

In India sex pheromones are commercially available for about 40 insect pests which include mango fruit fly, cucurbit fruit fly, brinjal fruit borer, *Spodoptera litura*, cotton boll worm, pink boll worm, coffee white stem borer *etc.*

### Method of using uzi fly sex pheromone

The sex pheromone can be used along with yellow sticky trap fixed on the doors or windows so that the adult male flies get attracted towards the pheromone compound and get stuck on to the sticky trap, unable to escape and die.

The traps should be placed at the entrance door as well as side wall windows at the window height. A distance of 20 feet should be maintained between two traps.



Pheromone traps will enable to monitor the activity of uzi fly and also to mass trap the males, thus interrupting mating with females.

### Advantages of using sex pheromone traps against uzi fly

- Non-hazardous
- Eco-friendly & easy to use
- As species specific, non-target organisms are not harmed
- Can be used in all seasons
- Uzi flies wont develop resistance
- Uzi fly population can be assessed
- Helps to suppress males ability to locate females for mating, hence reduction in offspring population
- It can be used as an important component in IPM programmes.

*Keep Uzi away from Silkworms through IPM*

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## SEX PHEROMONE TRAP FOR UZI FLY CONTROL



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Uzi fly is an endo-parasitoid of the silkworm inflicting 5–15% loss to the silkworm crop. A single female uzi fly is capable of reducing cocoon yield by ½ kg.

### Occurrence

It occurs throughout the year. The maximum infestation is observed during rainy season (June–September) followed by winter (October–January) and summer months (February–May).

### Symptoms

Presence of black scar on the silkworm body and a circular hole at the tip of the cocoon are the typical symptoms of uzi fly attack.

### Control measures (IPM) followed at present

Exclusion method by fixing wire mesh/nylon net on all doors and windows.

Trapping uzi flies by placing yellow colored attractant solution in white trays both inside and out side the rearing house at window base from brushing onwards up to spinning.



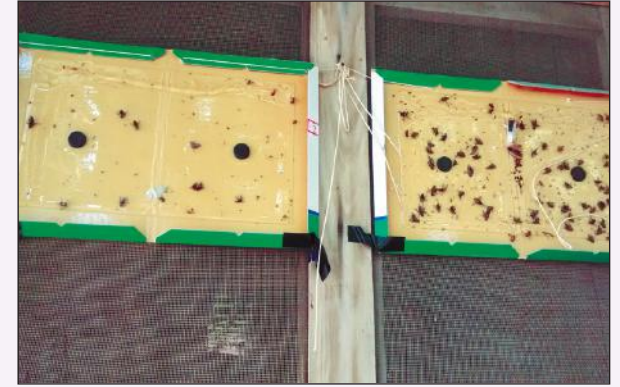
Yellow sticky traps can be fixed on windows or doors which attracts the uzi flies.

Biological method by releasing *Nesolynx thymus* @2 pouches/100 dfls during 5<sup>th</sup> instar.

Cultural method by packing silkworm litter in plastic bags and keeping for a minimum of 15 to 20 days to prevent the emergence of uzi fly from litter.



In spite of the above control strategies, the uzi fly population has not come down to the expected levels in the field. In view of this, CSRTI-Mysuru in collaboration with NBAIR (National Bureau of Agricultural Insect Resources, Bengaluru) has developed a sex pheromone trap in order to bring down the uzi fly population by way of curtailing the mating among the uzi flies.



Uzi flies trapped in pheromone trap  
(Control V/s Treatment)

### What are sex pheromones?

Sex pheromones are natural substances that are produced by special glands in the abdomen of female insects. They attract the males of the same species for mating. They are specific in their biological activity. In the case of uzi fly also, the female produces sex pheromone which attracts the males for mating purpose.

Pheromones have gained popularity in agriculture as one of the components of IPM for monitoring, mass trapping and mating disruption to bring insect pest population below economic threshold level (ETL). Yellow sticky traps can be fixed on windows or doors which attracts the uzi fly.