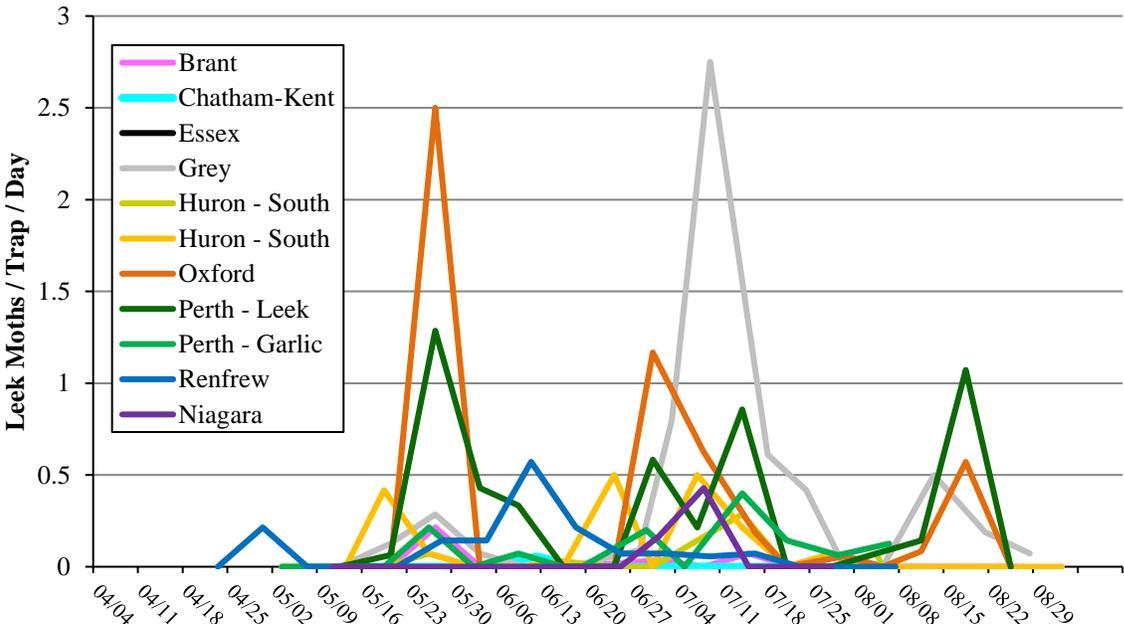


# Monitoring for leek moth in 2021

Travis Cranmer – Ontario Ministry of Agriculture, Food and Rural Affairs

Leek moth has spread to most counties within Eastern, Central and Southwestern Ontario over the past 10 years. The only county that has been surveyed where leek moths have yet to be detected is Essex county (**Figure 1**). It is important to know the level of leek moth in your field as management strategies applied today will greatly impact the leek moth levels in years to come. In areas where leek moth is left unchecked, populations have shown to explode to levels that make it unmanageable. Managing leek moth once it is established has shown to be difficult. In infested areas, floating row covers are often the most effective pest management strategy. Row covers are generally hard to implement over large acreages and must be applied prior to adult activity in each generation in order to be effective.



**Figure 1.** Average number of leek moths per sticky trap per day at 10 garlic fields and one leek field within the surveyed counties of Brant, Chatham-Kent, Grey, Huron, Oxford, Perth, and Renfrew, 2020. No leek moths were observed in Essex County.

Monitoring leek moth over the last three years in various counties has shown how insecticide applications can keep leek moth at manageable levels if the application is applied at the correct time. Since insecticide applications rely on contact with the larvae, timing the application after peak moth capture in your specific field is key. Adult leek moths can be monitored using delta 1 traps lined with a sticky card and a hanging pheromone lure (**Figure 2**). A minimum of two traps should be used at every field, and the traps should be placed at the edge of the field closest to the previous year's Allium crop. Leek moths overwinter around field perimeters in brush, shrubbery, and perennial vegetation in windrows, and emerge in late April/early May when night temperatures

stay above 9.5°C for two consecutive nights. Traps and lures can be purchased from Distributions Solida ([info@solida.ca](mailto:info@solida.ca)) based out of Quebec. To monitor one field, with two traps, from May until September you would require the following:

Item#	Description	Unit price (\$)	Qty. Required	Total
3013T07	Delta 1 Trap with hanger and 1 liner	7.79	2	15.58
40SU202	Delta 1 liner replacement	1.72	30	51.60
40AS009	Leek moth pheromone	4.06	12	48.72

Total Cost: \$115.90

The total cost provided above does not include tax or shipping and is based on 2020 values. Once the reusable delta trap with hanger has been purchased, the weekly cost to monitor until September is around \$3/trap. While many growers only monitor until harvest in July, tracking the third peak is useful to determine how effective any management strategies were, as well as provide guidance on the pressure going into the following year. All traps should be mounted on a stake, and it is suggested to hang the pheromone on the inside of the delta trap using a paperclip so that the inner card can be removed weekly without touching the pheromone.



**Figure 2.** Delta 1 leek moth trap.

If the number of overwintering moths trapped is low and minimal foliar damage is observed by the first generation in the field, a single insecticide application 10 days after the peak of the second flight would be most effective. If the damage to the crop was moderate to severe the previous year, and/or the trap counts of overwintering moths were high and damage by first generation larvae was observed in the field, two insecticide applications may be necessary. Two applications will target the most larvae if they are applied 3 days after the date of peak moth capture and the second treatment 14 days later.

The full leek moth survey research report will be posted on the ONvegetables.com blog in the upcoming weeks. Please reach out if you have any questions at [travis.cranmer@ontario.ca](mailto:travis.cranmer@ontario.ca) or 519 835-3382.



**Figure 3.** Sticky card with leek moth highlighted by the tip of a paperclip.