

Chitosan coatings to control soft mold on fresh blackberries (*Rubus glaucus* Benth.) during postharvest period

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Abstract

Blackberry (*Rubus glaucus* Benth.) is perishable fruit with high susceptibility to soft mold which reduces its marketability. The antifungal chitosan action has been studied to maintain blackberry quality during postharvest. However, this biopolymer needs to be dissolved in organic acid to be able to perform correctly as a coating. In this work, the effectiveness of different chitosan concentrations prepared with either lactic or acetic acid was evaluated, for controlling *Mucor racemosus* in blackberries stored at 4 °C for 14 d. Fruit decay treated with chitosan was compared with the one obtained in blackberries treated with the chemical fungicide imazalil (0.4 g L⁻¹) and with that one obtained in untreated fruit. The treatment with chitosan 17.5 mg mL⁻¹ - lactic acid (LA-17.5) was the most effective ($p < 0.05$) in the control of soft mold. Blackberry physicochemical properties and its sensory quality were not negatively affected by the treatment with chitosan 17.5 mg mL⁻¹- lactic acid (LA-17.5). The results obtained suggested that the coating with chitosan could be used for the control of soft rot in blackberry during postharvest period.