

Title Comparison of honey and organic acid dips on browning inhibition of fresh-cut 'Nam Dok Mai' mango fruit

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Abstract

The purpose of this study was to compare the effects of honey and organic acid dips on fresh-cut 'Nam Dok Mai' mango fruit browning inhibition during storage. The effects of honey concentration on browning inhibition of the fresh-cut mango were investigated by dipping the fresh-cut fruit into honey solution at the concentrations 0, 5, 10, 15, 20 and 25 % (v/v). The highest browning and lowest lightness and yellowness were shown in the control fruit. No differences in lightness and yellowness of the fresh-cut fruit dipped in honey solutions and the control at day 0 were found. The lowest browning index was found in the fresh-cut fruit dipped in 25 % honey solution. The comparison of the honey dip and organic acids dip on browning inhibition of the fresh-cut mango fruit was investigated. The fresh-cut fruit were dipped in 25% honey or 1 % citric acid or 1 % ascorbic acid or distilled water (control). The results show that 25% honey dip effectively inhibited browning on the cut-surface, maintained colour and reduced the loss of fresh weight of the fresh-cut mango fruit when compared to the control fruit and 1 % ascorbic acid dip. However, no difference in browning inhibition between 25% honey and 1 % citric acid dip was found. Therefore, we suggested that 25% honey immersion effectively inhibits browning of the fresh-cut fruit during storage.