

Title Induction of disease resistance in mango fruit by postharvest heat
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Citation ISHS Acta Horticulturae 712: 785-792. 2006.
Keywords *Mangifera indica* L.; hot water dip; anthracnose; β -1,3 glucanase; phenylalanine ammonia lyase

Abstract

Mango fruits cv. 'Namdokmai' at the mature-green stage were dipped in 55°C water (HWD) or ambient water (control) for 5 min with or without prior inoculation with the anthracnose pathogen, *Colletotrichum gloeosporioides*, and stored at 25°C with 90-95% relative humidity. Anthracnose symptoms developed in both inoculated and un-inoculated fruits, with pathogen inoculation advancing disease development. HWD remarkably delayed the onset of disease infection, reduced the number of infected fruits, and lowered the severity of infection. At the end of storage, HWD-treated fruits had still lower disease severity than unheated fruits. Phenylalanine ammonia lyase (PAL) and β -1, 3 glucanase increased in both peel and pulp of HWD-treated fruit. Pathogen inoculation enhanced PAL and glucanase activity particularly at the initial stage of storage. The findings indicate that HWD reduced disease incidence partly by inducing defense mechanism in the fruit tissue.