

UV-C effect and alternative treatments for postharvest control of brown rot in peaches

F.V. Nascimento, R.J. Bender, R.M. Valdebenito-Sanhueza

Acta Horticulturae 1053: 265-272. (2014)

Abstract

Brown rot, caused by the fungus *Monilinia fructicola* (G. Winter) Honey is the main disease of stone fruit in Brazil. Aiming at development of alternative measures to control brown rot in peaches, the present work was conducted to evaluate the effectiveness of treatments with UV-C, sodium metasilicate (MS), calcium oxychloride (OC) and *Bacillus subtilis* (BS) in controlling brown rot on peaches. Trials were performed in vitro as well as in vivo. The in vitro tests indicated that conidia germination of two isolates of the pathogen treated with UV-C, MS and OC was below 4% while in the control treatment conidia germination was above 94%. With regards to the number of colony forming units, results were similar to those obtained in the conidia germination tests. In trials conducted at a commercial packing line, the treatment with 1% MS resulted in 89.42% control of decay. The decay control efficacy of the other treatments was relatively low. The findings of this work suggest that further studies are needed to develop alternative methods that are effective in controlling brown rot of peaches.