

Shatpada: Controlled release dispenser for delivery of semiochemicals.

- **Brand Name:** Shatpada Controlled release pheromone dispenser
- **Material:** Mesoporous matrix
- **Production method:** Solgel template method
- **Target pest:**



RPW



RB

- Tomato pinworm, *Tuta absoluta*
- Coconut rhinoceros beetle (RB), *Oryctes rhinoceros*
- Coconut red palm weevil (RPW), *Rhynchophorus ferrugineus*

- **Method:**

Tomato pinworm: Mesoporous matrix (3 mg) is loaded with 1-2 mg of tomato pinworm pheromone and housed in 1.5 ml polypropylene tube is hung in a sticky trap.

Red palm weevil: Mesoporous matrix (100 mg) is loaded with 100 mg of red palm weevil pheromone and housed in a 1.5 ml polypropylene tube is hung in a bucket trap.

Rhinoceros beetle: Mesoporous matrix (150 mg) is loaded with 150 mg of rhinoceros beetle pheromone and housed in 1.5 ml polypropylene tube is hung in a bucket trap / PVC trap.

- **Dose:**

Tuta : 15 traps per acre to be hung at canopy level for mass trapping.

Rhinoceros beetle and red palm weevil: One to two per hectare based on the damage level. Use bucket traps with food bait for red weevil and PVC traps for rhinoceros beetle.

- **Target states:** Tomato and coconut/arecanut growing tracts across the country

- **Validation:** Tuta pheromone technology is validated at Malur (Karnataka) and Hyderabad (Telangana) RPW and rhinoceros beetle pheromone validated at AICRP Palms centres of Ambajipetta (Andhra Pradesh), Ratnagiri (Maharashtra) and Aliyarnagar (Tamilnadu) (2015 – 2016)



Adult

Larvae

Damaged fruit

Nanomatrix loaded pheromone

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 Tuta, red palm weevil and rhinoceros beetle

Mass trapping will help to bring down the pest load

- **Commercialization of technology:** The technology is ready for commercialization. Technology commercialized to Bannariamman Sugars Ltd, Tamilnadu

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