PEST ALERTS:
They're all coming back... beet and spinach leaf miner eggs have been spotted; brassica flea beetles are getting active; expect cabbage butterflies out laying eggs; cutworms have been taking down new transplants; both cabbage maggot and onion maggot flies will have started egg-laying and larvae may now be feeding on brassica roots; onion thrips have been seen in more advanced onion plantings; high tunnel tomatoes showing: magnesium deficiency, excessive N, edema (cool and cloudy days with thoroughly watered soil), Rhizoctonia damping-off; and here come the summer annual weeds! anyone seeing gray speckling on arugula leaves? Could be bacterial disease...

SPECIAL NOTE: RIDEM's LASA Grant program was announced April 15. Unfortunately, no announcement from RIDEM was sent to the URI vegetable program. See page

Damping-off is one of those old fashioned horticultural terms (early 19th century!) that refer to a number of different plant pathogenic diseases. (Like Blight- "Yeap, muh tabacca’s come down wi’ da dang blight!") The symptom of these diseases in common is rotting of the stem of young plants at or just above the soil surface. Perhaps the symptom is named so because the stem gets damp and mushy, and then the shoot just comes off- Damping-off. These diseases can affect any kind of herbaceous seedling or young plant, and also roots and shoots as they emerge during germination. Some pathogens also attack seeds before they emerge from the soil.

Growing conditions strongly influence whether or not these pathogens can cause disease, including: excessive soil/media moisture, long periods of wet plant surfaces, low media temperature prior to emergence, higher media temperature after emergence, and overcrowding, which reduces air movement.

There are several pathogenic organisms that can cause this, and more than one set of conditions. Pythium and Phytophthora species (technically water molds, not fungi) thrive in cool, damp conditions, whereas Rhizoctonia, and Fusarium species cause disease in warmer, somewhat drier conditions.

Where do these buggers come from?

The most obvious source is the growing media themselves. In the olden days when field soil was more commonly used as a component of container media, steam sterilization was de rigueur because it was known that pathogen contamination is a risk. Today’s bulk and packaged soil-less media is effectively sterile, except that now, more and more products contain added mycorrhizal inoculant, which is thought to improve nutrient acquisition. Once contaminated, soils can harbor these pathogens for many years, either as resting structures or as living hyphae on other host plants. But container media are a different story: one study found that 11 potting mixes contained no live Rhizoctonia solani, but hyphae and sclerotia (spore resting structures) were found in crevices of
Two Federal programs, the **Coronavirus Food Assistance Program 2 (CFAP 2)** and the **Paycheck Protection Program (PPP)**, which can provide financial assistance to Rhode Island fruit and vegetable producers, recently announced the reopening/extension of signup periods.

**Coronavirus Food Assistance Program 2 (CFAP 2)**
Signup reopened on April 5 and will continue for at least an additional 60 days (actual signup deadline is yet to be determined) for the second round of Coronavirus Food Assistance Program payments (CFAP 2) at the USDA Farm Service Agency (FSA). The purpose of CFAP 2 is to provide financial assistance to producers who faced market disruptions and incurred associated costs because of COVID-19. CFAP 2 significantly expanded 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 producers. 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 CSA’s.

Payment reports as of 4/4/21 show that over $3.1 million has been paid out to 141 approved Rhode Island applicants under the “Sales Commodities” category. “Sales Commodities” include fruits and vegetables. More detailed information can be found here: [https://www.farmers.gov/cfap](https://www.farmers.gov/cfap)

Producers are encouraged to contact the FSA Office in Warwick with any questions they have, along with procedures to file an application and related paperwork. Producers should call (401) 828-3120 x2 since the FSA Office likely has restrictions in place for in-person office visits. Sales records are 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!

**Paycheck Protection Program (PPP)**
The U.S. Small Business Administration (SBA) announced on March 30, 2021 that signup for PPP has been extended to May 31, 2021. We strongly encourage producers who have not taken advantage of the PPP to take a close look at the PPP, which can provide financial assistance to vegetable and fruit operations. We have found that many agricultural operations don’t believe they are eligible for PPP benefits since it is not administered by USDA. **BUT: agricultural operations are eligible!** PPP provides loans to help businesses (including agricultural operations) keep their workforce employed during the Coronavirus (COVID-19) crisis. PPP is offered by the U. S. Small Business Administration (SBA) with applications processed by approved local lenders. [NOTE: The RI Small Business Development Center can assist you!] A key component of the PPP is that the entire loan (or a portion of the loan) may be forgiven provided certain criteria are met! We believe that the PPP has been an under-publicized/under-utilized program in the agricultural community and encourage all types of agricultural operations to take a closer look at the PPP.

Further details can be found at the SBA website: [https://www.sba.gov/funding-programs/loans/covid-19-relief](https://www.sba.gov/funding-programs/loans/covid-19-relief)

You can watch a good video presentation on the PPP from UMass Extension [at this link](https://www.umass.edu/extension). Starts at the 2:30 mark.
Continuing from Page 1

It is known that some species of *Pythium* can be spread by shore flies and fungus gnats, though it’s unclear if these are pathogen species that specifically cause damping off. In other words, no smoking gun was found, only that some *Pythium* spores get moved around by these insects. Since these insects thrive in excessively damp conditions, it’s even harder to point the finger at them, specifically. Irrigation water held in some form of containment prior to use has been shown to have this pathogen as well, though this is less likely in well water. However, plumbing from the well to the greenhouses and within the greenhouse may get contaminated. Contaminated tools and the people who hold them can also spread these pathogens around. Note that few damping-off diseases are caused by seed-borne pathogens, so seed source is rarely to blame.

Clearly, inoculum for these common diseases may come from a variety of sources, and the operative word is “may.” It’s not so easy to pinpoint these sources during each disease outbreak event, so all bases have to be covered for prevention.

**Prevention is the first form of control**

Why is damping-off so common? Probably because it’s sometimes hard to avoid creating the conditions that favor it. For instance, a run of cool, cloudy days after a thorough watering (the best kind) is beyond anyone’s control, and it happens. Or, when plants are young and it’s still early in the transplant-growing season, skimping on heat means that media stays cold—but sometimes, cost savings are necessary during a financially precarious time of year. And later in the transplant production season, it can be difficult to hold the greenhouse temperature below 80°F, which creates conditions for *Rhizoctonia*.

1) Avoid packing plants in too tightly. If it’s early and plants are getting too large, too fast, then they probably need bigger cells. Which is all the more reason to delay seeding, rather than getting itchy seeding fingers...

2) Practice a Watering Practice. This involves several factors:

a) Take plant size into account—large plants in large cells take longer to thoroughly water.

b) Know your media—compost-based media can stay wetter for longer periods, so pay close attention to how it behaves after thorough waterings.

c) Adjust your watering to the current weather and pay attention to forecasts for two or three days in advance—especially if extended cloud cover is pre-
dicted.

d) Water in the morning so that the foliage gets the longest period to dry off.

3) Sanitize any cells and trays that you are re-using. Make sure the sanitizing solution stays fresh. Also, pre-wash trays before dipping because organic media residues rapidly neutralize sanitizing solutions.

4) If there are flats where disease has been found, get them out and away from the greenhouse, and look carefully in the vicinity of where those flats had been located for early signs of spreading disease.

5) After handling any contaminated flats, wash up well. (We know how to do that now, don’t we?)

6) Fertilize appropriately. Plants that grow too fast and too succulent (which usually means too much N, and too warm) are much more susceptible to damping-off pathogens.

7) Apply microbial biofungicides, preventatively. These have their greatest efficacy when used as root drenches in containers, where they can easily establish themselves in the rhizospheres of each of the cells in the flats. This includes formulations of *Bacillus subtilis* v. *amyloliquefaciens*, *Trichoderma* species products, and certain *Streptomyces* products.

Some of these products can cost some money, but in structures where problems occur year after year, it’s probably worth the expense. But not without implementing a full prevention plan as mentioned above. “’Tis better to grow fewer, healthier transplants than to grow many sick ones.” [Attribution unknown.]

References


Damping-off in Flower and Vegetable Seedlings, 2017. NC State Extension


**Going down to Rhizoctonia:** this advanced tomato plant is showing wilt signs, and the collar of the stem is darkened.

**Rotten roots from Pythium**
Running Lean vs. Running Cheap:
Some Hard Lessons for Small Operations

Michelle and Jim Garman, Garman Farm, Middletown

No one wants to throw money away. We all set budgets, monitor those budgets, and try to operate our farms in ways that protect the bottom line and put us in the black every year. But let’s face it, we all like to save money wherever we can. But there’s a world of difference between spending money prudently and being a cheapskate. Sometimes you just have to put the money down, as much as it may seem to hurt. We have learned this lesson the hard way, and have just a few quick examples from our own experience.

Seed. The cost of seed is always increasing, and we all have our complaints in this regard. Twenty-eight bucks for 250 zucchini seeds? When you stop and do the math, is it really that crushing? Two hundred and fifty zucchini plants yielding an average of ten pounds per plant is 2,500 pounds of zucchini. If you’re wholesaling it out for, say, $1.50 a pound, then that’s $3,750. Yes, there is the cost of your labor and plastic and row cover but still, the expense of the seed is the least of your worries.

A couple of years ago, before we were certified organic, we got what appeared to be fantastic deal on kale and cabbage seed from a large Southern vendor. They’re practically giving it away! Alas, not every seed house tests brassica lots for black rot. That cheap seed cost our first round of plants and a warning not to plant brassicas in that field for about the next five years. Good seed is worth it.

Fuel Issues. If you use equipment with small engines, do you really need to add a product like Ethanol Shield to your fuel? Yes, yes, yes. Ethanol in fuel beats up small engines. We remember nodding and promising to use Ethanol Shield when we bought our Grillo walk-behind. But it seemed so cumbersome to have to add it to every can of gas we used. Several gummed-up carburetors later, we have learned to do it religiously. Why do you want your workhorse laid up while you tinker with a motor at the height of the season? Just add the stabilizer.

Expendable Supplies. Last year, at the height of the pandemic, we learned that you just need to buy what you think you need at the beginning of the season. There were scarcities, of course, but the real issue was the incredible lag in shipping time. In early June we were setting up our winter squash planting and needed 300 feet of 1 ½” lateral. We hadn’t ordered enough in February, so no problem, we’ll call our usual vendors. Everyone was out of stock; one supplier said that he had 1,000 rolls of it coming, but it was on a container ship waiting to clear port from China, so maybe in about eight weeks. He did have plenty of goof plugs, though, so for three months we used an old piece of lateral that leaked and spewed and barely held pressure.

Social media is filled with sales and auction notices from failed start-up farms with owners who felt like they had to buy the best of everything right from the beginning – Jang multi-row seeders, Neversink gear, giant Coolbot-driven walk-ins. We’re not recommending that strategy. But there’s a world of difference between running lean and running cheap. The former may give you a slight competitive edge; the latter will come back to haunt you every time.
Above: Cabbage maggot eggs laid at the base of a cabbage seedling. There are at least 5 here. Below: fast forward a few weeks and this is damage seen from maggot feeding on roots. This plant will be stunted and produce a button head at best.

Above: This is probably the work of a Black cutworm. If you have them, they can be devastating, but usually for just a few weeks in late April to mid May. Collars work but hard to apply to 400 transplants… try preventative B.t. where a problem

Above: Brassica flea beetles doing their thing. Where pressure is a given, row covers are essential. Careful not to roast young transplants under row cover AND on black plastic. Below: Imported Cabbage Worm on the underside of a young broccoli leaf. They will be found most commonly on the youngest cup leaves in the center. B.t. at this stage is usually successful.

Above: Spinach/Beet leafminer eggs on the underside of a spinach leaf. Don’t wait- treat where you find eggs or row cover.
FOR IMMEDIATE RELEASE:
Thursday, April 15, 2021

CONTACT: Gail Mastrati, 401-255-6144
gail.mastrati@dem.ri.gov

OVER $160,000 IN GRANTS AVAILABLE TO SUPPORT THE GROWTH OF LOCAL FOOD AND SEAFOOD IN RHODE ISLAND

May 30th deadline set for Local Agriculture and Seafood Act (LASA) Grant applications

PROVIDENCE – The Department of Environmental Management (DEM) announces that more than $160,000 in funding under the Local Agriculture & Seafood Act (LASA) grant program is available for projects that support the growth, development, and marketing of local food and seafood in Rhode Island. The LASA program provides grants that directly benefit and strengthen the state’s local food system by helping new and existing small businesses and food initiatives take root and prosper in Rhode Island.

“LASA continues to be an important catalyst in growing a wide range of food and agricultural businesses across our state, and we encourage farmers, fishers and food businesses to apply for these grants to help start or expand their operations in Rhode Island,” said DEM Director Janet Coit.

LASA is funded by the State. Priorities for the 2021 grant cycle include projects that support the entry, growth and sustainability of small or beginning agriculture/aquaculture producers and fishers; supporting farmers and fishers that are Black, Indigenous and People of Color; fostering new cooperatives, partnerships and collaborations among Rhode Island producers and producer-supporting organizations; supporting capacity building for new products or new sales channels and assisting farmers and fishers adapt to new methods of selling to customers; diversifying market channels and developing more farm processing capacity; protecting the future availability of agricultural land for producers, including farm transition planning and implementation; assisting with farm food safety improvements including the development of hazard analysis critical control point (HACCP) plans, food safety plans, and compliance with the Food Safety Modernization Act (FSMA); and fostering and building capacity for markets that connect local farms and fishers with Rhode Island’s food insecure communities.

LASA continued on NEXT PAGE
DEM anticipates that approximately $160,000 - $240,000 will be awarded under this grant round with no direct match required. During the most recent funding cycle DEM awarded $95,949 in LASA grants to 12 Rhode Island-based groups to support the local food system.

Applicants must be based in the State of Rhode Island. Eligible entities include for-profit farmers, fishermen/women, producer groups, and non-profit organizations however only small and/or beginning farmers, or producer groups of small or beginning farmers, and aquaculture operators are eligible to apply for capital grants.

Applications should be completed and submitted online at www.dem.ri.gov/lasa by May 30, 2021. Grant-related questions should be directed to Ananda Fraser, Chief Program Development in DEM’s Division of Agriculture at 222-2781, ext. 72411 or via email to ananda.fraser@dem.ri.gov. For more information on the LASA grant program, visit DEM’s website.

DEM continues to work across many fronts to benefit and strengthen Rhode Island’s green economy and to assist local farmers and fishers in growing their businesses. There are more than 1,000 farms sprinkled across the state and Rhode Island is home to a thriving young farmer network. DEM continues to make investments in critical infrastructure as well as provide farm incubation space to new farmers through its Urban Edge Farm and Snake Den Farm properties.

The state’s food scene is often cited as an area of economic strength ripe for innovation and growth. Already, the local food industry supports 60,000 jobs, and the state’s green industries account for more than 15,000 jobs and contribute $2.5 billion to the economy annually.

For more information on DEM programs and initiatives, visit www.dem.ri.gov. Follow us on Facebook at www.facebook.com/RhodeIslandDEM or on Twitter (@RhodeIslandDEM) for timely updates.

Survey Participants Needed. Researchers at the University of Rhode Island are currently distributing an online survey about fresh market sweet corn. If you grow fresh market sweet corn you are eligible to take this short 5 minute online survey. Your participation and feedback are extremely valuable to the success of this research.

The survey will gather information on growers bird damage levels to sweet corn and prevention methods used to deter bird damage. To take this survey, please click here or paste the following link into your URL, https://uri.co1.qualtrics.com/jfe/form/SV_8qBBBeU2HAlwcKYL.

We thank you in advance for taking our survey. If you have further questions or interested in this study please see the contact information below.

Natalie Meyer at natalie_meyer@uri.edu
Department of Environmental and Natural Resource Economics
YOUR Partners in Rhode Island Agriculture

Consisting of six primary program areas, the Rhode Island Division of Agriculture works to sustain, promote and enhance Rhode Island’s agricultural viability today and for generations to come.

Farm Service Agency (FSA) is an agency of the U.S. Department of Agriculture (USDA) that serves all farmers, ranchers and agricultural partners through the delivery of effective, efficient agricultural programs for all Americans. There are 48 programs that they administer, including micro-lending, direct farm ownership loans, farm storage facility loans, non-insured crop disaster assistance, and much more.

A complete list of programs can be found at this link. They are located at: 60 Quaker Ln, Suite 62, Warwick, RI (401) 828-3120 Option 1

NRCS, a federal agency, helps landowners develop conservation plans, create and restore wetlands, restore and manage other natural ecosystems as well as advise on storm water remediation, nutrient and animal waste management and watershed planning.

United States Department of Agriculture
Natural Resources Conservation Service

NRCS is located at 60 Quaker Lane, Suite 40, Warwick, RI 02886
Phone: 401-828-1300, Option 1 fax: 855-924-4748 https://www.nrcs.usda.gov/wps/portal/nrcs/main/ri/contact/state/

The Rhode Island Agricultural Energy Program is a competitive grant program for the implementation of agricultural projects that improve energy efficiency and facilitate renewable energy. It is a collaborative project of RI RC&D, the RIDEM, Division of Agriculture, and Office of Air Resources and the Office of Energy Resources.

The RISBDC employs a dedicated, experienced and knowledgeable staff of business counselors and administrators who can assist you in growing your business.

To schedule an appointment with a business counselor, click Online Request for Counseling and submit the brief form, or call our lead center (401) 874-7232

Contact: Jo-Anne Pacheco, Program Coordinator, RI Farm Energy Program, Rhode Island RC&D info@rifarmenergy.org 401-500-0399 www.rifarmenergy.org