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Evaluation of Toxicity of Some Fungicides Against the Pathogen Fusarium sp.

Authors: M. Djekoun, H. Berrebah, M. R. Djebar

Abstract : Fusarium wilt attacks the plants of major economic interest including wheat. This disease causes many problems for farmers and economic loss resulting 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 sp. 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 the 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 0,27 mg/l and finally tebuconazole with a value of 3.79 mg/l.

Keywords: Fusarium sp, thiram, tebuconazole, fludioxonil, difenoconazole, EC50

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