

Efficacy of certain bio agents and fungicides against early blight of potato (*Solanum tuberosum* L.)

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ABSTRACT

An experiment was conducted to evaluate the effect of bio agents (*Trichoderma harzianum* and *Pseudomonas fluorescens*) and fungicides (mancozeb) against early blight of potato caused by *Alternariasolani* (Ell. and Mart.) at the experimental field of Department of Plant Protection, Sam Higginbottom Institute of Agriculture, Technology and Sciences, Allahabad during Rabi Season of 2013-2014. Seven treatment including control with three replications were taken up using RBD. The treatments comprised of seed treatment and foliar spray (once and twice) of bio agents *Trichoderma harzianum* and *Pseudomonas fluorescens* while fungicide taken up was mancozeb and control (spray of plain water) was applied. Observation for per cent disease intensity was recorded at 60 and 80 days after sowing. Lowest disease intensity was recorded in mancozeb (15.07% and 18.40%, respectively) as compared to control which recorded highest disease intensity (20.91% and 33.80%, respectively). Mancozeb not only reduced disease intensity but also recorded highest yield (253.00 q/ha) as compared to control which recorded 157.83 q/ha. The bio agents *Trichoderma harzianum* and *Pseudomonas fluorescens* (seed treatment +foliar spray) were also effective in reducing the disease intensity and increasing tuber yield.

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