

Abstract:

'Khom' lychee fruit were dipped in 0.5 and 1.0 mol·L⁻¹ citric acid solution for 10 and 30 minutes and then stored at 5 °C, 90-95% RH. Pericarp browning in the treated fruit markedly decreased. Optimum treatment was 1.0 mol·L⁻¹ citric acid as 10 min dip. The fruit had less than 25% of peel surface turning brown at the end of the 42 day storage period. Untreated fruit had the most severe browning with 50-75% of peel surface affected, manifested as early as after 28 days of storage. These fruit had also the highest weight loss, peel pH and total phenolics content, and ethylene production rates among treatments. Citric acid-induced inhibition of browning compared well with the reductions in peel pH and fruit ethylene production and partly in peel phenolics content and fruit weight loss.