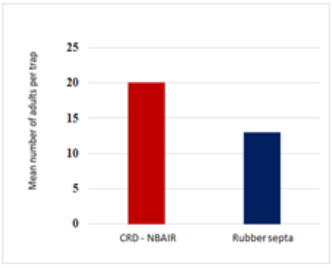
Shatpada: Adsorption and delivery of molecules using nanoporous materials' for use in effective management of Fall Army Worm, *Spodoptera frugiperda*.

- **Brand Name:** Shatpada Controlled release FAW, *Spodoptera frugiperda* pheromone
- **Material:** Mesoporous polymer composite matrix
- **Production method:** Solgel template method
- **Target pest:** Fall armyworm, *Spodoptera frugiperda*
- **Release Method:** Mesoporous matrix (3 mg) is loaded with 1-2 mg of FAW pheromone and housed in 1.5 ml polypropylene tube is hung in a sleeve trap.
- **Dose:** For monitoring 5 traps per acre and for mass trapping 15 per acre. The lure is to be replaced once in 45 days. The traps placement should be at the crop canopy level.
- **Target states:** Maize growing states across the country
- **Validation:** Technology is validated at AICRP on Maize farms at Mandya (Karnataka) and Hyderabad (Telangana)

FAW trap

FAW adults trapped



Effect of Controlled release trap

- **Benefits:**
  The controlled release pheromone lures have better spatiotemporal release and work with a lower load of pheromone and hence cost-effective.
  Monitoring for the incidence of adults will help to initiate the interventions to manage the FAW
  Mass trapping will help to bring down the pest load

- **Commercialization of technology:** The technology ready for commercialization. Technology commercialized to ATGC Biotech Ltd, Hyderabad, Synergy Biotech Ltd, Malur, Karnakata and Dayal Fertilizers, Meerut.

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