

Title Effect of high-pressure hot water washing treatment on fruit quality, insects, and disease in apples and pears
Part II. Effect on postharvest decay of d'Anjou pear fruit

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Abstract

A hot water pressure process (HWP) was evaluated for its effect on conidia of *Penicillium expansum* and on development of blue mold, gray mold, and mucor rot of d'Anjou pear fruit. Spores were removed from the water system through dilution and also as a result of hot water in the system that was lethal to the spores. When the system was heated, viable spores were not detected after 2–4 h of operation. Reductions in decay in the HWP system were 36, 29, and 13% for *Botrytis cinerea*, *Mucor piriformis*, and *P. expansum*, respectively. The response of *P. expansum* appeared related to the length of time fruit was in cold storage. Heat injury was observed on fruit treated with 40 and 50 °C water but not on fruit at 30 °C nozzle temperature. The HWP system described in this study should be considered as a component of an integrated decay control strategy.