

LEAFMINERS

Description

Leafminers is a general term describing a number of flies and moths that lay their eggs between two layers of leaf tissue. The larvae hatch and feed within the leaves, causing characteristic tunnels and blotches. Damage made by the leafminer usually contains dark coloured wastes left by the larvae. Foliage may be disfigured and turn brown, reducing vigour of the plant.

To prevent leafminers, control weeds that may be alternate hosts and remove and destroy all infested tissue.

Specific Leafminers

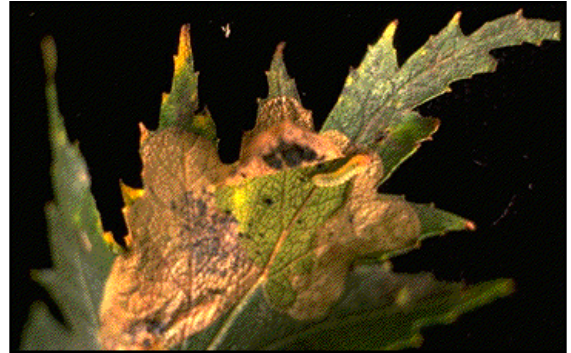
Azalea Leafminer (*Caloptilia azaleella*)

Golden yellow moths have a wingspan of 12 mm and a 10 mm long body. Larvae are small, yellowish and move rapidly forward and backward. They burrow into leaves, cause brown blister-like mines, and emerge to roll leaves and chew holes. White eggs are laid under leaves with 2 to 4 generations emerging per season and pupation taking place in rolled leaves.



Azalea Leafminer

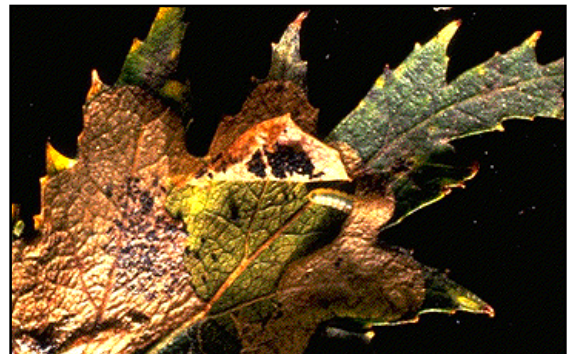
A. Antonelli



Leafminer on *Betula*

Birch Leafminer (*Fenusa pusilla*)

A black sawfly about 1.5 mm long. The caterpillar-like, light green miner is up to 5 mm long. Pupae overwinter in the soil under trees, changing to the adult stage in spring after mid-April. Eggs are laid in the unfolding young leaves, hatching to start mining before leaves fully unfold. Larvae emerge from leaves and drop to the ground to pupate, adults emerge in June. Three to four generations are possible, with the first generation being the most destructive on young foliage.



Leafminer on *Betula*

Boxwood Leafminer (*Monarthropalpus buxi*)

This insect overwinters in the larval stage within leaves. It emerges in May and lays eggs in the upper surface of the leaves, causing small puncture marks that show on the undersides. Larvae feed within the leaf, causing, spotting, yellowing, and premature death. Branches die, and the plant may get secondary infections from fungal or bacterial diseases.



Boxwood Leafminer

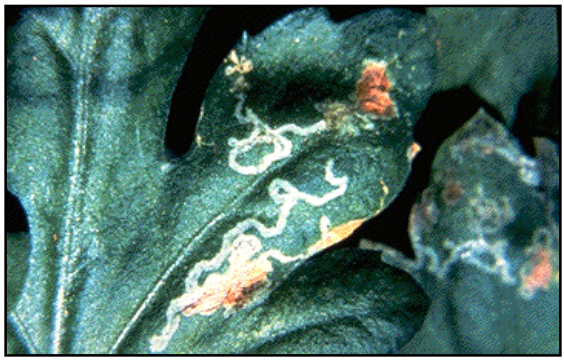
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Chrysanthemum Leafminer (*Liriomyza trifolii*)

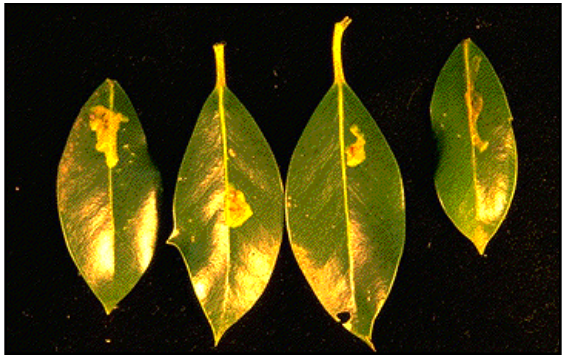
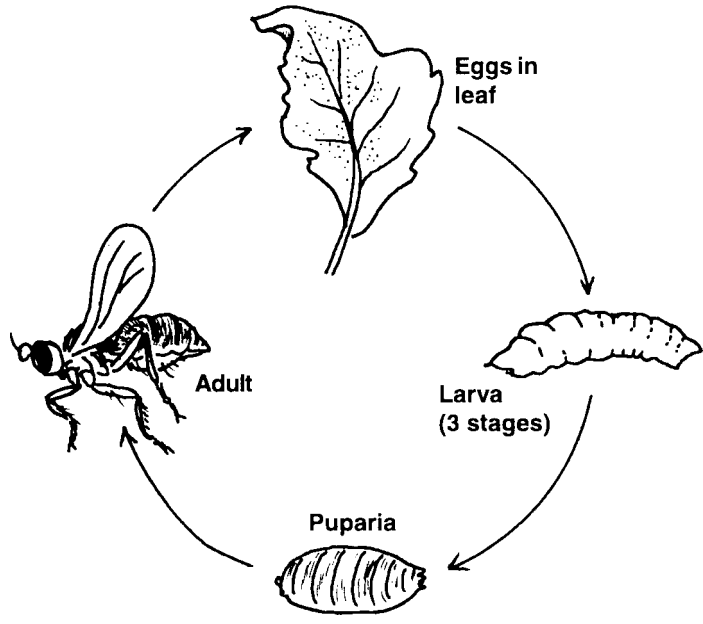
A pest on chrysanthemum and several other ornamental plants. Adults are about 2.5 mm long with black and yellow markings. Females puncture leaves and lay eggs. These sites are speckled or stippled, usually near the leaf tip. After 2 to 5 days, the eggs hatch and the larvae feed inside leaves, causing snake-like tracks. After 5 to 7 days of feeding, larvae cut a hole in the leaf, emerge, and drop to the ground to pupate. Adults emerge in 10 to 12 days. Two generations occur per season, with the second overwintering as pupae.



J. Matteoni

Chrysanthemum Leafminer

**Leafminer Life Cycle
24 - 30 days**



Holly Leafminer



Leafminer on *Syringa*

Holly leafminer (*Phytomyza ilicis*)

The 12 mm long, greyish black flies emerge in May. They puncture leaves and feed on sap, causing stunted and distorted leaves. The young miners emerge from eggs deposited in slits on lower leaf surfaces and feed inside the leaf, causing blotches and mines.

Lilac Leafminer (*Caloptilia syringella*)

A small moth having a wingspread of 12 mm. The forewings are brown, mottled with silver, with two silvery bands across the middle. Larvae are greenish-white while in the mines, but turn darker later when they feed in the rolled leaf tips. Winter is spent in the pupal stage in the ground beneath the plant. Moths emerge in spring and lay eggs on the leaves. The larvae emerge and bore into the leaves where they feed at first. Then they exit and roll the leaf, continuing to feed in this position until full grown in mid June. They emerge as moths in July and lay eggs; larvae from these eggs pupate and overwinter.