

Title The effect of some new postharvest fungicides and combination of hot water and sodium bicarbonate on *Geotrichum citri-aurantii* on citrus

Author Sumer Horuz and Pervin Kinay

Citation Abstracts Book, 6th International Postharvest symposium, 8-12 April 2009, Antalya, Turkey. 256 pages.

Keyword Citrus; hot water; sodium bicarbonate

Abstract

Geotrichum citri-aurantii, sour rot of citrus, causes economically crop losses on Satsuma mandarin and lemon in Turkey. Because the usage of guazatine was restricted in packinghouses, new solutions requires for minimize this pathogens. Thirty two isolates of *G. citri-aurantii* were collected from packinghouses in Ege and Mediterranean Region and tested against fungicides. In this project, we examined the old postharvest fungicides; guazatine, thiabendazole (TBZ) and imazalil against *G. citri-aurantii* and new generation postharvest fungicides such as pyrimethanil, fludioxanil and azoxystrobin at different doses in vitro and in vivo. We studied also sensitivity of pathogen isolates against fungicides in vitro. All of the isolates were found resistant to imazalil and TBZ even high doses of fungicides. It was found that 40% of isolates were sensitive to guazatine and 56% resistant. Both in vitro and in vivo test azoxystrobin did not effect pathogen growth and decay development. The only guazatine was effective on pathogens growth and decay development. In vivo test conducted on Satsuma mandarin, combination of sodium bicarbonate (2%) and guazatine (900 µg/ml) and their combination were the most effective treatments on disease development.