carica papaya*) is a popular and economically important fruit of tropical and subtropical countries. Papaya fruits are rich in enzymes called papain and chymopapain. Marketing of fresh papaya is a great problem because of its short post-harvest life, which leads to high post-harvest losses. The focus of this research was to study the effect of shrink wrapping on physico-chemical properties and shelf life extension of papaya. Two sets of fruits (wrapped and unwrapped) were held at ambient (32-39°C, 72-83% RH) and refrigerated conditions (10-12°C, 90-95% RH) throughout the storage period. Weight loss, pH, moisture content, TSS, vitamin C, vitamin A, proteins, carbohydrates were evaluated at an interval of 4 days. Changes in moisture content, protein, vitamin C, carbohydrates of the shrink-wrapped fruits were lower than that of un wrapped fruits during storage. Papaya fruits stored at room temperature, refrigeration, shrink wrapped and shrink wrap + refrigeration had a shelf life of 10, 14, 13, and 19 days respectively. Results proved that shrink wrapped papaya at refrigerated conditions had longer storage period compared to other storage conditions.

Key words: *Papaya, Shrink wrapping, Vitamin C, Weight loss.*