

Biocontrol potential of native *Metarhizium* isolates against fall army worm (*Spodoptera frugiperda*)

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ABSTRACT

Entomopathogenic fungi infected *Spodoptera frugiperda* cadavers were collected from maize fields of Krishna Delta regions of Andhra Pradesh. Two isolates of *Metarhizium rileyi*, one isolate each of *Metarhizium anisopliae* and *Beauveria bassiana* were isolated using standard protocols and were identified through morphological characters and molecular techniques at Regional Agricultural Research Station, Lam, Guntur during the year 2023-24. Bioassay studies with native *Metarhizium* isolates against *Spodoptera frugiperda* revealed significant mortality rates with the isolates, *M. anisopliae* Gu1 (61.67%), followed by *M. rileyi* Gu1 (53.3%), *M. rileyi* Gu2 (46.67%) and *M. rileyi* Ch (40.0%). The present studies revealed more than 50 per cent mortality and supported the integration of *Metarhizium* based bio pesticides in integrated pest management strategies for sustainable maize crop production.

Key words: Bioassay, entomopathogenic fungi *Metarhizium rileyi*, *Metarhizium anisopliae*, *Spodoptera frugiperda*