UMass Extension
Vegetable Notes
For Vegetable Farmers in Massachusetts since 1975

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In this issue:

Crop conditions

The growing season is well underway although some growers are recovering from false starts and a below average, record cold (in some locations) this April. The perennial crop asparagus seems to have heeded the weather and harvest began on schedule this year in the first week of May (see article this issue for more). While corn planted under plastic in April didn't come up, sweet corn is now up in all parts of the state. Potatoes have emerged as well. Cool season transplants, such as brassicas, lettuce, and onions, have been established for several weeks now. High tunnel tomatoes have been transplanted, and reports are coming in from around the region of a myriad of poor cultural practices that are affecting their establishment. In Carol Co., NH, over-fertilization caused marginal chlorosis of leaves in hot, dry tunnel conditions, while a crop in RI in full flower with lush, oversized foliage was already suffering from powdery mildew. The RI grower is pruning the lower leaves to improve airflow, and both growers have been advised to irrigate without fertilization to flush excess nutrients. In CT, a greenhouse tomato crop developed botrytis stem canker (photo) after rough pruning introduced the pathogen. In Grafton Co., NH, tomatoes developed Rhizoctonia and Pythium root rot after being planted deep into soil under cool, wet soil conditions. The lower leaves of the plants had been removed prior to transplanting, and the buried pruning wounds provided easy access for the pathgoens. While tomatoes can take a lot of abuse, be kind to them and they will kindly repay you.

Jersey Giant asparagus with harvesters in the background. Photo: G. Higgins.

Table 1. Common asparagus beetle thresholds

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 adult, blue-black, 6-9 mm long. with 3 cream-colored, squarish spots along each wing cover (left) and dark brown eggs, laid standing on end in rows of 3-10 in a cluster along the spears (right).

Pest alerts

Asparagus:

Common asparagus beetle: A field scouted in Franklin Co., MA had less than 10% infestation of adults. Some were mating and laying eggs. In Orange Co., NY a field was scouted with 80% infestation and an average of 3 adults/spear. Spray thresholds are provided in Table 1, but many growers choose not to spray at all during harvest since many insecticides have a postharvest interval which would delay daily harvest. If larvae are still present in high numbers at the end of harvest, a treatment to prevent the population from building in this perennial crop can be helpful.

Allium:

Onion maggot: The overwintering population is emerging across the state, so if you are putting out onion transplants in a field with a history of high organic matter or maggot pressure, now is the time to use row cover. Peak flight will not occur until 735 GDD Base 40F (Tables 2 and 3). To follow the onion maggot emergence in your location, see the NEWA forecasting model here: http://newa.cornell.edu/index.php?page=onion-maggot.

Brassica:

Cabbage Root Maggot: Peak flight is predicted this weekend in Franklin Co., MA, where this week we found eggs (photo) present on 84% of the crop in a diversified brassica field, and in 80% of a broccoli crop in Washington Co., RI. 50% emergence (or 452 GDD base 40F) is considered peak flight (Table 2). It is now too late to row cover brassicas to protect them. Entrust is newly labeled to control cabbage maggot (see label for details), and the conventional material Radiant has the same label instructions. To follow the cabbage maggot emergence in your location, see the NEWA forecasting model here: http://newa.cornell.edu/index.php?page=cabbage-magot.

Cabbage root maggot eggs. Pencil tip for size. Photo: G. Higgins

Table 2. Accumulated Growing Degree Days and Cabbage Root Maggot (CRM) emergence : 1/1/18 -5/9/18

Location	GDD 40° F	CRM Emergence
Western MA		
South Deerfield	419	41%
Deerfield	407	38%
Amherst	414	40%
Westfield	434	45%
Central MA		
Leominster	478	55%
Northbridge	469	53%
Eastern MA		
Seekonk	517	64%
Sharon	490	58%
Waltham	512	62%
Ipswich	434	45%
NH		
Hollis	418	41%
Walpole	338	18%
NY		
Hudson	437	45%
Castleton	422	42%

Table 3. Maggot Comparative Table

	Seed Corn	Cabbage	Onion
Host	40 different plants, large germinating seeds, seedlings (including allium and brassica!)	Brassicas	Alliums
First peak flight	360 GDD base 40°F	452 GDD base 40°F	735 GDD base 40°F
Adult	Small: ~ 3mm, 3 stripes on the thorax	Medium: ~5mm, 2 stripes on the thorax.	Large: ~6mm.
Eggs	Hatch in 2-4 days	Hatch in 7-10 days	Hatch in 2-5 days
Larvae (maggots)	Active for 3 wks	Active for 2-4 wks	Active for 2-3 wks
Pupae	In soil for 1-2 wks before next gen adults emerge (last gen pupae overwinter)	In soil for 2-3 wks before next gen adults emerge (last gen pupae overwinter)	In soil for 3-4 wks before next gen adults emerge (last gen pupae overwinter)
Notes	Short, 21-day life-cycle. 3 gen per year. Usually only spring gen is damaging.	Long, 60-day life-cycle. 4 gen per year. Spring and Fall gen most damaging.	Medium, 30-day life-cycle. 3 gen per year. Usually only spring gen is damaging.

Brassica downy mildew on the underside of a leaf

Flea Beetles emerged in earnest this past weekend as temperatures reached the 80s across the state. We scouted an average of 5 flea beetles per plant in an untreated field of diversified brassicas in a Franklin Co., MA. Fields were also scouted in 2 locations in RI: Washington Co. (light infestation) and Newport Co. (heavy infestation), RI. Vermont still reports few fields planted with brassicas. See article this issue for management recommendations.

Brassica downy mildew is being seen in transplant production houses on a range of crops and varieties. The pathogen thrives in cool, moist environments so try to improve air circulation, bottom-water or water early in the day so the plants will dry quickly, decrease humidity and increase temperature in production houses. Seedlings can grow out of the disease once they are planted outside and conditions become less favorable, but the pathogen can stay dormant within the plant and symptoms may recur if the conditions again become favorable. See the New England Vegetable Management Guide for fungicide recommendations.

Leaf miner eggs. photo: K. Campbell-Nelson

Beets/Spinach/Chard:

Leaf Miner eggs were found on a beet crop in Kent Co., RI yesterday. Be prepared, MA growers! Treat when the first eggs are spotted in your fields. Look for small white eggs that resemble rows of teeth on the undersides of leaves (photo).

Spinach Downy Mildew: If you continue to struggle with this disease through the spring, please contact us (umassvegetable@umass.edu) as there are research projects under way to type the strains of spinach downy mildew that have emerged on the east coast in the past couple of years. Samples submitted to the Umass Plant Diagnostic Lab so far this year have been on the varieties Corvair, Escalade, Kolibiri, and Space. See photos for symptoms of this pathogen.

Lettuce

Lettuce downy mildew also continues to be reported in greenhouse transplants. Varieties affected recently include: Green forest, Celinet and Annapolis (both may be present in Johnny's 5-star mix), Adriana, Vulcan, and Tropicana. Similar to the spinach downy mildew alert, we are working with scientists across the country to determine which strains are present here in the Northeast, where they came from, and what we can do to manage them, so please do contact us (umassvegetable@umass.edu) if you have an outbreak this spring.

Spinach downy mildew on the underside of a leaf (left, K. Lamour) and leaf surface (right, Teresa Rusinek).

Growing Asparagus at D.A. Smiarowski Farm

Asparagus harvest is upon us, and one UMass Extension employee, Tom Smiarowksi, Risk Management Educator, is our local expert. From age 7, when he would sleep in the pick-up truck at 5am while his parent's harvested, Tom has been in the business a long time now. His brother Dan manages the 15 acres of asparagus now, but Tom still helps out as buncher-in-chief while others are at their day jobs. We met up with Tom to scout his fields and learn what we could to share with you here.

Establishment: Non-hybrid varieties used to be grown, but they are more susceptible to the pathogen *Fusarium moniliforme*, which causes crown rot and can survive in a field for many years without a host. Therefore, modern hybrids, such as Jersey and Millenium, with some resistance are now more common. Site preparation should begin at least 1 year prior to planting in order to properly adjust soil pH, fertility, and eliminate serious perennial weed problems. At D.A. Smiaro-

Tom uses an old asparagus buncher and a hacksaw to make perfect bunches. Photo: K. Campbell-Nelson

swki Farm, crowns are buried about 12" deep, with 12" apart in rows about 30-32" apart. The New England Vegetable Management Guide suggests planting in furrows 8" deep with crowns 12" apart and rows 54-60" apart. At establishment, 30 lbs P/A is placed at the bottom of the furrow, and crowns are sidedressed with 50 lbs N/A, 0-150 lbs P/A and 0-200lbs K/A, depending on soil test results. More soil is mounded over the crowns about 4 weeks after planting, as the crowns begin to sprout. The year after planting, the asparagus should receive fertilizer in the early spring and late summer. Some growers have experimented with laying drip tape for each row of asparagus planted for greater yields. At D.A. Smiarowski Farm, they have never had to irrigate, and actually experienced higher yields in 2016 during the drought.

Cultural Practices: After establishment, an asparagus crop is fertilized annually by topdressing in June after harvest. A crop is usually harvested in its 3rd spring and a field can remain viable for 15-20 years, although yields may begin declining after about 15 years. For organic growers, it may be harder to achieve this long-term harvest due to the establishment of perennial weeds. In late March or early April, when soils are dry enough, fields are flail mowed to break down last year's ferns, a pre-emergent herbicide applied, and the field is lightly disked. Rather than mowing, some growers burn their fields to help manage asparagus rust and crop residues. Fields do not need much maintenance during harvest usually from about May 1st until mid-late June. At D.A. Smiarowski Farm, they aim for Father's Day as the last harvest, giving them about 7 weeks of harvest, but some growers will harvest even until July 4th. With daily temperatures around 70°F, asparagus can grow 3-6" per day, therefore daily harvest is critical. In June, with hot and humid days, the spear tips become seedy and flavor diminishes. During the harvest period, a frost of 20°F or below can be devastating, as it can harm the crowns, but with a frost around 30°F, only the growing tips of the asparagus are harmed, and a crew can go through the field, harvest all the spears, and allow another flush to return 3-5 days later. After harvest is over, the field is flail mowed again, a contact herbicide is applied, and a lime or woodash application is made to maintain the field at a pH of 6.8-7. At this time, based on soil test results, 75 lbs N/A, 0-150 lbs P/A, and 0-300 lbs K/A may be broadcast and lightly incorporated with the lime. For soils low in boron, apply 1-2 lbs per acre of actual boron every 3 years to asparagus plantings. Good winter snow cover indicates a good harvest the following year.

Pest Management:

Common Asparagus Beetle: While common asparagus beetle emerges in Smiarowski's fields each year, he has never treated for this pest because in his estimation, the adults are only actively feeding for 2-3 days in each generation. We observed beetles during our visit, and noted that they were almost exclusively present on the thinnest spears, which would not be harvestable anyway. Not many insecticides have a zero-days-to-harvest interval after application so many growers avoid using insecticides entirely. If an infestation of common asparagus beetle larvae is particularly heavy (greater than 50% of spears infested), an insecticide treatment at the end of harvest while larvae are still present can be helpful to prevent them from pupating in the soil and re-emerging in July.

Weeds: As mentioned above, weeds are typically managed in the spring before harvest and in the early summer right after harvest. Pesky perennial weeds such as bindweed can be difficult to manage and crews sometimes cull the rhizomes out while harvesting to try and keep the pressure down. Gramoxone or Roundup can be applied to kill emerged weeds following harvest. Neither of these will provide residual control and a clean cut is required before application. After ferns emerge, 2,4-D may also be an option although it must be directed to the base of the plants, as over-the-top applications will injure the ferns. For residual control after harvest, options include Karmex, Solicam, Sandea, Callisto, and Sinbar. Flame weeding can also be used at this time but is impractical if weeds are

Bindweed. Photo: A. Flynn

very large. When flaming, avoid early morning because extra BTUs will be needed to evaporate the dew before the weeds will be impacted.

Harvest: While mechanical bunchers and even harvesters exist, asparagus production is still relatively un-mechanized in MA. At D.A. Smiarowski Farm, about 8 people work for a few hours in the morning harvesting all of the asparagus fields, bringing in 30-40 crates which they bunch in the afternoon. The asparagus is usually sold the day it is picked. On hot days, cold storage is needed, and D.A. Smiarowski Farm has a simple Coolbot cooler made from an air conditioner in an old refrigerated truck body which they keep at 38-40°F. This year, despite the cool April, the first harvest date was not much later than normal, according to Smiarowski's farm record. Their first harvest dates over the last 5 years, beginning with this current year, have been May 3, April 28, April 27, May 5, May 5, and May 1.

Asparagus harvesters use a special asparagus knife. photo: K. Campbell-Nelson

Sales: Direct retail sales from road-side stands in MA are $4 to $5 per bunch. For wholesale, a bunch goes for about $3.13. Smiarowski averages about 70-75 crates per acre, sold at $75 each wholesale, but he prefers selling from the road-side stand. At Smiarowski Farm, the target bunch weight at the time of sale is 1 pound. If bunches will be stored overnight standing in water, they are bunched at ~0.95-1 pounds to account for slight weight increase due to water uptake. If bunches will be sold immediately, they are bunched at ~1.1-1.2 pounds to account for some moisture loss in transport. Smiarowski estimates that most asparagus produced in MA is sold within a 20-mile radius of where it was grown, and the largest farms are only about 15-20 acres; a true local delicacy!

-- by K. Campbell-Nelson and G. Higgins, UMass Vegetable Program

Flea beetle management

Flea beetles have emerged from their overwintering homes in the shrubby or wooded areas surrounding fields and are beginning to feed on the first spring brassica plantings. Controlling flea beetles can seem like a losing battle, but we have seen real success on farms that have taken an integrated approach to management. The most important steps to reducing the population size and damage caused by flea beetles seem to be breaking the cycle (rotating spring crops as far as possible from overwintering sites near last years' fall crop), and controlling early season outbreaks using something like a trap crop or a "push-pull" approach to prevent the problem from spiraling out of control within the season or from building up to unmanageable levels over the years.

Life Cycle. The crucifer flea beetle (*Phyllotreta cruciferae*) is uniformly black and shiny (top), while the striped flea beetle (*Phyllotreta striolata*) has two yellow stripes on its back (bottom). Both are about 2 mm in length and hop away when disturbed. These flea beetles only feed on brassica crops; those found on corn or solanaceous crops are different species. Though they prefer the tender leaves of *Brassica rapa* and *B. juncea* crops such as arugula, tatsoi, mizuna, bak choi, and mustard, they will also feed on the more waxy *Brassica oleracea* crops such as broccoli, cabbage, kale and collard. Their feeding damage—small, round holes on leaves or leaf margins, which can coalesce to form large holes as leaves mature—can kill seedlings outright, delay maturity, and reduce yield and marketability of older plants. The adults that are active now will mate and lay eggs in the soil, and larvae will hatch in 11-13 days. Larvae will feed on the root hairs of brassica crops for 12 days at soil temperatures of 77F and will spend 3-6 days resting before they pupate underground. Pupation lasts for 7-9 days and the first generation adults emerge in late-June to feed on summer brassica crops. The cycle repeats itself and a second summer generation emerges in late-July to feed on fall brassica crops before moving outside of the field to forested areas for the winter.

Management:

Break the cycle. Plant spring crops far from fields where fall brassicas were grown, and where flea beetles will overwinter. When overwintering beetles emerge, if they can't find a host plant they will not survive and reproduce and you will reduce the population of flea beetles on your farm. You can also starve the overwintering beetles by delaying planting until June. This may not easily fit your markets, but it does work. With no food or place to lay eggs, the overwintered adults leave the area, instead of reproducing and emerging in time for midsummer dining. It may take 2-3 years to bring populations down. Be careful to control brassica weeds at the same time. It is also important to separate your fall crop from the spring crop, since second generation flea beetles will emerge at the same time that fall brassica crops will be at their most vulnerable. These second generation adults are also the beetles that overwinter, so next spring, plan to use a field distant from previous late-season brassica fields.

Row covers. Floating row cover or insect netting provide the most effective protection from flea beetles, especially in spring and early summer. It is expensive in both materials and time, but it works. Insect barriers, such as Proteknet, Biothrips, and Filbio, are available in a range of mesh sizes and can be used to protect against a variety of pests, including flea beetles. These trap in less heat and allow for greater air circulation than spunbonded row covers, though for early spring crops, the additional warming benefit of traditional row covers of various weights may be preferred. Whatever cover you choose, it is critical to seal the edges immediately after planting to make sure you exclude the beetles. Flea beetles can fit through small openings—not to mention the large holes and tears that often develop in row cover over time. Fortunately hoops are not needed on brassica crops, but management is still time-consuming because the cover has to be removed for cultivation. Replace it as soon as possible to avoid letting beetles in.

Chemical control. Maturing plants should be scouted frequently. When plants are young, an average of 1 beetle per plant or 10% average leaf damage is a reasonable threshold for chemical intervention. Several synthetic pyrethroids (Group 3A), carbamates (Group 1A), neonicotinoids (Group 4A, either as foliar or soil drench), and the relatively new diamide class (Group 28) are labeled for flea beetle in brassicas. Avoid repeated use of one type of chemistry over multiple generations or using both soil and foliar applications of the same group. Note that as of 2012, the registration for Thionex has been cancelled and is no longer allowed on cole crops. Soil-applied systemic insecticides, such as Admire Pro and Actara can provide longer term control against damage, although beetles may still be seen when scouting. Products containing the new active ingredient cyantraniliprole, a diamide (Exirel for foliar applications; Verimark for soil), are labeled for flea beetle and have been shown in trials to have good efficacy against this pest. Be aware that systemic insecticides may have longer days to harvest intervals.

For organic farmers, the choice of effective chemistries is limited to spinosad (Entrust), Surround WP (kaolin clay), and pyrethrin (Pyganic). In UMass trials, Entrust showed the greatest efficacy in suppressing flea beetles and reducing damage. Pyrethrin (Pyganic EC 5) showed poor to moderate efficacy in our trials but is reported by growers to cause a significant short-term knockdown. Abby Seaman, NYS IPM, found in 2013 that Entrust, as well as both Venerate and Grandevo, two OMRI-approved bioinsecticides, were all found to significantly reduce damage from flea beetle on cabbage but pest pressure was very low in that study. Growers often hesitate to use Surround because of difficulty mixing and spraying—some growers have found that using a masonry or sheet-rock drill to mix up the material in a 5-gallon bucket before adding to a backpack sprayer works to get the clay into suspension. If you want to apply Surround using a tractor-mounted sprayer you must have mechanical agitation or the material will not go into suspension and it will clog up your nozzles. It is probably worth figuring out how to do this if you struggle with getting your early season transplants to survive the onslaught of flea beetles, and it can also be useful in protecting cucurbit transplants from striped cuke beetles, which vector bacterial wilt. Look for videos out later this season on how to mix and spray Surround, as part of a NE-SARE funded project on managing brassica insect pests!

Control brassica weeds. Brassica weeds also harbor flea beetles (both adults and larvae) and reduce the efficacy of your crop rotation schemes that aim to break the pest cycle by changing crop families. Yellow rocket, wild mustard, and shepherd's purse are familiar weeds that are widespread in fields and roadsides. The list of weed hosts probably also includes garlic mustard (*Alliaria petiolata*), a serious invasive weed in the brassica family. It is a biennial with white blooms in spring (mid-May). It thrives in roadsides and field edges as well as shady woodlands, and has rapidly spread throughout Massachusetts. A good fact sheet on garlic mustard can be found at: http://www.nps.gov/plants/alien/fact/alpe1.htm or through the Invasive Plant Atlas of New England (IPANE) website.

Trap cropping. Take advantage of the flea beetles' preferences for particular brassicas by using the preferred species or varieties as a draw. Their numbers will build up in the more attractive plants, and can be killed there with an insecticide application, protecting the main crop and reducing spray area and time. A border or even a middle row planted to *Brassica rapa* or *B. juncea* crops such as komatsuna, tatsoi, mizuna, bak choi, or mustard has been shown to reduce numbers and feeding damage on less preferred *B. oleracea* crops such as broccoli, cabbage, or traditional kale (e.g. 'Winterbor' types). Red Russian kale (*B. napus*) and lacinato kale (*B. oleracea*) seem to be of intermediate attractiveness. To make it work, here are some tips:

- Make sure the trap crop is established before the main crop (the one you are trying to protect) or is at least as mature (e.g. transplanted same day). Direct-seeded crops can be used around transplants if seeded 7-14 days earlier.
- Use a fast-growing, vigorous cultivar for the trap crop.
- Use a border crop to prevent beetles from moving farther into the field. Traps at ends of rows help make a complete perimeter, which stops beetles coming from all directions. Interior trap crops also can act as a 'sink' within the field.
- Spray only the trap crop to kill the accumulated beetles, and to avoid having to spray the main crop. You also want to keep the trap crop healthy enough to do its work, and potentially be harvestable as well—you may need to fertilize, re-seed, or otherwise maintain this trap crop because if it gets too ragged the beetles will not enjoy feeding on it and will move back into your main crop. Use a longer-residual product, if possible.
- Combine with a repellent on the main crop, e.g. coat the main crop with Surround WP and use a trap crop as part of a "push-pull" system.

Effect of the push/pull system: Kale treated with Surround is protected from damage while untreated bok choy draws flea beetles, where they can be sprayed. photo: S. Scheufele

As part of a NE-SARE funded grant project on ecological management of brassica insect pests, UMass and collaborating institutions will be conducting research this summer on using beneficial nematodes to control the soil-dwelling stages of flea beetles and reduce population size over time, as well as research on using mulches to discourage flea beetle activity and egg-laying in the field. Stay tuned to hear about our results, and come out to see the trials at our field day in August!

—UMass Extension, Vegetable Program.

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 date/s!

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

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 occulation 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

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

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

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

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