

Uzi Fly

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Experiment No. 13: Life cycle of Uzi fly, Identification of uzi infested silkworms and cocoons.

Exorista sorbillans

Class : Insecta

Order: Diptera

Family: Tachinidae

The incidence of this fly is very high in the topical Sericultural region, viz., Bangladesh, Southern part of China, India, Thailand and Viet Nam. The extent of damage ranges from 10-30 percent.

Morphology

Adults: Adults are blackish gray in colour. Male is longer than female. The Head is triangular in shape. On the dorsal side of the thorax, there are four longitudinal black bands. The abdomen is conical. Of the abdominal segments, the first one is black and the rest grayish-yellow. Life span of adult flies varies with sex and season. Males survive for about 10-18 days. Females live 2-3 days longer than the males. Survival period is less during summer months.

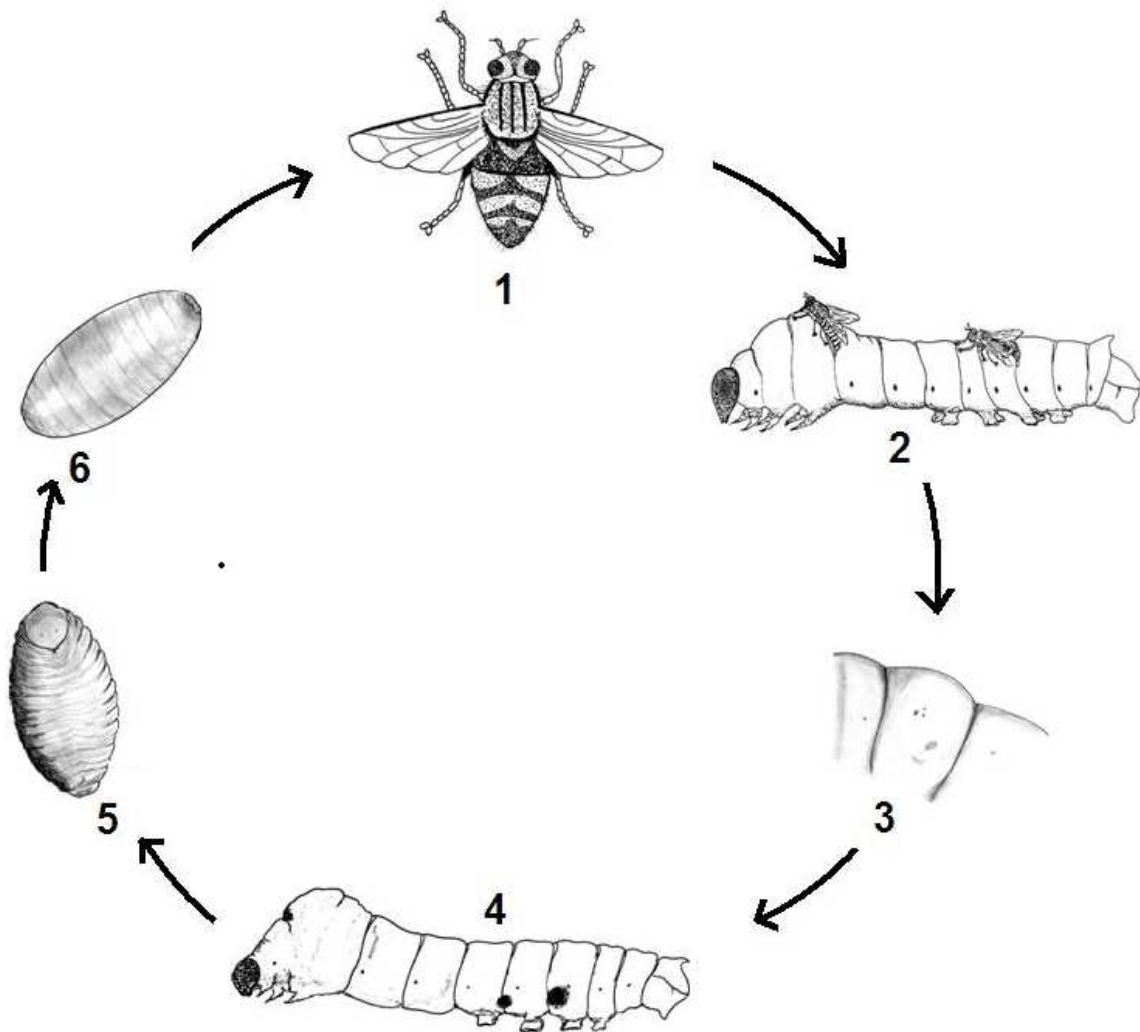
Egg: Eggs are macro type and creamy white in colour. The eggs measures 0.45-0.56 mm in length and 0.25-0.30 mm in width. They are oblong in shape and hatch in about 2-5 days after oviposition depending upon the climatic condition. Once hatched, the maggot penetrates into the body of the silkworm.

Maggot: The young maggot hatches out of the eggs shell through the operculum which generally faces the silkworm body. The newly hatched maggot directly penetrates into the silkworm body. Maggots pass through three instars. In the first two instars, they develop just below the skin of the host body and in the final instar they leave this site and move into the body cavity. Maggots of first and second instars are yellowish- white in colour and measure 1.3-1.6 cm in length. Maggots have eleven body segments. The mature maggots escape from the host body by piercing the integument by its pro- thoracic hooks. They feed on various tissues of the silk worm body and the host larva dies by the time the maggots are mature to escape out from the host body.

Pupa: The escaped mature maggot pupates in darker area in and around the silkworm rearing house. Pupae are oblong in shapes somewhat oval anteriorly and round posteriorly. They are light reddish brown to dark reddish brown in colour. Body has 11

segments and measuring 0.9-1.2 cm in length and 0.4-0.6 cm in lateral width. Adults emerge in about 10-12 days.

Life Cycle of Uzi Fly



1.Uzi Fly

2.Adults depositing eggs on silkworm

3.An egg on host body

4. Black scar on silkworm body

5. Maggot

6. Pupa



Uzi Infested cocoons

Damage: The silkworm larvae infested up to early fifth instar will die before they reach the spinning stage. If infestations take places in the late fifth instar the mature maggot

comes out by piercing the cocoons and thereby rendering the cocoons unfit for mass reeling. Infested silkworms can be identified by the presence of black scar on the part of the skin where the maggot penetrates into the body.

Prevention and Control:

1. Maintenance of sanitary and hygienic conditions during rearing.
2. Creation of a physical barrier by providing wire mesh in the doors and windows of the rearing rooms or mosquito net curtains around the rearing stands.
3. Dusting of levigated china clay on the body of the silkworm prevents the oviposition by the fly.
4. A commercial formulated uzicide has been developed in India which kills the eggs of the uzifly when applied within 48h of egg laying.

REFERENCES

1. Anonymous, 1990, Hand book on pest and disease control of mulberry and silkworm, United Nations, Thailand.
2. Krishnaswamy, S., Narasimhanna, M.N., Suryanarayan, S.K., and Kumararaj, S. 1976; Sericulture Manuals, Vol. 2, Silkworm Rearing, FAO, United Nations, Rome.
