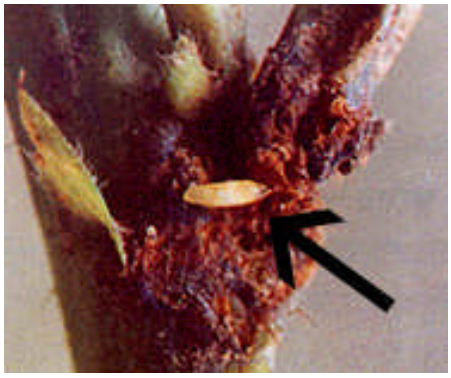
Soybean Insect Pests



Beanflies

Ophiomyia phaseoli, O. centrosematis, and Melanagromyza sojae

Found in tropics

Damage symptoms

Plants are yellow and stunted. Stems are often thicker than normal and cracked lengthwise just above the soil line. In cases of heavy infestation, many plants die.

Maggot inside the stem

Insect characteristics

The larva is a small white maggot with a brown head. The adult is a tiny black fly with transparent wings, about 1/4 the size of a common housefly.

Adult

Where to look

Larval feeding mostly occurs in the main stem just above the soil line. Since feeding is internal, cut the main stem open and look for mining and the small white maggot.

Technical information

All beanflies prefer to feed on young plants. The life cycle of beanflies is completed very rapidly often in less than 2 weeks. Generations are continual in tropical areas. Pupation occurs inside the stem and adult egg-laying activity occurs mainly in the leaves near the petiole.

Pupa inside the stem

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.

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 should be adapted to local conditions.