

# Invasives

## Allium Leafminer (*Phytomyza Gymnostoma* Loew)

by Lisa Gee

There is a new pest on the horizon and we need to be on the watch out for it. This leafminer was first described in 1858 and is native to Poland and Germany. The first confirmed case in the Western Hemisphere was in December 2015 in Lancaster County, PA. It is more likely to affect organic, non-commercial farms and homeowner gardens.

Allium leafminer, as the name suggest, likes host plants of leeks, onions, garlic, chives, shallots and green onions. It is not known how they may affect ornamental species at this time. It has been found that there are high rates of infestation from 20-100 pupae per plant. Damage from



Allium leaf miner pupa extract from leek.  
Photo credit: L.Donovall, USDA APHIS  
[www.agriculture.pa.gov](http://www.agriculture.pa.gov)

the feeding and mining soften the plant parts and leave the plant susceptible to bacterial and fungal infestation.

The adult females leave repeated punctures in the leaf tissue, with their ovipositor, in a linear pattern towards the distal end of the leaves. This may be the first sign of damage to the plant. The leaves may be wavy, curled or distorted. The males and females feed on the exudate of the plant. The larvae mine the leaves and move into the bulbs and leaf sheathes where they pupate. You will have to pull the leaves back to find the insect. The pupae can overwinter either in plant tissue or the soil. There are two generations of leafminers with the first generation emerging in September and October and the second generation overwintering and emerging March to May.

Adults are small, 3mm, grey or mat-black colored flies with a yellow or orange patch on the top and front. They also have yellow on the side of the abdomen and on the "knees" of the leg. There are white halteres and the wings are horizontal over the abdomen. Eggs are 0.5mm and white. The larvae are white, cream or yellowish headless maggots up to 8mm long at the final instar. The



Photo credit: Sven Spichiger, Pennsylvania Department of Agriculture.  
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pupae are dark brown, 3.5mm, with posterior spiracles.

The management of this pest can include yellow sticky cards, a yellow bowl with soapy water, delaying of planting until after mid-May and covering plants in February and again when the second generation are due to emerge. Of course there are systemic and contact insecticides as well. Remember to read all labels to make sure the insecticide will treat what you want it to and that you are applying it correctly at the right time.

If you suspect that you may have this new pest notify the Department of Agriculture office or the Cooperative Extension.



Photo credit:  
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