Effects of Some Fungicides on Mycelial Growth of Fusarium spp.

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Abstract : Fusarium wilt is destructive disease of cereal crops with small grains. It affects yields but also the quality of the crop and economic losses arising are often very heavy. Chemical control is currently one of the most effective ways to fight against these diseases. In this study, the efficacy of three fungicides (tebuconazole, thiram, and fludioxonil-difenoconazole mixture) was tested. In vitro, on the phytopathogenic Fusarium spp. isolated from seeds of wheat. The active ingredients were tested at different concentrations: 0.06, 1.39, 2.79, 5.58, and 11.16 mg/l for tebuconazole, 0.035, 0.052, 0.105, 0.21, and 0.42 mg/l for thiram and finally, for the mixture fludioxonil-difenoconazole 4 concentrations were tested: 0.05, 0.1, 0.5 and 1 mg/l. Toxicity responses were expressed as effective concentration, which inhibits mycelial growth by 50%, (EC50). Of the three selected fungicides, thirame proved to be the most effective with EC50 value of the order of 0,15 mg/l followed by the mixture of fludioxonil-difenoconazole with 0,27mg/l and finally tebuconazole with a value of 3.79 mg/l.

Keywords : Fusarium spp., thiram, tebuconazole, fludioxonil, difenoconazole, percentage of inhibition, EC50

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