Shatpada MIT-TRI: Multiple insecticide tolerant strain of egg parasitoid, Trichogramma chilonis

- Brand Name: Shatpada MIT-TRI
- Macrobial Strain : Trichogramma chilonis (ICAR-NBAIR-MITS)
- Macrobial Culture deposition & Accession No: Deposited in Arthropod Germplasm Information System (AGIS) & the National Accession No. NBAII-MP-TRI-15
- **Production method:** Selection pressure with multiple insecticides and reared on factitious host insect *Corcyra cephalonica*
- Target pest and crop: Lepidopteran pests of rice, maize, cotton, sugarcane, tomato, brinjal & cabbage
- Method of application: Release of Trichocards
- **Dosage of application:** Release of Trichocard @50,000/ha (5 to 8 releases depending upon the crops) @ 10 days interval.
- Target states: Punjab, Gujarat, Karnataka, Tamil Nadu, Assam, Arunachal Pradesh, Manipur, Orissa, Tripura and Uttar Pradesh
- Validation: The use of strain in 10 states (Punjab, Gujarat, Karnataka, Tamil Nadu, Assam, Arunachal Pradesh, Manipur, Orissa, Tripura and Uttar Pradesh) indicated substantial reduction in sprays and increase in yield, besides fields were free of pest after use of this strain. The revenue increase to farmers ranged from Rs. 15000-20000 / ha / season because of reduced insecticide application and increase in yield. The large scale validation trials were conducted on tomato, brinjal, chillies and rice during summer, *Kharif* and *Rabi* season of 2011-13.

Filed validation of Multiple insecticide tolerant strain of egg parasitoid, *Trichogramma chilonis*





• Benefits:

MITS strain parasitize harmful insect's eggs to the tune of about 60% compared to <5% by the susceptible strain under sprayed condition. However at normal condition, *i.e.*, under unsprayed both behave in similar way. The revenue increase to farmers ranged from Rs. 15000-20000 / ha / season because of reduced insecticide application and increase in yield

• Commercialization of technology: The technology was sold to 4 private companies during 2013 to 2019.

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