Integration of *Trichoderma harzianum* with some selected fungicides to control seed and seedling rot in Brinjal

T Geretharan* and A Kajamuhan
Department of Agronomy, Faculty of Agriculture, Eastern University, Sri Lanka

Seed and seedling rot of Brinjal, are the major obstacle of increasing Brinjal production in Batticoloa District. These diseases are difficult to manage by fungicides treatment alone. *Trichoderma harzianum* is an antagonistic fungi, which can control a wide range of pathogens successfully. Information on the integration of *T. harzianum* with fungicide is lacking in Sri Lanka. Therefore a study was carried out to find out suitable fungicides which could be integrated with *T. harzianum* to control the seed and seedling rot of Brinjal.

Experiment was conducted at the Eastern University Agronomy farm. *T.harzianum* and selected fungicides Such as Captan 50% WP, Benlate (Benomyl 50% WP), Diconil (Chlorothanil 75%WP) and Thiram 80% WP were tested alone and in combination for the control of seed and seedling rot of Brinjal. Thirty plastic pots were filled with naturally infested soil. The pots were first treated with *T. harzianum* (100×10^6 spores/mL/pot) 2 weeks before sowing. Different fungicides were treated one week before sowing at the 1997 recommended rate by Department of Agriculture. 50 healthy Brinjal seeds of the variety "Palugamam purple" were sown in each plot. All the treatments were replicated 3 times and arrange in a Randomized Block Design. Untreated pots served as control. Percentage of Germination was calculated one week after sowing to determine the seed rot incidence and dead plants were recorded at 4 weeks after sowing to determine the seeding rot incidence.

No significant differences were observed among the treatments in the control of seed rot incidence. All the treatments influenced the seedling rot disease incidence significantly at $P<0.05$. The combination of Captan+*T. harzianum* was found to be the best with lowest disease incidence(5.33%). *T.harzianum* alone showed 12% disease insidence and was not significantly differ from the combinations, T. harzianum+Thiram (14.00%), T. harzianum+Diconil (14.667%) and T. harzianum+Benlate (15.33%). Diconil, Captan, Benlate and Thiram alone performed 29.33%, 30.667%,26.667% and 28.667% disease incidences respectively and no significant differences were found among them. This study showed that, Captan and Thiram could be selected for integration with *T. harzianum*.

*geretharan@yahoo.com Tel: 065 2240761