

Field Efficacy of Biocontrol Agents and Microbial Insecticides for The Management of Fall Armyworm *Spodoptera frugiperda* (J. E. Smith) (Lepidoptera: Noctuidae) on Maize in High Altitude Tribal Zone of Andhra Pradesh

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ABSTRACT

The invasive pest fall armyworm, *Spodoptera frugiperda* (J.E. Smith) (Lepidoptera: Noctuidae), was reported for the first time causing severe damage on maize in high altitude tribal zone of Andhra Pradesh, India, during May, 2019. It is causing extensive damage year after year on maize in the tribal mandals of Alluri Sita Ramaraju district. A field experiment was carried out at Regional Agricultural Research Station, Chintapalle during *kharif*, 2022-23 on the validation of bio control agents and microbial insecticides for the management of fall armyworm *Spodoptera frugiperda* (J E Smith) on maize. Among the treatments lowest mean larval population (0.45/plant, per cent plant infestation (8.57) and highest cob yield (67.95q/ha) was observed in T2(Seed treatment with Cyantraniliprole 19.8% + Thiomethoxam 19.8% @ 6ml/kg. + Release of egg parasitoid, *Trichogramma chilonis* @ 20,000 / ac / Release in 1 window (20 DAS)+spraying biopesticide, *Metarhizium anisopliae* (NBAIR Ma 35) @ 5g/lt) at 40DAS followed by T1(Release of *Trichogramma chilonis* @ 20,000 / ac / release, 2 times at weekly interval from 7 days after sowing + spraying biopesticides *Metarhizium anisopliae* (NBAIR Ma 35) @ 5g/l at 10days interval from 20 days after sowing).

Keywords: *High altitude tribal zone, Maize, fall armyworm, Spodoptera frugiperda, Management, Seed treatment, biocontrol agents and Microbial Insecticides.*