

Ecofriendly management for *Macrophomina phaseolina* causing root rot disease of medicinal coleus (*Coleus forskohlii* briq.)

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The growing use of chemical fertilizers has been witnessing the grave consequence of global economic imbalance as well as environmental pollution. In this context of increased awareness of biocontrol agents and organic amendments can play a significant role in the future agro-economic scenario as a partial substitute to chemical fertilizers. Medicinal Coleus (*Coleus forskohlii*) is a part of mint family Lamiaceae and has been cultivated mostly in Tamil Nadu and Karnataka. The crop is subjected to attack by many diseases. Among them, the most challenging disease is dry root rot which is caused by *Macrophomina phaseolina*. The present study was conducted to develop an effective eco-friendly management practices against the root rot disease by using biological entities and organic amendments. Among the ten isolates of *P. fluorescens* and *B. subtilis* were tested, *Pf6* and *Bs3* recorded the maximum mycelial growth inhibition respectively whereas the ten isolates of *T. viride* were tested, *Tv1* recorded the maximum inhibition of mycelial growth of pathogen under *in vitro* condition. In the pot culture experiment, the treatments namely, soil application of *T. viride* (*Tv1*) @ 2.5 kg/ha plus neem cake (150kg/ha) recorded the minimum disease incidence followed by *P. fluorescens* (*Pf6*) @ 2.5 kg/ha plus Mahua cake (150kg/ha). It can be concluded from the studies that biocontrol agents have potential to inhibit *M. phaseolina* when supplied in agricultural field, thereby, supporting the sustainable agriculture.

KEY WORDS: *Macrophomina phaseolina*, Medicinal coleus, biocontrol agents, organic amendments.