Title Effect of chitosan coatings on the physicochemical characteristics of Eksotika II papaya (*Carica papaya* L.) fruit during cold storage

Author Asgar Ali, Mahmud Tengku Muda Muhammad, Kamaruzaman Sijam and Yasmeen Siddiqui

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Abstract

The effect of chitosan on the physicochemical characteristics of Eksotika II papaya fruit stored at 12 ± 1 °C and 85-90% relative humidity, was investigated. Chitosan provided an effective control in reducing weight loss, maintained firmness, delayed changes in the peel colour and soluble solids concentration during 5 weeks of storage. The titratable acidity declined throughout the storage period, though at a slower rate in the chitosan coated fruit as compared to the control. Sensory evaluation results also confirmed the efficacy of chitosan. Consequently, the internal gaseous concentrations of CO_2 and O_2 also proved the usefulness of chitosan. These findings suggest that chitosan can be used commercially for prolonging the storage life of Eksotika II papaya fruit.