

EFFICACY OF FUNGICIDES, PLANT EXTRACTS AND BIO-AGENTS AGAINST STEM ROT OF CORIANDER INCITED BY *SCLEROTINIA SCLEROTIUM*

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Received-06.03.2021, Revised-16.03.2021, Accepted-25.03.2021

Abstract: Coriander (*Coriandrum sativum* L.) an important annual herb used extensively all over the world. In India, it is intensively cultivated in the almost all the states of the country but Rajasthan, Madhya Pradesh, Andhra Pradesh, Tamil Nadu, Orissa, Uttar Pradesh and Uttarakhand are the major coriander growing states. Stem rot is a major destructive soil borne disease of coriander incited by *S. sclerotiorum*. The aim of the present study, *S. Sclerotiorum* causal organism of stem rot coriander has been the integrated management strategies through different concentrations of fungicides, plant extracts and bio-agents in *In vitro* and *In vivo* during Rabi season 2015-16. The results revealed that, the *Trichoderma viride* showed highest mycelial inhibition zone of the pathogen followed by *T. harzianum*. Seed + soil application of *T. viride* was most effective in reducing disease intensity under field conditions. Garlic clove extract was found most effective in inhibiting mycelial growth followed by safeda leaf extract. Among the plant extracts studied garlic clove extract was found most effective in reducing the disease intensity followed by eucalyptus leaf extract. Among the fungicides carbendazim and carbendazim + mancozeb inhibited mycelial growth completely at all concentrations. Fungicides were used as seed application, foliar application and seed-cum-foliar application against stem rot of coriander. Carbendazim was found most effective in reducing the disease intensity followed by carbendazim + mancozeb.

Keywords: Bio agent, Coriander, Fungicide, Plant extracts, Stem rot

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