Abstract

Sour rot (*Geotrichum candidum),* in early season, thin-skinned navel (*Citrus sinensis* var. Leng) is of serious concern to the Australian citrus export industry. The control method for the Australian domestic market is to use fungicides containing guazatine, a chemical that is not approved for important export markets. In this study, we have examined possible alternative treatments including the use of other non-restricted fungicides in combination with gibberellic acid (GA), GRAS (generally regarded as safe) compounds and/or elevated temperature. Results showed that When inoculated fruit were dipped in solutions containing the fungicide imazalil alone and in combination with GA, thiabendazole or carbendazim the infection onto was significantly reduced. GRAS compounds either alone or in combination were also effective in reducing infection rates; these included sodium carbonate alone, sodium carbonate with imazalil or GA, and mineral oil with imazalil. GA was only effective at the highest rate tested (500 mgL^{-1}). Temperature was not a significant factor in reducing infection in fruit. Further experiments are necessary to demonstrate the potential of alternative treatments to limit sour rot development on export fruit**.**