

Effect of harvest time and post harvest diphenylamine treatment on control of scald in apple cv. Red delicious

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In this study a factorial experiment in complete randomized design was used to determine the effect of harvest time and post harvest treatment with diphenylamine (DPA) and their interaction on control of scald.

Superficial scald is a common physiological disorder which develops during the storage process of apple fruit. It reduces the appearance, utility and marketability of apple fruits.

'Red delicious' apple fruits were harvested in 3 intervals of 10 days each (128, 138 and 148 days after full bloom). Apple trees in Bagh-e-Kowsar of Qazvin were selected for this study. The harvested fruits were dipped in DPA (with 0,1000 and 2000 ppm) for 45 sec. and then stored at 0°C for 5 months. The fruits were taken out at the end of this period and kept for 6 days under 20°C and then the development of scald was studied.

The results of this study indicated that both the time of harvest and post harvest treatment with DPA had significant effects on scald. The first harvest (128 days after full bloom) had the highest rate of scald while the third harvest (148 days after full bloom) had the lowest rate. On the other hand the control fruits had the highest rate of scald while the treated with 2000 ppm DPA had the lowest rate and were not significant differences between treatments with 1000 ppm and 2000 ppm.