Title Chemical control of stem-end rot of papaya fruit caused by *Colletotrichum gloeosporioides*.

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Abstract

Stem rot is a disease caused by a fungal complex, with *Colletotrichum gloeosporioides*, *Phoma caricae-papayae*, *Fusarium solani* and *Botryodiplodia theobromae*, being the chief agents. The present work was designed to evaluate the efficiency of some fungicides in the control of the quoted disease, caused by *Colletotrichum gloeosporioides*. Thiabendazol (480 mg a.i./l), prochloraz and imazalil, at the concentrations of 250 and 350 mg a.i./l, were utilized. The fruits were inoculated by utilizing two methods: stem cutting and placement of a fungal mycelium disk and placement of four drops of spore suspension, 105 spores/ml, followed by a slight wound made with a hypodermic needle, with incubation in a moist chamber for 24 hours and subsequent soaking in aqueous emulsions containing the chemicals or in water for a 5-minute period. At 6 days, the severity of stem rot was evaluated (scores of 1 to 5). It was found that there were no differences between the inoculation methods. As regards the performance of thiabendazol, which is one of the standard fungicides for the control of such a disease, it presented low control efficiency, approaching to the values obtained for the check. Imazalil proved intermediary in the treatments, the concentration of 350 mg of a.i./l being the most efficient. Greatest efficiency was achieved with the fungicide prochloraz, there being no difference between the concentrations of 250 and 350 mg of a.i./l which suggests the recommendation of the lowest dosage.