Abstract

Postharvest application of harpin to induce resistance was studied in two cultivars of Hami melon (*Cucumis melo* L. var. *inodorus* Jacq.) inoculated with *Trichothecium roseum*. Harpin significantly reduced lesion diameter in inoculated fruit. A greater level of decay control was observed in long-term storage cultivars (cv. 8601). The treatment at 90 mg/L was the most effective concentration and higher concentrations over 90 mg/L failed to promote resistance and did not cause phytotoxicity to melons. Harpin did not demonstrate any fungicide effect in vitro, but suppressed lesion diameter in treated and untreated halves of the same fruit, suggesting induction of local and systemic resistance. Efficacy of suppression lasted 8 and 6 days for '8601' and 5 and 3 days for 'New Queen' cultivars in harpin-treated and untreated halves, respectively. The protection by harpin was associated with the activation of peroxidase (POD) and chitinase (CHT).