

TECHNICAL DATA SHEET



COMMERCIAL PCOs



AGRICULTURE



FORESTRY



GREEN SPACES & HORTICULTURE



INVASIVE EXOTIC SPECIES

LEEK MOTH (*Acrolepiopsis assectella*)

Adult:

The Leek Moth measures 5 to 7 mm long with folded wings, and is distinguishable by the white triangular mark in the center of its forewings. The forewings are brown, while the fringed lower wings are shades of pale gray and black. The wingspan is 12 to 15 mm.



Figure: Leek Moth at rest (side view). Source: Jean-François Landry, Agriculture and Agrifood Canada

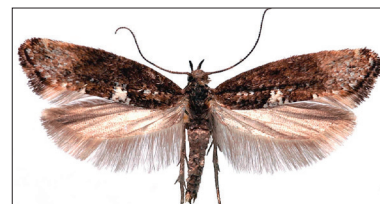


Figure: Leek Moth at rest (side view). Source: Jean-François Landry, Agriculture and Agrifood Canada

Chrysalis (pupa): approx. 10.0 mm, beige silk cocoon (lace-like appearance)

Larva: 10.0 to 12.0 mm (mature), light-green in color

Egg: transparent, iridescent, oval, 0.4 to 0.5 mm, deposited singly on leaves on the underside of host plants near the foot of the plant

Distribution: Africa, Asia, Europe, North America: Canada (Ontario, Quebec, Prince Edward Island, New Brunswick), New York State

Hosts: Leek, garlic, chives, French shallot, dry onion, green onion

Damage: Leek moth larvae attack all parts of the plant, except the roots. The wounds created by the larvae serve as entry points for secondary pathogens. In the case of leeks, the larvae mine the leaves, rendering the crop unmarketable. In the case of garlic, larvae can reduce yields, cause rotting, and work their way into the bulb before harvest.

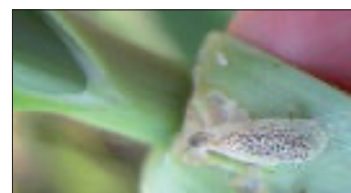


Figure: Leek Moth pupa on garlic leaf. Source: Andrea Brauner, Agriculture and Agrifood Canada



Figure: Damage caused to garlic leaf by Leek Moth larvae. Source: <https://www.ontario.ca/page/leek-moth-pest-allium-crops>



Source: Seeds of Diversity

Generations (and flight cycle): Up to three generations per year

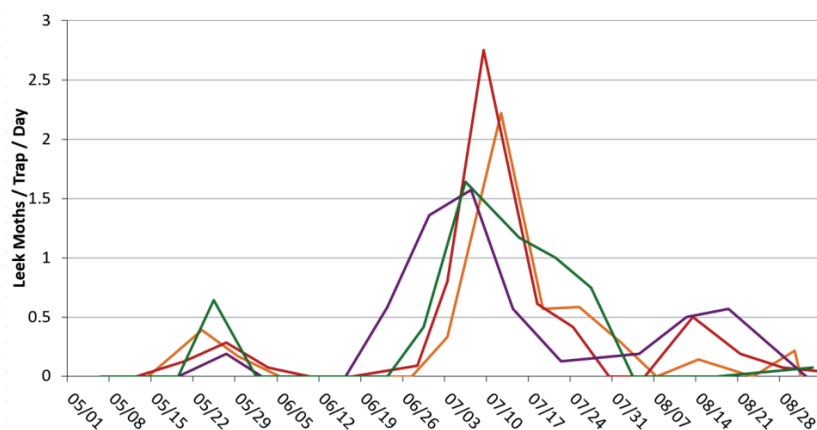


Figure: Leek moth populations tracked by two Delta 1 traps in one county in Ontario. Colours correspond to different years: Orange 2019, Red 2020, Purple 2021, and Green 2022.

Source: <https://onvegetables.com/2023/05/17/leek-moth/>



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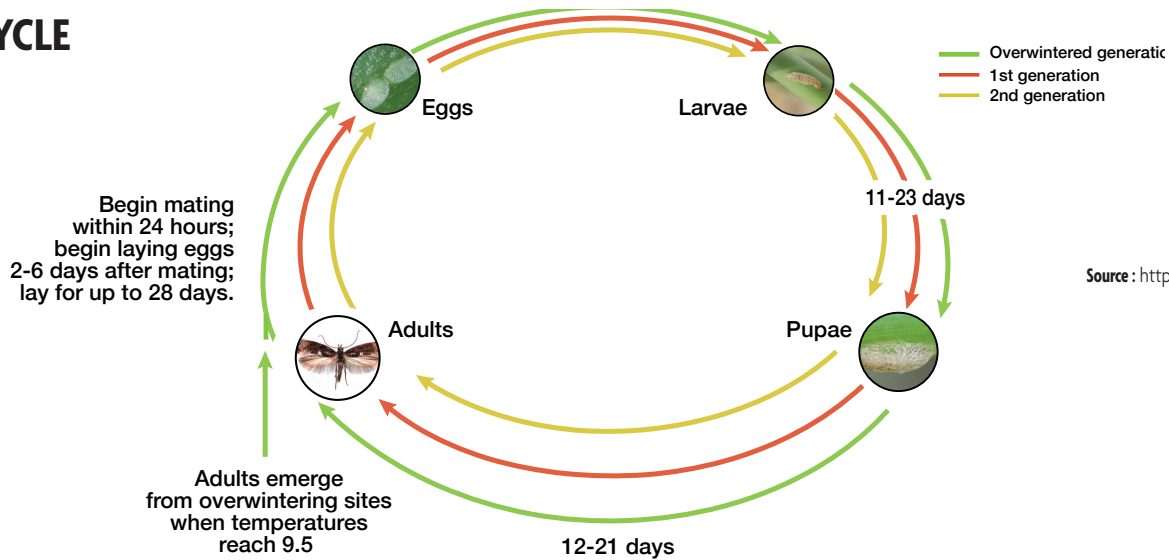


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LIFE CYCLE



Source : <https://www.ontario.ca/page/leek-moth-pest-allium-crops>

MONITORING

Presence of adult moths: From the end of April when the temperature reaches 9.5°C

Trap positioning:

Hang the traps just above the leaves on wooden stakes. Set up two traps per field, close to the edges and places where leeks or garlic have been grown previously, spaced at least 40 metres apart.

The pheromone can be pierced with a paper clip and suspended inside the trap or dropped directly onto the sticky trap surface. **Avoid handling the pheromone with bare hands.**

Check traps periodically (at least once a week, depending on insect population).

We recommend replacing pheromones every 3-4 weeks for optimum results (change sticky liners weekly or as needed).

Unused and unopened pheromone lures can be stored 2-3 years in a freezer (in their original packaging).

RECOMMENDED MONITORING TOOLS:

Garlic:

- 2 Delta I traps
- 8 pheromones
- 20 sticky liners

Leeks:

- 2 Delta I traps
- 12 pheromones
- 30 sticky liners



Figure: Delta I trap set up in garlic field. Source: Travis Cranmer, <https://onvegetables.com/2023/05/17/leek-moth/>



Pheromone has a shelf life of 2-3 years in the freezer (in its original packaging).

Figure: Adult Leek Moth on sticky trap liner accentuated by the tip of a paperclip. Source: Travis Cranmer, <https://onvegetables.com/2023/05/17/leek-moth/>

Useful Links:

- <https://onvegetables.com/2023/05/17/leek-moth/>
- <https://www.ontario.ca/page/leek-moth-pest-allium-crops>
- <https://inspection.canada.ca/en/plant-health/invasive-species/insects/leek-moth/fact-sheet>



solida.ca info@solida.ca 418-826-0900

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