

Title Chemical control of post-harvest diseases of mango: the effect of fludioxonil and prochloraz on soft brown rot, stem-end rot and anthracnose

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Abstract

Results on the Kent mangoes showed that the addition of fludioxonil significantly reduced stem-end rot in either hot or cold treatments. Fludioxonil, can therefore be a very valuable fungicide for control of stem-end and soft brown rots on mangoes exported from South Africa. The phenomenon regarding improved control of stem-end rot with reduced concentrations of fludioxonil in prochloraz mixtures indicate that their might be some synergistic mode of action but cannot be proved with this data and should be explored further. Poor control of anthracnose was obtained on Kent mangoes with ambient solutions probably due to poor control in the orchard and high disease pressure. In Keitt mangoes results showed that anthracnose was better controlled with prochloraz and fludioxonil plus prochloraz mixtures. In Kent mangoes anthracnose was better controlled when fruit were treated in heated fungicide solutions. The efficacy of fludioxonil regarding control of stem-end rot, and prochloraz regarding control of anthracnose as well as improved control of post harvest diseases of mangoes in heated fungicide solutions was demonstrated in both trials. The value of using two different, chemically non-related, fungicides in a mixture, each with good activity against a specific disease and some against another, can be an excellent strategy for total disease control especially if concentrations can be lowered, without losing efficacy, in heated solutions.