



UMass
Extension

Vegetable Notes

For Vegetable Farmers in Massachusetts since 1975



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PEST ALERTS

Allium:

Onion thrips were at threshold in a leek crop scouted in Hampshire Co., MA yesterday. A widely used threshold is 1 to 3 thrips per leaf. Development time from a base temperature of 52.7°F is 140 GDD for eggs, 180 GDD for larvae (2 instars), and a total of 323 GDD for each generation. At summer temperatures, a generation can be completed

in 2 to 3 weeks. The product Movento performed well in trials conducted at Cornell for the earliest applications in the season because it has efficacy against nymphs. It must be applied with a penetrating surfactant to be absorbed by the onion leaves. Repeat applications at 7 to 10 day intervals; use a shorter interval in hot weather. 3 to 6 applications may be necessary, but rotate between insecticide groups after 2 applications to help prevent resistance development. Use high pressure and 100 gal water/A for best results, and apply in the early evening because thrips venture out onto the leaves to feed at night.

Brassicas:

Flea beetle continues to cause damage in MA and is now reported in NH and northern VT as well. In one field at the University of Massachusetts, a trap crop of tillage radish cover crop was planted surrounding a broccoli and cauliflower crop. The tillage radish is heavily damaged, while the uncovered broccoli and cauliflower remain below threshold (see cover photos). On young plants, the threshold is 1 beetle per plant or 10% average leaf damage.

Chenopods:

Leaf Miner: Severe damage and eggs have been observed on beets and chard across New England all the way up to Maine. Treat this generation before all the eggs hatch to reduce the size of future generations, which there are three to four of per season.

Cucurbits:

Striped cucumber beetle was first seen in MA last week, and is now reported in Hillsborough Co., NH and in Carol Co., NH.

Squash vine borer traps should go out this week. Traps were put out last week in NH had no moths yet. Treatment threshold is 5 moths per week for bush crops and 12 moths per week on vining varieties.

Solanaceous:

Colorado Potato Beetle: Adults and eggs were seen on potatoes and eggplant in Washington Co., RI and on potato in Franklin Co., MA. Adults were found feeding and laying eggs on tomatoes, primarily in gardens, in Chittenden Co., VT. Eggs hatch in 7-10 days, depending on temperature. Continue scouting and treat when you have an average of 4 young larvae per stalk. The youngest larvae are the most susceptible to



Flea beetle and damage on tillage radish seeded 2 weeks ago in strips surrounding a trial plot at the research farm in South Deerfield, MA (left). No flea beetles on my broccoli transplanted into the trial plot 1 week ago (right). Same Field. Yay for trap cropping! Photos: K.Campbell-Nelson

treatment.

Sweet Corn:

European corn borers were captured in traps in MA, NY, and NH this week (Table 2). Moths emerged at 374 GDD Base 50°F and will be laying eggs at many of our scouting locations soon (at 450 GDD) (Table 1).

Corn earworm: 3 trapping sites in NY captured corn earworm this week. One site in western NY suspects that they may have an overwintering population because they consistently capture this pest very early in the season. In the southern US, where this pest typically overwinters, damage can be found in whorl stage corn, however, economic damage does not occur when less than 50% of the plants are infested. We are likely not going to reach that level of infestation in MA, but you may want to put out corn earworm traps earlier this year to find out if you're getting an earlier arrival of the pest.



Corn thrips in Hillsborough Co., NH (left, photo: G. Hamilton, UNH) and in Hampshire Co., MA (right, photo: G. Higgins, UMass)

Table 1. Accumulated Growing Degree Days: 1/1/18 -5/30/18	
Location	GDD 50° F
Western MA	
South Deerfield	425
Amherst	411
Westfield	433
Central MA	
Leominster	427
Northbridge	398
Eastern MA	
Seekonk	402
East Bridge-water	389
Waltham	414
Ipswich	325
NH	
Hollis	367
Walpole	347
NY	
Hudson	474
Castleton	448

Table 2. Sweet Corn Trap Counts Week 5.30.18	
	ECB Weekly Total
Western MA	
Whately	1
South Deerfield	0
Hadley	0
Amherst	0
Central MA	
Spencer	--
Eastern Ma	
Sharon	0
Swansea	6
NH	
Hollis	12
Litchfield	1
Mason	1
NY	
Eagle Bridge	0
Greenwich	0

Thrips were found in large quantities in some fields scouted in NY, NH, and Hampshire Co., MA. These may be 'Grass' or 'Corn' Thrips (*Frankliniella williamsi*) or perhaps Western flower thrips (*F. occidentalis*). Although alarming, with more than 15 thrips per leaf in an NH field scouted, sweet corn will typically grow out of the damage. In fact, these thrips are predators of spider mite eggs and so can be beneficial. Eggs take about 5 days to hatch and the immature stages of this insect lasts for 5-7 days. There are no treatment thresholds, but thrips will take advantage of hot, dry conditions to colonize plants, and if the crop is looking grey with curled leaves, treatment may be necessary. See here for treatment recommendations, but check labels first since this information is from the Pacific Northwest Pest Management Handbook: <https://pnwhandbooks.org/insect/vegetable/vegetable-pests/hosts-pests/corn-sweet-thrips>. Thrips populations tend to build up on weeds. Cultivating nearby weedy areas before corn emerges will reduce the potential of a thrips problem when the weeds begin to dry out. Cultivating weedy areas after corn emergence will increase thrips problems.

EVENTS

Twilight Meeting Summer Series

This series of Twilight meetings is an opportunity to learn from fellow farmers and find out what's new in Extension research. A light meal will be provided at each program. We will ask you to RSVP later, but for now, please save the dates!

Fruit and Vegetable Twilight Meeting

Featuring: Carl Hills and Kimball Fruit Farm's hydroponic tomato greenhouse.

George Hamilton, UNH Extension, will demonstrate and discuss proper boom sprayer calibration for fruit and vegetable crops.

Sonia Schloemann, UMass Extension, will provide an update on managing spotted wing drosophila.

**1.5 Pesticide recertification credits have been approved for this meeting

When: Monday, June 25th, 2018 from 4:00 pm to 7:00 pm

Where: Kimball Fruit Farm, 184 Hollis St. Pepperell, MA 01463

CLICK HERE TO REGISTER: <https://www.surveymonkey.com/r/MDYZCFP>

Organic Weed Management

Featuring: Langwater's Kevin O'Dwyer and their flame weeder and leaf mulching techniques. Invited presenters include: Katie Ghantous (UMass Vegetable Weed Technician) with a vinegar weed injector, on-farm trial and information on weed ecology; Sonja Birthisel (UMaine PhD candidate studying Weed Management) with results of her research using occultation and solarization, and farmer Tyson Neukirch with his experiences using silage tarps in a reduced tillage system for weed management.

When: Tuesday, July 24th, 2018 from 4:00 pm to 7:00 pm

Where: Langwater Farm, 209 Washington St., North Easton, MA 02356

CLICK HERE TO REGISTER: <https://www.surveymonkey.com/r/X9WLFYS>

UMass Extension Vegetable Program Research Tour and Round Table

Featuring: Sue Scheufele's research on cucurbit downy mildew resistance, pollinator protection in butternut squash, effects of different mulches on broccoli pests, and natural predators of cabbage aphid. Also, Madelaine Bartlett's research on corn genetics and the importance of genetics in crop development and improvement, Omid Zandvakili's research on lettuce nutrition, Kelly Allen's research on Fusarium wilt of basil, presentations on pollinators & agriculture and solar & agriculture, and more! Research presentations will be followed by dinner and a round table discussion.

When: Tuesday, August 14th, 2018 from 4:00 PM to 7:00 PM (Rain date: August 16th)

Where: UMass Crop and Animal Research and Education Farm, 89-91 River Rd., South Deerfield, MA 01373

CLICK HERE TO REGISTER: <https://www.surveymonkey.com/r/X3JYR55>

Reduced Tillage and Transplanters for Vegetable Farmers

Featuring: Farmer Jim Ward and his reduced till vegetable cropping systems which he has practiced for over 10 years with the help of an Unverferth Deep Zone Tiller, Davidian Farm's two-row Monosem vacuum precision planter mounted with Dawn Biologic roller crimpers (first ones in the state!), the UMass Research Farm's grain drill and roller crimper, and Brookdale Fruit Farm's new line of no-till transplanters from Checchi-Magli. There will also be demonstrations on Soil Health with Maggie Payne, Soil Scientist at NRCS.

When: Tuesday, August 28th, 2018 from 4:00 PM to 7:00 PM

Where: Ward's Berry Farm, 614 S Main St., Sharon, MA 02067

CLICK HERE TO REGISTER: <https://www.surveymonkey.com/r/XF8JQYD>

Respirator Train-the-Trainer Course for Farmers, Beekeepers, and Other Employees who Need to Use Respirators

UMass Extension is offering a series of Respirator Train-the-Trainer workshops in 2018. Farmers, beekeepers and other who need to wear respirators, required by pesticide labels, can benefit from the workshop. Participants will learn how to fit test a respirator and select, use, clean, maintain and replace respirators. All handlers must be trained under the EPA Worker Protection Standard (WPS) Respirator Requirement if they apply any pesticide that requires a respirator. Several organic approved (OMRI) pesticides and some miticides used by beekeepers require respirators.

The respirator train-the-trainer workshops are 2 hours long and will be held in Marlboro, Taunton, Hadley, and Marlborough. The registration fee is \$30.00 per person. Participants will receive a Certificate of Attendance, a check list for respirator training, and a fit test protocol. This is an hands on workshop. Bring your respirator or use one of ours.

There is one workshop left in this series. To register via the mail please [click here for the registration form](#). To register online with a credit card (extra \$5.00/person) see below.

When: Tuesday, June 19, 2018 from 1:15 PM to 3:45 PM

Where: Best Western Royal Plaza Hotel, 181 Boston Post Road West, Marlborough, MA 01752

REGISTER HERE: <https://www.regonline.com/registration/Checkin.aspx?EventID=2267202>

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FARM CREDIT EAST



Vegetable Notes. Katie Campbell-Nelson, Lisa McKeag, Susan Scheufele, co-editors.

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