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It's seeding time! Brassica and onion transplants are starting to take off in MA greenhouses. Photo: G. Higgins

CROP CONDITIONS

It's starting to feel like spring out there, with the recent warm, sunny weather! The outdoor growing season is just barely beginning, with growers starting to seed transplants in greenhouses and keeping an eye on fields to think about plowing. We are nearing the end of high tunnel greens season and it's almost time for many growers to turn over tunnels in preparation for a new spring greens planting or summer cucumbers or tomatoes. One of the effects of climate change that we have been seeing in the Northeast is a longer growing season; the last frost of spring has been moving earlier (about 2 days earlier per decade, according to one analysis) and the first frost of fall has been moving later. It can be tempting to start seeding transplants earlier and earlier, knowing that. However, temperature fluctuations within a season are also widening, increasing the chances for frost injury to early-planted crops in the Northeast. Regardless of frosts, remember that nutrients (especially phosphorous) can be locked up in cold soils and plants grow slowly and will be more susceptible to diseases – things to keep in mind when planning planting dates!

The Brassica Pest Collaborative, which includes Extension researchers from UMass, UConn, UNH, and Cornell, will be holding a webinar on brassica insect pest management on April 14, to provide growers with practical recommendations for managing the most prevalent brassica insect pests in the Northeast. We hope you can join us! See full event listing in this issue for the registration link.

Monday, March 22, all agricultural workers will become eligible for COVID vaccines. This includes “all staff involved in the production, processing, storage, transport, wholesale and retail sale, preparation, and service of food and consumer goods, including farm and other agricultural workers, including farm stand and nurseries” (Source: <https://www.mass.gov/info-details/covid-19-vaccinations-for-certain-workers>). Some notes on how to find a vaccination appointment:

As the growing season begins, COVID labor concerns are on the front of everyone's minds. It was announced yesterday that as of

- Anyone, whether eligible already or not, can pre-register for vaccination at one of the seven mass vaccination sites in MA here: <https://vaccinesignup.mass.gov/#/>
- Once someone is eligible for the vaccine, you can also search for available appointments at other locations here: <https://vaxfinder.mass.gov/>

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.

IMPROVE PEST MANAGEMENT BY PLANNING AHEAD

Integrated Pest Management (IPM) is a stepwise approach to managing pests that combines accurate knowledge of the pest and level of potential harm with multiple tactics to prevent, reduce, or eliminate the effect of pests (disease, insects, weeds, or even abiotic issues) on your crops. It is not an alternative to organic or conventional production, but is a strategy that can be used by any grower, whether using OMRI-listed or conventional materials.

Over decades of working directly with growers to implement IPM on their farms, we have developed an IPM planning template to help you focus and be successful with your pest management strategies. Following are instructions for completing an [IPM Plan](#) (click on the link for a blank template):

Crop & Pest columns: Choose up to 5 pest-crop combinations you would like to work on most this season. We have found that choosing no more than 5 pest issues each season leads to more successful pest management because it allows you to focus on learning pest identification and life cycles and become more confident at using control strategies that work. Often, growers will choose to focus on their most valuable or newest crop(s). Each season, you can choose new pests and crops to build on your IPM knowledge from the previous year.

Past Control Strategies column: Write down what strategies you have tried before. What worked? What didn't work? Take a moment to think about your crop quality, inputs, and yields this season in terms of the pest in question. Did you implement a practice that reduced pesticide use, labor, or other inputs on the crop? Was the crop more profitable? Perhaps some of your strategies worked, but not others; write down both. "I don't know" may be what you write down, especially if you are working with a crop or pest that you don't have much experience with.

Future IPM Strategies column: Some of the core IPM strategies are listed below. List the strategies that you plan to use. Be picky; only write down the strategies you think you will actually use. Below are some strategies to choose from.

- a. **Accurate identification:** Determine the true underlying cause of the pest problem through soil or plant tissue testing, disease diagnostics, insect and weed identification, or other methods. Often, pest identification is the most important task in the first year of developing an IPM plan.
- b. **Pest scouting:** Determine pest levels, damage, and life stages, and keep records over time. We recommend weekly scouting for most crops (sometimes more frequently, for example as pest levels approach thresholds). See our [scouting resources](#) page for pest scouting sheets that we have developed for different crops.
- c. **Monitoring & Forecasting:** Use data loggers, pheromone traps, online networks, pest models, and pest or weather forecasts to monitor or predict pest arrival/emergence and potential for damage.
- d. **Cultural practices:** E.g., crop rotation, mulches, irrigation, resistant varieties, row covers.
- e. **Biological control:** Attract and/or release beneficial insects, predators, or parasitoids to control pests.
- f. **Chemical control:** Choose the right materials and spray timing. Improve coverage, and manage for resistance.

This Year's Plan column: Fill in the year here. Get more specific with the strategies you listed in the previous column. Use our [Scouting Toolkit Inventory](#) to find out what supplies you will need for the season and where to buy them. *Write down the tools and supplies needed, people involved, resources to use, etc. Write down the steps necessary to implement your plan and who will do them.*

Calendar Alert column: *When does each task need to be completed or planned?* Jot down dates or set calendar reminders to make sure you set up traps on time, know when to begin scouting for a pest, etc. Review past *Pest Alerts* in [Vegetable Notes](#) to get an idea when pests first appeared in your area or rely on past experience to plan.

Notes column: Consider other factors that may impact your pest management success but may not be directly related to your plan. For example: equipment or labor shortages, unpredictable weather, underlying field conditions (e.g., rocky, low fertility, prior crops, surrounding environment), etc. *Write down any of these outside influences that may have a specific effect on your plan.*

Here is a sample IPM plan from a grower we have worked with in the past to guide you. In this example, we select one pest to tackle using the IPM principles of accurate pest identification, scouting, monitoring, and implementing an effective chemical control at the right time.

Crop	Pest	Past Control Strategies	Future IPM Strategies	This Year's Plan: <u>2018</u>	Calendar Alert	Notes
Summer Squash, Zucchini, and various winter squash: Delicata, Butternut Acorn Spaghetti	Squash Vine Borer (SVB)	<p>We identify the larvae in stalks, but it's too late to treat once they are infesting the crop. We lost about 30% of yield to fruit infestation in the fall. We didn't know there could be 2 generations of SVB per year!</p> <p>What didn't work? Treatment was too late since Entrust must be consumed by the larvae before they enter the stalk and row cover is not practical on a large scale. We need to know when adults arrive, how to identify eggs and when to treat so that we can target larvae before they enter the plant.</p>	<p>Accurate Identification: Adult and eggs.</p> <p>Monitoring: Use pheromone trap to determine arrival of adults. Trap is to be placed in the top of the crop canopy about 3ft. above the ground.</p> <p>Chemical Control: Use Entrust targeting base of plant at a threshold of 5 adults/trap in non-vining crops and 12/trap in vining crops.</p>	<p>Get Pest ID guide from UMass Extension.</p> <p>Manager order trap and pheromones from Great Lakes IPM.</p> <p>Manager will set up the trap with field crew and assign a scout.</p> <p>First place the trap in the field where the winter squash was last year, then when the first adults are captured, move the trap to the summer squash field.</p> <p>Scout will check traps weekly and scout for eggs then report to Manager.</p> <p>Farmer will treat at threshold.</p>	<p>December 3: Order trapping supplies and ID Guide.</p> <p>May 15: Set up trap.</p> <p>Early June (likely): Scout for eggs near the base of the plant.</p> <p>Weekly, May 15–harvest: Check trap and scout field.</p> <p>Spray if threshold is reached.</p>	<p>Summer squash is being grown in the field adjacent to last year's winter squash which had a high infestation, so heavy pressure is expected. The winter squash was not tilled under to destroy pupae because this is a no-till field, so higher populations are also expected.</p>

--Written by K. Campbell-Nelson & S. Scheufele, 2017. Updated for 2019 by L. McKeag

TWO DOZEN PRACTICES TO CONSIDER DOING THIS YEAR

--Written by Vern Grubinger, UVM Extension

[Ed. note: Some links were changed from the original article to direct growers to MA rather than VT resources where appropriate]

Here's a list of some "best practices" you might already be implementing, have been meaning to do, or...don't even want to think about. This isn't meant to overwhelm you, but to provide reminders of things you may want to act on. The list is not in priority order, and is kind of random...send us your ideas on topics that should have been included!

1. **Add *Trichoderma* and/or other [biofungicides to your potting mix](#).** Many of these are low cost, essentially non-toxic, and they can help prevent diseases that cause damping off. Depending on the label, they can be incorporated in the mix ahead of time, or applied as a drench to established transplants.

2. **Calculate the cost of your field fertilizer options.** Becky Maden (UVM Extension) developed spreadsheets to help you select the lowest-cost soil amendments to meet the nutrient application rates you've identified, based on crops and soil test results. The spreadsheets and related information are on [this page](#).
3. **Call a technician to service greenhouse heating systems.** Making sure your furnaces, boilers, etc. are in optimal condition can save money by improving their efficiency, and avoid potential problems such as heating failures or ethylene damage due to combustion gases getting into the greenhouse. For more information, see this [fact sheet from Virginia Tech](#) and this [fact sheet from UMass](#) focused on gas and oil furnaces.
4. **Clean up your surfaces.** Do you have wooden walls, or other hard-to-clean-surfaces in places where produce or other food is handled? This UVM Extension Ag Engineering [blog post on smooth and cleanable surfaces](#) provides a summary of some finish surface materials, their pros, cons and prices.
5. **Develop an employee handbook.** This is not as hard as it sounds, and there are many potential benefits of being on the same page with your employees. Use this [personnel policy generator](#) to edit pre-existing text that makes it super easy for farms to generate your own employee handbook. If you need a good example, here's the [Lewis Creek Farm Employee Handbook](#) posted on-line by Hank Bissell and shared without permission. Thanks Hank!
6. **E-mail pictures of plant problems for diagnosis.** The pandemic has increased use of this option, and the University plant diagnostic labs in each of the New England states are super-responsive to commercial grower submissions. MA growers, here is the link to the [UMass Plant Diagnostic Lab](#). Images can be shared with other experts, as needed, to facilitate accurate diagnosis. Here are two resources with tips for submitting a "digital sample" to a diagnostic lab, from [Kansas State](#) and from the [May 21, 2020 issue of Veg Notes](#). A live sample may eventually be needed, but you can save time by sending the right kind of images first.
7. **Get customer feedback.** Set up a consistent ways to learn what your customers like and don't like. This can be as simple as providing feedback forms and a collection box at your retail market, or you could conduct an e-mail survey to your customer list. Keep the questions short and focused on things you can respond to (change).
8. **Increase your drip irrigation.** In high tunnels or in the field, the entire root zone of crops may not be fully wetted if there are not enough drip lines, especially during droughty periods. This is most likely an issue in light-textured, sandy soils, where water tends to move down rather than sideways. [This article](#) has a couple of good images showing water movement over time in different textured soils.
9. **Install monitoring systems** – at least for greenhouse temperature, and maybe much more. A simple temperature alarm can save you a bundle if the heat goes out or vents aren't open when they should be. Keeping tabs on vegetable storage conditions is a good idea, too. Here's some information from UVM Ag Engineering about [monitoring options on the farm](#).
10. **Invest in good rain gear and neoprene gloves.** In response to VVBGA listserv queries in recent years, Grunden or Helly Hansen were popular rain gear products, and Ice Bay Glacier gloves were a favorite. (You can search the [listserv archives](#) to see the all the grower recommendations.)
11. **Join your state Veg & Berry Growers' Association (VT, ME, CT, NH) and/or the [New England Veg & Berry Growers' Association](#).** These associations provide programming and support for veg and berry growers and are a great way to meet ag service providers and other growers in your region.
12. **Monitor spray coverage by using water sensitive cards.** If you apply pesticides, organic or conventional, good coverage is important. Here's [an article with images](#) that shows how these cards can help you assess coverage. Here's a [video](#) with a lot more information.
13. **Mount HAF fans in high tunnels** (especially for trellised tomatoes, which block air movement). The fans create a more uniform temperature by reducing stratification, can reduce disease problems by avoiding condensation on leaves, and can help maintain higher carbon dioxide levels around the leaves. Proper selection and installation of HAF fans is important; see [this article](#) for details.
14. **Net some of your blueberry or raspberry crop.** A good way to estimate what your losses to birds are is to cover a part of your planting for comparison. Using insect netting can give you protection from both birds and SWD. Growers are experimenting with a variety of netting systems to protect their crops. Here's a collection of [bird netting images](#) on brambles and blueberries.
15. **Order *Trichogramma ostrinae* for European corn borer control.** This miniature wasp seeks out ECB egg

masses and parasitizes them, killing them before they hatch. This beneficial insect is produced on demand by [IPM Labs in NY](#), so you need to call them when you plant your sweet corn to place your order.

16. **Plan some down time and empower your employees to do the same.** Take regular work breaks, and get away from the farm, even for a day or two. There is a lot of evidence that these practices are good for well-being and productivity, for business owners and employees. But if you don't plan ahead, they may not happen.
17. **Prune your blueberries properly.** That means every year if possible, while still dormant, removing old canes and weak growth. This [6-minute video from UMaine](#) shows you how. If a planting is old and has not been pruned much at all, consider [renovation](#) for some or all of it (cutting down to the ground) to allow new canes to flourish.
18. **“Stack” your weed cultivation tools.** Using several different cultivation implements at once can improve weed control, especially tools that work synergistically together, to undercut, then uproot, then bury weeds. [Research by Bryan Brown](#) in NY found that sweeps plus fingers plus disk hillers consistently provided good weed control in beans and beets.
19. **Apply for or renew your pesticide license.** Pesticide applicators who use Restricted-Use pesticides must be licensed, but any applicator may benefit from the licensing process. Anyone with a pesticide license can provide Worker Protection Standards training to farm employees; WPS training is required for anyone who works on a farm who may be exposed to pesticides, including pesticides OMRI-approved for Organic production (including working in a field where pesticides have been applied). MA growers: visit the [UMass Pesticide Education Program](#) page for information on how to sign up for a pesticide exam and exam preparation materials.
20. **Track labor time on key crops and tasks.** Okay, I know this is not simple. But there are some tools to help you get a general handle on this. See the short and long forms for worker time reporting developed by [Veggie Compass](#). There's also a crop labor estimation workbook on this site. Compass Tools are free downloadable spreadsheets created at the Center for Integrated Agricultural Systems, University of Wisconsin-Madison
21. **Expand your use of cover crops.** Check out the brand new [Cover Crop Decision Tool](#) for the Northeast to select different covers best suited to different conditions, and to learn more about each cover crop.
22. **Use the correct soil test for established high tunnels.** Once you have amended the soil for several years, we recommend that you use the “Long Term/Combined High Tunnel Package” offered by the [UMaine soil test lab](#). This includes the Basic High Tunnel Test (modified Morgan's extract, like a field soil test) PLUS the Saturated Media Extract (potting soil test) for all major and micronutrients. The results report both season-long nutrient availability and short-term nutrient intensity.
23. **Validate your crew.** [Create a culture of encouragement](#). Buy doughnuts every Monday. Catch people doing something right. Leave notes of appreciation. Do some ‘affirmations’ in weekly meetings about what is going well. Celebrate once in a while.
24. **Reach out to your state Extension program for resources and help!** This list was created by Vern Grubinger of UVM Extension, but because this version is going out to primarily MA growers, we will direct you to the [UMass Extension Vegetable Program](#) – we encourage commercial growers to reach out via phone or email at any time with farm-related questions! (413) 577-3976, or umassveg@umass.edu.

A TOOL FOR MAKING MORE INFORMED IRRIGATION DECISIONS: THE CLIMATE SMART FARMING WATER DEFICIT CALCULATOR

--Written by Elizabeth Buck, Fresh Market Vegetable Specialist, Cornell Cooperative Extension Vegetable Program

[Ed. Note: This article was written by an Extension Specialist in New York, but the climate trends described are true in Massachusetts and throughout the Northeast as well.]

It's no secret that we're running into more frequent and intense drought-related issues throughout NY's vegetable producing regions. Dry conditions around planting disrupts uniform seed emergence, diminishes final stand, inhibits herbicide activity, and delays weed germination. Of course, all four of these conditions compound upon each other to favor weed dominance and leave you stuck in a game of catch up in an uneven, economically hamstrung planting. Yes, there's an integrated weed management concept worked into this irrigation article...surprise!

None of that information is exactly earth shattering, right? You're all good farmers, you know that irrigation is important. But the reality is, most of the farms I visit just don't have access to enough irrigation water, infrastructure, and labor to comfortably keep up with watering crops during droughts. And of those three limitations, the water source is often the largest challenge, the hardest and most costly to change.

We have a long history of getting by with surface water, with having enough flow in streams and frequent enough rain to carry crops through most of the growing season or at least to reliably refill farm ponds during the growing season. But things are changing and it is common now for segments of WNY to experience several weeks of abnormally dry or drought conditions during the summer. Too often ponds aren't recharging, streams are flowing low, and the rain comes too fast to soak in. You all know irrigation is important during this period. The tricky part is figuring out how best to allocate the water you do have.

The [Cornell Climate Smart Farming Water Deficit Calculator](#) is a user-friendly tool that can help you better select which crops to water first by understanding the pattern of past and predicted water depletion in your field, and it only takes 3-5 minutes. The model then uses your description of general soil type to determine how much water your soil can hold, how quickly water moves into and drains out of your soil, and the water deficit at which plants begin experiencing physiological (non-wilting) stress or severe (wilting) stress. Weather station observations combined with high-resolution radar allow the tool to detect rainfall and appropriately increase the amount of water available in the root zone at that location. Growers can also add the date of their last irrigation.

Most importantly, the CSF Water Deficit Calculator takes the different evapotranspiration rates of different types of crops into account. Evapotranspiration is the combined loss of soil water to the air from regular evaporation and from plant transpiration and determines how fast your soil loses water. Evapotranspiration varies greatly based on crop height and total size, leaf characteristics, temperature, humidity, wind speed, amount of sunshine, and crop drought status. The tool allows you to pick from 10 different crop type groupings (developed to model 24 different vegetables & 4 field crops - see Image 1) so you can have an accurate representation of water draw-down.

Crop Type Groups

GROUP	MEMBERS
Cereals	Corn(Field), Oats, Wheat(Winter)
Forages	Alfalfa Hay, Clover Hay
Legumes	Beans(Green), Peas
Roots and Tubers	Potato, Sweet Potato
Vegetables (Small) - Short Season	Broccoli, Carrots, Lettuce, Spinach
Vegetables (Small) - Long Season	Brussel Sprouts, Cabbage, Cauliflower, Celery, Onions(dry)
Vegetables (Solanum Family)	Eggplant, Peppers(Bell), Tomato
Vegetables (Cucumber Family)	Cantaloupe, Cucumber, Pumpkin/Winter Squash, Squash/Zucchini, Sweet Melons, Watermelon

Image 1. The CSF Water Deficit Calculator's list of 28 crops (right column) and their associated crop type groupings (left column, bold text) used to model evapotranspiration and inform soil water availability and draw-down predictions.

To use the tool set your location, your broad soil type (sand, loam/silt, or clay), your crop grouping, your planting date. The tool will populate with the observed soil water availability from March 1st to today's date of the current year, or you can look at past years. I am using 2020 data in this illustration. The inches of water deficit are tracked on the vertical axis and the date along the horizontal axis. The planting date will show up as a dashed, vertical gray line. Every time it rains the tool calculates if the rainfall was enough to bring the soil completely or only partially back to full water status.

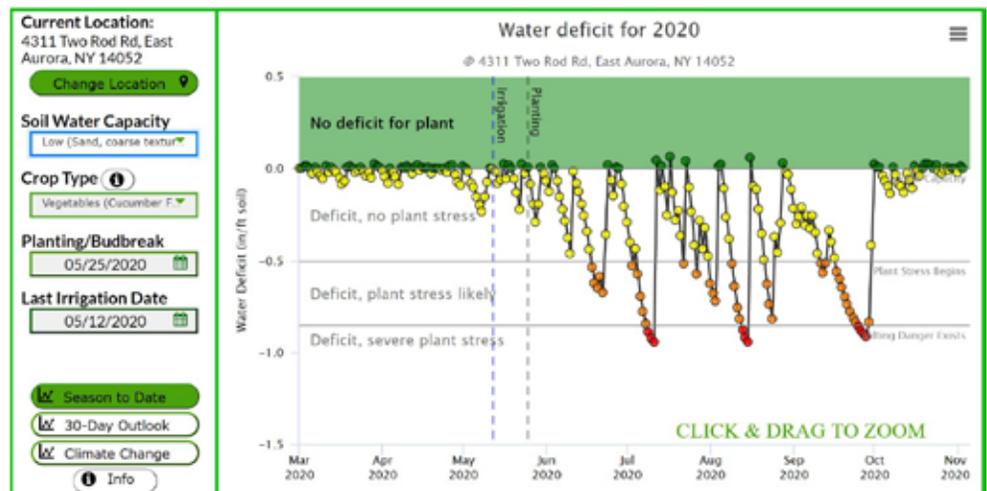


Image 2. A screen shot of the CSF Water deficit calculator set to show the observed soil water availability and plant stress for a sandy field of cucumbers located in East Aurora, NY planted on May 25, 2020. Note the dashed vertical gray planting date line and vertical dashed blue line for date of last irrigation.

The water deficit of the field is plotted out in a graph - see Image 2 for an example. There are set lines running horizontally across the chart marking separate stress zones. The inches of water deficit that define the top and bottom of each stress zone are a function of the type of soil you have, and are well-accepted values backed by soil science. Green dots represent days when the field is fully or over saturated. Yellow dots represent days when the field is below full water capacity and above the point when plants begin to experience physiological drought stress. The yellow zone is the normal, productive growing condition for crops. Orange dots fall in the physiological stress zone and represent undesirable conditions that may not be entirely obvious upon a casual observation of the field. Red dots indicate severe water deficit, wilting, and severe plant stress.

You want to irrigate your field in the orange zone to minimize plant stress. Under water limited scenarios, you want to irrigate your field frequently and heavily enough to prevent it from entering the red zone. If you enter an irrigation date, a dashed vertical blue line will appear.

The tool currently assumes that an irrigation will restore the soil water availability to 100%, which is also called field capacity. The developers know that in real life it sometimes isn't possible to bring the soil back up to full water status, especially when you're limited by the capacity of your irrigation source. The current goal is to add a new feature to the next update that will allow growers to input the amount of their last irrigation to further increase the accuracy of the tool. Case studies have shown that the current version of the CSF Water Deficit Calculator is still a useful irrigation management tool.

You can highlight a section of the field season to zoom in on a specific cropping window. As you mouse over the graph you will highlight different dates. In the bottom left, the date and the water deficit for that date appears color coded to the stress zone your crops experienced. The two panels below show the water deficit on July 11th. The top panel is the situation without irrigation, and the bottom panel shows the impact of a complete irrigation on July 6th, when the crop was in the upper portion of the orange, physiological stress zone. The unirrigated field experienced 3 orange and 3 red stress days between 7/6 and 7/11/2020, while the irrigated field experienced only two orange days. You can see that the water deficit in the irrigated field (bottom) was only -0.7" on 7/11 while the unirrigated field (top)



Images 2 and 3. The CSF Water Deficit Calculator chart for a cucurbit field on sandy soils in East Aurora in 2020 showing the difference in soil water deficit on July 11 as a result of no irrigation (top) or irrigation (bottom) occurring on July 6th. The irrigated field has 4 fewer days of stress and experienced no severe drought stress between July 7 and 12.

Looking for more information about managing drought stress in vegetable crops?

The [Cornell Climate Smart Farming Video page](#) has many good resources, including a [Drought Deficit Calculator Tool Tutorial](#). They also host webinars that may include drought management topics and will post webinar recordings to this page.

was -0.95". While that may seem like a small difference, that quarter inch makes a huge difference in crop stress.

During the field season, the tool offers a prediction of upcoming soil water deficit (drought) conditions using the short-term forecast, current water status, and longer-range weather modelling. That feature is only available during the field season, but you can watch tutorials on that feature at: <http://climatesmartfarming.org/videos/>

NEWS

PAYCHECK PROTECTION PROGRAM APPLICATION DEADLINE MARCH 31

March 31 - Paycheck Protection Program (PPP)

[PPP](#) is a program you should definitely look into if you employ outside labor on your operation! PPP has reopened and is accepting new applications (First Draw) as well as subsequent applications (Second Draw) from previous PPP participants. While PPP is a loan, the loan will be fully forgiven if the funds are used for payroll costs (minimum %), interest on mortgages, rent, and utilities. Forgiveness is based on the employer maintaining or quickly rehiring employees and maintaining salary levels. Special consideration under PPP is provided for seasonal businesses such as farming operations.

For more information, please contact UMass Risk Management Specialists Paul Russell at pmrussell@umass.edu or Tom Smiarowski at tsmiarowski@umass.edu

NEW ENGLAND VEGETABLE AND FRUIT CONFERENCE POSTPONED TO DECEMBER 2022

We have made the difficult decision not to hold an in-person New England Vegetable and Fruit Conference this coming December, due to the ongoing COVID-19 pandemic. Instead, we will hold an in-person meeting when we feel more confident that we can do so safely and cost-effectively, and have reserved dates for December 13-15th, 2022 to gather again in Manchester for a full Conference and Trade Show. While we would all prefer to be in person this year, we feel it is unwise to take on the financial risk of attempting an in-person meeting that may not be well-attended due to COVID-19 safety limitations and travel restrictions.

In the meantime, we will plan a simple online conference for this coming December 13-17th, 2021, in order to provide education, professional development, and pesticide credits to growers and service providers across New England and New York. We are hopeful that this coordinated regional effort will be a fun, effective, and safe way to keep up to date with the latest and greatest vegetable and fruit news! Stay tuned for details as we develop our plan for the December 2021 meeting by checking our conference [website](#) or by following us on [Facebook](#), and [Twitter](#).

URI BIRDS IN SWEET CORN SURVEY

If you grow fresh market sweet corn, please fill out this 5 minute online survey, from researchers at the University of Rhode Island. The survey will gather information on growers' bird damage levels to sweet corn and prevention methods used to deter birds. For more information on this ongoing research, please contact Dr. Rebecca Brown (brown-reb@uri.edu) or Natalie Meyer (natalie_meyer@uri.edu).

Survey link: https://uri.co1.qualtrics.com/jfe/form/SV_8qBBBeU2HAIwcKYI

NORTHEAST SARE SEEKS [PARTNERSHIP](#) AND [GRADUATE STUDENT PROPOSALS](#)

The Partnership Grant program funds projects that work in direct partnership with farmers to encourage innovative solutions to current sustainability challenges related to production, marketing and/or farmer and community well-being in Northeast farming and food systems. Projects are capped at \$30,000 and are typically conducted for one to two years. Proposals are **due online by 5 p.m. ET on April 13**. Information can be found [here](#).

The Graduate Student Research Grant program funds graduate student research focused on sustainable agriculture using either or both natural and social science approaches. Proposals are capped at \$15,000 and should address issues of current or potential importance to Northeast farmers and the agricultural community. Proposals are **due online by 5 p.m. ET on April 27**. Learn more about Northeast SARE's Graduate Student Research Grant program [here](#).

[This webinar](#), recorded on March 2, 2021, reviews the Northeast SARE Partnership Grant Program.

EVENTS

Need pesticide recertification credits? All of the New England states have reciprocity in regards to recertification credits and NY credits are also accepted by most New England states, including MA. Check with your state pesticide board with questions about NY credits in your state. This means that credits offered at virtual events hosted by these other states will be recognized by MDAR and will count towards your total recertification requirement. We will continue to send out relevant events, UMass Vegetable Program events can also be found on our [Upcoming Events](#) page, and links to event listings from other New England state Extension can be found in the [November 2020 issue of Veg Notes](#).

UNH PLANT PRODUCTION LUNCH & LEARN WEBINAR SERIES FOR GREEN INDUSTRIES

When: Every Tuesday from February 2 to March 30, 12-1pm

Cost: \$20 for each webinar; \$100 flat rate for registration in 6 or more webinars

The UNH Cooperative Extension Landscape and Greenhouse Team is hosting a Plant Production lunch and learn webinar series. You can attend as many or as few as you like. Register and select the sessions you would like to attend. You will receive an email with a link to the webinar.

One pesticide credit will be available for each of the talks indicated and will be available to participants from New England states who attend live.

[Click here for full event listings and registration.](#)

CORNELL FARMER-TO-FARMER TARP TALK

When: Tuesdays, March 16-30, 12-1pm ET

Registration: <https://smallfarms.cornell.edu/2021/02/join-our-farmer-to-farmer-tarp-talk-webinars-in-march/>

Tarps are clearly a multifunctional tool for small farmers and are being sized, sourced, and applied to fit the farm. How much can we ask of tarps, how are they changing our tillage and weeds, and how do we handle and troubleshoot the shortcomings?

We are hosting a series of lunchtime webinars with the University of Maine for farmers to share and learn about emerging tarping practices for organic vegetables. In this 3-week series, you'll hear farmers from across the region talk about how tarping is fitting into their crop plans and what it looks like in the field, from holding beds to succession plantings to cover crop termination to spring field entry. Bring your questions to help shape the discussion.

All webinars are free of charge and advanced registration is required. For questions on webinars and registration, contact Ryan Maher, rmm325@cornell.edu.

- **March 16:** Reserving Beds With Tarps: Setting the Table for When it's Time to Plant
- **March 23:** Pairing Tarping with Cover Crops: Getting Both on the Menu
- **March 30:** You Can't Send Back Your Soils & Weeds: Tarping the Problems You're Served

UMASS WEEDINAR: GLYPHOSATE 411

When: April 7, 2021, 9am to noon

Registration: \$75/\$68 per person when registering 3 or more from the same company. [Click here to register for this webinar.](#)

The herbicide glyphosate has received a fair amount of attention in recent years. This program will discuss the science behind glyphosate use and the environmental and health concerns. If you attended the glyphosate weedinar in October, new information will be discussed. Randy Prostack, UMass Extension Weed Specialist, will present on glyphosate use patterns in agriculture and the green industry and potential alternatives. Hotze Wijnja, MDAR Pesticide Program, will present a regulatory review of the history of glyphosate, environmental fate and toxicity, and ecological and human health risk assessments.

3 pesticide credits available for all private categories, 33, 36, 37, 39, 40, and Applicators License (core).

PRACTICAL RECOMMENDATIONS FOR IMPROVING BRASSICA INSECT PEST MANAGEMENT

When: Wednesday, April 14, 2021, 12-1pm

Registration: https://umass-amherst.zoom.us/meeting/register/tJEufuyhrTorGtMIDnqUJUUh2S2d0fSu_Xqao

Are you stuck in a flea beetle funk? Caterpillars got you confused? Are your sprouts under aphid attack? Ready to level-up your insect management in brassicas!? Extension researchers with the Brassica Pest Collaborative will share some of their tips and tricks for improving control of these pernicious pests in organic and conventional systems. Short presentations on management each of the following pest will be followed with your Q&A.

Featuring:

- Faruque Zaman, Cornell Coop Extension, on cabbage root maggot
- Sue Scheufele, UMass Extension, on flea beetle
- Dan Gilrein, Cornell Coop Extension, on caterpillars
- Becky Sideman, UNH Extension, on cabbage aphid
- Ana LeGrand, UConn Extension, on caterpillars

1 pesticide recertification credit is available for this webinar. To receive the credit, you must attend the webinar for the full time and take a short quiz at the end of the webinar.

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