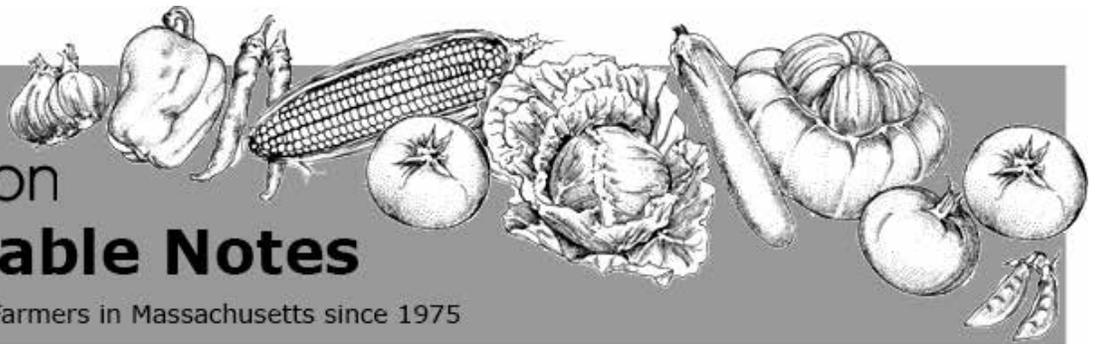




UMass
Extension

Vegetable Notes

For Vegetable Farmers in Massachusetts since 1975



Volume 28, Number 7

May 26, 2016

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PEST ALERTS

Asparagus: The [common asparagus beetle](#) is active now and laying eggs. Reports have come in from Bristol and Franklin Cos., MA and Washington Co., RI. The common asparagus beetle has a bluish-black body with cream-colored, square or rectangular spots. Eggs are dark brown, laid standing on end in rows along the spears, with 3-10 in each cluster. Larvae have 4 instars and are wrinkled, plump, hump-backed, and dull gray or brown with black head and legs. Use thresholds in Table 1 for treatment after scouting 25 plants randomly through the field. Treat spears now or after harvest is complete using materials listed in the New England Vegetable Management guide. Disk lightly or mow old ferns in the fall and clean areas around planting of debris to reduce overwintering populations.

Table 1. Common asparagus beetle threshold

Lifestage	Threshold
Adults	10% of plants infested
Eggs	2% of spears with eggs
Larvae	50-75% of plants infested
Defoliation	10% of plants defoliated



Common asparagus beetle larva.
Photo: P. Cristofono



Common asparagus beetle eggs. Photo: J. Pearson



Common asparagus beetle adult. Photo: K. Hennige

Allium: [Onion maggot](#) adult flies were active in Bristol Co., MA, but no eggs and only one maggot was found in a field of onions planted one week prior. Adult flight may be monitored by following the [NEWA onion maggot](#) forecasting model or with yellow sticky cards. Peak emergence of this pest is 735 GDD base 40°F, which most locations around the state have reached (Table 2).

**Table 2. Accumulated Growing Degree Days :
1/1/16 – 5/25/16**

Location	GDD base 40°F	GDD base 50°F
Western, MA		
Ashfield	635.8	169.8
South Deerfield	748.9	220.1
Pittsfield	632.2	152.2
Central, MA		
Bolton	764.1	228.5
Northbridge	781.2	208.8
Phillipston	626.5	176.2
Eastern, MA		
Ipswich	702.5	175.7
Weston	765.7	207.6
Seekonk	932.6	268.2
Hollis, NH		
Hollis, NH	701.8	188.1
Burlington, VT		
Burlington, VT	631.3	177.4
Newport, RI		
Newport, RI	787.8	172.8

One grower trying silver plastic to deter [onion thrips](#) has noticed that onions growing in the silver plastic have fewer leaves and are slower to grow than those in black plastic. Thrips were found in this field in Bristol Co., MA on silver plastic, but well below the threshold of one thrip per leaf out of 25 plants scouted. Adult thrips have also been found below threshold in Hampshire and Franklin Cos., MA. Scout again next week.

Brassica: [Cabbage root maggot](#) damage continues to be reported but not in great amounts. Pre-plant and transplant treatments are available in the New England Vegetable Management Guide. Adult emergence and flight may be monitored by following the [NEWA cabbage maggot forecasting model](#) or by using yellow sticky cards. The overwintering generation of this pest is almost complete in most locations in MA at 809 GDD base 40°F (Table 2).

In the upcoming heat plants are likely to be stressed and more susceptible to insect feeding. Warm weather also increases [flea beetle](#) activity which we have seen in Franklin and Hampshire Cos., MA where crops have reached a treat-

ment threshold. Be sure to scout brassicas this week as row covers are removed and treat if 10% of plants have damage or if there is an average of 1 flea beetle per plant.

Cucurbit: Set out traps for [squash vine borer](#) in thick stemmed cucurbits such as squash or giant pumpkin next week to monitor the arrival of this pest. SVB has emerged earlier than the published models have established at 900 GDD base 50°F (Table 2), so be sure to start trapping early. Treatment threshold is 5 moths per trap. Sources for traps and pheromone lures include [Gempler's](#), [Great Lakes IPM](#), and [Trece](#). Heliothis traps used for European corn borer and corn earworm work best for this pest.

Solanaceous: Garden tomato plants being grown in a greenhouse in MD were confirmed to be affected by [late blight](#) last week (recent dominant strain, US-23).

The source has not been determined. Plants were grown from seed in a greenhouse where tomatoes were not grown over winter, thus no evident internal source. It is possible pathogen spores came from a potato crop or cull pile in the area that has not yet been found. This occurrence further documents the unpredictability of late blight and the consequent need for all growers to be continually monitoring their crops. Prior to this there were reports in FL and southern SC. Monitor occurrences at <http://usablight.org/> where anyone can sign up to receive notifications immediately if late blight is detected nearby.

Tomato spotted wilt virus was reported from a greenhouse in seedlings. The disease is not seedborne, but is transmitted by thrips. This disease has a wide host range and is easily spread in greenhouses where ornamentals are also grown. Keep ornamentals in separate houses from vegetable starts.

Sweet Corn: The first [European corn borer](#) was caught in Hillsboro Co., NH and is likely laying eggs now on alternate hosts in weedy field edges or in corn if it is 6-12". Traps were put out across the state in MA this week. No action is required now unless your corn is 6-12" tall, in which case, you should be making your first releases of *Trichogramma ostrinea*. *T. ostrinea* may be ordered from IPM Laboratories in Locke, New York, 315-497-2063 (www.ipmlabs.com). Order well in advance! Place your order based on acreage after you have made your first planting. Some growers who started on plastic are on to their 3rd planting of sweet corn.



Tomato spotted wilt virus. Photo: A. Madeiras



seed corn maggot adult fly. Photo: K. Campbell-Nelson

Multiple: [Seed corn maggot](#) pupae have been found in large numbers in fields where cover crops were incorporated and after causing severe damage in cucurbit seedlings, adults are emerging by the hundreds under row cover. Both of these observations were made this week in Hampshire Co., MA. Reports of damage from this pest have been widespread this season coming from VT, NH, CT and MA. Fields fertilized with seed meals (ie. soybean, peanut) have also experienced problems with this pest which is attracted to these fertilizers for food. After adults emerged in the warm snap in April when peak flight occurred at 360 GDD base 40°F, they laid eggs which hatched and fed on transplants and seedlings for 2-3 weeks before pupating. The first generation of this pest is now complete. Finding adult flies under row cover now may be alarming, but is no longer a large concern. There may be 2-3 generations in New England, but the larvae of the first is the most damaging.

* When not given here, refer to the [New England Vegetable Management Guide](#) for scouting thresholds and treatment options.

EVENTS

Drip Irrigation Twilight Meeting

When: Friday June 3rd, 2016 from 3:00pm-7:00pm

Where: Brookdale Fruit Farm - 36 Broad Street, Hollis NH 03049

The purpose of this meeting is to review what drip irrigation options and strategies vegetable and fruit growers should be considering for the coming growing season. We will be presenting a hands-on demonstration on setting up a drip irrigation system. Starting from the pond to the field describing the various components of the drip irrigation system, fertigation and chemigation will be discussed.

Speakers include: Trevor Hardy (Brookdale), Bill Lamont (Penn State University), Bill Wolfram (Toro), Chelsea Smith (BASF), Chad Cochran (NRCS), Nate Nourse (Nourse Nursery), Tom Matt (Kifco), George Hamilton (UNH CE) and others.

3.5 PAT Credits have been approved for this meeting

Sponsored by:

New Hampshire Vegetable and Berry Growers' Association

For more information: Contact George Hamilton at (603)641-6060 or by email at george.hamilton@unh.edu. Individuals who require special accommodations should contact George by June 1st.

Special Topics for Pesticide Applicators

When: Wednesday June 15th, 2016 from 1:15pm to 3:30pm

Where: Doubletree Hotel, 11 Beaver Street, Milford, MA 01757

This two hour program will provide two recertification contact hours for all categories of pesticide licenses, Natalia P. Clifton, UMass Extension will discuss a variety of timely topics of importance to pesticide applicators. Topics will include EPA regulatory changes impacting pesticide applicators, events involving pesticide impacts on non-target organisms, resources for pesticide toxicity and environmental impact information, pesticide poisoning incidents, and the new draft MA state pollinator protection plan. Two pesticide contact hours for licenses in all Massachusetts categories. Contact hours are valid for equivalent categories in all New England states. The registration fee is \$35.00 per person. Online registrations include an additional service fee.

For information on registering for these workshops please refer to our website at www.umass.edu/pested

Please contact Natalia Clifton, UMass Extension , 413-545-1044 or email nclifton@umass.edu

How to Conduct an On-Farm Trial

When: Tuesday, July 12th, 2016 from 3:00pm to 5:00pm

Where: UMass Crop and Animal Research and Education Center, 89 River Rd. Deerfield, MA

Ever want to apply for a SARE farmer or partnership grant? Looking to improve your farming practices through research? This workshop is for you! Farmers and Agricultural Service Providers welcome. We will provide hands-on training in setting up a replicated field plot, and include practice taking measurements and collecting data. Concepts learned can help you answer many questions through on-farm trials, but this workshop will focus on the UMass trial “**Nitrogen contribution from cover crops for vegetable crop uptake**” being conducted on multiple farms in Massachusetts this fall as a way to prepare cooperating farmers to conduct this trial.

Stay tuned for a follow-up workshop on data analysis and interpretation of results.

Free, but please RSVP: <https://www.surveymonkey.com/r/OnFarmTrial>

Questions? Contact: Katie Campbell-Nelson, kcampbel@umass.edu, 413-545-1051

Supported in part by USDA/NE-SARE Professional Development MA State Program.

IPM Field Walks

In this series, learn to identify and scout for vegetable pests and select integrated pest management strategies that work for you, whether you are an experienced farmer, or just starting out, organically certified or not! We will use pheromone traps to monitor pests, use a microscope to identify plant pathogens, and learn to scout in multiple vegetable crops with UMass Extension Vegetable Program staff Katie Campbell-Nelson, and Plant Diagnostician Angie Madeiras. Scouting will be followed by a discussion of effective control strategies with growers in attendance. Bring a hand lens if you have one. *Supported in part by funding provided by USDA-NIFA Extension Implementation Program, Award No. 2014-70006-22579*

June 28th, 4-6 pm

Wards Berry Farm, 614 South Main Street, Sharon, MA 02067
Farmer: Jim Ward

July 19th, 4-6pm

Alprilla Farm, 94 John Wise Avenue, Essex, MA 01929
Farmer: Noah Kellerman

August 2nd, 4-6pm

Red Fire Farm, 184 Meadow Rd, Montague, MA 01351
Farmer: Ryan Voiland

Questions? Contact: Katie Campbell-Nelson, kcampbel@umass.edu, 413-545-1051

Vegetable Winter School

When: Tuesdays, January 10th, 2017 – February 21st, 2017 from 9am – 3:30pm

Where: Central Massachusetts, TBD

Save the dates for this course designed to provide growers with regulatory certainty in a time of many regulatory changes. Leave winter school ready for a Commonwealth Quality Program (CQP) audit and the peace of mind that you are prepared to handle the requirements of: the Food Safety Modernization Act (FSMA), EPA Worker Protection Standards (WPS), Nutrient Management Regulations, and changes in Employment Law. Get up to date on research and IPM practices important to vegetable growers and gain a competitive advantage in a heavily regulated market. Each farm will get detailed support in developing food safety and nutrient management plans, training employees in WPS, developing standard operating procedures compliant with regulations, and preparing an employee handbook and a whole farm IPM plan. Twelve contact hours available for the vegetable pesticide license category. This course is designed for farm owners, managers and employees. Registration opens in September 2016.

Registration opens in September 2016

1/11/2017 – Food Safety Produce Rule. Instructors: Lisa McKeag (UMass Extension Vegetable Program) and Michael Botelho (MDAR Commonwealth Quality Program)

1/17/2017 – Food Safety Preventive Controls Rule. Instructors: Amanda Kinchla (UMass Extension Food Science Extension Faculty) and Michael Botelho

1/24/2017 – Soil and Nutrient Management. Instructors: Katie Campbell-Nelson (UMass Extension Vegetable Program) and TBD

1/31/2017 – EPA Worker Protection Standards. Instructors: Natalia Clifton (UMass Extension Pesticide Education) and TBD

2/7/2017 – Advanced Topics in Integrated Pest Management. Instructors: Angie Madeiras (UMass Extension Plant Diagnostician), Sue Scheufele (UMass Extension Vegetable Program)

2/14/2017 – Employee Management and Labor Laws. Instructors: TBD

2/21/2017 – Incentive Programs (NRCS, MDAR, SARE) and Risk Management. Instructors: Tom Smiarowski and Paul Russell (UMass Extension Risk Management Specialists)

2/28/2017 – Snow Date.

Questions? Contact: Katie Campbell-Nelson, kcampbel@umass.edu, 413-545-1051

THANK YOU TO OUR SPONSORS



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

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