Title Addition of salicylic acid to nutrient solution combined with postharvest treatments (hot water, salicylic acid, and calcium dipping) improved postharvest fruit quality of strawberry

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Abstract

This experiment was conducted to study the effect of salicylic acid addition to nutrient solution and different postharvest treatments on fruit quality of strawberry cv. Camarosa after 7 days at 2 °C. Plants were irrigated with two complete nutrient solutions, with salicylic acid (0.03 mM) or without salicylic acid as the control. Fruits were then treated with eight different postharvest treatments (25 °C water, 45 °C water, 25 °C or 45 °C water containing $CaCl_2$ (1%), 25 °C or 45 °C water containing salicylic acid (2 mM) and 25 °C or 45 °C water containing both $CaCl_2$ (1%) and salicylic acid (2 mM)). Fruits which received SA in their nutrient solution had less weight loss and decay and higher firmness. All of the postharvest treatments improved fruit quality characteristics. Fruits dipped in salicylic acid solution had less weight loss, decay and *a** (redness) and higher firmness and hue angle than control. Heat treated fruits had less decay and *a** and higher hue angle than control. Fruits dipped in $CaCl_2$ solution had less weight loss, decay and *a** and higher firmness than control. Combination of the three postharvest treatments improved firmness, decay, weight loss and vitamin C.