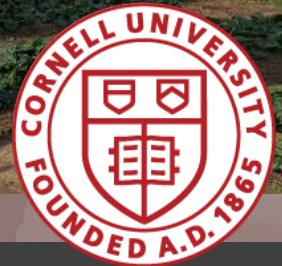


April 15, 2020
Volume 8, Issue 1

Vegetable News



Allium Leafminer Active Now in Hudson Valley

Teresa Rusinek, CCE Eastern NY Commercial Horticulture

The invasive fly pest, allium leafminer (ALM), has been established in the region since 2016 and has caused crop damage as far north as Washington County (see map for known distribution). Over the past week, ALM has been detected at very low levels at two sites located in Ulster and Orange Counties. This indicates the very beginning of the spring flight that will intensify over the next 3-4 weeks. This is the earliest we've detected the spring flight and many growers are still planting or seeding allium crops. We anticipate adults will continue to mate and lay eggs on allium crops through the month of May.

Emerged adults create a line of oviposition puncture marks on allium leaves during feeding and egg-laying. Larvae that hatch from eggs eat their way down the inside of the leaves toward the bulbs opening up physical wounds where soft rot pathogens often enter. The larvae then pupate either inside the bulb and stem or in the soil around the plants.

It's been noted that some allium species are more susceptible to damage from ALM. Most susceptible are scallions, and chives, particularly because of the mining and cosmetic damage to tops. Damage in transplanted onions and garlic is less common, but pupae and larvae can be found in the bulb area at harvest.

If you plan on managing ALM using floating row cover or insect netting, now is the time to get it on the

crop. If you are transplanting alliums over the next 4-5 weeks, you will want to cover right after you finish planting. It doesn't take ALM long to find a host crop. Exclusion will not work if infested alliums, including wild onion grass, grew in the same plot the previous season as adults will emerge under the barrier. Check alliums for oviposition scars and adult flies before covering. If you see significant activity on the alliums, you may be better off applying an insecticide. A word of caution when using floating row cover, higher levels of disease, particularly

Map showing crop damage due to the allium leafminer.

(Continued on page 2)

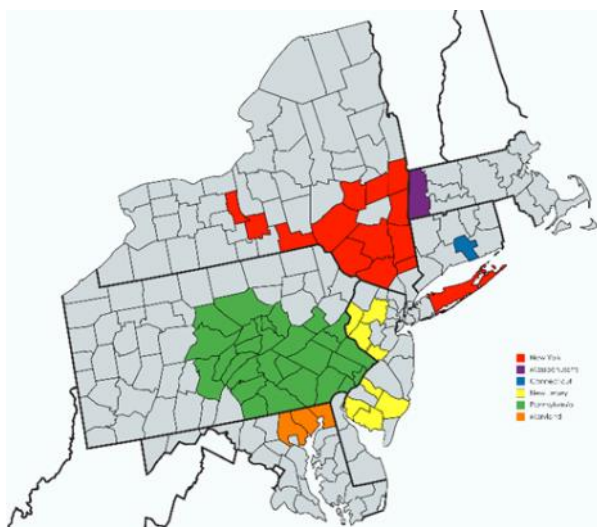


Table of Contents

- 1 ALM in the Hudson Valley
- 2 Cleaning & Sanitizing
- 5 EPA List N Sanitizers
- 6 Spear Damage in Asparagus
- 7 Asparagus Updates
- 8 Paycheck Protection Program
- 10 Marks on Your Garlic
- 11 Upcoming Events & Announcements



Adult ALM fly with distinctive yellow head alongside diagnostic line of pale green oviposition scars near tip of scallion leaf. Photo: E. Grundberg

botrytis, has been noted in several incidences. Also be careful that the crop doesn't suffer from heat stress on warm days. We are currently investigating the efficacy of exclusion netting and row cover when installed and removed at various points over the spring flight. We are also evaluating incidence of disease.

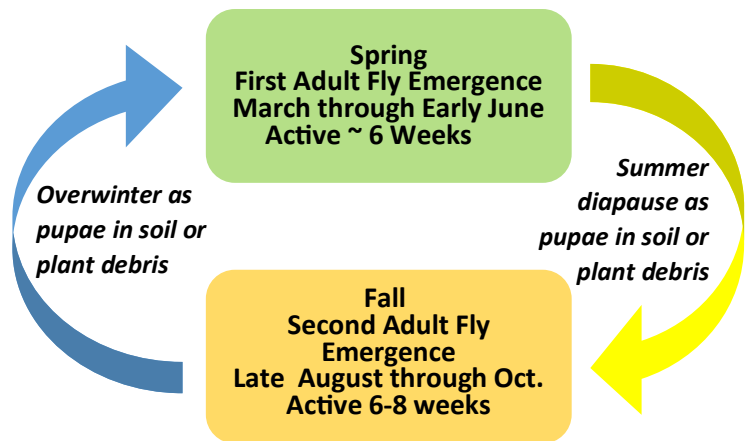
It's important to carefully evaluate your crop before making a decision to spray an insecticide. ALM pressure will vary from farm to farm and over the duration of the adult flight. Low levels of ALM may

not warrant a spray based on the susceptibility of the allium crop you are growing. Keep in mind that there are seasonal limits on applications of certain pesticides so you want to use these judiciously. The information below from three years of research conducted by Teresa Rusinek, Ethan Grundberg, and Dr. Brian Nault can further help guide your ALM management decisions:

1. Leeks are most susceptible to damage from ALM followed by scallions.
2. The potential for damage is higher in the fall than in the spring across all allium crops.
3. Several conventional insecticides already labeled for use on bulb crops in New York are effective at reducing damage from ALM, including Exirel (cyantraniliprole, IRAC Group 28, 2(ee) label required and available on the <https://www.dec.ny.gov/nyspad/products?3website>) at 13.5 fl oz/acre, Radiant (spinetoram, IRAC Group 5) at 8 fl oz/acre, and Warrior II with Zeon Technology (lambda-Cyhalothrin, IRAC Group 3A) at 1.6 fl oz/acre.

4. Of the OMRI-certified insecticides studied, only Entrust (spinosad, IRAC Group 5) at 6 fl oz/acre has shown any efficacy at reducing damage from ALM.
5. Two carefully timed applications either 2 and 4 weeks or 3 and 4 weeks after the beginning of the adult ALM flight of Entrust at 6 fl oz per acre mixed with M-Pede (potassium salts of fatty acids) at 1.5% v/v concentration provided the largest reduction in ALM damage of any 2-spray sequence during the 6-to 7-week long flight.
6. Adding the adjuvant Nu-Film P to Entrust significantly DECREASED the efficacy of the insecticide at managing ALM when compared to combining M-Pede with Entrust.
7. Planting alliums on metalized reflective plastic mulch consistently reduced ALM damage from 22% to 36% compared to alliums planted on either black or white plastic.
8. Combining the use of metalized reflective plastic mulch with two carefully timed applications of Entrust mixed with M-Pede can be an effective strategy for managing ALM for organic growers.

If you'd like more details on how to manage ALM on your farm, please reach out to Ethan at eg572@cornell.edu or Teresa at tr28@cornell.edu.



Cleaning and Sanitizing: Now is the Time to Establish Standard Operating Procedures for the Upcoming Season

Elisabeth Hodgdon, CCE Eastern NY Commercial Horticulture

With Food Safety Modernization Act (FSMA) inspections on the horizon and recent concerns regarding viral transmission, now is the time to think more closely about plans for cleaning and sanitation for your wash/pack shed, harvest bins, and tools for the growing season. The FSMA Produce Safety Rule (PSR) requires the following:

"You must inspect, maintain, and clean and, when necessary and appropriate, sanitize all food contact surfaces of equipment and tools used in covered activities as frequently as reasonably necessary to protect against contamination of covered produce" –

Section 112.123(d)(1).

Additionally, non-food-contact surfaces of tools and equipment used for produce must be cleaned. As we see here in the language, the rule allows for flexibility in regards to use of sanitizers, methods, and frequency of cleaning. Every farm's harvesting and post-harvest handling operations are different, and therefore it is up to you to develop procedures that best minimize risk on your farm. This

(Continued on page 3)

(Continued from page 2)

spring, think about the flow of produce from field to wash-pack shed and customer, identify areas needing regular cleaning and sanitizing, and how frequently you should clean.

While the Centers for Disease Control and Prevention conclude that transmission of coronaviruses is extremely unlikely via food consumption, it is prudent to prioritize disinfecting food contact surfaces to prevent the spread of typical foodborne pathogens, such as *E. coli*, *Salmonella*, and *Listeria*. Additionally, this year we recommend stepping up your cleaning and sanitation habits by paying extra attention to common “touch points,” such as door knobs, cooler handles, and credit card machines, to prevent spread of COVID-19 disease between workers and items handled by customers.

Cleaning vs sanitizing: What’s the difference?

Cleaning involves removing soil, organic matter, oils, and other filth and debris from surfaces, while sanitizing refers to treating the surface itself to kill pathogens. The general rule is that you cannot sanitize a surface that hasn’t first been cleaned! First, sweep, brush, or wipe down the surface (Fig. 1). Use potable water, or tested water that is free of generic *E. coli* to clean the surface with a detergent and water, if necessary. A variety of detergents are available to break down and remove oils, sugars, and other materials. Once the surface is clean and exposed, it can be sanitized with bleach or another sanitizer to kill pathogens. For some sanitizers, such as chlorine, the cleaning process is critical, since organic matter can bind with chlorine to render it unavailable for targeting pathogens. Once the surface is cleaned and sanitized, it should be let dry completely until its next use. Letting surfaces dry further reduces the likelihood that they will harbor pathogens.

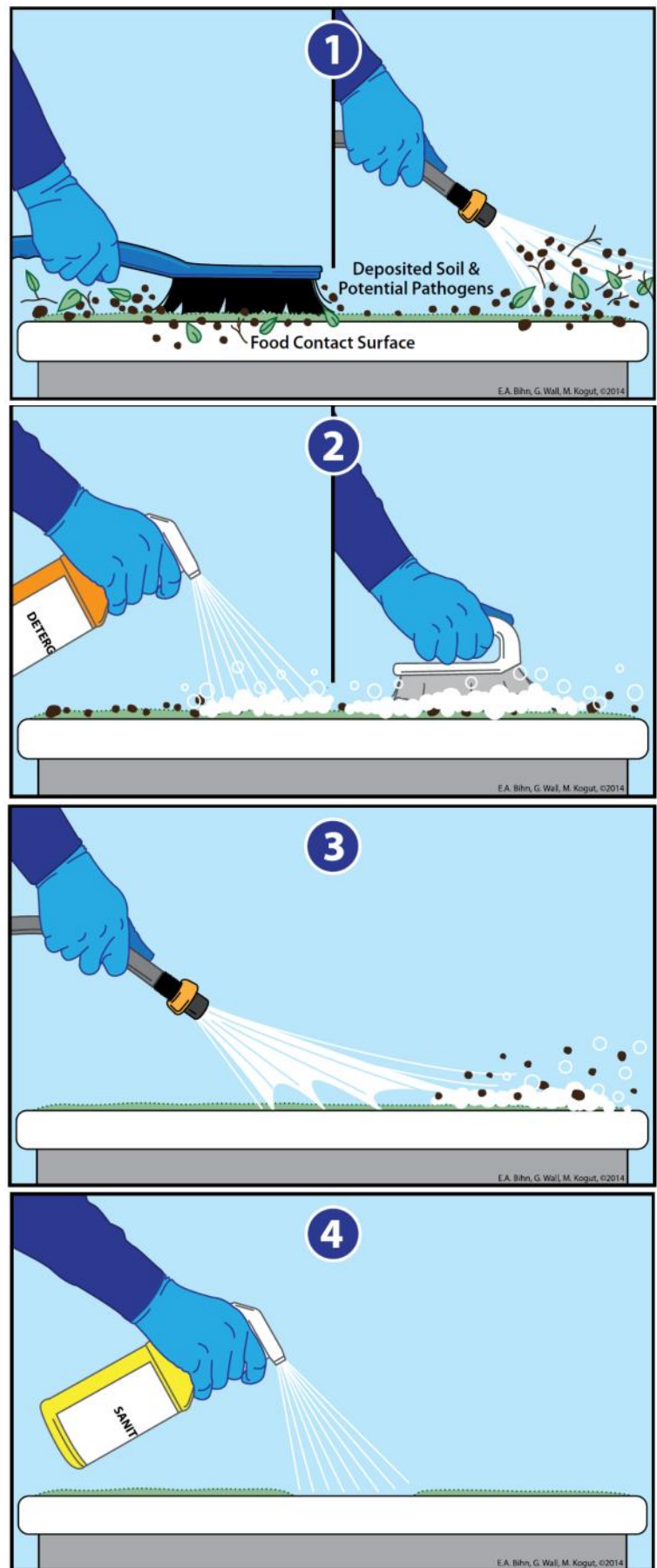
Note that porous surfaces, such as wood, can be cleaned but not sanitized effectively. When possible, transition to using containers and equipment made of non-porous materials, such as plastic, that can be adequately sanitized between uses.

What *must* be cleaned and sanitized?

To determine which surfaces need to be cleaned regularly, it can be useful to picture your wash-pack area as having different “zones.” The most important areas to clean are those that come in direct contact with produce, the “Zone 1” areas. Zone 1 includes harvesting bins and knives, the surfaces of sorting tables, salad spinners, root washers, table tops, and more. Moving away from Zone 1 is Zone 2, the surfaces that sometimes come in contact with produce. Zone 2 includes the sides of wash equipment, the washer’s spray bar, or walls immediately next to tables where produce is stored. Zones 3 and 4 would include surfaces where food seldom touches, but have the potential for being sources of pathogens transferred to Zone 1 or 2, for example, trash cans, the floor, phones, and drains. The PSR also requires that non-food contact surfaces such as those in Zones 2-4 be kept reasonably clean.

What *should* be cleaned and sanitized?

Recently, risk of SARS-CoV-2 transmission (the virus responsible for



Steps for cleaning and sanitizing a food contact surface. Adapted from the Produce Safety Alliance Grower Training Course curriculum. Photos by E. Bihn, G. Wall, and M. Kogut.

(Continued on page 4)

(Continued from page 3)

COVID-19 disease) has directed more special attention toward regular sanitation of common “touch points” in operations that may or may not be near food contact surfaces. Consider regularly sanitizing door handles, credit card machine buttons, greenhouse tool handles, and other surfaces that are touched multiple times a day by employees and customers.

Which sanitizer should I use?

There are many sanitizer choices available for growers. Sanitizers are antimicrobial pesticides, and in order to be used on food contact surfaces, they must be labeled for such use. Be sure to follow the label’s application instructions, being aware of specific rates and mixing directions and whether or not the sanitizer must be rinsed off with water after use. The Produce Safety Alliance has an excellent Excel tool (“Sanitizers for Produce”) that provides information on sanitizers labeled for produce (see Resources).

Recently, the EPA released a list (“List N”; see Resources) of disinfectants for both food and non-food contact surfaces for SARS-CoV-2 transmission prevention. The list includes several common housecleaning products, including bleach, Lysol, and Purell cleaning wipes. However, none of the products have been tested specifically for SARS-CoV-2. Rather, they are listed based on their “emerging viral pathogens claims status” and efficacy for viral pathogens such as other coronaviruses, norovirus, Hepatitis, and others. Be sure to check the label if you are interested in using a product for multiple purposes such as surfaces and in produce wash water; all uses must both be mentioned on the label, and concentrations for each likely differ. Growers should consider using a product from this list for sanitizing touch points and other surfaces if SARS-CoV-2 is a concern specifically.

Bleach (sodium hypochlorite), for example, is a low cost and normally easily accessible product that can be used for sanitizing food contact surfaces as well as a sanitizer in wash water for produce. Additionally, it is listed on the EPA’s List N. However, when using chlorine sanitizers, solution pH, temperature, and organic matter/soil load greatly impact efficacy of the product to kill and limit spread of pathogens. If your water source has a naturally high pH, you should consider adding a food grade acid (such as citric acid or white vinegar) to the solution to lower the pH of the water-bleach solution so that it falls within 6.0-7.0. Use water that is between 55-120 degrees F for maximum efficacy. Using sanitizers under suboptimal conditions renders the sanitation process ineffective and a waste of time and material, so be sure to take the time to follow instructions. Test chlorine concentration in your solution by using test strips that measure free chlorine.

Peroxyacetic acid (PAA) and hydrogen peroxide are other active ingredients in commonly used sanitizers, such as SaniDate 5.0 and Tsunami 100. While PAA and hydrogen peroxide products are generally more expensive than bleach, they are in some ways easier to use. Unlike chlorine sanitizers, PAA is effective over a larger range of pH and organic matter loads. Peraclean 15, VigorOx, and Maguard 5626 are PAA and hydrogen peroxide products on List N that are

labeled for use on food contact surfaces and in produce wash water. In areas where bleach is hard to find, growers may need to seek alternative sanitizer products this season.

Should I switch to an EPA “List N” sanitizer this season?

SARS-CoV-2 is not thought to be transmitted via food, and the FDA does not anticipate having to recall any food this year due to COVID-19 concerns. Growers should continue to use the sanitizers they have on hand for preventing transmission of the typical foodborne pathogens. However, for growers concerned with choosing a product listed for SARS-CoV-2 for their food contact surfaces or produce, we have cross listed List N with the PSA’s Sanitizers for Produce spreadsheet. For non-food contact surfaces, such as touch points, restrooms, and household cleaning, we recommend consulting List N.

Developing standard operating procedures (SOP’s)

During the height of the growing season, there are often several employees working to move produce as quickly as possible from the field to customers’ hands. Having SOP’s, step-by-step instructions, for cleaning and sanitizing is important for maintaining consistency and quality of these important tasks. How to mix sanitizers, when and how to disinfect tools, and how often and where to wipe down “touch points” are examples of tasks that can be streamlined using SOP’s. This year, we also recommend having a plan for what to do if an employee is sick. For example, if an employee tests positive for COVID-19 and has been handling tools and equipment, you may consider using a product from List N at labeled rates for “disinfection,” which are often higher than rates for preventative sanitation.

In summary, appropriate cleaning and sanitizing practices differ by farm, and only you know what makes sense for your operation. In order to develop a cleaning and sanitizing plan, think about all of the surfaces that produce touches before it leaves the farm. Consider sanitizing commonly touched surfaces this season as well to maintain a healthy environment for workers and customers.

Resources

Produce Safety Alliance General Resource Listing, which includes link to a frequently updated Excel spreadsheet of “Sanitizers Labeled for Produce”: <https://producesafetyalliance.cornell.edu/resources/general-resource-listing/>

EPA List N, “Disinfectants for Use Against SARS-CoV-2”: <https://www.epa.gov/pesticide-registration/list-n-disinfectants-use-against-sars-cov-2>

SOP’s for cleaning wash/pack equipment, Cornell Vegetable Program: https://cvp.cce.cornell.edu/submission.php?id=643&crumb=food_safety|food_safety

Hygienic and Sanitary Design for Produce Farms. UVM Extension Ag Engineering: <http://blog.uvm.edu/cwcallah/2019/05/30/hygienic-and-sanitary-design-for-produce-farms/>

EPA List N Sanitizers for Use Against SARS-CoV-2 Labeled for Produce

Updated April 8, 2020

Prepared by Andrew Galimberti and Elisabeth Hodgdon, CCE Eastern NY Commercial Horticulture

Disclaimer:

The purpose of this table is to facilitate cross referencing produce sanitizers from [EPA List N](#) ("Disinfectants for Use Against SARS-CoV-2") with the Produce Safety Alliance's [Sanitizers for Produce](#) spreadsheet. Evidence does not suggest that SARS-CoV-2 is a foodborne pathogen. When using any disinfectant or sanitizer, be sure to follow the label. Additional products from List N may be labeled for food contact surfaces and produce; the table may not be comprehensive and product labeling is subject to change. For more information about EPA List N, consult their [frequently asked questions](#) page. Cornell Cooperative Extension does not endorse specific sanitizer products.

Product name	Alternative names	Active ingredient	EPA registration number	Labeled for use on non-porous food contact surfaces?	Labeled for use in fruit and vegetable wash water?	OMRI listing	Registered in NYS?	Link to EPA label
Alpet D2	Alpet D2 Surface Sanitizer, Alpet Surface Sanitizer D2	Isopropyl alcohol; Quaternary ammonium	73232-1	Yes	No	Not listed	Yes	Label PDF
CLB (Clorox Disinfecting Beach2)	Clorox Regular Bleach 2, Clorox Mold Attacker, Clorox Mold Blaster, Clorox Mold Destroyer, Clorox Mold Eliminator, Clorox Mold Killer, Clorox Mold Remover	Sodium hypochlorite	5813-111	Yes	Yes	Not listed	Yes	Label PDF
CLB I (Clorox Performance Bleach1)	Clorox Germicidal Bleach 3	Sodium hypochlorite	5813-114	Yes	Yes	Not listed	Yes	Label PDF
Maguard 5626	PeroxySan X6	Hydrogen peroxide; Peroxyacetic acid	10324-214	Yes	Yes	Allowed with restrictions	Yes	Label PDF
Oxonia Active	Klenz Active, Deptil PA5, Perasan B, Perasan V, Cosa Oxonia Active, Oxy-Sept 333	Hydrogen peroxide; Peroxyacetic acid	1677-129	Yes	No	Allowed with restrictions	Yes	Label PDF
Peraclean 15 (Peroxyacetic Acid Solution)		Peroxyacetic acid	54289-4	Yes	Yes	Allowed with restrictions	Yes	Label PDF
Puma	Concentrated Clorox Germicidal Bleach1, Clorox Germicidal Bleach2, Clorox Regular Bleach1, Clorox Multi-Purpose Bleach1, Concentrated Clorox Multi-Purpose Bleach1	Sodium hypochlorite	5813-100	Yes	Yes	Not listed	Yes	Label PDF
Pure Bright Germicidal Ultra Bleach	Hi-Lex Ultra Bleach, Red Max Germicidal Bleach, Germicidal Bleach, Bleach Regular, Pure Power Regular Bleach, Top Job Bleach, Hi-Lex Bleach Regular Scent, HDX Germicidal Bleach1, Boardwalk Germicidal Ultra Bleach	Sodium hypochlorite	70271-13	Yes	Yes	Not listed	Yes	Label PDF

Product name	Alternative names	Active ingredient	EPA registration number	Labeled for use on non-porous food contact surfaces?	Labeled for use in fruit and vegetable wash water?	OMRI listing	Registered in NYS?	Link to EPA label
Selectrocide 2L500	Selective Micro Clean-Alpha, Selectrocide Pouch 200 MG Abridged	Sodium chlorite	74986-4	Yes	Yes	Allowed with restrictions	Yes	Label PDF
Selectrocide 5G	Selectrocide 12G, Selectrocide 750MG, Selectrocide 1G, Selectrofresh 12G Food Processing, GC2, GC 12.5, GC 30	Sodium chlorite	74986-5	Yes	Yes	Allowed with restrictions	Yes	Label PDF
Synergex		Hydrogen peroxide; Peroxyoctanoic acid; peroxyacetic acid	1677-250	Yes	No	Not listed	Yes	Label PDF
Ultra Clorox Brand Regular Beach	Clorox Regular-bleach, Clorox Germicidal Bleach, Clorox Ultra Germicidal Bleach, Ultra Clorox Bleach for Institutional Use, Ultra Clorox Institutional Bleach	Sodium hypochlorite	5813-50	Yes	Yes	Not listed	No	Label PDF
VigorOx SP-15	Clarity, Vigorox 15 F&V, Vigorox XA-15	Peroxyacetic acid; Hydrogen peroxide	65402-3	Yes	Yes	Allowed	Yes	Label PDF

Spear Damage in Asparagus

Andy Wyenandt, Rutgers Plant and Pest Advisory, April 6, 2020

Spear damage in asparagus can be caused by diseases such as Phytophthora spear and crown rot and purple spot. However, other environmental factors during the spring can damage spears as they emerge from the soil.

Freeze Injury: About 10 days ago temperatures dipped well below freezing for a night or two, and combined with the higher than normal temperature this spring, some asparagus fields that had already started to produce spears were hit with injury. Affected spears will be bent/distorted and begin to breakdown and rot (Fig. 1a).

Cutting frozen spears will show the discoloration of the spear caused by the freeze (Fig. 1b).

Wind: Periods of heavy winds during emergence will cause spears to bend. Winds can cause one side of the spear to dry out quicker than the other causing the spear to bend and point in the direction of the prevailing wind. An asparagus planting is suffering from wind damage if most of the bent spear heads in the bed are pointing in the same direction (Fig.2).



Fig 1a: Freeze injury in asparagus. Photo: Tom Orton



Fig 1b: Freeze injury in asparagus. Note the color of the interior of the spear. Photo: Tom Orton

(Continued on page 7)



Fig 2: Wind damage of asparagus spears. Notice how all spears are pointed in the same direction.

Photo: Tom Orton

Stones/Rocky

Soils: Asparagus grown in stony/rocky soils can suffer mechanical damage as spears emerge from the soil. Stones can cause mechanical abrasions on

spears damaging

epidermal cell layers as spears emerge from the soil. Spears with mechanical injury such as this will become bent or contorted with severe bends and may also develop loops as the side of the spear that was undamaged continues to develop (Fig. 3).

Other Causes: Spear damage can also result from feeding injury caused by cutworms, slugs and other insects. Insect feeding on one side of the spear will reduce the growth rate on the damaged side and causes spears to curve as the healthy side of the spear continues to develop. Occasionally curved or misshapen spears are observed



Fig 3: Mechanical injury on asparagus. Wounding causes spears to bend because one side of the spear stops developing

Photo: Tom Orton



Fig 4: The 'nicking' of spears by a knife during the harvest of spears to bend because one side of the spear stops developing and allow "opportunistic" pathogens to invade the spear.

Photo: Tom Orton

with no apparent mechanical injury, insect feeding or disease. This damage may be due to unseen injury to the crown by cutting knives, crown rotting pathogens, or environmental stress such as overcutting (Fig.4).

Asparagus Updates

Chuck Bornt, CCE Eastern NY Commercial Horticulture

Asparagus: I know asparagus is starting to emerge in some areas and others have been cutting for a bit so I thought it might be time for a quick herbicide reminder! Some of this information comes from Dr. Bernard H. Zandstra in the Department of Horticulture at Michigan State University and some of it is my own interpretation. This is also not all the herbicides labeled, but the ones that have some of the better efficacy. They grow lots of asparagus in Michigan so I thought that would be a good place to get some information and this is what he recommended:

Newly established or beds that were at least 1 year old: Lorox at 2 lbs per acre as a directed spray plus he said he would consider the addition of 2.4 pints Prowl H2O for improved grass control and residual to the Lorox. This could be followed by a second pass (a couple days later) of Sandea at 0.5 ounces plus Non-ionic surfactant. If emerged grasses are still an issue, Select 2EC, Select Max, Poast 1.5EC or Fusilade DX 2EC could be used to control most grasses (be sure to review the adjuvants required for each of these grass materials). Directed sprays or drop nozzles are recommended to ensure thorough coverage.

For older established beds: In an established planting, if the fern has grown up already, post-harvest, he recommended 3 lbs of Karmex 80 DF per acre plus 3-4 pints of Prowl H2O for residual control (post harvest because Prowl has a 14 day PHI). Neither will do much on established weeds, so apply to fields that are already fairly clean for residual control. Metribuzin products like Dimetric are also labeled for weeds that are already emerged. You could also consider using 2,4-D and drop tubes for hard to control perennial weeds, but be sure to use the drop tubes and make sure it is a calm day when you apply.

For asparagus you are still cutting our list is short, but small pigweeds and ragweed or large yellow nutsedge can be controlled using Sandea at 1 oz per acre plus a non-ionic surfactant. Another product that you might consider, especially if you have some stubborn perennial weeds is a product called Spur which has the same active ingredient as Stinger – however, Stinger is not labeled in NYS so Spur would be your choice. Spur can be applied before or during the asparagus cutting season, or after harvest is complete, but prior to fern growth. Postharvest (layby) applications should be made as soon as possible after cutting provided weeds are in proper stage of growth for treatment. Malformed ferns (twisted or crooked spears) may result from application when spears are longer than 3 inches or with open seed heads. Spur can be applied at 1/2 to 2/3 pint per acre in a total spray volume of 10 to 40 gallons per acre. A second application may be made as long as the total amount applied does not exceed 2/3 pint per acre per season. Do not apply during the cutting season if crooking cannot be tolerated. Clear-cutting of spears just before application may reduce the occurrence of crooking. The pre-harvest interval is 48 hours.

April 8 Update to the Paycheck Protection Program (PPP) - Where the Only Constant is Change!

Liz Higgins, CCE Eastern NY Commercial Horticulture; Nicole Tommell, Central NY Dairy Team

Since Liz's last PPP article (was it only last Friday?), there have been some updates to the PPP and we are seeing it start to roll out across the state. This program has been extremely popular! The PPP is also first come first served, so we encourage farmers whose markets are looking iffy due to COVID-19 or who may be facing cash-flow problems this season to seriously consider applying soon. All loans need to be finalized by June 30, 2020, so time is of the essence and lenders will be very busy. Because of demand, it is likely that Congress will authorize another round of funding, so there is still an opportunity to participate if you are hearing rumors about the funding running out. Most businesses, including sole proprietors were eligible to apply as of April 3. Contractors and self-employed individuals without any employees are eligible to apply starting on April 10th.

Each business can only receive 1 PPP loan, so you should think through your farm's cash-flow needs this season for payroll, rent, utilities and mortgage interest and budget accordingly. The maximum loan amount your business can receive is calculated as 2.5 x your monthly average payroll expense in 2019 – up to \$10 million. A suggestion from a lender, as a rule of thumb for thinking about your loan size, is to take your payroll for 1 month, multiply that by 2.5 and then by 25%. This will help you ballpark what you should ask for.

What is also attractive about this program, that maybe wasn't clear enough in earlier outreach publications, is that sole proprietors (which includes LLCs that are not organized as corporations), contractors and the self-employed (with no employees) can use their net farm income (the net income in their 2019 Schedule F or Schedule C, depending on the business) towards the owner's "wages" for the purpose of this program, up to the \$100,000 salary limit. This program could be a huge help to small farm businesses, like many of our regions CSAs and farms who sell to restaurants or do agritourism, who anticipate a decline in revenue this year!

This program is a bit of a land rush. If you want to participate, you will need to be persistent and keep trying to find a lender to work with. Not all lenders are participating in the program yet, and some are limited in how many loans they can handle. Check with all of the banks you have a relationship with, including a deposit relationship as most banks are requiring that your farm has at least a checking account with them to get started. Also, when you go to a bank, you need to have all of your information ready. Look at the sample application on SBA's website to get a sense of what documentation you will need. <https://www.sba.gov/document/sba-form--paycheck-protection-program-borrower-application-form>. Check out your bank's website to see what information they have up as some banks have additional forms they want completed. We looked at a few bank websites and the PPP is generally listed under "Business Banking".

New Information and Changes

The SBA did issue an interim rule for the program (https://www.sba.gov/sites/default/files/2020-04/PPP--IFRN%20FINAL_0.pdf) and a new FAQ has been released, dated April 6, 2020 (<https://home.treasury.gov/system/files/136/Paycheck-Protection-Program-Frequently-Asked-Questions.pdf>), which helps to provide some additional guidance to the program.

The biggest change from initial information was the interest rate increased from .5% to 1%. The interim rule also made it clear that the amount of the loan that can be forgiven for utility, rent and mortgage interest payments is capped at 25%, 75% must go towards eligible payroll expenses. Still, not a bad deal overall, even for the portion that isn't forgiven – at 1% interest, with no fees, and 100% federal guarantee, you would be hard pressed to get more favorable terms on a loan.

You will not have to make any payments for six months following the date of disbursement of the loan. However the interim guidance makes it clear that interest will continue to accrue on PPP loans during this six-month deferment.

I had some questions from folks about whether only US citizens are eligible for the loans from groups that work with refugee and immigrant farmers. Anyone eligible for SBA 7(a) loans is eligible for this program, and there are some additional groups that can participate in the PPP program, like non-profits. So, refugees, green card holders and other folks who are in the US legally can participate in this program. Eligibility for the 7(a) program can be found <https://www.sba.gov/document/sop-50-10-5-lender-development-company-loan-programs>.

There are some grey areas still. For loan forgiveness the PPP requires you to maintain the same number of positions (based on full time equivalents (FTE)) as last year, but there is no definition of the number of hours in an FTE. Based on other sections of the CARES Act and other federal programs, it would be reasonable to assume that 30 hours is the FTE rate, and many groups that are educating their members about the program are using that number, but that has not been clarified by SBA. Because loan forgiveness is based on the employer maintaining or quickly rehiring employees and maintaining salary levels knowing your initial FTE is important. Forgiveness will be reduced if full-time headcount declines, or if salaries and wages decrease.

Another grey area is whether or not the salaries of H2A workers who meet the resident alien test would be eligible. The language only

(Continued on page 9)

(Continued from page 8)

says that payroll does not include “Any compensation of an employee whose principal place of residence is outside of the United States”, but principle place of residence is not defined. One test for this could potentially be federal income tax filing requirements for resident vs non-resident. This is TBD, but most lenders right now will probably NOT include H2A in your monthly payroll estimate.

There are differences between what is counted in payroll costs (from 2019) to determine the size of the loan and what is counted in eligible payroll costs for use of the loan funds in 2020. Excluded from payroll costs in the interim rule for both the loan size calculation and from loan payments are:

- Any compensation of an employee whose principal place of residence is outside of the United States; so your employees who are not US citizens but whose principle place of residence is the US would likely be eligible. This would seem to exclude most H2A workers, but there are some H2A workers who meet the IRS test as a resident alien, so there are some grey areas. One test for this could be federal income tax filing requirements for resident vs non-resident alien. This is TBD, but most lenders will probably NOT include H2A in your monthly payroll estimate right now.
- The compensation of an individual employee in excess of an annual salary of \$100,000, prorated as necessary. This includes the incomes of sole proprietors on the schedule C or F above \$100,000.

These expenses can be used to calculate the loan amount, but loan dollars cannot be used to pay these costs in 2020:

- Federal employment taxes imposed or withheld between February 15, 2020 and June 30, 2020, including the employee’s and employer’s share of FICA (Federal Insurance Contributions Act) and income taxes required to be withheld from employees (for reimbursement – basically the feds aren’t going to pay your taxes for you); and
- Qualified sick and family leave wages for which a credit is allowed under sections 7001 and 7003 of the Families First Coronavirus Response Act (Public Law 116–127) (this would be double-dipping).

Average monthly payroll cost is equal to

- Gross wages and salary paid to employees (not including any payments to independent contractors) for all of 2019. Cap this at \$100,000 per employee.
- For sole proprietors, the “wages” for the owner(s) would be their net farm income on their Schedule F or Schedule C, capped at \$100,000, per Schedule F or Schedule C. So, if you are a married couple filing jointly with one Schedule F, the income cap for owner wages would most likely be \$100,000 for both of you.
- Payments for vacation, parental, family, medical or sick leave for all employees.
- Allowance for dismissal or separation.
- Payment for group medical insurance.
- Payments of retirement benefits (from the business).
- Payment of state or local tax assessed on employees.
- Reduce this sum by the amount paid to any employee whose principal place of residence is outside the US. (you do not remove your expenses for their workman’s comp or disability insurance or benefits).

For purposes of calculating “Average Monthly Payroll,” most applicants will use the average monthly payroll for 2019, excluding costs over \$100,000 on an annualized basis for each employee. For seasonal businesses, the Applicant may elect to instead use average monthly payroll for the time period between February 15, 2019 and June 30, 2019, excluding costs over \$100,000 on an annualized basis for each employee. For new businesses, average monthly payroll may be calculated using the time period from January 1, 2020 to February 29, 2020, excluding costs over \$100,000 on an annualized basis for each employee.

Should I Be Worried About the Weird Marks on My Garlic?

Crystal Stewart-Courtens, CCE Eastern NY Commercial Horticulture

Garlic is always my favorite vegetable, but even more so in spring when it bravely pops out of the ground weeks if not months before the last danger of frost has passed. Snow? Garlic eats snow for lunch. It's 4-5 inches out of the ground before the first annual weeds even think about germinating. All this gung-ho spring growing can leave the garlic looking a little shabby, however. The damage is almost always cosmetic, but it's good to know what it is that you are looking at.

What are all these weird yellow spots on the garlic? Why are the tips yellow?

Garlic may develop a variety of spots, dots, and streaks throughout the growing season. Generally, we don't know why this is. And generally, they are not a problem. If plant vigor is good, leaf expansion is normal, and roots are healthy, you can overlook yellow spots and streaks as one of the unusual aspects of garlic growth. We've done a lot of nutrient sampling to see if these are micronutrient deficiencies, etc, and they generally come back without issues. The one set of spots you do want to be worried about? A line of dots located near the leaf tips that indicate allium leaf miner feeding and oviposition. Check out Ethan Grundberg and Teresa Rusinek's helpful factsheets about this pest!

Tip burn is another common concern. This can happen due to wind burn/dessication if garlic comes out of the ground before winter, or based on conditions in the spring. Again, leaf tip burn almost never indicates long term problems. The best indicator of garlic health beside good root growth is the size of the neck. If the garlic is forming with a nice thick neck it's likely to be a nice sized head. A few varieties can make smaller necks and bigger heads, especially softnecks, but these are rare.



Does my garlic look a little too yellow? And what's that weird curling?

Sometimes garlic is planted with an eriophyid mite infestation, and it appears that these microscopic mites are able to continue doing damage to the garlic during early leaf expansion. Generally plants will grow out of this early damage with only minimal setback, though it can be alarming early on. If your garlic generally has good color but some plants look distorted, I'd suspect insect issues rather than nutritional issues. Another sign of mite damage is that the waxy coating is often absent from the leaves and they are more green than blue. They may yellow prematurely due to early feeding injury. You won't see the actually insects with the naked eye or hand lens- they are simply too small. These mites seem to disappear as the season progresses only to reappear during storage. We are currently doing work to determine what control measures will be effective on eriophyid mites, so stay tuned!



But what about feeding my garlic? Maybe it's yellow because it's hungry?! Yes, that's possible. Look for a podcast piece about this next week and an article the next week! Remember that organic N doesn't become available until soil temperatures start to rise, so garlic can jump the gun even if the N is present. More on that soon.

*This garlic's first two leaves show evidence of mite feeding, but the new growth looks healthy and unaffected.
Photo: C. Stewart-Courtens.*



*Same row, here is a garlic with no mite feeding. Growth looks good!.
Photo: C. Stewart-Courtens.*

Upcoming Events

2020 Spring Turn Out Grazer Meeting

May 7, 2020

6:00 pm—8:00pm, Online Zoom Meeting

How to decrease feed, fencing, and machinery costs. How do you think about spending money for your business? Join for PowerPoint presentations, discussion, ask questions, and share your experience. Upon registering, you will receive information on how to participate in the zoom meeting. Register here: <https://tinyurl.com/SpringTurnOut2020>

Announcements

Eastern NY Veg News Podcast on COVID-19 Impacts

Ethan Grundberg, CCE Eastern NY Commercial Horticulture

Cornell Cooperative Extension

Eastern NY Commercial Horticulture Program



Eastern NY Vegetable News Podcast

Many of you are already aware that the ENYCHP Vegetable Specialists debuted a podcast last spring to provide you with timely, research-based information on issues facing the commercial vegetable industry in the region. We have recently released a series of podcasts focused on impacts of the COVID-19 pandemic impacts on vegetable growers in New York. Topics cover implications of the Paycheck Protection Plan, changes to paid sick leave regulations, strategies to keep employees safe and healthy, considerations for online sales platforms, sanitation and hygiene protocols, and more. All of those episodes, as well as many others focused on production issues, can be found at <https://soundcloud.com/easternnewyorkvegnews>

or by searching “Eastern New York Veg News” wherever you listen to podcasts. This time of year when there is a lot of time spent in the cab preparing fields and in the greenhouse seeding flats, the podcast episodes can be listened to while completing other farm tasks!

Sweet Potato Slip Pick-Up:

Jones Farm, Bailey, North Carolina. As in past years, local vegetable grower Adam Hainer from Juniper Hill Farms is offering to pick up sweet potato slip orders from Jones Farm in North Carolina and bring them back to the Capital District Region within 24 hours of pick-up. For more information, contact Juniperhillfarm@gmail.com or call 518-944-7564.

COVID-19 response:

Need information? View the following Cornell CALS and CCE Resource Pages Updated Regularly

General Questions & Links: <https://eden.cce.cornell.edu/>

Food Production, Processing & Safety Questions: <https://instituteoffoodsafety.cornell.edu/coronavirus-covid-19/>

Employment & Agricultural Workforce Questions: <http://agworkforce.cals.cornell.edu/>

Cornell Small Farms Resiliency Resources: <https://smallfarms.cornell.edu/resources/farm-resilience/>

Financial & Mental Health Resources for Farmers: <https://www.nyfarmnet.org/>

Cornell Farmworker Program: www.farmworker.cornell.edu and www.trabajadores.cornell.edu (en espanol)

Vegetable Specialists

Chuck Bornt

Phone: 518-859-6213

Email: cdb13@cornell.edu

Ethan Grundberg

Phone: 617-455-1893

Email: eg572@cornell.edu

Elisabeth Hodgdon

Phone: 518-650-5323

Email: eh528@cornell.edu

Teresa Rusinek

Phone: 845-340-3990 x315

Email: tr28@cornell.edu

Crystal Stewart

Phone: 518-775-0018

Email: cls263@cornell.edu

Maire Ullrich

Phone: 845-344-1234

Email: mru2@cornell.edu

Business Specialist

Liz Higgins

Phone: 518-949-3722

Email: emh56@cornell.edu

ENYCHP Office

Chelsea Truehart

Phone: 518-746-2553

Email: ct478@cornell.edu

www.enych.cce.cornell.edu



Find us on
Facebook & Instagram

