

## Forewarning

### INTEGRATED PEST MANAGEMENT OF UZI FLY J.B. Narendra Kumar, Viniod Kumar and B.B. Bindroo

Uzi fly, *Exorists bombycis* (Louis) is an endo-larval parasitoid of the silkworm, *Bombyx mori* L. which inflicts a cocoon yield loss of 10 to 20% in the traditional silk producing states of south India and posing constant threat to the existence of silk industry by causing a loss to the tune of Rs. 100 to 200 crore /annum.

**Period of occurrence:** It occurs throughout the year, but more serious during rainy season.

#### Damage and Symptoms:

- It lays 1 or 2 cream colored eggs on each silkworm larva (prefers 4<sup>th</sup> or 5<sup>th</sup> instar larva).
- Eggs hatch in 48 to 62 hours. A black scar is formed at the point where the egg hatches and the uzi maggot enters the body of silkworm. This black scar is the main symptom of uzi infestation.

#### Life cycle:

Fecundity: 350 – 400 eggs @ 1 or 2 eggs/silkworm

Incubation period: 2 – 3 days

Maggot stage: 5 – 7 days

Pupal period: 10 – 12 days

Total life cycle: 18 – 22 days

## MANAGEMENT

### (A) Pre-spinning package:

#### Exclusion Method

Provide wire mesh/nylon net on all windows/doors.

Provide doors with automatic closing mechanism.

Provide anteroom at the entrance of the rearing house.

#### Physical (uzi trap)

Dissolve one table in 1 litre of water and keep the solution in white trays both inside and out side the rearing house at window base from 3<sup>rd</sup> instar onwards.



Uzi fly



Uzi trap



Placement of traps

#### Biological

Release *Nesolynx thymus* (an ecto-pupal parasitoid of the uzi fly) inside rearing house on 3<sup>rd</sup> day of V instar.

After mounting of all spinning worms transfer the same pouches near the chandriks.

After harvesting of cocoons keep the same pouches near the manure pit.

Two pouches are required for 100 dfls.



**(B) Post spinning package:**

**i) Trapping of uzi fly:** Place uzi trap inside the rearing house on all the window base (till the removal of rearing residue) to trap the uzi flies emerging inside the rearing house till rearing residue is removed. Also, keep the door in closed condition which will prevent the uzi flies escaping from the rearing house and further multiplication.

**ii) Packing of silkworm litter:** Most of the uzi fly maggots do pupate in silkworm rearing bed itself, as no cleaning of bed is practiced in shoot system. Therefore, after the completion of the rearing, it is suggested to separate the silkworm litter from the mulberry twigs in rearing bed and pack it immediately in plastic bags and keep outside the rearing house at least for 15 days. This will ensure destruction of all the maggots, pupae and emerged flies available in the litter. From 100 DFLs rearing, 8 to 10 bags of residue is expected. Later the same can be utilized for composting.

**iii) Proper disposal of flimsy cocoons:** Flimsy cocoons should be burnt. Otherwise, they should be kept separately in a container so that uzi maggots, if any, coming out from them can be collected and destroyed.



**Uzi flies trapped inside rearing house after spinning**



**Uzi maggots & pupae in rearing residue**



**Packing of litter in plastic bags**

**Availability of *Nesolynx thymus*:**

Available at Pest Management Lab., CSRTI, Mysore. Place indents indicating the number of pouches required and brushing date of silkworms. Supply is made by courier on receipt of advance payment @ Rs 30 per pouch.

For further details please contact Director, CSR&TI, Mysore  
 pestmlab@gmail.com (0821-2903285)