

Title Use of Electrolyzed Oxidizing Water to Control Postharvest Disease during Storage of Tangerine cv. “Sai Nam Pung”

Author K. Whangchai, C. Singkamanee, K. Saengnil and J. Uthaibutra

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Abstract

The effect of electrolyzed oxidizing (EO) water for the inactivation of *Penicillium digitatum* in suspension and inoculated on tangerine fruits were evaluated. An electrolytic cell for the production of EO water was built and saturated NaCl was used. EO water produced had free chlorine concentration of 215 ppm and pH 4.84. The spore suspension of *Penicillium digitatum* was incubated into EO water and sterile distilled water (control) for 30, 60, 90, 120 and 240 s. It was found that an exposure time 120 and 240 s completely inhibited the growth and development of the fungi. The second experiment, fruits with artificial inoculation were washed with EO water for 4, 8, and 16 min. and stored at 5 °C. The results showed that washing fruits for 8 min. was effective to reduce percent of disease incidence, when stored at 5 °C for 21 days. Moreover, all treatments had no effect on the quality changes of fruits such as total soluble solids (TSS), titratable acidity (TA), percent of weight loss and peel color.