

Management of Leaf miner fly

Recognize the problem

The adult is a small, greyish-black fly, around 1.3-2.3 mm in length. It has a bright yellow central area of the scutellum and bright yellow areas of the head and pleura. It may be distinguished from other species by its head and leg yellow parts which are a darker orange-yellow. Larvae are yellow-orange maggots of up to 3.25mm in length. They pupate in soil, in the plant debris or in the fallen leaves near the host.

Damage is caused by larvae mining into leaves and petioles. Feeding punctures appear as white speckles between 0.13 and 0.15 mm in diameter. The larva is primarily a leaf miner. Mines are white with dampened black and dried brown areas and are usually associated with the midrib and lateral leaf veins. Several larvae feeding on a single leaf may produce a secondary 'bloth' mine type and leaf wilting may occur. In potato, feeding punctures can often be seen all over the growing plant, giving the impression that a generalized outbreak of larval infestation is in process.

Background

The leaf miner fly is a serious pest of potato, vegetable and ornamental plants in the field and in glasshouses in many parts of the world. It has recently become a key pest of potato in the central region of Nepal. It is also becoming a serious pest of tomato, legumes and other vegetables.

Management

- Collect and destroy severely mined leaves
- Use yellow sticky traps in the crop field for monitoring and mass trapping purposes. Paint a 2m X 50cm white polythene sheet with glue prepared by mixing wood gum (0.5 l), paper gum (0.5 l) and yellow dye (20 g)
- Apply 1-1.75 kg of ash of *Lantana camara* per 200 sq m plot, neem product- Margosom (0.15% w/w azadirachtin) @ 5 ml/litre of water or Rogor 30 EC (dimethioate) @ 1 ml/ litre of water to manage potato leaf miner larvae
- Spray fruit extracts of chinaberry as a feeding deterrent to adults and to reduce egg laying
- Apply abamectin 2% EC @ 1.5 ml /litre of water at 3-4 days interval
- Spray deltramethrin 2.8% EC @ 1 ml per litre water for managing adults

Adult. (Photo by Merle Shepard, Gerald R. Carner, and P.A.C Ooi, Bugwood.org)



Tunnel damage on potato leaves. (Photo by Plant Protection Service Archive, Plant Protection Service CC BY-NC)



When using a pesticide, always wear protective clothing and follow the instructions on the product label, such as dosage, timing of application, and pre-harvest interval.

Scientific name(s) > *Liriomyza huidobrensis*

The recommendations in this factsheet are relevant to: India, Nepal, Sri Lanka



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Edited by Plantwise.