

Title Fresh cut mango fruits: evaluation of edible coatings
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Abstract

Mango has a great potential as a fresh-cut product. Fresh-cut mangoes deteriorate faster than intact produce. Edible coatings are a common method to extend the fresh-like appearance and quality characteristics of many vegetables and fruits. After disinfecting, mango fruit (cv. Kent) were manually sliced, cut in pieces (2 x 2 cm) and dipped in 40 ppm cold chlorine water (5°C), afterwards in coating solutions, containing 1% Sodium Carboxy Methyl Cellulose (CMC) + 0,5% citric acid + 0,05% estearic acid + 0,5% ascorbic acid; (ii) solution containing 0,75% chitosan + 3% citric acid; (iii) solution containing 1% Dextrin potato starch + 1% calcium lactate + 0,5% ascorbic acid. Distilled water was used as a control treatment. Fruits were stored at 4°C for up to 9 days. O₂ and CO₂ concentrations were measured in the package, firmness color and respiratory rate of the pieces were evaluated with or without coating. According to the results obtained in this study, the chitosan treatment shows the best results in relations the others after 9 days of storage at 4°C and could be used to maintain the quality of fresh-cut mangoes without detrimentally affecting their physical-chemical characteristics.