Title Physicochemical changes in 'Frangi' papaya (*Carica papaya* L.) during ambient storage

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Abstract

The change of physicochemical properties of the 'Frangi' papaya (*Carica papaya* L.) was studied after harvest at ripening colour index 2 during ambient storage for eight days. In this context, the study evaluated the change of physical and chemical on every second day during eight days of storage. Experiments were conducted in a completely randomized design and replicated four times. From each replication, three fruits were randomly selected for physicochemical analysis. Analyses performed include firmness, colour (L *, hue angle (h°) and Chroma), weight loss, soluble solids concentration, titratable acidity, ascorbic acid content, respiration and ethylene production. In general, a significant ($P<0.05$) increase in weight loss (2.5 to 8%), lightness value (49.5 to 63.1), chroma (32.3 to 59.3), soluble solids concentration (7.9 to 17.6%), ascorbic acid content (169 to 322 mg/100g fresh weight (FW), ethylene production (5.8 to 81.3 ml $kg^{-1}h^{-1}$) , respiration rate (24.5 to 59.0 ml CO_2 kg^{-1} h^{-1}) was observed during storage, while titratable acidity (0.162 to 0.075%), firmness (108.5 to 7.7N) and hue angle (157.4 to 96.8°) showed reduction. Understanding the postharvest physiology and characteristics of this papaya is necessary so that proper storage condition can be initiated to minimize loss of water, weight, firmness and other beneficial chemicals.