

Title Effects of postharvest chitosan and salicylic acid application on decay extension and quality of table grape *Vitis vinifera* L. cv. Rishbaba

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Abstract

Harvested table grapes (*Vitis vinifera* L. cv. Rishbaba) were treated with salicylic acid (1 and 2 mmol L⁻¹) before coating chitosan (0.5 and 1% w/v) and stored at 0°C ± 0.5°C with 90-95% R.H for 4 months. The effects of chitosan and salicylic acid treatments on fruit postharvest life and quality indices were recorded during storage period. The results showed that both SA and chitosan are able to alter the patterns of quality changes during cold storage and their effects are depended on storage duration. Decay incidence was increased in all treatments during storage period but the rate of increase was reduced by chitosan alone and also by chitosan + 1 mmol L⁻¹ SA, especially after 2 months. While no change in vitamin C content of control fruit was observed during first 2 months, rapid increase was recorded thereafter having the highest rate at the end of storage. Fruit treated with chitosan + 2 mmol L⁻¹ SA had the highest vitamin C content after 2 months but showed a rapid decrease at the end of storage. Patterns of changes in fruit other quality attributes including total acidity, total soluble solids and weight loss were also affected by SA and chitosan treatments.