

**Mungbean Insect Pests**

# Beanflies

*Ophiomyia phaseoli*, *O. centrosematis*, and *Melanagromyza sojae*

Found in tropical and subtropical Asia



## Damage symptoms

There may be wilted or dead seedlings, and leaves of older plants may be yellow and stunted. Stems are thicker than normal and cracked lengthwise just above the soil. In cases of heavy infestation in scattered areas in the field, many plants die.

## Insect characteristics

Chewing mouthparts. The immatures are small white maggots with brown heads. Adults are tiny black flies with transparent wings, about 1/4 the size of a common housefly.

## Where to look

Larval feeding occurs mostly in the main stem just above the soil line. Since feeding is internal, the main stem must be cut open to find tunneling and the small white maggots.

## Technical information

These pests are important only during the seedling stage (up to 4 weeks after germination). The life cycle may be completed rapidly, often in less than 2 weeks. Generations are continual in tropical areas. Pupation occurs inside the stem and eggs are laid in punctures of leaves near the petiole. Maggot feeding facilitates the invasion of plant pathogens.



Maggot feeding inside stem



Adult

## **Control**

The critical period is the first three to four weeks after germination. Weekly spraying of monocrotophos, dimethoate or omethoate during the first four weeks is effective against *O. phaseoli*, *O. centrosematis* and *M. sojae* on mungbean, soybean, cowpea and snap bean. Systemic insecticides, such as phorate and carbofuran, when banded along the seeds at sowing can give satisfactory control of *O. phaseoli*.

Carbofuran or carbosulfan can be coated on seeds before sowing. Such treatment protects plants against bean flies for two to three weeks. One or two additional sprays of one of the three insecticides mentioned above may be necessary to further protect the crop.

Various cultural practices such as ridging of young plants, planting after green manure crop, crop rotation, fertilization and mulching with rice straw enhance plant growth and induce tolerance to bean fly damage. Avoid late plantings since infestations of bean fly are heavier then.

The benefits of using predators or parasites are limited due to the hidden mode of egg, larvae and pupal stages of bean fly.

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Last updated: 2001.

Information from: Field Guide: Insect Pests of Selected Vegetables in Tropical and Subtropical Asia. 1995. B.L. Parker, N.S. Talekar and M. Skinner. Publication 94-427. Pesticide and other control recommendations can be modified to suit local conditions.