UZI FLY

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Pest: **A general term for organisms (Insects *etc*.,) which may cause illness or damage or consume food crops and other materials important to humans.**

An organism that is considered a nuisance to man.

- **Major: Uzi Fly**

- **Minor: Dermested Beetle**

UZI FLY

- ***Exorista bombysis***
- **Order: Diptera**
- **Family: Tachinidae**

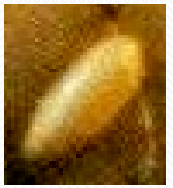
The incidence of this fly is very high in the topical Sericultural region, *Viz*. Bangladesh, Southern parts of China, India, Thailand and Viet Nam.

The extent of damage ranges from 10-30 percent.

LIFE CYCLE

Adults are Blackish gray
Male - 12mm
Female - 10mm
Head - triangular
Thorax dorsal side -four longitudinal black bands
The abdomen is conical

Lays 300-1,000 eggs in 9-25 days.
Size 0.45 - 0.56 x 0.25 – 0.3 mm,
Creamy white, oblong, Hatches in 2-5 days.

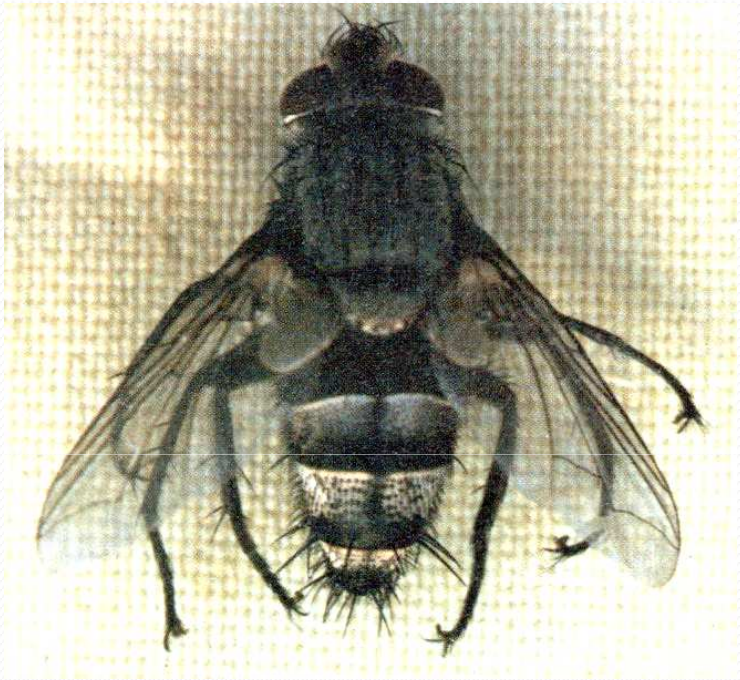


EGG

MAGGOT
Three instars, yellowish white
1.3 -1.6 cm & 11 segments.
In 5-8 days emerges

PUPA
Oblong, Light reddish brown to dark reddish brown . Oval anteriorly & round posteriorly.
Measuring 0.9-1.2 cm x 0.4-0.6 cm.
Adults emerge in about 10-12 days.

ADULT



ADULT UZI FLY

OVIPOSITING ADULT UZI FLY

UZI EGG ON SILKWORM BODY

SILKWORMS BEARING BLACK UZI SCARS

MAGGOT EMERGENCE FROM HOST BODY

MAGGOT EMERGENCE FROM COCOON

DAMAGE

UZI PIERCED COCOONS

PREVENTION AND CONTROL

PHYSICAL METHOD

1. **Providing wire mesh in the doors and windows of the rearing rooms or mosquito net curtains around the rearing stands.**

Rearing House with wire mesh on windows and doors

Rearing House with wire mesh on windows

Creation of an **ANTICHAMBER** at the entry of rearing room.

Rearing House with Antichamber (Side view)

Rearing House with Antichamber (Front view)

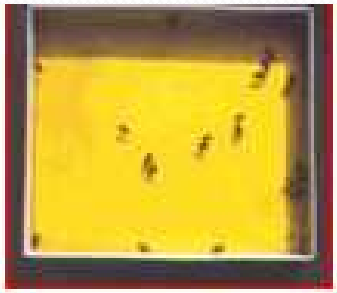
2. Another physical barrier can be created between the uzifly and the silkworm by dusting levigated china clay on the body of the silkworm during mounting which prevents the oviposition by the fly.

Dose 3-4 g per 100 spinning larvae.

3. 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 3rd instar onwards up to spinning.

Place uzi traps inside the rearing house/mounting hall after spinning up to 20 days under close-door condition to trap uzi flies emerging inside.



CHEMICAL METHOD

1. **Uzicide *i.e.*, 1 % Benzoic acid has been developed in India which kills the eggs of the uzifly when applied within 48h of egg laying.**

Treatment repeated on alternate days.

The dosage is 7-8 ml/sq.ft. area.

2. **Spray of 3 % phenol kills the eggs of uzifly.**

Dusting of diflubenzuron @ 2.5 %, with levigated china clay as diluent on maggots/pupae give rise to sterile adults.

BIOLOGICAL METHOD

Practically every crops **pest** has its natural enemies in the form of **parasites, predators** and **disease causing organisms**.

Control of uzi fly through biological means use of *hyperparasitoids.*

Parasite: An organism which lives in or on another organism (its host) and benefits by deriving nutrients at the other's expense

Hyperparasitoid:

Parasitic during the larval stage of its life cycle but becomes free-living when adult

A number of parasitoids parasitizing on uzifly have been identified as follows:

Sl. No.	Name	Family	Nature	Status
1	*Nesolynx thymus* 	Eulophide	Ecto-Pupal parasitoid	Gregarious
2	*Trichopria spp.* 	Diapriidae	Endo-Larval-Pupal parasitoid	Gregarious
3	*Exorista philippinensis*	Encyrtidae	Endo-Larval-Pupal parasitoid	Gregarious
4	*Dirhinus himalayanus* 	Chalcididae	Ecto- Pupal parasitoid	Solitary

Sl. No.	Name	Family	Nature	Status
5	*Brachymeria lugubris* 	Chalcididae	Ecto- Pupal parasitoid	Solitary
6	*Spilomicrus karnatakensis*	Diapriidae	Ecto- Pupal parasitoid	Solitary
7	*Spalangia cameroni*  Parasitizing adult  Empty Puparium	Ptermalidae	Ecto-Larval pupal parasitoid	Solitary
8	*Pachycrepoideus vindimmae*  Parasitizing adult	Pteromalidae	Ecto-Larval pupal parasitoid	Gregarious

Acknowledgements to

1. Internet
2. Hand book on pest and disease control of Mulberry and Silkworm, United Nations, Thailand 1990.

Thank You