

Title Postharvest life and quality of strawberry fruit as affected by chitosan and starch edible coatings and hot water treatment

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Abstract

The quality of strawberry is affected by temperature and storage period. It has been shown that edible coatings can increase the storage life of fruits. In this research the effect of two thermal conditions (4°C and room temperature), storage time and 1 % and 1.5 % of chitosan and 3 % of starch as edible coatings with or without 60°C hot water on shelf life and quality of Camarosa and Paros strawberry cultivars was investigated. Results showed that temperature of 4°C increased the shelf life of strawberry in comparison to normal environment. However temperature did not affect titratable acid and pH. Temperature of 4°C increased the stability of colour, vitamin C and total soluble solids. Also at temperature of 4°C, anthocyanin content and antioxidant activity of strawberry fruits decreased. Edible coatings had no significant effect on titratable, pH, anthocyanin content and antioxidant activity. Coating with chitosan at the rate of 1.5 % and temperature of 4°C was the best treatment for preserving strawberries.