

Shatpada Armour – Liquid formulation of *Bacillus thuringiensis* for the management of fall army worm (*Spodoptera frugiperda*)

- **Brand Name:** Shatpada Armour
- **Microbial Constituent:** *Bacillus thuringiensis* (ICAR-NBAIR-BT25 strain)
- **Microbial Culture and accession number:** *Bacillus thuringiensis* var. *kurstaki* ICAR-NBAIR BT25 (NCBIGenBank Accession MN327970; Identification and DNA Fingerprint obtained from ICAR-NBAIM, Mau)
- **Formulation type:** Liquid formulation 1×10^8 cfu/ml, Potency 23064 IU/mg
- **Target pest and crop:** Fall armyworm (*Spodoptera frugiperda*) in Maize.
- **Method of application:** Two to three foliar sprays at 10 to 20 mL/L of water at 10 days interval at 25, 35 and 45 days after sowing; Water required for each spray: 200 L/ha
- **Dosage of application:** 10 to 20 mL/L mixed in water.
- **Target states:** Karnataka, Andhra Pradesh, Maharashtra, Tamil Nadu, Gujarat, Orissa
- **Validation:** Field evaluation carried out under All India Coordinated Research Project on Biological Control (AICRP-BC) at Regional Research Station (RARS), Anakapalle, Andhra Pradesh, Orissa University of Agriculture & Technology (OUAT), Bhubaneswar and Anand Agricultural University (AAU), Anand during 2018-19 and 2019-20.



Effect of Shatpada Armour on maize at Anakapalle, Andhra Pradesh during 2018-19

- **Benefits:** 85-90% reduction in pest; 33-40% increase in yield
- **Commercialization of technology:** Available for licensing. Toxicological data required for CIB&RC registration is yet to be generated
- **Contact:** Director, ICAR- National Bureau of Agricultural Insect Resources, Bangalore-560 024. director.nbair@icar.gov.in