Title Effect of $CaCl_2$ and organic acid on quality of shredded green papaya under controlled atmosphere

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Keyword $CaCl_2$; organic acid; shredded green papaya

Abstract

Shredded green papaya is a major ingredient of a famous Thai Salad 'Somtam'. It has a problem with short shelf life due to rapidly loss of color and crisp. In this study, shredded green papayas were dipped in 0.5% $CaCl_2$, 1.0% citric acid or 1% ascorbic acid and then stored in content 10% CO_2 at 4°C with 90-95% RH. Shredded green papaya dipped in 0.5 % $CaCl_2$ was best in a reduction of weight loss and a delay of papaya color and crisp changes when compared with other treatments. Shredded green papaya dipped in 0.5% $CaCl_2$ appeared chilling injury symptoms over score 3 on day 20 while it was happened to controls on day 5. Citric acid treatment had lower levels of respiration rate ethylene production compared to the control treatment. However, shredded green papaya was dipped in 0.5% $CaCl_2$ had higher levels of weight loss, chilling injury symptoms, score of color and crispness when compared with control treatment. It was concluded that $CaCl_2$ dipped may play a role in prevention of chilling, loss and maintained the acceptable quality (crisp and color) in shredded green papaya.