Efficacy of conventional fungicides in controlling tomato grey mold

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Abstract

One of the important diseases of tomato plants is grey mold, which is caused by *Botrytis cinerea*. In this research, the effects of 10 fungicides on mycelial growth and conidia germination of *B. cinerea* were investigated. Results showed that carbendazim with a median inhibitory concentration (IC_{50}) value of 0.1 mg/L had the highest inhibitory effect and bordeaux mixture with an IC_{50} value of 1096.9 mg/L had the lowest inhibitory effect. Benomyl with an IC_{50} value of 0.04 mg/L had the most visual effects, after 3 and 7 days, on mycelial growth of *B. cinerea*. The effect of fungicides on preventing fruit wound development caused by *B. cinerea* was investigated, too. In benomyl treatment, wound diameter on the fruits was 0.73 mm and in copper oxychloride treatment was 6.16 mm, showing the highest and the lowest effective fungicides in the prevention of wound expansion. Different strains of the fungus were collected from various areas in Isfahan province and the effect of the fungicides on their conidial germination was evaluated. Results revealed that the collected isolates had different susceptibility to the 10 tested fungicides.

Keywords: *Botrytis cinerea*, Mycelial growth, Conidium, Isolate, Resistance.

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