

Title Evaluation of the browning activity of minimally processed pineapple treated with citric acid

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Abstract

This study was conducted to investigate the effect of citric acid treatments on the browning activity of minimally processed (MP) pineapple stored at 10 and 2 °C for 7 and 14 days respectively. The MP pineapples cut in longitudinal shapes (5 cm) were treated with different citric acid concentrations; 1% (T1), 1.5% (T2) and 2% (T3). Untreated sample was used as control (T0). Samples were evaluated for colour (L, a, b and hue), pH, total soluble solids (TSS) and total titratable acidity (TTA). Activity of polyphenol oxidase (PPO) was also monitored as to relate with surface browning of the MP pineapple. Lowered pH value was observed to all treated samples (T1, T2 and T3) both at 10 and 2 °C as compared to the control samples. The activity of PPO of the samples treated with 1.5% was lowered as observed to the sample stored at 10 °C. However, inconsistent trends were shown to the activity of PPO throughout the 14 days storage at 2 °C. No significant difference was observed to the TSS, ITA and hue values of the treated and control samples till the end of the storage period both at 10 and 2 °C.