

Title Postharvest quality of mango (*Mangifera indica* L.) fruit as affected by chitosan coating

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Citation Pakistan Journal of Botany, 41(1) p. 343-357, 2009.

Keywords Mangoes; Coating; Irradiation; Chitosan; Postharvest control; Keeping quality; Organoleptic properties; Weight losses; Firmness; Dry matter content; Ph; Acidity; Ascorbic acid; Reducing sugars; Nonreducing sugars; Postharvest decay

Abstract

The effect of coating with irradiated Crab and Shrimp chitosan (CHIrr, $M_v = 5.14 \times 10^4$) and un-irradiated Crab chitosan (CHUn, $M_v = 2.61 \times 10^5$) on postharvest preservation of mango (*Mangifera indica* L.) fruit was studied. Irradiation at 100 kGy and 200 kGy of both Crab chitosan and Shrimp chitosan were used and the fruits were stored at 15 degree C plus minus 1 degree C and 85% relative humidity for 6 weeks. The effect of various chitosan coatings on fruit ripening behaviour, biochemical and organoleptic characteristics were evaluated during storage. The incidence of disease attack was also observed. The overall results showed the superiority of irradiated Crab chitosan (200 kGy) in extending the shelf-life of mango fruit as compared to control. The irradiated Crab chitosan (200 kGy) treated fruits also maintained their eating quality up to 4 weeks of storage. Only 6% disease incidence was observed in fruits coated with irradiated Crab chitosan (200 kGy) as compared to c