



UMass
Extension

Vegetable Notes

For Vegetable Farmers in Massachusetts since 1975



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CROP CONDITIONS

Fall is chugging along and growers are continuing to harvest storage crops like root crops, winter squash, and potatoes and sweet potatoes, as well as fall brassicas and greens. Some summer fruiting crops like eggplant, peppers, and tomatoes are still trickling in. We are continuing to hear reports of fruit rots in winter squash, resulting from the wet summer. Farmers are getting ready to plant garlic in the next month or so. As coolers and storage spaces empty out in preparation for bulk fall harvests, it may be a good time to inspect the spaces and make repairs or improvements—check out this [cooler cleaning and inspecting checklist](#) from Chris Callahan of the UVM Ag Engineering Team.

PEST ALERTS

The following invasive animals are not pests of vegetable crops, but they have been in the news lately, so we wanted to take this opportunity to share more information about them:

Spotted lanternfly

MDAR announced on September 28, 2021, that an established population of the invasive spotted lanternfly (*Lycorma delicatula*) was detected in Worcester County, MA. See the full press release [here](#). This is the first report of spotted lanternfly in MA. This pest feeds on over 103 different species of plants, including apple and peach trees, grapes, and ornamental trees and shrubs. Its preferred host is [tree of heaven \(*Ailanthus altissima*\)](#), but it will lay eggs on a wide variety of plants and other surfaces. For more information, including photos of life stages, see the UMass Landscape Program's [Spotted Lanternfly factsheet](#).

MDAR and UMass Extension is recommending that those living and working in MA become familiar with the spotted lanternfly life stages and learn to identify their eggs, immatures, and adults. If any stage of the insect is found, it should be immediately reported here: <https://massnrc.org/pests/slfreport.aspx>. ***If you live or work in the Fitchburg area, please be sure to check your vehicles, tractors, trailers and other transportation equipment and plant material for egg masses, nymphs, and adults to reduce the risk of population spread.*** At this time, the only established population of spotted lanternfly in Massachusetts is in Fitchburg. Therefore, there is no reason to be preemptively treating for this insect in other areas of Massachusetts at this time.



Hannah Whitehead harvests sweet potatoes at the UMass research farm. Photo: S. Scheufele



Spotted lanternfly adult. Photo: L. Barringer, PDA

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.

Jumping/Crazy/Snake Worms (*Amyntas* spp.)

There has been a lot of buzz recently about these invasive earthworms, which have various common names based on the fact that they thrash violently when disturbed. They look similar to nightcrawlers but can be distinguished by their movement patterns and clitella (the light-colored ring around the worm's body). See this [UMass factsheet](#) for tips on how to ID them. The concern surrounding these worms is that they dramatically disrupt soil structures, rapidly consuming organic matter and turning soil into coffee-ground-like pellets. **There is not currently evidence that these worms cause significant problems in commercial vegetable fields**—they are primarily a concern for forests. They do not move far on their own and are most likely moved as adults or mustard-seed-sized eggs with soil, plants, or compost.



Adult jumping (crazy) worm
Photo: O. Kostromytska

What to do if you have jumping worms on your property? Firstly, *don't panic*. If the worms are located in one area of the property, take precautions to prevent moving them to other areas (e.g. don't move plants or soil from the infested area to new spots). The worms can be destroyed by dropping them into a bucket of soapy water. **Do not attempt to manage the worms with chemicals**—currently there are no pesticides or approved methods to manage jumping worms, so using any pesticide for jumping worm control is illegal.

For more information, see the UMass Landscape Program's [Jumping/Crazy/Snake Worm factsheet](#). A recording of the Landscape Program's Invasive Earthworms in Massachusetts webinar is available [here](#), along with a [Q&A](#).

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 diverse 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 diverse 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 pre-mixed 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 species 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 from the grass 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



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



This 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

are slow to establish, provided that the annuals aren't so competitive that they shade out the longer-lived species.

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 [Using Green Manures](#), Penn State's [Making the Most of Mixtures Guide](#) or the great SARE publication [Managing Cover Crops Profitably](#). You can also explore the user-friendly [cover crop decision tools](#) put together by the Northeast Cover Crops Council.

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/>

CULLING GARLIC: DON'T STORE OR PLANT INFECTED BULBS

There are several opportunities to inspect garlic for symptoms of nematode and disease infection and cull compromised bulbs: during harvest, when crops are going into storage, or as you cut and sort for seed vs. food. At any of these times, we recommend carefully checking and culling garlic in order to prevent disease from spreading through storage and to prevent contaminating another field or next year's crop by planting infected bulbs this fall. Most disease symptoms we see in garlic bulbs result from infections that occurred in the field, and most of the pathogens persist for many years in the soil, so identifying any diseases in your crop now will tell you which fields to avoid planting garlic into in future years. Inspecting your garlic is also very important if you will be selling any garlic as seed; diseases and pests can quickly spread from one source of infected seed. If you suspect any of the problems below, the UMass Plant Disease Diagnostic Lab can make a positive identification; for submission instructions and contact info visit <https://ag.umass.edu/services/plant-diagnostics-laboratory>. Below are descriptions of the most common pests and diseases that will affect garlic seed and storage crops.

Bulb mites (*Aceria tulipae* and *Rhizoglyphus* spp.) are an increasing problem in garlic production across the Northeast. They feed on the garlic roots and basal plate in the field, causing stunting, deformed, yellow leaves, and lack of vigor. In storage, the mites move into the garlic bulb, where their feeding activity causes sunken tan to brown spots to form on cloves. Feeding activity also provides entry points for secondary pathogen like soft-rot bacteria and fungi. Desiccation may occur. Garlic seed infested with bulb mites may fail to germinate. In the field, plants may outgrow the damage if the infestation is not heavy, but mites may increase in number over the growing season and over years of planting infested seed. In the field, mites feed mainly on the roots and basal plate. Bulb mites can overwinter in the soil, especially in soils with high levels of decaying organic matter, and can survive on the residues of a number of crops. Plant only in fields where crop residue is thoroughly decomposed. **Avoid planting alliums directly after brassicas, corn, grain, or grass cover crops.**



Left: *Rhizoglyphus* mite at 10x magnification. Photo: A. Madeiras
Right: Sunken brown spots on garlic cloves and basal plate damage from bulb mite feeding. Photo: E. Sideman

Stem and bulb/Garlic bloat nematode (*Ditylenchus dipsaci*) infests garlic stems and bulbs, causing bulb decay at both the neck and the basal plate of the bulbs. This damage can look similar to *Fusarium* basal plate rot. In the field, plants may be stunted and leaves may be distorted and yellow and may die back prematurely. Bulb tissue begins softening at the neck and gradually proceeds downward; the scales appear pale gray to dark brown, and the bulbs become shrunken, soft, and light in weight. Under moist conditions, secondary invaders such as bacteria, fungi, and onion maggots induce soft rot and decay of the bulbs. The stem and bulb nematode is spread through infested seed, so affected bulbs may still be sold as food, but be clear with customers that the bulbs should not be used as seed. Once this pest is present in a field, it cannot be eradicated.



Symptoms of stem and bulb/garlic bloat nematode.

Photo: B. Watts, UMaine.

Downy mildew (*Peronospora destructor*): Affected bulbs may be small and shriveled, with a blackened neck. Some bulbs may sprout prematurely.

White rot (*Sclerotium cepivorum*): Similar to the symptoms of bulb mites and garlic bloat nematode, white rot will cause stunting and leaf yellowing and dieback in the field. When infected plants are pulled, white fluffy growth around the stem plate and bulb and small, black, poppy seed-sized sclerotia are visible, often around the neck. Sclerotia are small, dense masses of fungal tissue surrounded by a dark rind that allow the pathogen to persist for years in the soil. White rot sclerotia can survive for 15 years or more in the soil, making this disease one of the hardest diseases of garlic to manage; if you suspect white rot in your garlic, it's especially important to get it diagnosed so that you don't introduce it into a new field this fall. This disease will continue to grow and spread in storage if humidity is not kept low.



Garlic bulb infected with white rot (left) and white rot sclerotia embedded in fungal mycelium (right). Photos: UMaine

Fusarium basal rot (*Fusarium oxysporum* f. sp. *cepae*) causes red to purple discoloration of the exterior of the bulb. Sometimes, white fluffy mycelial growth at the base is present. If the bulb is cut open, one or several cloves may appear brown and watery. Later, the stem plate becomes pitted and a dry rot develops. The disease continues to develop in storage.



Fusarium basal rot (left) and Botrytis bulb rot with sclerotia present (right). Photos: Oregon State Univ.

Botrytis neck and bulb rot (*Botrytis porri* and *B. allii*, respectively) infections start in the fields but symptoms usually do not develop until the bulbs have been moved into storage—a good reason to check your curing garlic periodically! Affected neck or bulb tissue is initially water-soaked, but later turns dry and necrotic. Sclerotia—those hardy black resting structures—form in the neck or adhere to the rotten outer scales of the bulb. Sclerotia of *Botrytis* are shriveled and look a little like a small raisin; they are much larger than white rot sclerotia, but survive in the soil for fewer years.

Penicillium decay (*Penicillium* spp.) is a major cause of bulb decay in storage and can spread to healthy bulbs via airborne spores. The fungus causes fuzzy, blue-green growth on diseased cloves, usually starting at the base.



Penicillium decay.

Photo: Oregon State Univ.

Keep these symptoms in mind as you pop and plant your garlic this fall to avoid planting affected cloves. Below are some tips for next year to help prevent conditions that allow diseases to spread within your garlic crop.

Disease Prevention Tips for Harvest and Storage:

- **Do not irrigate within 7 days before lifting or harvesting.** Avoid harvest after heavy rains.
- **Avoid mechanical injury and bruising of bulbs during production and harvest.** Avoid banging cloves together to remove mud and dirt from roots.
- **Properly cure bulbs.** Cure in a well-ventilated area at 70-80°F. Practices that hasten curing include undercutting bulbs to sever all roots, avoiding nitrogen fertilization later than two months after seeding, and proper plant spacing. Under wet conditions when bulbs cannot be cured adequately, artificial drying with forced hot air followed by normal storage should be considered.
- **For long-term storage, garlic is best maintained at temperatures of 30 to 32°F with low RH (60 to 70%).** Good airflow throughout the vented bins or other storage containers is necessary to prevent any moisture accumulation. Under these conditions, garlic can be stored for more than 9 months.

--Written by Susan B. Scheufele, UMass Extension Vegetable Program

SOIL ACIDITY & LIMING: FALL IS THE BEST TIME TO LIME

As more and more crops come out of fields and the fall progresses on, many growers may be thinking about applying lime to their fields to raise soil pH or keep pH in an optimum range. Fall is a great time to lime fields, since it allows time for it to react in the soil and improve your fields for spring planting and it's often hard to access fields in early spring to lime. If you haven't already, take a soil test to determine the pH of your soil, and the amount of lime you may need to reach your target pH. For information on taking soil tests, see our [Fall Soil Testing](#) article.

The *UMass Soil Testing Lab* is open and accepting samples. Visit their [website](#) to check availability of tests and turn-around times.

Soil pH. One of the most important aspects of nutrient management is maintaining proper soil pH, which is a measure of soil acidity. A pH of 7.0 is neutral, less than 7.0 is acidic, and greater than 7.0 is alkaline. Most New England soils are naturally acidic and need to be limed periodically to keep the pH in the range of 6.5 to 6.8 desired by most vegetable crops. Scab-susceptible potato varieties are an exception but, even then, some lime may be needed to maintain the recommended pH of 5.0 to 5.2. When the soil is acidic, the availability of nitrogen, phosphorus, and potassium is reduced, with only 77% of nitrogen and potassium available and 48% of phosphorous available at a pH of 5.5. There are also usually low amounts of calcium and magnesium in acidic soils. Under acidic conditions, most micronutrients are more soluble and are therefore more available to plants, but under very acidic conditions aluminum, iron, and manganese may be so soluble that they reach toxic levels. Soil acidity also influences soil microbes. For example, when soil pH is low (below 6.0), bacterial activity is reduced and fungal activity increases. Acidic soil conditions also reduce the effectiveness of some pesticides.

Active and reserve soil acidity. To manage soil acidity, growers can apply a basic (compared to acidic) material. The most common and effective material is agricultural limestone. To explain how this works, a little background chemistry: soil pH is a measure of the free hydrogen ions (H^+) in the soil solution, also known as "active acidity". Additionally, there are positively-charged hydrogen and aluminum ions (H^+ and Al^{3+}) bound to negatively charged sites on clay particles and organic matter in soil; these tied-up ions represent "reserve acidity" in the soil. The amount of these binding sites on clay particles and organic matter is referred to as the cation exchange capacity (CEC) of a soil. Soils with more clay or with higher organic matter have a higher CEC than sandier soils or those with lower organic matter. When lime is added to a soil, active acidity is neutralized by chemical reactions that remove hydrogen ions from the soil solution. Tied-up ions making up the soil's reserve acidity are then pulled into the soil solution to replace the free hydrogen ions, causing the soil to resist that change in pH. The ability of a soil to resist the change in pH is referred to as a soil's "buffering capacity". Clay soils or soils with high organic matter have lots of binding sites for H^+ and Al^{3+} and therefore lots of potential for those ions to be pulled into solution, so these soils are well-buffered compared to sandy soils or soils with low organic matter. To effectively raise the soil pH, both active and reserve acidity must be neutralized. Soil testing labs determine buffering capacity and lime requirement by measuring or estimating the reserve acidity, using a variety of techniques.

Liming materials and calcium carbonate equivalence. There are several materials that can be used to raise soil pH. One of the oldest is [wood ash](#), which is still used by some farmers and gardeners. Today, the most frequently used material is pulverized limestone, also called agricultural lime. Limestone is a common type of sedimentary rock composed of calcium carbonate. It is formed in two ways: oysters, clams, coral, and other ocean-dwelling organisms use calcium carbonate found in seawater to form their shells or other hard surfaces, which accumulate and compress into limestone after they die; and sedimentary ocean water can evaporate to form calcium carbonate deposits. You may notice two types of agricultural lime for sale: *calcitic lime* is calcium carbonate alone and *dolomitic lime* is calcium carbonate plus magnesium carbonate, which should be used if you also need to add magnesium to your soil.

Different materials and even lime from different sources have different neutralizing capacities. Neutralizing capacity is measured by calcium carbonate equivalence (CCE), where pure calcium carbonate has a CCE of 100; other materials can have a CCE higher or lower than 100. All other liming materials contain some level of inert ingredients that will not neutralize soil acidity and therefore have a CCE of less than 100. Liming recommendations made by University soil testing labs are based on a CCE of 100; if your liming material is lower than 100, you will need to apply more than the recommended amount, and if it is higher, you will need less. To determine the amount of liming material to apply, divide the recommended amount by the percent CCE of your material and multiply by 100. For calcitic and dolomitic limes, your supplier can tell you the CCE of the lime you are purchasing. The CCE of wood ash is typically around 50%, but it can vary widely. If purchasing wood ash from a supplier, they should provide a recent analysis. Otherwise the wood ash should be submitted to a lab offering lime analysis to determine the CCE. Wood ash also contains phosphorous and potassium in varying amounts, which is another good reason to have your wood ash analyzed before applying.

Speed of lime reaction. The speed with which lime reacts in the soil is dependent on particle size and distribution in the soil. Finely ground materials react more quickly than coarse materials. To determine fineness, lime particles are passed through sieves of various mesh sizes. A US Standard 10-mesh sieve has 100 openings per square inch while a 100-mesh sieve has 10,000 openings per square inch. Lime particles that pass through a 100-mesh sieve are very fine and will dissolve and react rapidly (within a few weeks). Coarser material in the 20- to 30-mesh range will react over a longer period, such as one to two years or more. Agricultural ground limestone contains both coarse and fine particles. About half of a typical ground limestone consists of particles fine enough to react within a few months, but to be certain you can obtain a physical analysis from your supplier. Super fine or pulverized lime is sometimes used for a “quick fix” because all of the particles are fine enough to react rapidly, but these fine materials can be difficult to spread and are usually more expensive than coarser materials. Pelletized lime is also an option; this is pulverized lime that is re-formed into pellets. Pelletized lime reacts more quickly than ground lime and is easier to apply than pulverized lime. Pelletized lime products include ingredients that bind the powdered lime together; some binding products are not OMRI-approved, so be sure to check this if you are a certified-organic farm.

Most growers apply lime to fields in the fall. This gives the lime as much time as possible to react in the soil over the fall, winter, and spring, before the next year’s crops are planted. For many, fall is also the time of year when time allows for this activity, and spreading in the fall also means you can avoid driving over wet fields in early spring. It can take months or years for all of the lime to react in the soil, so the timing of liming isn’t a huge dilemma; whatever you can put down at whatever time will have an effect in the long run.

Lime will react most rapidly if it is thoroughly incorporated to achieve intimate contact with soil particles. This is best accomplished when lime is applied to a fairly dry soil and disked in (preferably twice). When spread on a damp soil, lime tends to cake up and doesn’t mix well. A moldboard plow has little mixing action; disking is therefore preferred.

Besides neutralizing acidity and raising soil pH, lime is also an important source of Ca and Mg for crop nutrition. It is important to select liming materials based on Ca and Mg soil content with the aim of achieving sufficient levels of each for crop nutrition. If the Mg level is low, a dolomitic lime (high magnesium lime) should be used; if Ca is below optimum a calcitic (low magnesium lime) should be used. If soil pH is high and Ca is needed, small amounts can be applied as calcium nitrate fertilizer (15% N, 19% Ca). Ca can also be supplied without affecting pH by applying calcium sulfate (gypsum) which contains 22% Ca or superphosphate (14% to 20% Ca).

-Adapted by Genevieve Higgins from the New England Vegetable Management Guide

USDA INTRODUCES NEW INSURANCE POLICY FOR FARMERS WHO SELL LOCALLY

The USDA is rolling out a new insurance option specifically for agricultural producers with small farms who sell locally. The new Micro Farm policy simplifies recordkeeping and covers post-production costs like washing and value-added products. USDA's Risk Management Agency (RMA) created this new policy based on research directed by the 2018 Farm Bill, and it includes feedback from producers who grow for their local communities. The policy will be available beginning with the 2022 crop year. Additional details about the policy will become available later this fall.

The new policy is offered through Whole-Farm Revenue Protection (WFRP) and it has distinct provisions that can provide more access to the program, including:

- No expense or individual commodity reporting needed, simplifying the recordkeeping requirements for producers
- Revenue from post-production costs, such as washing and packaging commodities and value-added products, are considered allowable revenue

The Micro Farm policy is available to producers who have a farm operation that earns an average allowable revenue of \$100,000 or less, or for carryover insureds, an average allowable revenue of \$125,000 or less. RMA's research showed that 85% of producers who sell locally reported they made less than \$75,000 in gross sales. [See the full report.](#)

For more information, contact UMass Risk Management specialists Tom Smiarowski (tsmiarowski@umass.edu) or Paul Russell (pmrussell@umass.edu).

AGRICULTURAL FOOD SAFETY IMPROVEMENT PROGRAM NOW ACCEPTING APPLICATIONS

MDAR is now accepting applications for the Ag Food Safety Improvement Program (AFSIP). The goal of the AFSIP grant is to support produce and aquaculture operations that are looking to upgrade their food safety practices that work towards minimizing the risk of microbial contamination and food-borne illnesses, meet regulatory requirements, and improve market access.

AFSIP is a competitive, reimbursement grant program that funds 80% of total project costs up to \$50,000.

Applications are due by **4:00PM on Friday, November 5, 2021.**

Please refer to the AFSIP website for more information and a copy of the application: www.mass.gov/how-to/agricultural-food-safety-improvement-program-afsip

ROUND TWO OF MASSACHUSETTS FOOD SECURITY INFRASTRUCTURE GRANT PROGRAM NOW OPEN

The Baker-Polito Administration announced this week that it has made available \$15 million in funding through a second round of its [Food Security Infrastructure Grant Program](#). The Administration opened the funding opportunity on Wednesday, September 15, 2021 and is currently accepting applications for funding. In this round, the program is focused on addressing access to fresh food by improving and strengthening the resiliency of the Commonwealth's food system and expanding the distribution of locally grown and sourced products to vulnerable communities. The Request for Responses for project proposals is available [here](#), and is open until October 31, 2021.

Eligible grantees include entities that are part of the Massachusetts local food system including production, processing and distribution, the emergency food distribution network, Buy Local, community and food organizations, school meal programming, urban farms and community gardens, non-profits, and organizations that provide business planning, technical assistance and information technology services.

Eligible proposals include, but are not limited to, projects seeking to:

- Increase the resiliency of the overall food system in the Commonwealth;
- Increase capacity for food storage;

- Increase capacity of local food distribution partners;
- Increase capacity of the emergency food network;
- Increase capacity of food production by purchasing food processing equipment; and,
- Offer innovative solutions for urban farming.

PANDEMIC RESPONSE AND SAFETY GRANT PROGRAM ACCEPTING APPLICATIONS NOW

The USDA has announced a new program, called the [Pandemic Response and Safety Grant Program](#).

The Pandemic Response and Safety (PRS) Grant Program provides grants to food processors, distributors, farmers markets, and producers to respond to coronavirus, including for measures to protect workers against COVID–19. Funds will be used to issue grants for costs incurred between January 27, 2020 (the date upon which the public health emergency was declared by U.S. Department of Health and Human Services), and December 31, 2021. Grants will cover the activities associated with workplace safety, market pivots, retrofitting facilities, transportation, worker housing, and medical services in response to COVID-19. In this first round of PRS funding, USDA is targeting support to small businesses. Follow [this link](#) to see if your business qualifies as a “small business”.

Applications due **11:59 PM Eastern Time on November 8, 2021**.

For more information, see the PRS Program website: https://usda-prs.grantsolutions.gov/usda?id=usda_index.

NORTHEAST SARE FARMER GRANTS: CALL FOR PROPOSALS NOW OPEN

Farmer Grants are for commercial producers 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.

Proposals are due by 5pm ET on Tuesday, November 16, 2021. [More information can be found here](#).

IMPORTANT UPDATES TO CFAP 2 PANDEMIC ASSISTANCE FOR VEGETABLE & FRUIT PRODUCERS

USDA made two important announcements on August 24, 2021 for assistance to “sales commodity” producers. “Sales commodities” include fruits, vegetables, maple sap, honey, Christmas trees and tobacco.

Originally under the Coronavirus Food Assistance Program 2 (CFAP 2), payments were based upon 2019 calendar year sales of eligible “sales commodity” crops. USDA announced an amendment to the CFAP 2 payment calculation for “sales commodities” to allow producers to substitute 2018 sales for 2019 sales. Producers are encouraged to take a look at their 2018 sales and to contact their [USDA FSA Office](#) to modify their CFAP 2 application if using the 2018 sales would result in a higher payment. Similarly if a producer hasn’t filed a CFAP 2 application for sales commodities, those producers now have the option of using either 2018 or 2019 sales.

USDA also announced the final deadline for filing a new or modified CFAP 2 application with the USDA-FSA as **October 12, 2021**.

Producers are encouraged to contact the FSA Office that serves their farming operation with questions they have along with procedures to file a new or modified application and related paperwork. Producers should call their FSA Office before visiting the FSA Office since FSA may have restrictions in place for in-person office visits. 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. As of August 22, 2021, 1,260 approved CFAP 2 “Sales Commodities” applicants in Massachusetts have received \$27,698,404 in payments. Don’t miss out on this opportunity!

Detailed information also can be found at: <https://www.farmers.gov/coronavirus/pandemic-assistance/cfap2>

REQUEST FOR APPLICATIONS NOW OPEN FOR USDA COOPERATIVE AGREEMENTS FOR RACIAL JUSTICE AND EQUITY

The U.S. Department of Agriculture (USDA) is investing up to \$50 million in cooperative agreements to support historically underserved farmers and ranchers with climate-smart agriculture and forestry. The Racial Justice and Equity Conservation Cooperative Agreements are available to entities for two year projects that expand the delivery of conservation assistance to farmers who are beginning, limited resource, socially disadvantaged and veteran farmers. **Applications are due October 25, 2021.**

[Click here to see the full USDA press release.](#)

[For more details and information on how to apply, click here.](#)

USDA ACCEPTING APPLICATIONS TO HELP COVER COSTS FOR ORGANIC CERTIFICATION: DUE NOVEMBER 1

Organic producers and handlers can now apply for U.S. Department of Agriculture (USDA) funds to assist with the cost of receiving or maintaining organic certification. Applications for the [Organic Certification Cost Share Program](#) (OCCSP) are due Nov. 1, 2021.

OCCSP provides cost-share assistance to producers and handlers of agricultural products for the costs of obtaining or maintaining organic certification under the USDA's National Organic Program. Eligible producers include any certified producers or handlers who have paid organic certification fees to a USDA-accredited certifying agent during the 2021 and any subsequent program year. Producers can be reimbursed for expenses made between Oct. 1, 2020 and Sept. 30, 2021 including application fees, inspection costs, fees related to equivalency agreement and arrangement requirements, travel expenses for inspectors, user fees, sales assessments and postage.

Organic farmers and ranchers may apply through an FSA county office or a participating state agency.

EVENTS

FREE REMOTE SPANISH-LANGUAGE PSA GROWER TRAINING

When: Monday, October 25, 11am-4:30pm & Tuesday, October 26, 11am-4:30pm

Registration: [Register here by October 11](#)

Spanish-speaking farmers, managers, and supervisors are invited to attend this remote Spanish-language PSA grower training, consisting of two half-day Zoom sessions. Presented by the Produce Safety Alliance, and co-hosted by Community Involved in Sustaining Agriculture (CISA), this training will provide a thorough framework for managing produce safety training and decision-making on the farm. It is the same training that is required for any farms covered by the FSMA Produce Safety Rule or the Commonwealth Quality Program. More information (in Spanish and English) and registration information can be found [here](#). MA farms can participate free of charge; see registration page for details. Contact Zoraia de Jesus Barros at zoraia@buylocalfood.org with any questions.

UMASS PESTICIDE RECERTIFICATION TRAINING WORKSHOPS

UMass Extension is offering a series of online workshops in October and November for pesticide license holders to obtain continuing education contact hours. Most workshops offer credits for all categories of licenses. A schedule of available classes, with links to registrations, can be found here: <https://ag.umass.edu/services/pesticide-education/pesticide-recertification-training-workshops>.

The registration fee is \$40/2hr workshop/person. You will pay for these workshops after you successfully complete the workshop. You will receive a separate Zoom confirmation email for each workshop that you register for. Each attendee must register with an their own email address and use a separate device (desktop/laptop/smartphone/tablet) during the online workshop.

WE'D STILL LOVE YOUR FEEDBACK!

Let us know how you use the New England Vegetable Management Guide

Do you use the New England Vegetable Management Guide as a resource? If so, we want to hear from you!

The authors of the New England Vegetable Management Guide want to learn more about how the guide is used, so that we can make it as useful as possible. While we are revising the guide, we have designed a short survey to better understand what YOU value in the guide. Please consider taking 5 minutes to provide your feedback and suggestions.

[Click here to complete the survey](#)

THANK YOU TO OUR 2021 SPONSORS!



Become a sponsor!

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

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