

## RESEARCH ARTICLE

# Integrated management of dry root rot [*Rhizoctonia bataticola* (Taub.) Butler] of chickpea

■ S. Raj Kumar, T. Srinivas, V. Prasanna Kumari and D. V. Sai Ram Kumar

### SUMMARY

*In vivo* screening of natural farming product like bheejamrutha and cotton cake individually and in combination with mancozeb tolerant fungal antagonist *Trichoderma viride* isolate 3 (Tv-3) and fungicide mancozeb were tested against *Rhizoctonia bataticola* in pot culture under green house conditions and field conditions. The results revealed that seed treatment with bheejamrutham (200 ml kg<sup>-1</sup>) + soil application of Tv-3 conidial suspension @ 1×10<sup>8</sup> CFU ml<sup>-1</sup> fortified with 100 kg FYM @ 0.5% + soil application of cotton cake @ 200 kg ha<sup>-1</sup> was found to be superior as it recorded the least disease incidence of 11.11 per cent and maximum shoot length, root length, highest vigour index, maximum fresh and dry weight. Integrated disease management of dry root rot of chickpea indicates that seed treatment with bheejamrutham (200 ml kg<sup>-1</sup>) + soil application of Tv-3 conidial suspension @ 1×10<sup>8</sup>CFU ml<sup>-1</sup> fortified with 100 kg FYM @ 0.5% + soil application of cotton cake @ 200 kg ha<sup>-1</sup> performed better in managing dry root rot of chickpea with a per cent disease reduction of 65.04 and recorded highest yield of 2263 kg ha<sup>-1</sup> followed by seed treatment with mancozeb @ 2.5 g kg<sup>-1</sup> + soil application of Tv-3 conidial suspension @ 1×10<sup>8</sup> CFU ml<sup>-1</sup> fortified with 100 kg FYM @ 0.5%. + soil application of cotton cake @ 200 kg ha<sup>-1</sup>

**Key Words :** Chickpea, *Rhizoctonia bataticola*, Trichoderma, Bheejamrutham, Cotton cake, Mancozeb

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