

## Leek Moth News

### Living with the Leek Moth -- An Organic Approach

By: Paul Pospisil, Master Gardener Emeritus

This article, originally published in the March 2003 issue of the Garlic Newsletter, has been updated from findings of the Ottawa Valley Leek Moth Project and other current information.

#### Management

The basics of a good management program are:

##### Identification

Early detection

Prevention

Destruction

Following good garden practices.

#### Identification:

1. Learn to identify and recognize the leek moth in all its stages and by the damage it does to your garlic.

#### Early detection:

2. INSPECT, INSPECT, INSPECT. Watch temperature for first emergence. Use an outdoor thermometer. The Leek Moth starts flying when temperatures reach 9-10 deg C, usually about the 2<sup>nd</sup> week of April. So, you have to start checking daily. The moth lays eggs singly on different plants, soon after. Each female lays up to 100 eggs over her 3-week lifespan so the pest multiplies quickly. The eggs start hatching into larvae in 3-10 days, depending on temperature. It's the larvae that do the damage. Watch for the signs of feeding damage by a daily or regular walk through inspection.

3. Set out pheromone traps if you want to find out when the moths are mating.

#### Destruction:

4. Home gardeners can crush the larvae by hand. The more you find and destroy at this stage, the fewer there will be for the 2<sup>nd</sup> and 3<sup>rd</sup> generations.

5. You can spray with *Bacillus thuringiensis* (Bt) a naturally occurring bacterial disease of insects used as an insecticide (type *kurstaki*, Btk, is recommended). Conventional growers now have a choice of approved pesticides. Spraying is recommended by OMAFRA as being very successful. However, there are doubts as to the practicality of spraying – you would have to spray at least weekly for 2 ½ months as the larvae are hatching daily!!

6. Moving earwigs from your lettuce and flowers is a useful measure as these omnivores feed on the pupae.

#### Prevention:

7. Use floating nylon row cover to prevent the moths from laying eggs on the garlic. Trials conducted by the Ottawa

Valley Leek Moth Project demonstrated their success on a 1-acre plot of garlic.

8. Carefully inspect both your own seed garlic and that sold or given to others to prevent further spread. Braids require special attention.

9. Follow good garden practices such as:

- a. At scaping time, burn or deep-bury any scapes found with evidence of the leek moth.
- b. At harvest time, carefully inspect each plant for damage, cocoons or the larvae as you handle it. Set aside damaged ones for examination. Burn or deep-bury all residue from harvesting and cleaning of bulbs.
- c. Turn under the soil in garlic plot right after harvest to destroy any cocoons or eggs on the surface.
- d. Inspect all other alliums in your field or garden. The leek moth attacks leeks, onions, chives, shallots and even flowering alliums.
- e. Check garlic curing and storage areas. You can hang a pheromone trap for detection and use one of those electronic zappers to kill flying moths.

10. DONT PANIC if you discover the leek moth in your beautiful garlic. With the spread of this pest, it's only a matter of time before it will find your plot.

11. For the future, the parasitoid research will hopefully come up with an effective biological control method to reduce leek moth populations. However, this project is just at field trials stage so the results are yet to be seen.

12. The leek moth is here to stay so growers must have a pest management program to minimize crop loss.

#### References:

1. Past issues of the Garlic News
2. Factsheet AGDEX 625/252, Leek Moth - a Pest of Allium Crops, April 2008
3. OMAFRA Publication 363, Vegetable Production Recommendations

#### Sources:

1. Pheromone Traps & Lures available from:  
Cooper Mill, Ltd.,  
RR 3, Madoc, ON  
K0K 2K0 Ph. 613-473-4847
2. Row cover available from:  
William Dam Seeds  
RR 1, Dundas, ON  
L9H 5E1 Ph. 905-628-6641
3. Row cover in bulk from:  
Dubois Agrinovation  
Ph. 1-800-267-8767  
Website: www.duboisag.com