THE EFFECT OF SOIL HERBICIDES ON INCIDENCE OF RHIZOCTONIAL SEEDLING DAMPING-OFF IN THREE SOYBEAN CULTIVARS*

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Abstract

This study was conducted in 2010-2011 to evaluate the effects of herbicides trifluralin, ethalfluralin, alachlor and metribuzin on the incidence of damping off disease caused by Rhizoctonia solani on soybean varieties Williams, Mill 82 and Clark in sterile or non-sterile soil. The pathogen was grown on PDA and incorporated into the soil of each pod up to four cm depth. The incidence of the disease in herbicide-treated soil was compared with those of untreated soil which was pre-inoculated with the pathogen as control. In these experiments, Clark showed higher disease incidence than other varieties. Also the disease incidence was higher in sterile soil than in non-sterile soil. Compared with the untreated control, only trifluralin, significantly increased the disease incidence.

Keywords: Alachlor, Damping off, Ethalfluralin, Rhizoctonia solani, Trifluralin.

See Persian text for figures and tables (Pages ۵۵۴-۹۵۴).

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