

Title Prolonging 'Frangi' papaya postharvest life using shrink film
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Abstract

A study was conducted to determine the effects of modified atmosphere packaging to prolong postharvest life of 'Frangi' papaya (*Carica papaya* L.). The packaging material used in the study was paper (control), shrink film wrap and Xtend film. Fruit of maturity index 2 was wrapped with three different types of packaging material and a storage box was used to fill 12 fruits. Immediately the storage box was transferred to a chamber of $12 \pm 2^\circ\text{C} / 85\% \text{RH}$ for 3 weeks. Nine fruit of each packaging treatment was taken out from cold chamber at week 0, 1, 2 and 3 and allowed to ripen naturally in a room of 27°C with 70% RH. Fruit quality was evaluated at day 0, 3 and 6 during ripening. The experiment was conducted in a randomized complete block design with three replications. Data were analysed using ANOVA and separation of means was carried out using Duncan's multiple range test. The three packaging materials did not affect peel and flesh L^* values, flesh C^* values, titratable acidity and vitamin C of papaya. In contrast, peel C^* and hO values, flesh hO values, fruit firmness, soluble solids concentration (SSC) and pH were significantly affected by packaging materials. As storage duration progressed, the L^* , C^* and hO values of peel, hO values of flesh, fruit firmness, SSC and pH were affected significantly. Fruits wrapped with shrink film had better postharvest quality where the fruit were well-preserved than another two packaging materials. In conclusion, shrink film can be used to prolong 'Frangi' papaya postharvest life.