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POSTHARVEST COATING WITH CHITOSAN ENHANCED THE STORAGE LIFE AND MAINTAINED POSTHARVEST QUALITY OF `SELVA´ STRAWBERRY FRUIT

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Use of edible coatings is considered as an efficient operation in postharvest technology. The coatings may create a relatively modified atmosphere in the product leading to decreased metabolic activity and decay extension. Chitosan as a natural compound has been shown to have good potentials to be used in organic fruit production programs. Effect of postharvest coating with chitosan on decay extension, marketability, total phenolics, total antioxidant activity and ascorbic acid content in strawberry (Fragaria x ananassa cv. Selva) during storage at 2 ± 0.5 °C with 85–95% RH for 14 days followed by 24 h at 20°C was studied. Chitosan coating effectively decreased decay incidence rate maintained fruit antioxidant activity, ascorbic acid content, marketability and total phenolics. A little change in quality attributes was observed during first 7 days but the changes in fruit quality during the second 7 days were significant. 1% chitosan was more effective than 5% in decreasing the rate of quality changes and extending fruit postharvest life.

Keywords: Ascorbic acid; Chitosan; Strawberry; Marketability; Total phenolics