



Kimberly Schofield
Program Specialist- IPM
k-schofield@tamu.edu

Mining the Leaf

Moving plants indoors during the winter allows for excellent breeding conditions for many insects. One of these flying insects is a leafminer agromyzid fly in the genus *Liriomyza*. *Liriomyza* leafminers can be found on numerous outdoor plants, including chrysanthemums, asters, zinnias, marigolds, daisies, eggplant, carrot, potato, garden peas, lettuce, tomato, cucumber, and pepper plants.

Adult leafminers are 1/16 inches in length with grayish-black bodies and yellow markings. The female flies insert their eggs into the leaves. The eggs hatch usually in 2 days into 1/16 inch larvae. These whitish-yellow larvae cause plant damage, by tunneling through the leaf tissue. As the larvae mature, the tunnel or mine gets larger in size. After 7 or 8 days, the last larval stage emerges from the leaf to pupate in the soil. The adult fly will emerge usually in 7 to 11 days. The lifecycle from egg to adult may last all year, if the leafminer is in a controlled environment.

The white tunnel that appears on the leaf is both unappealing to the eye and can cause leaf drop in some instances. Leaf mines reduce the value of the crop and they can reduce the photosynthetic ability of the plant. If large populations exist, they have the potential to retard growth of young plants and lower fruit yield.

Some Control Options

Some Cultural Control Options:

- 1) Prune off and dispose of infested leaves and branches.
- 2) Properly irrigate and fertilize plants to ensure healthy plants.
- 3) Plant cultivars that are more tolerant to leafminer attack.
- 4) Cover the soil with plastic to prevent larvae from pupating.

Some Chemical Control Options:

Organics sprays such as horticultural oil, neem and spinosad can be used to control leafminers.

Systemic insecticides such as acephate and imidacloprid can be used to control leafminers.



Photo of leafminer adult, *Liriomyza sp.* Photo by: Texas AgriLife Extension Entomology, Department of Entomology, Texas A&M University.

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