

**Title** Effect of hot acetic acid solutions on postharvest decay caused by *Penicillium expansum* on Red Delicious apples

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#### **Abstract**

The objective of this research was improvement of apple hot water treatment efficiency by using acetic acid. The apples (cultivar *Red Delicious*) were treated using hot acetic acid solutions (1, 2 and 3%) at 50 °C for 1, 2 and 3 min. The results of *in vitro* study showed that treatment with acetic acid at 50 °C can significantly reduce the growth of *Penicillium expansum* spores. The treatment of apples with 50 °C acetic acid solutions, in particular 2% acetic acid solution for 3 min or 3% acetic acid solution for 2 min, had significant impacts in reducing the extent of decay of the fruit during the short time storage experiment, while this effect was not significant in the long-time storage.