Title Using of calcium chloride and organic acid to prolong storage life and postharvest quality of shredded green papaya

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Abstract

Postharvest degradation of minimally processed papaya limits the marketability of fruit. The effect of 0.5% $CaCl_2$, 1% Ascorbic acid, 1% Citric acid applied to shredded green papaya on physical, physiological quality of minimally processed papaya was studied. Shredded green papaya were subjected to each chemicals separately by dipping of 0.5% $CaCl_2$ for 2 min, 1% Ascorbic acid for 3 min and 1 Citric acid for 3 min then stored at 4°C until the end of storage. Shredded papaya was treated with ascorbic acid and citric acid had storage life for 9 days while as untreated (control) and $CaCl_2$ treatment had storage life for 12 and 15 day, respectively. Sensory assessments were carried out at 3 days intervals, by the trained consumers mostly satisfied in 0.5% $CaCl_2$ and dipped shredded green with distill water with no different significant. Chemicals treatments in shredded green papaya did not affect in colour changes when compared with control. By the way, 1% ascorbic acid showed decreasing of L – value than other treatments. $CaCl_2$ maintained hue colour change than other treatments. Citric acid treatment had respiration rate and ethylene production lower than control in contrast with ascorbic acid and $CaCl_2$ treatment. $CaCl_2$ and organic acid treatment of shredded green papaya reduced the microbial within 6 days of storage life.