

Allium Leaf Miner

This leaf mining fly is now well established throughout the Birmingham allotments, it attacks all Allium crops particularly leeks & onions. Whilst it has been identified in Europe for many years it did not arrive here until 2003 when it was discovered in Wolverhampton. This is now a very serious pest as it has the potential to totally destroy your crops during a heavy infestation, and at best it will render most plants inedible.

The pictures show the tell tale distorted leaves of onion plants during the early stages of grub attack. First generation adults emerge in late March - April and lay eggs around the base of leaves, or in the stalks of the plants. White/cream larvae hatch and feed inside the plant tissue before pupation. The pupae are 3-4mm long and orange or brown in colour. In leeks they are most easily found by peeling back the leaves when you will notice the brown tunnels or even the grubs and pupae. Second generation adults emerge October - mid November, lay their eggs and the cycle begins again. The pupae from this second generation are known to over-winter in the soil.

The symptoms

In leeks, the most obvious indicator of the pest is the presence of 3mm-4mm long orange-brown puparia towards the base of the leaves, either wholly or partially embedded in the mines, or seemingly wedged between the leaves.

The easiest way to find them is to peel back the outer leaves to reveal the puparia towards the base of the plant. In onion infestations, the puparia are embedded in the bulbs and can only be seen by peeling away successive layers.

The leaves of the onion plants can be deformed, curled and wavy, not unlike an infestation of the stem nematode *Ditylenchus dipsaci*. Feeding punctures are sometimes visible on the distal part of the leaves, arranged in linear strips.

It is usually difficult to see direct evidence of mining, because there is often a considerable amount of associated rotting towards the base of the leaves. In fact, much of the damage to leeks, resulting from the presence of this pest, is secondary infection in the open wounds that it creates, particularly tissue rotting. If visible, the mines are narrow and linear, and the larvae are off-white maggots approximately 5mm long.

What to do

The only known ways to defeat the pest is to

- Destroy all infected plants.
- Practise crop rotation.
- Only grow alliums under fleece or environmesh tunnels.
- Or delay planting until May - harvest before October.



Allium leaf miner: puparium in situ on onion bulb with outer layers removed

