UMass Extension
Vegetable Notes
For Vegetable Farmers in Massachusetts since 1975

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In this issue:

Scouting season has begun and we were able to hire summer scouts again this year. And with state mask restrictions lifted, you may even be able to see our full faces in the fileds!
Photo: L. McKeag

Crop conditions

This past weekend brought some much-needed rain to the state (2-3" in some locations and a whopping 6" in others), leaving growers both relieved and wary of another boom-and-bust rainfall year similar to last year. This change in rainfall patterns – less frequent but more intense rainfall events – is a sign of climate change in the Northeast and has been documented by climate change researchers (see the Northeast Region Vulnerability Assessment producted by the USDA Climate Hubs). Temperatures dropped as well last weekend, and we have been receiving reports from throughout the region of suspected cold injury on warm-season crops like cucumber and tomato. With temperatures rising again and the recent rain, we can expect crops to take off in the next week or so. Spring greens and roots are being harvested, strawberries are setting fruit, and farm stands and CSA distributions are opening up. We're also entering a new hopeful period in the state, with 54% of the population in MA currently fully vaccinated and state mask mandates and capacity restrictions lifted. With these state restrictions lifted, farm owners are now allowed to create their own policies for farm employees and visitors regarding safety precautions such as mask wearing and crowd capacities. The lifting of state COVID restrictions also means that UMass Extension staff are able to get out to visit farms and start planning in-person events. We'll keep you posted! As always, check the Events section of Veg Notes and the Veg Program website for upcoming programs as the season progresses.

Pest alerts

Alliums

Allium leafminer damage and larvae were found in chives at a new site in Hampshire Co. last week. ALM has been reported so far in Hampshire Co. this year and Berkshire Co. a few years ago and is likely present in other parts of the state as well. We also received reports from other New England states this week of ALM infestations in onion transplants being grown in greenhouses. Check allium crops, especially those that have green foliage in early spring – e.g. overwintered onions, perennial chives, and greenhouse starts – for lines of small, white feeding/oviposition marks and thin, straight, white tunneling. Larvae and pupae may be found between or within leaves or bulb layers. Please report suspected infestations of this pest to us at umassveg@umass.edu so that we can monitor its presence in the state.

Continue to scout for **onion thrips** and treat when populations reach 1-3 thrips/leaf (organic growers should use 1 thrips/leaf threshold). Shallow, white-to-silver rasping feeding damage is likely visible on foliage of infested crops at this point. For chemical control options, see the appropriate crop insect management section of the New England Vegetable Management Guide.

Brassicas

Continue to scout for **flea beetles** and **brassica caterpillars** (primarily imported cabbageworm now). Treat for cater-

Contact Us:

Contact the UMass Extension Vegetable Program with your farm-related questions, any time of the year. We always do our best to respond to all inquiries. **Office phone:** (413) 577-3976 *We are currently working remotely but checking these messages daily, so please leave us a message!* **Email:** umassveg@umass.edu

Home Gardeners: Please contact the UMass GreenInfo Help Line with home gardening and homesteading questions, at greeninfo@umext.umass.edu.

pillars when heading crops reach 35% infestation before head formation, or leafy greens or heading crops after head formation at 15% infestation. Treat for flea beetle in leafy greens and heading crops before head formation if an average of 1 beetle per plant is found or if >10% average leaf damage is found on 50% of the plants checked.

Chenopods

Cercospora leaf spot on beet.

Cercospora leaf spot was reported in RI and NY this week, in both cases on transplanted beets. *Cercospora* is a fungal pathogen that overwinters on crop residue and in the soil as sclerotia and can be carried on seed. Disease development is favored by high humidity and warm temperatures (75-85°F). Controlling weeds to reduce humidity in the canopy can help reduce disease and increase fungicide efficacy. Resistance to FRAC group 11 fungicides has been reported, so use other materials in fields where group 11 products have been used repeatedly in the past. Other conventional options include Tilt (group 3), Fontelis (7), and Merivon (7+11). Use the highest labeled rate of any product for best control. Tank-mixed Double Nickel and copper provided the best control among OMRI-listed products in Cornell Cooperative Extension research trials.

Leafminers are continuing to cause feeding damage in beets, chard, and spinach. For conventional growers, group 5 (e.g. Radiant) and group 28 (e.g. Coragen, Exirel) materials are labeled and would be very effective as they have translaminar activity to target larvae that have already tunneled between leaf layers. For organic growers, Entrust plus a spreader-sticker to aid in leaf penetration is the best chemical control option. Removing and destroying (squishing, feeding to chickens, not just dumping into a cull pile) affected leaves can help reduce the size of the next generation of leafminers, which emerge in mid-July.

Cucurbits

Colorado potato beetle adult laying eggs on a potato leaf.

Striped cucumber beetles have emerged and are feeding on unprotected cucurbit crops now. Protect new plantings with a chemical control, row cover, or kaolin clay (e.g. Surround). For more information on this pest, see the article in this issue.

Solanaceous

Colorado potato beetle (CPB) adults have emerged and are laying eggs in potato and eggplant crops now. Bright orange, oval eggs are laid on-end in clusters of 20-35 on undersides of leaves. Chemical treatments are most effective on small larvae; monitor eggs to catch when they begin to hatch so that you can apply a product at the most effective time. CPB populations readily develop insecticide resistance so rotating between IRAC groups is crucial. Do not use the same chemical class on successive generations in the same year. For organic growers, labeled products include spinosad (Entrust), azadirachtin (Azatin), pyrethrin (Pyganic), and *Beauvaria bassiana* (Mycotrol O, Botanigard). The Bt product Trident was discontinued due to formulation issues but is expected to be re-released in the future. Effective materials for conventional growers include novaluron (Rimon) and spinosad/spinetoram (Blackhawk/Radiant).For a complete list of labeled products, see the potato and eggplant insect management sections of the New England Vegetable Management Guide. Cultural control methods

Solanaceous flea beetle feeding damage on eggplant.

include hand picking/squishing, row covers before beetle intrusion, trench traps, and flaming.

Solanaceous flea beetles are present in eggplant and tomato crops now. This is a different flea beetle species than those that affect brassica crops. Most insecticides registered to control CPB, including spinosad, will control flea beetles. For full lists of labeled products, see the eggplant and field tomato insect management sections of the New England Vegetable Management Guide.

Sweet Corn

European corn borer trap counts remain low across the state but should be increasing over the next few weeks and other northeast states are reporting increasing numbers. Scout whorl-stage corn for flat masses of overlapping eggs. Larvae feeding within the whorl may be protected from sprays, so it's recommended to wait until tassle emergence to spray.

Multiple Crops

We have gotten a similar question from several growers this spring who use row cover to exclude pests, asking about what can be done if a crop wasn't immediately covered and became infested – is it possible to attain some pest control by covering the crop after infestation? There's no simple answer to this question, but some things to consider:

- Row cover will keep out pests trying to move into the crop but will also exclude any natural enemies of the pest and trap *in* anything already present in the crop.
- Many beetle pests, including striped cucumber beetle and flea beetle, lay eggs in the soil beneath their host crops. If those pests have been in your crop for a while already, covering may trap in the next generation as they emerge from the soil.
- You can consider applying a pesticide to kill the pests already present and then immediately covering the crop. Check under the remay after a few days to check the efficacy of your spray and evaluate whether you need to reapply. Keep in mind the previous bullet point.
- Infested crops can also serve as trap crops! If the uncovered crop is highly attractive to the pest, the insects will continually be drawn to that crop. By treating the crop with a systemic insecticide or spraying it regularly, you may be able to provide some additional protection to nearby host plants without spraying them.

Table 1. Sweetcorn pest trap captures for week ending June 3

Location	GDD (base 50°F)	ECB NY	ECB IA
Western MA			
Sheffield	287	-	-
Southwick	391	-	-
Whately	431	6	0
Central MA			
Bolton	411	0	0
Leominster	403	-	-
Spencer	409	-	-
Eastern MA			
Ipswich	351	-	-
Concord	399	-	-
Millis	-	0	0
North Easton	382	0	0
Sharon		0	0
Seekonk	474	0	0
Swansea		2	1

- no numbers reported for this trap

*GDDs are reported from the nearest weather station to the trapping site

Recognizing Cold Injury

--Written by Andy Wyenandt, Rutgers Cooperative Extension. Originally Published in the June 2, 2021 issue of the Rutgers Plant & Pest Advisory.

If the erratic, hot then wet weather wasn't enough, temperatures have fluctuated the past few days with night time temperatures becoming much cooler in some parts of the state and region. With this comes the potential for cold injury on spring planted crops. Cold injury can take may different shapes on affected plants and developing fruit.

In some cases, symptoms may show up on the newest growth as a result of non-lethal injury to meristematic tissue, in pepper and tomato, new growth may be distorted with misshapen leaves. In some cases, new leaves may have a mottled, or mosaic look much like a plant infected with a mosaic virus. In these instances, plants will grow out of the problem.

In cucumber, symptoms on maturing fruit appear as brownish-tan areas on the epidermis of fruit. The fruit will also show cracking as if it has a dry rot. The effects are physiological where areas of young developing fruit got chilled by the cold night time temperatures.

We have collected a few images below of cold injury from crops from this spring.

[Editor's note: While there is no cure for cold injury, crops should grow out of the damage if they were not outright killed by the low temperatures. Avoid overwatering after significant cold injury, as damaged leaves will transpire less and the plant may require less water than normal. With some patience (easier said than done!), the plants should put on healthy new growth and move past the damage.]

Freezing damage caused by ice crystal formation in veins of snap bean (left), and other symptoms of cold injury in snap bean (right). Photos: J. Rabin

Frost damage in strawberry. Photo: T. Besancon

Cold injury on a young cauliflower plant. Photo: K. Holmstrom

Cold injury on sweet corn under a low tunnel. Photo: M. Casella

Cold injury on a cucumber seedling and young cucumber plant (Photos: M. Casella) and on cucumber fruit (Photo: A. Wyenandt). The initial damage to the fruit was done a few weeks ago when the fruit was very young.

Freezing of a young potato plant. Photo: R. VanVranken

Cold damage on tomato foliage. Photo: C. Stewart, Cornell

UNDERSTANDING FACTORS DRIVING SUCCESS WITH PRE-EMERGENCE APPLIED HERBICIDES

--Written by Elizabeth Buck, Cornell Cooperative Extension Vegetable Program.
Originally published in Volume 17, Issue 7 of Veg Edge, May 26, 2021.

Herbicides that have activity on weeds that are not yet emerged (what "PRE herbicide" will mean in this article) can be a great weed control tool. Effectively, they remove weeds as they germinate and emerge and prevent weeds from entering into competition with your crops for a number of weeks.

Anyone who has used PRE herbicides knows that they can be a little finicky. When working well, PREs offer solid control of species that the chosen herbicide is highly effective against. Most people have also experienced failures of control with PRE herbicides. Most failures come down to a few factors related to how these herbicides work. If you understand these factors, you can anticipate the potential for underperformance and adjust your subsequent weed control plans.

Soil Texture

Herbicides can bind to soil particles. In order to be active and available in the soil for killing weeds, a sufficient amount of the herbicide must be able to come off the soil particles and exist in the soil water solution. If an herbicide is too tightly bound to the soil, you will have a difficult time getting an effective rate into the soil water solution. Some herbicides (not all) bind more or less to different types of soil particles. Generally speaking, clay and organic matter particles have a greater ability to hold onto herbicides and sand has much less ability to hold onto herbicides. PRE herbicides that bind to soils in varying degrees will have labels that specify soil-texture specific rates. S-metolachlor (ex. Dual, Medal) is an example of one such herbicide. You must match the rate to the soil texture to achieve good control and an acceptable margin of crop safety. Too high of a rate for your soil type and you will risk crop injury because too much herbicide can be available and active in the soil water. For some herbicides you may be risking leaching of the herbicide by mismatching your rate and soil texture. Too low of a rate and there may not be enough herbicide available in the soil water solution to offer a high degree of control.

Soil Moisture, "Activation", and Volatilization

"Activation" is a concept related to many PRE herbicides. Several PRE herbicides require extra help to get into the soil water solution. Without reaching the soil water solution, these herbicides are limited in how much weed control they can offer. There are two ways to achieve activation, and the strategy differs based on individual herbicide chemistry and sometimes the crop.

The first and most common is activation by rainfall or irrigation. PRE herbicide sprayed on the soil surface is dissolved with the moisture and moves into the upper layer of the soil. Remember that PRE herbicides in this article means herbicides that are active on weeds before they emerge. Many PREs act on very young seedlings and need to be absorbed by seedling structures that remain below ground. If the PRE herbicide remains on the soil surface, "unactivated", sensitive parts of germinating weed seedlings are far less likely to come into contact with an effective rate of the herbicide.

The second way to achieve activation is to mix the herbicide into the soil yourself. These are materials applied PPI, or Pre-Plant Incorporated. Materials may carry a PPI label on them for activation, for crop-specific reasons, or they may carry a PPI label on them because the herbicide has volatility issues. Herbicides that can volatilize are at risk of evaporating off the soil surface and must be mixed into the soil. Such materials are only applied PPI. When working in PPI materials you want to work them in shallowly and follow the label directions closely.

Herbicides that need "activation" will specify on the label a need for incorporation, rainfall or irrigation within so many days of application.

Herbicide Degradation

Most PRE herbicides used in vegetables are broken down in the soil by microbial degradation. Good bacteria & fungi eat the herbicide and break the chemical down into non-herbicidal pieces. Microbial degradation is usually an aerobic process, meaning it doesn't happen well in saturated soils. Microbial degradation also occurs much more slowly in cool conditions because the microbes are far less active and can't multiply as quickly. So, cold wet soil tends to allow PRE herbicides to

persist longer, which means that the concentration in the soil can remain higher for longer than under more typical conditions. These conditions can increase the risk for crop injury when you use certain PRE herbicides.

On the flip side, microbial degradation happens more quickly when soils are warm and moist. Under those conditions we might see shorter effective control windows for PRE herbicides. Weeds can "break through" and you can see entire flushes of previously controlled weed species come up through the more rapidly degraded herbicide barrier. In this case, season-long control programs can fail not because the PRE herbicide didn't do its job, but because wet warm weather shortened its active life while pushing the weeds ahead. This is often exacerbated by wet ground preventing timely cultivation or application of herbicides that control already emerged weeds (POST emergence herbicides).

Depth Protection

Some PRE herbicides rely on a concept of "depth protection" to gain a better margin of crop safety. Basically, depth protection means that the parts of the crop seedling or transplant that can take up the herbicide are physically separated from where the herbicide sits in the soil. Functionally, they sit below the herbicide barrier layer in the soil. Prowl (pendimethalin) is an example of an herbicide that relies on depth protection for seedling safety. When conditions are too wet, herbicides that normally sit in the top ¼ to ½ inch of soil (the zone most weed seeds germinate from) can be washed deeper into the ground and get into the crop germination zone (usually an inch or more). Excessive soil moisture can put the susceptible parts of the seedling, the roots and hypocotyl, in direct contact with more PRE herbicide than the crop can tolerate. The result is injury manifesting as stunting, root damage, brittleness, and other symptoms depending on your herbicide choice.

Crop injury when correct rate is used in the correct crop:

Plants that tolerate herbicides have to metabolize the herbicide into something harmless or not physically have contact between plant parts that can absorb the herbicide and herbicide itself. In the cold, plants aren't terribly active metabolically. If the plant isn't very active metabolically, then it can't efficiently process the herbicide through its system. Age of plant matters. Generally speaking, older crop plants can better tolerate and metabolize PRE herbicides because older plants are essentially "tougher skinned" - less likely to take up the active ingredient - and better equipped to metabolize it. *S*-metolachlors (Dual & many generics) tend to injure plants more in cold, wet soil conditions because the plants can't handle the herbicide as well as in warmer, better growing conditions.

I already touched on the physical separation bit related to depth protection. There is also physical separation on some labels that allow row-middle applications or directed applications away from the crop row. I most often see physical separation fail when folks spray herbicides over the top of the plastic and then rain washes that herbicide into the holes. This is a case of improper (off-label) herbicide placement.

When herbicide washes into plastic holes you end up with both a higher effective rate and more physical contact with the transplant than intended. Transplants and seedlings struggle to tolerate this. Not coincidentally, many labels do not allow broadcast spraying of herbicides over plastic. Some allow banded application under plastic mulch instead, because then the transplant can be set through the herbicide layer and into safe soil below, without risk of herbicide concentration during wet weather.

STRIPED CUCUMBER BEETLE: FOCUS ON EARLY CONTROL

Striped cucumber beetle (SCB) adults spend the winter in plant debris in field edges. With the onset of warm days, they move rapidly into cucurbit crops. High tunnel and greenhouse cucumbers draw beetles first, followed by early field crops. The beetles are out and feeding on cucurbit foliage now throughout New England. Densities can be very high, especially in non-rotated fields or fields close to last year's cucurbit crops. Adult feeding on cotyledons and young leaves can cause stand reduction, delayed plant growth, and reduced yield. Eggs are laid in soil near the stem, and a hidden but important impact of SCB is larval root feeding, which reduces plant vigor and yield. The striped cucumber beetle also vectors the bacterium *Erwinia tracheiphila*, the causal agent of bacterial wilt – this disease can be more damaging than direct feeding injury. Focus on early, effective control to avoid yield impacts and to protect pollinators.

Crop rotation, transplants, and floating row cover are cultural controls that help reduce the impact of cucumber beetles. Row covers provide both extra early-season heat and insect protection, but need to be removed when flowering begins to allow for pollination.

Perimeter trap cropping has been shown to allow for reduction or elimination of main crop sprays while providing effective control of beetles. Trap cropping is based around the fact that SCB are more attracted to *Cucurbita maxima* crops (e.g. buttercup and hubbard squashes and giant pumpkins) than *C. pepo* or *C. moschata* crops (e.g. pumpkins, summer squash, butternut squash, other winter squash). Note that some specialty pumpkin varieties are *Cucurbita maxima* types and very attractive to beetles. Plant 1 or 2 rows of a *C. maxima* variety in an unbroken perimeter around the field. Always use 2 rows near woods or last year's fields, and space plants no wider than the between-row spacing that is used in the main crop. Do not use a crop that is highly susceptible to bacterial wilt (see next paragraph) in the border. Beetles must be killed in the border, either by applying foliar insecticide when beetles first arrive or using a systemic insecticide at planting. Scout both borders and main crop to assess beetle numbers. Repeat perimeter-sprays if needed to prevent influx into the main crop, and spray the main field if thresholds are exceeded. Attractive crop types that are planted in rows within the main field also work as trap crops that draw beetles as they move around within the field. These trap crops can be selectively sprayed.

Striped cucumber beetle on a cucurbit seedling.

Bacterial wilt in squash.

Thresholds and foliar controls. Cucurbit plants at the cotyledon and 1-2 leaf stage are more susceptible to infection with bacterial wilt than older plants. Thus, it is especially important to keep beetle numbers low before the 5-leaf stage. Scout frequently (at least twice per week up to SCB emergence, and for two weeks after) and treat after beetles colonize the field. Scout at least 25 plants to monitor the number of beetles and damage. Use this UMass Cucurbit Scouting Form to help keep track of what you find. The economic threshold depends on the crop. To prevent bacterial wilt in highly susceptible crops such as cucumber, muskmelons, summer squash, and zucchini, we recommend that beetles should not be allowed to exceed 1 beetle for every 2 plants. Less wilt-susceptible crops (butternut, watermelon, most pumpkins) will tolerate 1 or 2 beetles per plant without yield losses. Spray within 24 hours after the threshold is reached. Proper timing is key.

Conventional foliar insecticides. There are a number of broad-spectrum conventional insecticides which can be used for foliar control, including carbamates, pyrethroids, and neonicotinoids. All are highly toxic to bees and should only be used before bloom. Avoid using neonicotinoid sprays (Actara [thiamethoxam] or Assail 30SG [acetameprid]) if systemics in the same class were used (see below). See the cucurbit insect management section of the New England Vegetable Management Guide for more details.

Systemic insecticides. Two neonicotinoid products, imidacloprid (multiple trade names) and thiamethoxam (Platinum) are registered for use in cucurbits as an in-furrow, banded, drench, or drip irrigation application to the seed/seedling root zone during or after planting/transplanting operations. Note specific application methods and rates on label. Commercially applied seed treatments (e.g. thiamethoxam, Farmore) are also available for early season control.

Cucurbit seedlings treated with Surround.

Organic insecticides. Kaolin clay (Surround WP), pyrethrin (Pyganic Crop Spray 5.0 EC), and Azera (mixture of pyrethrin and azadiractin) are labeled for SCB. Surround does not kill the beetles but instead acts as a physical deterrent. With direct-seeded crops, apply Surround as soon as seedlings emerge if beetles are active. Transplants can be sprayed or dunked before setting out in the field. As with other insecticides, Surround must be re-applied after heavy rain and on new growth. Pyganic is a contact insecticde that provides a short term knockdown with no residual effect. Spinosad (Entrust) is not labeled for and is not effective against SCB.

Reducing risk to pollinators: The New England Vegetable Management Guide describes many steps that growers can take to protect honeybees and native pollinators when using insecticides. The issue of neonicotinoids, in particular,

has received a great deal of attention in recent years. This is a group of insecticides that have a chemical structure very similar to nicotine. They have been widely used in agriculture because they are effective against a wide range of insects, have lower mammalian toxicity compared to older classes of insecticides, and because they can be absorbed by roots and moved through the entire plant. This trait allows for applications to be made to soil or on seeds, with less exposure to humans and to natural enemies of insect pests. Neonicotinoids are highly toxic to bees, and label requirements prohibit use on blooming crops or where there are blooming weeds or borders. Additional concern about impact on bees arises because research has shown that detectable, low concentrations of neonicotinoids can move into pollen or nectar. These are present at sublethal concentrations, but may affect the foraging behavior of bees or suppress their immune system. The long-term or colony effects of sublethal concentrations of neonicotinoids are difficult to assess in the field, because bees from each colony travel long distances and forage in many different habitats and types of plants. In cucurbits, both native bees (e.g. squash bees and bumblebees) and honeybees visit flowers to gather both pollen and nectar, and are essential to crop pollination. Research in cucurbits has shown that higher levels of neonicotinoids were found after foliar treatments and chemigated insecticides were applied during flowering. Lower levels were detected in treatment regimens that involved a single application at planting via seed treatment, a drench application to transplant trays, or transplant water treatment. Thus, growers should avoid high rates and multiple applications, especially through trickle irrigation as the crop approaches flowering.

--UMass Extension Vegetable Program

News

Corn Earworm Management in Sweet Corn Needs Assessment Survey

Represent New England pest management needs by filling out this survey: https://ume.qualtrics.com/jfe/form/SV_9vRh1xHnDp4KEaa

Dr. Kelly Hamby, Associate Professor/Extension Specialist with the Department of Entomology at University of Maryland, is leading a team of researchers who have developed a survey to prioritize research and extension efforts for improving corn earworm management in sweet corn throughout the Northeast. We appreciate your participation in this survey and will use results to develop a grant proposal to try to get federal funding to address these needs.

Massachusetts Collaborative Soil Health Producers Survey

American Farmland Trust, MDAR, NOFA/Mass, and UMass Amherst are working together to build a network of soil health resources in the Commonwealth. The following survey will provide us with valuable data on what kinds of education, technical support, and financial support would be most helpful to producers and will include questions about your tillage, cover crops, residue management, and other practices. We also want to know what kinds of field days, case studies and grants might help you increase those practices on your farms.

Your input will directly inform the shaping of financial, educational, and technical support programs for healthy soils practices adoption for farmers in MA.

The survey should take approximately 15 minutes. Participants who complete the survey before 5/31 will be entered for a chance to win one of five $50 gift cards.

For questions about the Massachusetts Coordinated Soil Health Program, contact newenglandsoilhealth@farmland.org or visit farmland.org/ma-soil-health-program

Coronavirus Food Assistance Program 2 (CFAP 2) still accepting applications

Signup reopened on April 5 and no deadline has been determined yet for the second round of Coronavirus Food Assistance Program payments (CFAP 2) at the USDA Farm Service Agency (FSA). The purpose of CFAP 2 is to provide financial assistance to producers who faced market disruptions and incurred increased costs because of COVID-19.

CFAP 2 uses 2019 calendar year sales of eligible vegetable and fruit crops as the basis for payments. Crops purchased for resale are ineligible for CFAP 2. Value-added or processed crops (such as apple cider) are eligible but applicants will have to determine the value of the commodity prior to processing and use that figure rather than the sales of the value-added or processed commodity. Eligible crops sold through CSAs may be eligible provided they meet the FSA

requirements for eligible CSAs.

More detailed information can be found at: https://www.farmers.gov/cfap

Producers are encouraged to contact the FSA Office that serves their farming operation with questions they have along with procedures to file an application and related paperwork. Sales records are not required at the time of signup but producers will have to provide evidence of total sales if the application is selected for a later spot-check.

Bottom Line: If you grew and marketed an eligible crop, you likely are eligible for a CFAP 2 payment!

FY2022 MDAR and USDA Programs Open Now

The following grant programs are currently accepting applications:

- Urban Agriculture Program: Application deadline Tuesday, June 15, 2021, 4pm.
- Food Venture Program: Application deadline Friday, June 18, 2021, 4pm
- Agricultural Preservation Restrictrion (APR) Program: Application deadline Wednesday, June 30, 2021, 4pm
- USDA Urban Agriculture and Innovative Production Program: Application deadline Friday, July 30, 2021, 11:59pm

MA Food Systems Collaborative

The Massachusetts Food System Collaborative (MFSC) was created following the completion of the Massachusetts Local Food Action Plan in December 2015. The Collaborative seeks to promote, monitor, and facilitate implementation of the Plan and works toward policy change that will contribute to a more equitable, sustainable, and resilient food system. Their latest email update provides information about recent state budget decisions and legislation regarding agriculture, outlines some ways to get involved, and includes other trainings and resources. Visit their website, mafoodsystem.org, for more information and to sign up for their email list.

Events

Measuring Healthy Soils and Ecological Outcomes in the Northeast

When: Friday, June 4, 1-3pm

Where: online

This is the third event in the webinar series Northeast Healthy Soil Network Symposium hosted by the Gund Institute for Environment at UVM. Equitable access to reliable measurement and evaluation tools is essential to creating financing mechanisms, informing policy-making, and identifying the limits of soil health practices. Practitioners from across the region will provide insight into a diversity of approaches and perspectives on measuring healthy soils and associated outcomes on farms in the Northeast. We'll explore the gaps in our collective understandings of soil health, learn about important opportunities behind farmer-driven inquiry, and discuss new research projects to link soil health, ecosystem services, and farm viability.

Welcome and opening remarks:

- Taylor Ricketts, Director, Gund Institute for Environment, University of Vermont (UVM)

Moderator:

- Heather Darby, Extension Professor, Agronomy Specialist, Gund Fellow, UVM

Panelists:

- Briana Alfaro, Soil Carbon Field Researcher, Soul Fire Farm; Farmer & Owner, Sun Heart Farm
- Julie Davenson, Executive Director, Stonewall Farm
- Joshua Faulkner, Research Assistant Professor, Gund Affiliate, UVM Extension
- Ellen Griswold, Policy and Research Director, Maine Farmland Trust
- Sarah Bay Nawa, Research Coordinator, Pennsylvania Association of Sustainable Agriculture

- Eric Roy, Assistant Professor of Environmental Science, Gund Fellow, UVM
- Brandon Smith, Northeast Regional Team Leader, Soil Health Division, NRCS

Registration: Click here to register for this event.

UMass Worker Protection Standard (WPS) Train-the-Trainer

When: Wednesday, June 30, 4-7:30 pm

Where: Online

All farmworkers must receive annual training under the EPA Worker Protection Standard (WPS) if the farm where they work uses any pesticides in their crop production, **including those approved for organic production and other general use pesticides**. The agricultural worker employer is responsible for complying with all components of WPS including the training of farmworkers. This training can only be provided by an individual who has a pesticide certification license or has attended **an approved EPA WPS Train-the-Trainer workshop**, such as this one.

This training is appropriate for farmers and supervisors who want to be able to train farm employees on WPS without having to have a pesticide license. For farmers who do already have a license, 3 pesticide contact hours are available for this training.

***3** pesticide recertification credits are available for this program*

Cost: $60

Register here: https://forms.gle/ZoTAdTiB7N4Wc3Lt7

UNH North Country Lunch and Learn

UNH Extension is offering this online series, open to all but focused on growing vegetables commercially. So, grab your lunch and let's learn!

This event is free, but registration is required. Register once for all days.

- **July 7, 12-1pm:** Onions: Over Wintering and Direct Seeded
- **August 4, 12-1pm:** Brussels Sprouts: Growing and Storage

Registration: Click here to register for these workshops.

Questions? Contact nicholas.rowley@unh.edu or heather.bryant@unh.edu or call 603-788-4961 ext. 207

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Vegetable Notes. Genevieve Higgins, Lisa McKeag, Susan Scheufele, co-editors. All photos in this publication are credited to the UMass Extension Vegetable Program unless otherwise noted.

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