



Leek Moth 2010 Update

(*Acrolepiopsis assectella*)

Host Plants and History

Leek moth is a serious pest of members of the *Allium* family: onions, garlic, leeks, chives and shallots.

The first confirmed sighting of leek moth in the United States was in Plattsburgh, NY during the summer of 2009. It is native to Europe and is now found in Russia, Japan, Algeria and in Ontario and Quebec, Canada. It was first found in Ontario in 1993. As of June 2010 it has been found again in Plattsburgh and now in Canton/Ogdensburg, NY.

Description

The adult moth (*figure 1*) is speckled brown, white and black with a distinctive white spot halfway down its outer pair of wings. It is about 3/8" long and is nocturnal so it will be rarely seen unless trapped.

The larvae (*figure 2*) are creamy yellow, slender, and less than a half inch long when fully grown. The pupa (*figure 3*) has a net-like structure over the cocoon and is attached to dying foliage.

Damage

On crops with hollow leaves (onions and chives) the larvae feed on the inside tissue, leaving characteristic 'windowpane' damage to the leaves (*figure 4*). On garlic and leeks larvae feed on the leaf surface but do not usually feed all the way through the leaf. They are often found in the protection of the folded leaves on leeks and garlic.

Look for whitish dead patches or streaks running lengthwise down the leaves. On onions, split open damaged leaves to look for the caterpillar. Feeding damage has also been seen on the flowering scapes of hardneck garlic.

The first generation (May-June) feeds on the leaves. The worst damage is done by the second generation (July-August) as it moves down the leaves into the bulb. Feeding damage stunts plant growth, introduces rot and can compromise the storage life of onions and garlic.

Life Cycle

There are two to three generations a year in Ontario. It overwinters as an adult in plant debris. The female lays about 100 eggs, singly, at the base of the host plant. Eggs hatch in about a week. Larvae (caterpillars) grow in size over the next two weeks then pupate on dead leaves or nearby structures. Adults emerge about 10 days later.



Fig. 1 Adult leek moth



Fig. 2 Larva (caterpillar) on garlic leaf



Fig. 3 Pupa (cocoon)



Fig. 4 'Windowpane' damage on onion leaves

Control

As of June 2010 there are no pesticides specifically labeled for use on leek moth in New York. Entomologist researchers at Cornell's Geneva Experiment Station are studying possibilities. Check back with our office (see contact information at bottom of page) for further developments.

Meanwhile, cultural control methods include:

- Using row cover immediately after planting as a barrier to prevent adults from laying eggs on desirable host crops
- Crushing any larvae or pupae found
- Rotating crops, planting in a different location each year
- Raking up and removing host plant debris at the end of the season where adults overwinter

There are other pests that damage onions and leeks, such as thrips and slugs (see below)



Thrips damage to onion leaves. Thrips are a common pest on onions. They feed on the outside of the leaf, rather than tunneling down the inside of the leaf, and cause speckled damage rather than long streaks. Thrips are tiny, about 1/8" long.



Slug damage on a corn leaf. Slugs tend to shred leaves, usually all the way through, rather than making 'windowpanes'.

If you suspect leek moth damage on your onions, garlic, leeks or chives please contact your local Cornell Cooperative Extension office. There is no charge for diagnosing.

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