

Title Fresh cut ‘Tommy Atkins’ mango pre-treated with citric acid and coated with cassava (*Manihot esculenta* Crantz) starch or sodium alginate

Author Marcela Chiumarelli, Cristhiane C. Ferrari, Claire I.G.L. Sarantópoulos and Miriam D. Hubinger

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Abstract

This work aimed to evaluate quality parameters of ‘Tommy Atkins’ mango slices pre-treated with citric acid and cassava starch or sodium alginate edible coatings, with or without glycerol. Samples only treated with citric acid were also evaluated. Mango slices dipped in sanitising solution were used as control. Colour parameters, mechanical properties, weight loss and respiration rate were analysed during 15 days at 5 °C. Cassava starch coating, with or without glycerol, provided higher stress at failure and lightness values than control sample throughout storage ($p \leq 0.05$). The citric acid promoted colour preservation, but increased significantly samples weight loss during storage. Sodium alginate coatings did not maintain quality characteristics, showing stress at failure and lightness values lower than control after 15 days. All coatings reduced respiration rate, but citric acid dipping and cassava starch coating without glycerol treatments were more effective, reaching values around 41% lower, when compared to control sample.