

**SUPPRESSION OF SOIL-BORNE DISEASES CAUSED BY
Rhizoctonia solani AND *Fusarium oxysporum* BY COMPOST
FORTIFIED WITH *Trichoderma* spp.**

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The study was conducted to investigate the antagonistic effect of *Trichoderma* species on soil born pathogens *Fusarium oxysporum* and *Rhizoctonia solani* causes damping-off and root-rot in Mung bean. Dual culture of *Trichoderma viridae* vs *Rhizoctonia solani* (T1), *Trichoderma viridae* vs *Fusarium oxysparum*(T2), *Trichoderma harzianum* vs *Rhizoctonia solani* (T3), *Trichoderma harzianum* vs *Fusarium oxysparum* (T4) were tested to select best *Trichoderma* spp for disease suppression. The growth of selected *Trichoderma* spp. was cultured in eight different media as parboiled paddy, non parboiled paddy + 1% glucose, parboiled paddy, parboiled paddy + 1% glucose, non-parboiled kurakan, non-parboiled kurakan + 1% glucose, Parboiled kurakkan, Parboiled kurakkan + 1% glucose for the mass culture. The selected *Trichoderma* spp were introduced to compost for field application. Pot experiment was conducted to evaluate the suppression of soil borne diseases with Uninoculated soil (T5), Uninoculated soil+ Compost (T6), *R. solani* inoculated soil (T7), Uninoculated soil+ *T. viride* (T8), *R. solani* inoculated soil+ Compost (T9), *R. solani* inoculated soil+ *T. viride* Compost (T10). Plant mortality and plant growth parameters (i.e. height, fresh weight, dry weight, taps root length, root fresh weight and dry weight) were taken 7, 14 and 21 days after planting. *T. viride* was selected as the best antagonist (% Inhibition of mycelia growth: 59.09) and mass cultured in parboiled kurakkan + 1% glucose as it was the best media. In pot experiment the highest damping off [82.00% (Pre-) and 94.00% (Post-)] was recorded in T7 and the lowest [29.50% (Pre-) and 54.50% (Post-)] in T10. Rice straw compost fortified with *T. viride* significantly ($p>0.05$) reduced the *R. solani* and also promoted the plant height, fresh weight, dry weight, length of tap root, root fresh weight and dry weight.

Key words: *Trichoderma*, *Rhizoctonia solani*, *Fusarium oxysporum*, Soil-borne Diseases, Compost, Antagonist