

Biopriming of Tomato seed for the management of Damping-off disease

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Biopriming is a new technique of seed treatment that integrates biological and physiological aspects of disease control. It is recently used as an alternative method for controlling many seed and soil borne pathogens. It is an ecological approach using selected fungal antagonists against the soil and seed borne pathogens. Hence, during 2014 and 2018 *in vitro* as well as field trial was conducted for the plant growth promoting activity of tomato seed and management of damping-off of tomato disease respectively. Plant growth promoting activity was found highest when biopriming of tomato seed with *Trichoderma harzianum*@10gm/lit. water containing 10⁸ cfu/ml, seed germination (95.33 %), shoot length (6.33 cm) and root length (10.64 cm) and root colonization (6.33 x 10⁻⁴ cfu/ml). In biopriming of tomato seed with different bioagents, seed biopriming with *T. harzianum* @10gm/kg seed containing 10⁸cfu/gm (13.72 %) was found significant among all the treatments and reduced damping-off tomato.

Key words: PGPR, biopriming, *Trichoderma harzianum*, damping-off , tomato
