

Title Extending shelf-life of Fresh-cut 'Fuji' apples with chitosan-coatings
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Abstract

The effect of coatings in combination with anti-browning agents (1%chitosan; 2%ascorbic acid + 0.5%CaCl₂ and 2% ascorbic acid + 0.5%CaCl₂ + 1% chitosan) on minimally processed apple slices was studied during storage. Chitosan-coating treatments effectively retarded enzymatic browning on minimally processed apples during storage and they effectively retarded or avoided tissue softening, apple slices underwent a little loss of firmness. Chitosan-coating did not perform very well as water vapor barriers in apple slices. To control initial respiration rate of apple slices, edible coatings were applied to cut apples as semi-permeable barriers against air. Initial respiration rate showed a decrease in 2% ascorbic acid + 0.5%CaCl₂ + 1% chitosan apple slices at 5 °C.