

Abstract

Green and blue mold, caused by *Penicillium digitatum* (Pers.) Sacc. and *P. italicum* Wehmer, respectively, cause significant losses of Satsuma mandarins (*Citrus unshiu* Marc.) after harvest. The effects of some pre- and postharvest treatments on development of these diseases and on the wound healing processes of Satsuma mandarin fruit were determined. Trees were treated with CaCl_2 in combination with growth regulators (2,4-D and GA_3) and benomyl before harvest. Fruit were harvested from each treatment and wounded at three sites. One group was inoculated with the pathogens immediately while another group was inoculated 3 days later. Of these, one group was held at 30 °C with high humidity (90–95%) for 72 h, which is a thermal curing regime, and another was exposed to UV-C light for 10 min. Green and blue mold incidence after harvest during storage was inhibited by preharvest treatments containing benomyl. UV light treatments also reduced green mold, but caused some injury to the fruit. The disease incidence was very low among fruit that were held at 30 °C with high humidity (90–95%) for 72 h compared to the other treatments. Combinations of these treatments were additive in efficacy.