

RESEARCH PAPER

Laboratory evaluation of entomopathogenic fungus alone or in combination with edible oils on progeny adult build-up of lesser grain borer on stored paddy

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The entomopathogenic fungi, *Beauveria bassiana* (2×10^6 conidia/g), *Metarhizium anisopliae* (1×10^9 conidia/g) and *Lecanicillium lecanii* (2×10^7 conidia/g) @ 5 g/l as bag treatment and 5g/kg of paddy as grain treatment alone, their interactions and the compatibility of entomopathogenic fungi @ 5g/kg with two vegetable oils (2 ml/kg) viz., sunflower oil and groundnut oil were tested against the progeny build-up of lesser grain borer, *R. dominica*. In the grain treatment, least progeny of 122.33 was observed with *B. bassiana* followed by *M. anisopliae* (130.67) which were at par at 180 DAT. Among the bag treatment, *M. anisopliae* recorded the lower progeny of 266.33 followed by *B. bassiana* (291.00) and *L. lecanii* (298.67) which were at par with each other but were significantly different from control (366.33). In the study of interaction effects, *Beauveria* + *Metarhizium* + *Lecanicillium* had recorded least progeny of 119.67 followed by *Beauveria* + *Metarhizium* (122.00) and were superior over all other treatments. In the study of compatibility of entomopathogenic fungi with edible oils, progeny build up recorded at 180 DAT was found to be less with *Beauveria* + Groundnut oil (118.33) followed by *Metarhizium* + Groundnut oil (121.33) compared to oils alone, sunflower (307.67) and groundnut (252.33) but were significantly different from control (517.00).

Key words : *Beauveria*, *Lecanicillium*, *Metarhizium*, *Rhyzopertha dominica*, Sunflower oil

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