

### **Abstract**

Two approaches, fungicide applications to trees before harvest and drenching fruit after harvest, were evaluated to minimize postharvest green mold, caused by *Penicillium digitatum*, particularly among fruit subjected to ethylene gas after harvest, a practice termed “degreening” that eliminates green rind color. Preharvest applications of thiophanate methyl (TM) controlled postharvest green mold consistently. In five tests, green mold among degreened orange fruit was 16% when TM was applied 1 week before harvest; whereas, among fruit not treated, the incidence was 89.5%. Thiabendazole (TBZ) applied to harvested fruit in bins before degreening also was very effective. TBZ effectiveness was enhanced by mild heating (41°C), adding sodium bicarbonate, and immersing fruit, rather than drenching them, with the solution. With these measures, an isolate of *P. digitatum* with a high level of TBZ resistance was significantly controlled. In semicommercial tests with naturally inoculated fruit, TBZ and sodium bicarbonate treatment reduced green mold incidence from 11% among untreated orange fruit to 2%. TBZ residues in lemon fruit at 41°C were about twice those treated at 24°C. Neither TM before harvest nor TBZ and sodium bicarbonate applied after harvest influenced green color removal during degreening of orange fruit. Sodium bicarbonate slightly reduced the rate of lemon color change.