

RESEARCH PAPER

Bioefficacy of different species of entomopathogenic fungi against white grub, *Leucopholis lepidophora* (Blanchard) infesting sugarcane in Maharashtra

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The bioefficacy of three species of entomopathogenic fungi viz., *Metarhizium anisopliae* (Metsch.) Sorokin, *Beauveria brongniartii* (Sacc.) and *Beauveria bassiana* (Balsana) Vuillrmin, against white grub, *Leucopholis lepidophora* (Blanchard) infesting sugarcane crop was studied under laboratory conditions. In this bioassay *Metarhizium anisopliae* fungus caused higher rate of grub mortality at an overall concentration range of 4×10^5 to 2×10^6 conidia ml^{-1} as compared to *Beauveria brongniartii* and *Beauveria bassiana*. The treatments with *Metarhizium anisopliae* fungus was found to be most effective and recorded 34.48-58.62 per cent grub mortality on 15 DAT at different conidial concentrations. The fungi *Beauveria brongniartii* recorded 31.03-55.18 per cent grub mortality, while as in case of fungi *Beauveria bassiana* 24.14-51.72 per cent grub mortality was observed on 15 DAT at different conidial concentrations. The estimated LC_{50} values for *M. anisopliae*, *B. brongniartii* and *B. bassiana* towards third instar grubs of *Leucopholis lepidophora* Blanch. were 9.05×10^5 , 10.44×10^5 and 11.78×10^5 conidia ml^{-1} , respectively.

Key words : *Metarhizium anisopliae*, *Beauveria brongniartii*, *Beauveria bassiana*, *Leucopholis lepidophora*, Sugarcane.

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