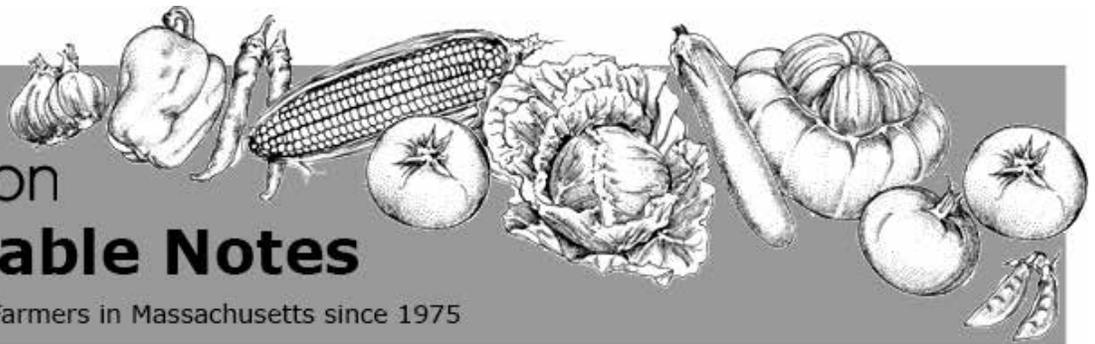




UMass
Extension

Vegetable Notes

For Vegetable Farmers in Massachusetts since 1975



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In the last installment of our Agricultural Water Twilight Meeting Series on September 30, Phil Tocco from Michigan State Extension presented an excellent (and entertaining) post-harvest sanitizer use demonstration, including a crucial tip on how to easily open a container of SaniDate—a [bung wrench](#)! Click the image above to view the recorded meeting on [our YouTube channel](#).

CROP CONDITIONS

The 2020 season continues to bring the strangeness, with early pumpkins, erratic weather, and persistent drought. The early frost in September lasted for several nights in a row, bringing some crops like peppers, eggplants, and tomatoes to a quick halt, only to have temperatures climb back to the 70s a week later. Growers are still feeling the effects of the drought; wells are low, limiting irrigation of crops still in the field and of high tunnel crops being seeded now. The rain this week provided a solid soaking across nearly the whole state, but most of MA is still in a D2 (severe) stage drought and this week the [federal drought monitor](#) and [state drought task force](#) announced a category D3 (extreme) drought for southeastern MA, and a few other regions (southern Hampden and Worcester counties, and the Millers and Charles River watersheds). The D3 designation of extreme drought will trigger some relief to growers in affected regions, though for vegetable growers, that relief would be in the form of emergency loans. The expanded CFAP-2 program provides direct payments and is likely to be a more lucrative way to recoup some losses from the 2020 season—see the news section of this issue for more details. The program covers most agricultural products, however, growers of mixed hay and grasses are excluded. For these growers, direct payments triggered by the drought designation may be available under some federal programs. The application deadline for CFAP-2 is December 11. Farm Service Agency (FSA) can help you with CFAP-2 and drought relief programs, so contact [your local FSA office](#) for help.

The dry weather does make for pleasant fall working conditions, and folks are busy harvesting, washing, and cleaning up fields. Bulk harvests and field cleanup tasks have replaced weekly harvests of solanaceous and cucurbit crops. Brassicas are going strong, loads of greens are coming in, folks are finishing up their potato harvests, the latest root crops are sizing up, and cover crops are coming up.

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.

The [UMass Plant Diagnostic Lab](#) and the [UMass Soil & Tissue Testing Lab](#) are both now open. Please see their websites for important sample submission information.

In Extension, winter is education season and this one will be unprecedented, with most, if not all, workshops going online. We often see more of you all in person in the winter, when farm work has slowed down, and we will really miss the opportunities to connect face-to-face this winter. So we hope you will join us for some online events, or keep in touch by phone and email. You can find all of the online workshops we offered this spring and fall [on our website here](#), in case you didn't catch them live and are looking for something to listen to or watch while popping garlic, polishing winter squash, or cooking dinner!

COVER CROP MIXES - IS MORE BETTER?

--Written by Becky Maden, UVM Extension, & Caleb Goossen, PhD, MOFGA Organic Crop Specialist

We are all familiar with the benefits of combining winter rye with hairy vetch, or oats with field peas: the legume fixes nitrogen, while the grass adds biomass (carbon), suppresses weeds, and acts as a “nurse crop” for the legume, and you get the benefits from both species at the same time. So what happens if you add more species to this mix? Do the benefits multiply?

It's important to weigh the costs and benefits of a large mix of cover crops, especially when you're considering purchasing pre-mixed, commercial blends that can be quite expensive. There are some obvious benefits to planting a large mixture of cover crop species. Namely, if you plant many species, at least one of the species should perform at least okay for you, regardless of the land's specific conditions and the weather. Another benefit is the opportunity to trial cover crop species that you may not have had the courage to purchase by themselves. These benefits can be achieved with a pre-mixed blend or simply by pouring together whatever leftover seed you have kicking around, planting it, and just witnessing what does well. However, sometimes the benefits of a cover crop “cocktail” may not justify the additional cost, relative to a simple or self-made mix which might meet your needs just as well.

You can consider each cover crop species that you utilize in a mix as an investment, and the benefits that your land and the broader environment receive from each species as your return on that investment. It's clear to see that moving from zero cover cropping to planting one cover crop species is a huge jump in the benefits to your farm. For example, planting oats alone will reduce soil erosion, add biomass, and provide some weed suppression. Adding a second species with different characteristics will likewise give you an easily noticed return on your investment. For example, adding peas to your oat cover crop will give you the added benefit of nitrogen fixation. However, the peas don't add much of a benefit in terms of biomass created, because oats produce plenty of biomass on their own.

Adding a third or fourth species can provide other benefits beyond those provided by the peas and oats—for example, tillage radish (aka daikon) will break up soil compaction with its deep tap roots, and buckwheat will establish quickly and shade out weeds. However, as you add more and more species to your mix, the return on your investment per species becomes smaller and smaller. In other words, the benefits gained by planting a 4-species mix may not be much higher than what you gain by planting a 2-species mix. This is partially because many of the benefits of cover cropping are a result of simply having any plant in the ground (e.g. erosion control, biomass creation, living roots in the soil). Those benefits are fully provided by the first few species planted and the effects do not increase with additional species. Additionally, as you increase the number of species in a mix, each spe-



This commercial cover crop mix was comprised of many species, including sunflower, tillage radish, buckwheat, sudangrass, and more. However, the tillage radish dominated (and went to seed!), significantly diluting the effects of the other species.

Photo: C. Goossen



This 3-species mixture of rye, vetch, and tillage radish is more balanced, with no one species dominating.

Photo: K. Campbell-Nelson

cies becomes “diluted”, along with the benefits that that species offers. This declining overall return on investment likely isn’t very noticeable with just 3 species, but **the marginal gains that each new species adds to the overall benefits of your cover crop planting will continue to be harder to observe.** That said, this isn’t meant to discourage anyone from experimenting with or regularly using big, diverse cover crop mixes—have fun with your cover cropping, whatever that means to you!

Cover crop growth period. In terms of planting, there are some fundamentals of establishing the mixtures that you’ll want to follow. Carefully consider **the growth period** for the mix: Is this a multi season mix? Do you need to plant a cash crop early the following spring? Can the subsequent cash crop tolerate high residue? Is your next crop a heavy feeder? Was the field weedy the previous season? Consider staggering the benefits of your cover crop mix. For instance, a summer-planted mix with sorghum sudangrass, Japanese millet, and red clover builds biomass during the first summer, but once the grasses are mowed and winter-killed, the nitrogen-fixing red clover becomes dominant in the spring. Alternatively, you might choose to plant a mix that matures and is terminated all at the same time, like a fall-planted rye (or wheat, or triticale) and vetch mix. If you are new to cover crop mixes, long rotations are often easiest to play with, giving you more time between cash crops to allow cover crops to become established and for management practices to take place. Long rotations are particularly beneficial when using a mix of short- and long-lived species. Fast-growing annual species establish quickly and can act as a nurse crop for long-lived species that often have small seeds and are slow to establish, provided that the annuals aren’t so competitive that they shade out the longer-lived species.



This lush red clover stand is a result of seeding oats, peas, and clover in the spring, then mowing the oats and peas at maturity to allow the clover to take over. The fast-growing oats and peas acted as nurse crops to the slow-growing clover, which will now overwinter.
Photo: G. Higgins

Seeding rates and depth. For seeding, the general rule of thumb is to keep legume seeding rates the same as if planting them by themselves, but reducing grass seeding rates to 50-75% of their individual seeding rate. Ideally, you would seed each species in the mix at the correct depth for that seed type to ensure good germination rates, but this may be difficult with your equipment or on your scale. You can shoot for the average depth for the species in the mix, or you could split the seed mix into a large seed and small seed batches and make two passes. Another strategy is to seed species in separate, neighboring rows. Very small seeds like clover can even be broadcast before a good rain. Another way to plant cover crop mixes is to temporally separate your seeding dates. For instance, some growers utilize frost seeding (broadcast seeding onto soil that is undergoing freeze-thaw cycles, so that the seed “self-incorporates” into the cracking soil) to establish red clover in a field of winter rye. Once the rye is mature in the spring, it can be harvested for straw, leaving behind an established understory of clover. This clover can provide an incredible amount of nitrogen for a late-summer cash crop. Note that a mix of seed types might self-separate by size, with smaller seeds falling to the bottom, so frequent mixing may be advisable.

So have fun out there—mix it up! If you want to play with simple cover crop mixes, or complicated ones, you can start with [MOFGA’s factsheet #10 - Using Green Manures](#), Penn State’s [Making the Most of Mixtures Guide](#) or the great SARE publication [Managing Cover Crops Profitably](#).

There is a fantastic SARE presentation on cover crop cocktails by Penn State’s Mitch Hunter and Charlie White that can be found at: <https://www.sare.org/resources/cover-crop-cocktails/>

CLEANING & DISINFECTING THE GREENHOUSE

If you’ve had reoccurring problems with diseases such as damping off or insects such as fungus gnats or aphids, perhaps your greenhouse and potting areas need a good cleaning. Vegetable growers are now done using their greenhouses for planting, and if they are not being used to cure or store fall crops, now is a good time to clean the houses well before next season’s big rush. Some growers wait until the week before opening a greenhouse before cleaning debris from the previ-

ous growing season, but it's better to clean up as early as possible to eliminate over-wintering sites for pests and to reduce their populations prior to the spring growing season—pests are much easier to prevent than to cure.

Cleaning. Cleaning involves physically removing weeds, debris and soil, and is the first step prior to disinfecting greenhouse surfaces and equipment. Soil and organic residues from plants and growing media reduce the effectiveness of disinfectants. There are some cleaners specifically developed for greenhouse use, for example Strip-It, which is a combination of sulfuric acid and wetting agents formulated to remove algae, dirt, and hard water deposits. Some growers use a wet/dry vacuum on concrete and covered floors to remove debris. High-pressure power washing with soap and water is also an option. Soap is especially useful in removing greasy deposits. Thorough rinsing is needed because soap residues can inactivate certain disinfectants such as the Q-salts.



Greenhouse benches made of non-porous materials are easier to disinfect. Photo: UMass Floriculture

Begin at the top and work your way down. Sweep down walls and internal structures and clean the floor of soil, organic matter and weeds. Disease-causing organisms can be lodged on rafters, window ledges, tops of overhead piping and folds in plastic. Extra care is needed to clean these areas as well as textured surfaces such as concrete and wood, which can hide many kinds of pests.

Install physical weed mat barriers if floors are bare dirt or gravel and repair existing mats to prevent weeds and make it easier to manage algae. Avoid using stone on top of the weed mat, as soil and moisture will then get trapped, creating an ideal environment for weeds, diseases, insects and algae.

Irrigation filters should also be cleaned to remove dirt and microbial buildup (or biofilm) at the end of the growing season. Growers often use products labeled for cleaning irrigation systems such as sulfuric acid plus wetting agent (e.g. Strip-It) or sanitizers containing hydrogen peroxide and peroxyacetic acid (e.g. SaniDate) to flush out slime and debris.

Disinfecting. Many pathogens can be managed to some degree, by the use of disinfectants. For example, dust particles from fallen growing medium or pots can contain bacteria or fungi such as *Rhizoctonia* or *Pythium*. Disinfectants will help control these pathogens. In addition to plant pathogens, some disinfectants are also labeled for managing algae, which is a breeding ground for fungus gnats and shore flies.

Greenhouse Benches and Work Tables. If possible, use benches made of wire or other non-porous materials such as a laminate that can be easily disinfected. Wood benches can be a source for root rot diseases and insect infestations. Algae tend to grow on the surface of the wood creating an ideal environment for fungus gnats and shore flies, and plant pathogens can grow within the wood. Plants rooting through containers into the wood will develop root rot if conditions are favorable for pathogen activity. Disinfect benches between crop cycles with one of the labeled products listed below. Keep in mind that disinfectants are not protectants—they may destroy certain pathogens, but will have little residual activity.

Cleaning Containers. Plant pathogens such as *Pythium*, *Rhizoctonia*, and *Thielaviopsis* can survive in root debris or soil particles on greenhouse surfaces. If a crop had a disease problem, then avoid re-using containers. Containers to be re-used should be washed thoroughly to remove soil particles and plant debris before being treated with a disinfectant, even if there is no evidence of disease in the crop. Debris and organic matter can protect pathogens from coming in contact with the disinfectant solution and can also reduce efficacy of certain disinfectants.

Disinfectants for Greenhouses. If possible, disinfectants should be used on a routine basis both as part of a pre-crop clean-up program and during the cropping cycle. There are several different types of disinfectants that are currently used in the greenhouse for plant pathogen and algae control listed below. Remember that sanitizers and disinfectants are pesticides and may have serious health consequences if not used according to their labels. Be sure to use an appropriate product for the pathogen and for the surface material you are trying to disinfect and use good ventilation and proper personal protective equipment.

Quaternary ammonium chloride salts (Green-Shield II®, Physan 20®, KleenGrow™). Q-salt products, commonly

used by growers, are quite stable and work well when used according to label instructions. Q-salts are labeled for fungal, bacterial, and viral plant pathogens, as well as algae. They can be applied to floors, walls, benches, tools, pots, and flats as disinfectants. Physan 20® is also labeled for use on seeds, cut flowers, and plants. Carefully read and follow label instructions. Use directions may vary according to the intended use of the product. For example, the GreenShield II® label states that objects to be disinfected should remain wet with the product for 10 minutes, and walkways for an hour or more. Instructions allow that surfaces can be wiped or air-dried after treatment. For cutting tools that are being dipped between uses, one way to allow them to remain wet for the appropriate amount of time is by having two cutting tools, one pair to use while the other is soaking.

Q-salts are not protectants. They will kill the pathogens for which they are labeled on contact but will have little residual activity. Presence of organic matter will inactivate them, so pre-clean objects to dislodge organic matter prior to application. KleenGrow™ does have a higher organic matter tolerance and longer residual activity on hard surfaces. Because it is difficult to tell when the product becomes inactive, prepare fresh solutions frequently (twice a day if in constant use). The products tend to foam a bit when they are active; when foaming stops, it is a sign they are no longer effective. No rinsing with water is needed.

Hydrogen dioxide and peroxyacetic acid (ZeroTol® 2.0, OxiDate® 2.0, SaniDate®12.0). Hydrogen dioxide kills bacteria, fungi, algae, and their spores immediately on contact. It is labeled as a disinfectant for use on greenhouse surfaces, equipment, benches, pots, trays, and tools, and for use on plants. Label recommendations state that all surfaces should be wetted thoroughly before treatment. Several precautions are noted. Hydrogen dioxide has strong oxidizing action and should not be mixed with any other pesticides or fertilizers. When applied directly to plants, phytotoxicity may occur for some crops, especially if applied above labeled rates or if plants are under stress. Hydrogen dioxide can be applied through an irrigation system. As a concentrate, it is corrosive and causes eye and skin damage or irritation. Carefully read and follow label precautions. Note that OxiDate® and SaniDate® are OMRI-approved for organic production.

Sodium carbonate peroxyhydrate (GreenClean Pro Granular Algaecide®) is a granular and is activated with water. Upon activation, sodium carbonate peroxyhydrate breaks down into sodium carbonate and hydrogen peroxide. GreenClean is labeled for managing algae in any non-food water or surfaces. Non-target plants suffer contact burn if undiluted granules are accidentally spilled on them.

Chlorine bleach. There are more stable products than bleach to use for disinfecting greenhouse surfaces, but when used properly, it is an effective disinfectant; it has been used for many years by growers. Chlorine bleach may be used for pots or flats, but is not recommended for application to walls, benches, or flooring. A solution of chlorine bleach and water is short-lived and the half-life (time required for a 50% reduction in strength) of a chlorine solution is only two hours. After two hours, only ½ as much chlorine is present as was present initially. After four hours, only ¼ is there, and so on. To ensure the effectiveness of chlorine solutions, it should be prepared fresh just before each use. The concentration normally used is one part of household bleach (5.25% sodium hypochlorite) to nine parts of water, giving a final strength of 0.5%. Some bleach products are more concentrated—check the percent active ingredient for the product you are using and see the label for the recommended dilution rate. Chlorine is corrosive. Repeated use of chlorine solutions may be harmful to plastics or metals. Soak objects to be sanitized for 30 minutes and then rinse with water. It should also be noted that bleach is phytotoxic to some plants, such as poinsettias. Chlorine can also irritate the respiratory system and so should only be used in well-ventilated areas.

Alcohol (70%) is a very effective sanitizer that acts almost immediately upon contact. It is not practical as a soaking material because of its flammability. However, it can be used as a dip or swipe treatment on knives or cutting tools. No rinsing with water is needed. Alcohol, although not used as a general disinfectant is mentioned here because it is used by growers to disinfect propagation tools.

OMRI-listed organic disinfectants include OxiDate 2.0, SaniDate 12.0, ZeroTol and others. Ethyl or isopropyl alcohol is used to disinfect tools. Organic growers should always check with their certifying organization before using any material new in their growing practices. For list of products, visit the [OMRI website](#).

This information is supplied with the understanding that no discrimination is intended and no endorsement of any particular product is implied. Due to constantly changing regulations, we assume no liability for suggestions. If any information in this article is inconsistent with the label, follow the label.

Managing Algae. Algae are a diverse grouping of plants that occur in a wide range of environments. Algae growth on

walks, water pipes, equipment, greenhouse coverings, on or under benches, and in pots is an ongoing problem for growers. Algae form an impermeable layer on the media surface that prevents wetting of the media below and can clog irrigation misting lines and emitters. Algae are a food source for insect pests like shore flies and cause slippery walkways that can be a liability risk for workers and customers. Recent studies have shown that algae are brought into the greenhouse through water supplies and from peat in growing media. In a warm, moist environment with fertilizer, the algae flourish.

Proper water management and fertilizing can help to slow algal growth. Avoid over-watering slow-growing plants, especially early in the production cycle. Allow the surface of the media to dry out between watering. Avoid excessive fertilizer runoff and puddling water on floors, benches, and greenhouse surfaces. The greenhouse floor should be level and drain properly to prevent the pooling of water prior to installing a physical weed mat barrier. Algae management involves an integrated approach involving sanitation, environmental modification and frequent use of disinfectants.

--Prepared by Tina Smith, UMass Extension Educator, Greenhouse Crops and Floriculture Program (retired). Updated for 2020 by L. McKeag. For references and resources, see the online version of this article [here](#).

FDA RELEASES PROPOSED FSMA TRACEABILITY RULE

Growers covered by the Food Safety Modernization Act's Produce Safety Rule may be affected by a new FSMA rule requiring traceability records be kept for some crops. The proposed rule, [Requirements for Additional Traceability Records for Certain Foods](#), was published in the Federal Register on September 23, 2020 and is **open for public comment until January 21st of next year**. The agency will consider all of the submitted comments and issue a final rule.

FDA is holding a series of 3 virtual public meetings to discuss the proposed rule. **The first will be on November 6**. Meeting details are available on the [FDA's website](#).

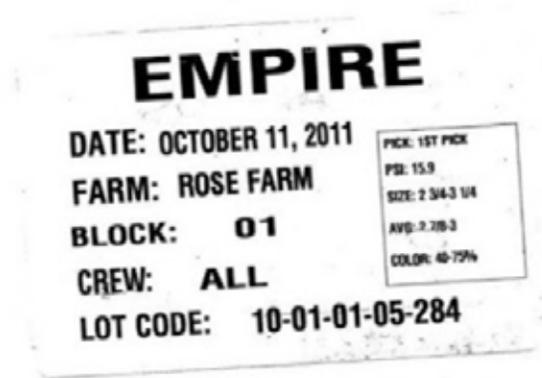
As a reminder, the Food Safety Modernization Act, or FSMA, was enacted by Congress in 2011. It gives authority to FDA to promulgate regulations in order to implement the statute. Of the seven major regulations that have been finalized by the agency, the Produce Safety Rule is the one that fruit and vegetable growers are the most familiar with and that affects them most directly. The proposed traceability rule is separate from the Produce Safety Rule but affects some farms covered under the PSR.

The crops to which the rule applies are listed in the proposed rule's draft [Food Traceability List](#). These are: cucumbers, fresh herbs, leafy greens, melons, peppers, and tomatoes. The list also includes other food items, such as fresh-cut fruits and vegetables, soft cheeses, eggs, nut butters, and some seafood.

Covered farms would be required to keep traceability records and develop lot codes for the foods on the Food Traceability List. Entities that manufacture, process, pack, or hold foods that appear on the list are required to comply, though the proposed rule does provide for several exemptions, including for small farms that are not covered under the Produce Safety Rule and for produce sold directly to a consumer.

Farms that have participated in a 3rd-party audit, such as the [Commonwealth Quality Program](#) or USDA-GAP, will already be familiar with traceability and lot codes, since a traceability program is required for these voluntary programs. Traceability involves being able to identify a particular lot or batch of product and trace it one step forward and one step back within the supply chain. That is, you should be able to identify when, from where, and by whom it was harvested (among other possible details) and to whom it was sold.

Regardless of whether your farm will be covered by the new traceability rule or you are certified by an audit program, developing a system for identifying and tracking your products is a recommended way to minimize the impacts of possible



A lot code is a unique, often alpha-numeric code used on labels and in farm records that helps to identify certain characteristics of a batch of produce, such as harvest date or field. A proposed FDA rule would require that covered farms keep lot codes and other records for some crops.

Image: Produce Safety Alliance

contamination with a foodborne pathogen. Good recordkeeping and meaningful lot codes will help you quickly respond in the event that you discover that you need to recall your products from market or there is an illness outbreak linked to a farm product. Keeping detailed records and defining reasonably small lots can also help protect you from having to recall large amounts of product if an issue can be traced to a single lot. Additionally, this information can help you better track your sales and product quality.

See [UMass' Food Safety for Farmers website](#) and the [Cornell Good Agricultural Practices Program](#) for ideas on how to develop a lot code and establish a traceability program.

--Written by Lisa McKeag, UMass Vegetable Program

NEWS

AGRICULTURAL PRODUCE SAFETY PROGRAM (APSIP) ROUND TWO

A second round of MDAR's APSIP Grant has been posted with a due date of **Friday, November 13, 2020!**

MDAR has decided to open a second application period for the Agricultural Produce Safety improvement Program (APSIP) to accommodate for overlapping goals with the recently closed Food Security Infrastructure Grant (FSIG) Program, in addition to timing issues related to the COVID-19 pandemic.

MDAR will now be accepting additional applications from agricultural operations who wish to participate in the Department's Agricultural Produce Safety Improvement Program (APSIP). Interested operations are encouraged to review the Request for Response (RFR) on the program's website. If interested in applying, applications must be submitted with any additional documentation by the deadline of Friday, November 13th.

The purpose of the APSIP grant is to support produce operations in implementing enhanced produce safety measures that help reduce food safety risks and help to minimize microbial contamination and food-borne illnesses. In addition, by implementing eligible upgrades that help reduce a food safety risk, the program helps operations maintain or increase their market access.

APSIP is a competitive, re-imbusement grant program that funds projects up to \$40,000 or 80% of total project costs. This round of funding has an application deadline of Friday, November 13, 2020 and projects must be completed by June 30, 2021.

NOTE: For those applicants who have already submitted their applications under the first round RFR-AGR-APSIP-FY21 you do not need to resubmit. All applications received in Round One will be evaluated separately from those received in Round Two. Once all applications have been reviewed, MDAR will announce awarded grants to the top applicants in each Round. If you currently have submitted an application that you would like to withdraw from consideration for funding please email Laura.Maul@mass.gov.

APSIP grant applications are available at www.mass.gov/how-to/agricultural-produce-safety-improvement-program-apsip.

CORONAVIRUS FOOD ASSISTANCE PROGRAM (CFAP) 2

Signup began September 21 and **runs through December 11, 2020**, for the second round of Coronavirus Food Assistance Program payments (CFAP 2) at the USDA Farm Service Agency (FSA) Office that serves your farming operation. The purpose of CFAP 2 is to provide financial assistance to producers who continue to face market disruptions and associated costs because of COVID-19.

Specialty crop (fruit and vegetable) producers had very limited eligibility under the initial CFAP since eligibility was basically limited to carryover 2019 crops marketed between January 15 - April 15, 2020. CFAP 2 significantly expands the number of eligible fruit, vegetable and other crops and uses 2019 calendar year sales of eligible specialty crops as the basis for payments. CFAP 2 also provides assistance for dairy, livestock, poultry, honey, maple sap, wool, Christmas trees, flowers and eligible nursery crops, (including other crops not listed here) grown by the applicant.

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 CSA's may be eligible provided they meet the FSA requirements for eligible CSAs.

Payment reports capturing the first 3 weeks of CFAP 2 signup show that over \$4.4 million has been paid out to 227 approved Massachusetts applicants. More detailed information can be found here: <https://www.farmers.gov/cfap>.

Producers are encouraged to contact their [local FSA Office](#) with any questions they have along with procedures to file an application and related paperwork. Sales records will not be 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 are eligible for a CFAP 2 payment!

This is material is based upon work supported by USDA/NIFA under Award Number 2018-70027-28588. UMass Extension works in partnership with the USDA National Institute of Food and Agriculture and the Northeast Extension Risk Management Education Center to educate Massachusetts producers about Federal Crop Insurance and USDA Disaster Assistance Programs. For more information, please contact UMass Risk Management Specialists Paul Russell at pmrus-sell@umass.edu or Tom Smiarowski at tsmiarowski@umass.edu.

NORTHEAST SARE FARMER GRANT APPLICATIONS DUE NOVEMBER 7

Northeast SARE's Farmer Grant Program provides research funds directly to farmers who have an innovative idea they want to test using a field trial, on-farm demonstration, marketing initiative, or other technique. Farmer Grant projects should seek new knowledge other farmers can use and address questions that are directly linked to improved profits, better stewardship, and stronger rural communities.

A technical advisor—often an extension agent, crop consultant, other service professional or farmer with advanced expertise—must also be involved.

Projects should seek results other farmers can use, and all projects must have the potential to add to our knowledge about effective sustainable practices.

Grants are capped at \$15,000 and projects can run up to two years.

Online submission system opens October 1, and applications are due November 7. For more information, please visit the [Northeast SARE Farmer Grant Program website](#).

2020 GRANTS & INCENTIVES FOR NORTHEAST AGRICULTURE

[Farm Credit East](#) has created a report which contains grants and other incentives available in the Northeast states of Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York and Rhode Island. The listings include grant programs, tax incentives and loan programs from various funding sources available to agricultural producers and other entities involved in agriculture or related industries. Please note that as grant programs often change, this list should not be viewed as a comprehensive compilation of all grant opportunities.

[Click here to view the report](#). FCE also offers grant writing services; see their [grant writing page](#) for more information.

EVENTS

TESTING SOIL FOR MEANINGFUL RESULTS

When: October 23, 2020, 12noon

Join Dr. Masoud Hashemi and Dr. Sam Corcoran in a webinar covering the benefits of testing soil for fertility, an overview of how to correctly sample soil, and soil test result interpretation. This webinar is beneficial to all field/vegetable farms, those managing pastures in equine and livestock operations, and backyard growers.

Registration: <https://register.gotowebinar.com/register/8602146178405161229>

UMASS FOOD SCIENCE WEBINAR FOR PRODUCE PROCESSORS: PREVENTIVE CONTROLS PRACTICAL IMPLEMENTATION WORKSHOP

This 3-hour online workshop will expand on the key components of a PC-compliant food safety plan, and provide resources of where/how to initiate a food safety plan that is specific for small and medium processors.

Registration: https://umassamherst.col.qualtrics.com/jfe/form/SV_86NgR2PpDjTdrj7

When: This workshop is being offered on 2 separate dates:

- Wednesday, October 21, 9 am to noon
- Thursday, November 12, 2 pm to 5 pm

SAVE THE DATES: SOUTHERN NEW ENGLAND VEGETABLE GROWERS WEBINAR SERIES!

Join UConn, URI, and UMass Extension for the Southern New England Vegetable Growers Webinar Series!

Webinars will be on alternate Thursdays in January and February of 2021 and open to any and all vegetable growers, topics will include pests of the year, high-tunnel fertility, winter greens production, greenhouse seedling issues, and more! Pesticide credits will be offered at most meetings—watch your inbox for details to follow, and save the dates below!

- January 14, 3:30-5 pm
- January 28, 3:30-5 pm
- February 11, 3:30-5 pm
- February 25, 3:30-5 pm

THANK YOU TO OUR SPONSORS!



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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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