EFFICACY OF BIO-AGENTS AND ORGANIC AMENDMENTS AGAINST SCLEROTIUM ROLFSII CAUSING COLLAR ROT OF CHICKPEA

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Abstract: Chickpea is cultivated throughout the Chhattisgarh state and mostly grown in kanhar soil in Chhattisgarh plains. However, chickpea productivity is low due to susceptibility of the crop to different biotic and abiotic stresses. The collar rot disease of chickpea caused by Sclerotium rolfsii, which is soil borne and fast spreading fungus, causes considerable damage to the plant stand. The collar rots of chickpea caused by S. rolfsii, can cause considerable loss to plant stand when soil moisture is high and temperature is warm (nearly 30°C) at sowing time. Drying of plants with foliage turned slightly yellow before death, scattered throughout the field is an indication of collar rot infection. The study of bio-agent and organic amendment application revealed that all the treatments significantly increased seed germination and reduced collar rot incidence. Seed treatment with bio-agent Trichoderma and Neem cake application in soil was found to be the most effective recording maximum seed germination and minimum mortality followed by Trichoderma with Mustard cake and Trichoderma with Karanj cake combination under natural condition.

Keywords: Collar rot of chickpea, Sclerotium rolfsii, Trichoderma spp, Bio-agents

REFERENCES


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