Cornell Cooperative Extension Eastern NY Commercial Horticulture Program

# September 16, 2020 Volume 8, Issue 12

# **Vegetable News**

#### Allium Grower Alert— Fall Allium Leafminer Has Begun! Teresa Rusinek & Ethan Grundberg, CCE Eastern NY Commercial Horticulture

We've confirmed adult allium leafminer (ALM) activity at one site near Kingston, NY. We have yet to confirm ALM activity elsewhere in the region; however, this suggests that the fall flight has begun. Using insect netting or row cover is an effective strategy to prevent damage to alliums; covers should be put on ASAP. Be aware that row cover restricts airflow through the crop and may promote disease development. Fall leeks are particularly susceptible to damage from ALM as the maggot mining activity through the stem opens up pathways for bacterial soft rot pathogens that render the leeks completely

unmarketable. If you have management or identification questions, contact Teresa Rusinek at <u>tr28@cornell.edu</u> or Ethan Grundberg at <u>eg572@cornell.edu</u>.

Major findings from research conducted by ENYCHP in the past three years have been:

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 (SLN label), Radiant, and Warrior II with Zeon Technology.

4. Of the OMRI-certified insecticides studied, only Entrust 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 at 1.5% v/v concentration provided the largest reduction in ALM



Left: Adult ALM oviposition marks on onion leaf. Right: ALM larval mining on scallions. Adult oviposition marks also visible on middle leaf. Photos: E. Grundberg and T. Rusinek

# Table

### of Contents

- 1 Allium Grower Alert— Fall Allium Leafminer Has Begun!
- 2 Pre-Planting Garlic Considerations
- 3 Review of Harvesting and Curing Sweet Potatoes
- 4 Celery Anthracnose: The Leaf Curl Disease
- 7 When to Stop Spraying Cucurbits
- 7 Irish Potato Harvest
- 9 PSA Grower Training
- 10 Design Your Own Succession Plan
- 10 Corn Trap Counts

#### (Continued from page 1)

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.

#### **Pre-Planting Garlic Considerations**

#### Crystal Stewart-Courtens, CCE Eastern NY Commercial Horticulture

Last newsletter, I suggested that garlic farmers consider planting a little earlier this year. If you are going to do that, the time to start is almost upon us! Let's go through the checklist of items to make sure you are ready to go.

Before we talk about getting the garlic ready, let's talk about getting the fields ready.

# Create an ideal growing environment now for better garlic next year

Real talk: creating the right environment for garlic actually starts years in advance, with optimization of rotation to include a three year break from alliums, cover crops to either enhance soil nitrogen or reduce weed pressure, and addition of major soil amendments like lime in previous seasons. The following recommendations are the short-term steps you can take to care for your garlic.

How is the **drainage** in this field? Are you going to need to make raised beds? If planting on plastic, you might want to consider making raised beds well ahead of time in order to ensure that you can finish this task when soil moisture is optimal. Every year I watch growers struggle with bed formation as the fall gets wetter and wetter. This is a slightly riskier proposition for bare raised beds that will remain so or will be straw mulched, but it might end up being worth considering. anything you can at planting.

The goal when creating a **fertility plan** is to make sure adequate nutrients are available to the garlic when it needs them. Nitrogen is tricky in garlic because soil temperatures dramatically affect availability. Many growers are tempted to put much more than 100 lbs./A down to overcome the issue of cold spring soils. It's an understandable strategy, but chances are very good that much of this N is wasted. So far, we are maintaining the recommendation of



100 lbs. of N, with slow release forms such as compost applied in the fall at planting, and quick release forms like Ammonium Nitrate or Chilean Nitrate (no more than 30% of total N is recommended in this form) applied as garlic emerges in the spring. **Our trials have not shown a yield boost with soluble forms above 50 lbs./A of spring applied soluble N**. If you apply only soluble forms, consider trying this lower rate and only applying in the spring. Phosphorus and potassium are still recommended applied at the rates recommended by the soil test.

Now, let's get that garlic ready for planting.

#### Step one: Gaze lovingly at your garlic

I think this is pretty self-explanatory. But we've all been spending a lot of time by ourselves or in small family units, so let's just review the loving gaze maneuver. Turn your attention inward by taking a few deep breaths,

Consider the **weed complex** in the area you are planting into. Did you control perennial weeds (I'm looking at you, quackgrass)? Do you know what annual weeds are going to pose the biggest problem, and do you have a plan for control? Winter annuals plague some growers; for others crabgrass or lambsquarter are the main issue. Know when you will need to have strategies in place, and do

and focus on your heart. Express gratitude to your heart for getting you through a really long growing season! Seriously, well done, heart. Now, to the loving gaze. Stand in front of a mirror and try the loving gaze on yourself. This may take a few attempts to get right, if you are rusty. But look into your beautiful eyes, and think of all that you have come through this year, and you are still feeding people. Amazing. Try the look again, until you see a soft, loving gaze coming your way. You've earned it. You might want to try out this loving

#### (Continued from page 2)

gaze on other humans around you. Once perfected, turn that loving gaze to the garlic. Does this help? I think so! It at least helps me to think of all of you doing all this loving gazing.

\*\*Please stop practicing these instructions on humans after step one.
I repeat, do not execute step two on humans.\*\*

#### Step two: mercilessly cull any cloves which are soft

Taking the time to go through seed garlic carefully and culling any cloves which are soft or unusually light will go a long way towards making a healthy, uniform stand possible. But don't stop there-rather than simply tossing soft garlic into the garbage, take the time to open up a bulb now and then and examine the symptoms. Botrytis enters the bulb through the neck, and rots the bulbs from the center outward. Fusarium may attack the basal plate or may cause lesions

on the bulb itself. Fusarium is present on almost all garlic at low levels, but can be increased by poor growing conditions (excessive water, poor fertility or poor soil biology), poor post-harvest handling (bruising), and poor storage conditions (too warm and moist can increase disease dramatically). Surface molds like black mold (aspergillus) can be intimidating, but if the garlic underneath is firm, they are likely not to be an issue for the seed. Know what diseases you have, and how to minimize their growth in the coming year.

What about a seed treatment? We conducted some replicated trials of organic seed and furrow treatments for garlic over the past two years, and did not find that any of them yielded significantly better results for garlic which had Fusarium infections. However, an Oxidate dip for two minutes immediately prior to planting did lead to better yields in our trials, for reasons we don't yet understand.

#### Review of Harvesting and Curing Sweet Potatoes Chuck Bornt, CCE Eastern NY Commercial Horticulture

Yes, some of this might be a repeat from the last newsletter, but I'm just trying to drive home a few points-what's wrong with a few reminders???? Some regions saw their first frost of the season this week with more widespread frost expected later this week. With soils as dry as they are and not retaining a lot of heat, our thoughts should really be turned to harvesting sweet potatoes before soils get to cold! The vines can take a light frost, but the roots need to be dug before soil temperatures get into the mid 50<sup>0</sup>'s F. Once soils become cold, they will start to produce a white milky substance in the roots that is bitter to the taste and roots will not store as well. The other key to a successful sweet potato harvest—curing! Sweet potatoes do not reach their full potential flavor until they have been dug and properly cured. Yes, they probably taste fine now if you dig them, but they will become even better once they have been cured and will store better too! Sweet potatoes are much more delicate and require more attention than Irish potatoes when harvesting and storing. Keys to sweet potato harvesting:

1.As discussed earlier, DO NOT LET SOIL TEMPERATURES get lower than  $55^{\circ}F!$ 

2.Mowing or cutting the vines will help make the harvest go easier, but it will not help "set" the skins or "toughen up" the skins as it does with regular Irish potatoes. You can mow and dig sweet potatoes the same day and the skins would be no different from if you cut the vines two weeks prior to harvesting.

3.Sweet potato skins are very thin and tender so if you are using a mechanical digger such as a potato digger to harvest your roots, make sure you run the chain as slow as possible and carry as much dirt up the chain as possible to reduce the amount of bouncing that occurs. The thin, delicate skin is easily broken and the extra soil with help cushion its ride up the chain. Any cuts, bruises, or skin abrasions will reduce quality and storability significantly. It might even be worth taking the shakers off your digger to reduce the amount of bouncing of the roots on the rods. The longer the chain, the more

dirt that can sift down through the rods exposing the roots which can then allow workers to pull the roots off the digger before they are put back on the ground. This would eliminate one more potential bruising opportunity. Another way of harvesting without a digger is to use a root lifter or a plastic mulch lifter with the fingers removed from the back. It is a good way to expose the roots for the workers to pick up with out really bouncing them on a chain.

4.What should you put the roots in? I get this question a lot and if possible



Freshly picked sweet potatoes. Photo: C. Bornt

when picking up your sweet potatoes, use some kind of slotted crate or small bin that will allow air to flow through them. Instruct your workers to gently place them in these containers. If picking up with buckets and dumping into bins, reduce the distance the roots have to fall as much as possible. This again will help reduce cuts and bruises.

5.Do not wash your roots until you are ready to go to market with them! Remove as much dirt as possible when digging, keep them dry and place directly into the harvest containers. These containers

(Continued on page 4)

#### (Continued from page 3)

should then be taken an area to cure.

6.Sweet potatoes should be cured for the roots develop their flavors and help to convert starches into the sugars that give sweet potatoes their sweetness and flavor. Curing also allows any cuts, abrasions or bruises to heal which allows for better storability of roots.

7.Ideal curing conditions are a temperature of 85°F with 90% humidity for 5-7 days. It's probably not the temperature that is difficult to maintain, but the humidity level. Wetting the floors several times a day or covering bins with burlap that is soaked in water is an option. However, do not soak the burlap while it is covering the bins –pull it off, soak it and then put it back on the bins. You want to keep the roots as dry as possible. Not many of us have "curing rooms" so I have seen folks using empty greenhouses this time of year which can work just as well.

8. If using a greenhouse, there are a couple of things that need to be done -floors of the greenhouse should be watered several times a day in order to keep the humidity levels at 90% or again you can use burlap soaked in water to cover them. Fans and the heater thermostat should be set for 85°F. Make sure the heater is turned on to keep the greenhouse as close to 85°F night. Heat might also be required during the day if it is rainy or cloudy. If this is not possible, maintaining 70<sup>°</sup>F at night will just take a little bit longer to cure, usually between 10 and 14 days. Also, sweet potatoes can also suffer from sunscald like other vegetables so make sure bins or containers are covered (use the soaked burlap as mentioned above) as to not expose the roots to the direct sunlight or have shade cloths in place. Once your sweet potatoes are cured, reduce temperatures slowly and store as close to 55 -60°F as possible, but no lower, and maintain a high humidity. If done properly, sweet potatoes should easily store into February and even into April if conditions are right.

#### Celery Anthracnose: The Leaf Curl Disease Elizabeth Buck, Cornell Vegetable Program

Did your celery kind of melt this fall? You'd not be the only one. Celery leaf curl has taken down several plantings in NY in the past 5 years. Since 2010 celery anthracnose (aka leaf curl) has become a major challenge in large celery production regions in Michigan and Ontario and sporadically occurs on farms in Pennsylvania, NY and Georgia. It attacks muck and mineral ground celery plantings and does not appear to affect celeriac or other closely related crops. Symptoms, listed from the first noticeable to the most severe, include:

- Small, slightly sunken, light brown elliptical lesions or cracks on the stalks
- Curling leaves (usually downward cupping) and twisting petioles
- Pale green (not yellowed) color +/- stunting
- Sunken dark brown or black lesions along stalk edges, particularly on young heart tissue
- Ruptured, greenish to light brown outer stalk lesions, frequently with gall tissue or adventitious roots on the inside
- Slimy, brown to black rot of the heart tissue that leaves intact outer leaves standing

Celery leaf curl, which describes the most recognizable early symptom, is the descriptive name used when this disease first showed up – before the causal pathogen was identified. We also call it celery anthracnose because we now know that an anthracnose fungus causes the issue.

The anthracnose species primarily responsible for rots in tomato and pepper do not cause celery leaf curl. **Celery anthracnose is caused by a tightly related cluster of** *Colletotrichum* (pronounced cauli-tot-

richum) species formerly referred to as *Colletotrichum acutatum*. Researchers have just recently been able to use genetic identification techniques to determine that at least two species in that old grouping cause celery leaf curl. *C. fioriniae* and *C. nymphaeae* are the major species causing celery crop losses in Ontario, Canada. *C. nymphaeae* has also been implicated in Japanese outbreaks of celery anthracnose. Both cause disease in fruit crops; *C. fioriniae* is responsible for bitter rot of apples while *C. nymphaeae* causes strawberry anthracnose.

How celery anthracnose arrives on farm is unclear. Some recent work suggests that seeds may carry the disease, and helps explain why symptoms often start in greenhouse transplant production. Celery leaf curl is easily spread in the field by water and splashing soil. The life span of celery anthracnose in the soil isn't well understood at this point. Once on the farm, celery leaf curl fungi can infect several weeds. Common lambsquarters, redroot pigweed, yellow nutsedge, oakleaf goosefoot, and common groundsel all harbor celery anthracnose without clearly expressing symptoms themselves. This is an **important feature of celery anthracnose: the disease can infect a plant then lay quietly in an asymptomatic state** (a latent or quiescent infection) until environmental conditions become favorable.

Celery anthracnose thrives under warm, wet conditions. **Rapid growth occurs when** temperatures are **77 – 86°F**, with substantially more disease development at 86 than 77. Temperatures as cool as 60 will support fungal growth and spread, but field progression will be slow. Wet leaves also facilitate leaf curl development. **Long wetting periods of 48 – 96 hours** best promote outbreaks, though as little as 12 hours is sufficient to cause disease. It **takes 3-5 days after infection** for the small, sunken stalk lesions to appear. The curling

(Continued on page 5)

#### (Continued from page 4)

starts just days after the initial lesions. Celery leaf curl frequently develops when it has been very hot with heavy thunderstorms followed by high humidity. Overhead irrigation and poor airflow due to weedy fields also increase leaf wetness periods and exacerbate disease.

Full disease outbreaks in celery can cause heavy losses. When environmental conditions favor disease, infection can range from 17 to 100% and cause marketable yield loss of 2 - 80%. In cooler, drier weather, infections can be as low as 1 - 10% with very little to no loss in marketability. I've seen field losses ranging from 20 to 100% on local farms. If an infection is mild and the heart tissue is unaffected, some plants with celery leaf curl can be marketed after an aggressive trimming.

So, what to do about celery leaf curl? For starters, become familiar with the symptoms. Next, keep the greenhouse free of weeds – a relevant practice for most crops because greenhouse weeds are a common source of pests and diseases. Scout your plug trays before transplanting into the field. Remove suspicious seedlings and treat the remaining ones, or consider starting over using new plug trays. Don't plant them into fields with a history of celery anthracnose. Right now there isn't enough understanding of how this disease works to say if *C. nymphaeae* will move from strawberries to celery and vice versa. Assess your comfort level for rotating those two crops, especially following strawberries that had anthracnose. To be cautious, don't move from an infected celery or strawberry planting into the other crop when doing field work. Use drip irrigation if there is celery leaf curl in the transplants. Using plastic or other mulch will help reduce splashing and weed pressure.

Least susceptible	Moderately susceptible	Highly susceptible
Merengo	Sabroso	Plato
Hadrian	TZ 6010	TZ 9779
Geronimo		Stetham
Balada		Kelvin
		Nero
		Green Bay
		Dutchess

Table 1: Variety selection for celery anthracnose mitigation

infections as soon as the plants are of marketable size to reduce the chances of developing heart lesions. Fields with celery leaf curl should be disced to incorporate infected crop residue and promote break-down. The current recommendation is to rotate away from celery for 3 to 4 years.

**Some varieties show some tolerance** to celery leaf curl, though no variety is resistant and all varieties screened to date will show some disease. Variety screenings were undertaken by the University of Guelph so cultivars identified as somewhat tolerant should be well adapted locally. I've also included susceptible varieties used by Michigan State for leaf curl experiments (Table 1).

**Fungicides can help slow celery anthracnose progression and retain marketable yield**. Applications should be **directed at the most susceptible young tissue in the heart of the plant**. Trials examining fungicide efficacy most often make 1 application before the disease starts, so keep in mind that field results may not be as good if sprays

**Scout** your celery planting during a long hot period or a few days after a short one. Hold off on scouting until the foliage dries. Pay particular attention if you've had heavy rain, high humidity, or overhead irrigation. Look for curling leaves and then examine the stalks and hearts of plants more closely. Remember that aster yellows requires the presence of leaf hoppers for transmission, produces pronounced yellowing, and does not cause dark stem lesions. **Remove infected plants** to minimize field spread of celery anthracnose. Control weeds in infected

Table 2: Fungicide options available in NY for common celery foliar diseases. Always check the product label for the most thorough and current application information.

Fungicide	Active Ingredi- ent	FRAC Group	Diseases Listed	Rate & Notes	PHI (days)
Cabrio	Pyraclostrobin	11	Anthracnose, Early & Late Blight	12-16 oz /A, 64 oz/yr max ≤ 2 sequential apps	0
Pristine	Pyraclostrobin/ boscalid	11 + 7	Anthracnose, Early & Late Blight	10 -15 oz /A, 2 apps/yr	0
Merivon	Pyraclostrobin/ fluxapyroxad	11 + 7	Anthracnose, Early & Late Blight	4-11 fl oz, 3 apps/yr	1
Quilt	Azoxystrobin/ propiconazole	11 + 3	Early & Late Blight	14 fl oz /A, max of 1.5 lb azoxystrobin products/yr	14
Bravo WeatherStik	Chlorothalonil	M5	Early & Late Blight	2-3 pt/A, protectant	7
Quadris	Azoxystrobin	11	Early & Late Blight	9.0-15.5 fl oz /A, 1 spray then rotate groups	0
Flint	Trifloxystrobin	11	Early & Late Blight	2-3 oz /A	7
Tilt	Propiconazole	3	Early & Late Blight	4 fl oz /A	14
Various	Cuprous oxide	M1	Check the label of your preferred formulation		
Switch	Cyprodinil/ fludi- oxonil	9 + 12	Late Blight	11-14 oz/A	0

fields to improve airflow and reduce the risk of carryover on weedy hosts. **Minimize overhead irrigation** if possible. Harvest fields with

(Continued on page 6)



From left to right: Celery plant with anthracnose (front) and without (back). Ruptured stalk lesion with gall tissue and adventitious roots (L) and dark stem lesion (R). Light brown stalk lesions and rotten hear caused by anthracnose and/or secondary bacteria. Leaf curling, petiole twisting, and stalk lesion. Stalk lesion and blackening of the young heart tissue (early stage of black heart rot). Photos: E. Buck

begin after disease is found. **Stobilurin fungicides (Group 11) best** reduce celery leaf curl progression in the field and best help maintain yield. Cabrio consistently performs well. **Stobilurin fungicides really should be applied with a protectant and be rotated with non-group 11 fungicides because of resistance concerns**. Treat any infected seedlings with a group 11 when they are set in the field. Cuprous oxide forms of copper can help in low pressure weather conditions, but do little in when environmental conditions are highly favorable. See **Table 2** for which fungicides are available to treat celery anthracnose, and early and late blight of celery.

Ongoing work at the University of Guelph is showing **good disease control success** by **using the TOMCAST forecasting model** to help time fungicide applications. Researchers are testing a **threshold** of **15 and 25 disease units**. To date they have found that both provide the highest level of control possible are more economical than calendar sprays because fewer sprays are necessary. Reducing the number of applications will make rotating fungicide groups much more achievable. Remember that protectant fungicides applied for celery early and late blight are generally effective against a broad range of diseases and may have a secondary benefit of allowing you to postpone treatment for anthracnose.

With good cultural practices and fungicide use, sporadic outbreaks can often be controlled enough to harvest a portion of an infected planting. While celery may not be a major crop in NY, celery anthracnose tends to cause major losses when it shows up. There is ongoing research into celery leaf curl in Ontario and Pennsylvania which will hopefully lead to improved future control.

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(Continued from page 6)

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Personal communications with Stephen Reynolds and Mary Ruth McDonald, University of Guelph and Sara May, Penn State.

#### When to Stop Spraying Cucurbits Chuck Bornt, CCE Eastern NY Commercial Horticulture

I get this question all the time and I think most of us know the answer and really, it might be different for growers that have U-Pick fall ornamentals as part of their operation and want to maintain some cover out there or if a planting was late. Therefore, I put the question to our Cornell Plant Pathologist and cucurbit disease expert, Dr. Margaret McGrath and this was her response:

"The answer depends on when the crop will be harvested, what diseases are developing, and diseases status. Leaf coverage needs to be maintained to protect fruit from sunburn which com-monly occurs this time of year. Healthy vines are needed to keep pumpkin handles green and prevent them rotting. If powdery mildew has become severe on the lower surface of leaves, then only chlorothalonil or sulfur are recom-mended. Chlorothalonil will also protect from

Plectosporium blight which has been observed recently - current rainy weather is favorable for its development. Once most fruit are exposed to sun it is best to harvest rather than risk sunburn. Where *Phytophthora blight is a concern, harvest winter squash as soon as* ready and continue applications of targeted fungicides until harvest. Current rainy weather is providing very favorable conditions but note that newly infected fruit have been observed in the past during rainfree periods when dew was heavy enough to provide the water the pathogen needed to infect. Orondis Ultra is a good choice fungicide now if seasonal use limit for a crop (33% of applications; max of 4) has not yet been reached. Note that use of Revus also needs to be considered be-cause one ingredient in Orondis Ultra is the same as in Revus (mandipropamid). When Orondis Ultra is applied at highest rate (8.8 fl oz/A), then max number applications of Orondis Ultra and Revus is 4." (Source: Long Island Fruit and Vegetable Update, No. 25, September 10, 2020)

#### Irish Potato Harvest Update

#### Chuck Bornt, CCE Eastern NY Commercial Horticulture

The cooler temperatures will really start to get us ramping up storage potato harvest and what I've seen for far in the early harvests, considering the heat of the summer and lack of rain, potatoes don't look too bad, especially where growers could irrigate. I did have a call in regards to some internal discoloration that I believe was from heat stress. I also suspect that if you were not able to irrigate, I would not be surprised to see some knobby tubers coming out of the ground due to secondary growth after natural rains kicked the plant back into gear. I also suspect that scab maybe more common this year as this pathogen favors dry conditions. Here again is a review of best management practices for Irish potato harvesting:

1.) Be sure vines are dead prior to harvest. Minimally vines should be dead or killed 2-3 weeks before harvest to ensure the tubers set their skin, making the tubers more resistant to skinning and bruising. Vine killing can be done many different ways including flail mowing, flaming and chemical desiccants. See Table 1 for a list of chemical desiccants or click this link: <u>Potato Desiccants</u>

2.) Irish potatoes should not be harvested if the pulp (internal tissue) temperature of the tubers is less than 40 O F. Pulp temperatures below that can increase bruising and internal issues like black spot. I find using a soil thermometer or even a meat thermometer that goes low enough works well to determine pulp temperatures.

3.) Maintain fungicide applications as long as there is green tissue left exposed including those stumps of vines from flail mowing. These tissues are still susceptible to diseases such as Late Blight.

4.) Make sure that tubers are not falling from heights greater than 6 inches (this includes digging and handling). This will also help reduce the potential for bruising and black spot (a result of bruising).

5.) Do not put harvested potatoes directly into a cold storage. Potatoes should go in a dark area and allowed to cool down gradually in (Continued on page 8)

#### (Continued from page 7)

order to heal and cure before going into storage— cuts and bruises heal best under high relative humidity (90%) at 50 - 60°F for 2 - 3 weeks after harvest. Curing at higher temperatures will only encourage diseases and shrink while lower temperatures slow curing. Cooling them down rapidly could result in condensation that can increase rot organisms that might already be there. I know this might be contrary to what most of us think, but carrying a little bit of moist soil into the bins or whatever you are harvesting into is not a terrible thing –and I don't mean tons of soil, but enough that it provides some of the humidity needed to help properly cure your potatoes.

6.) After this healing/curing period they can be moved into storage and <u>cooled slowly</u> to 40<sup>0</sup> F maintaining a high relative humidity of about 90 –95%. This should help reduce the shrinking that happens in storage.

7.) Do not wash potatoes before putting them into storage, but rather wash what you need as you need them. Do not put warm potatoes into wash water that is 10 degrees colder as this will increase bacterial breakdown. For that matter, you should follow this rule for all produce that is washed!

8.) Don't dig and plan on storing tubers from wet areas of a field. If possible, keep them separate and plan to market those immediately to reduce the chance of brining disease into the storage.

9.) Cull hard! Do not put any potatoes that do not look healthy into your storage, and when it doubt, don't put it in!

Product	Rate Per Acre	PHI (Days)	REI (Hours)	Notes	
<u>Aim EC</u>	3.2—5.8 ounces if used alone 2 –5.8 if combined with another desiccant	7	12	Used for pre-harvest desiccation of potatoes. Apply in later stages of senescence. Will also desiccate late season susceptible broadleaf weeds. Adequate desiccation is achieved within 14 days after initial treatment. Two applications may be required if crop is in active vegetative growth when desiccation is initiated. Apply in a minimum of 20 gallons per acre and use a non-ionic surfactant (NIS), methylated seed oil (MSO) or crop oil concentrate (COC). Don not use more than 11.6 fluid ounces per acre per crop season. Aim will not control grasses.	
<u>Reglone 2L</u>	1–2 pints per acre	7	24	Used for pre-harvest desiccation of potatoes. May make a second application, 5 days after the first if vine growth is particularly dense. Do not exceed a total of 4 pt/A. Drought at the time of application will decrease desiccation effectiveness. Apply in a minimum of 20 gallons of water per acre and use a non-ionic surfactant at 0.06-0.5% v/ v (1/2-4 pt per 100 gal) of the finished spray volume.	
<u>Rely</u> 280	21 ounces per acre	9	12	Not for use in Nassau and Suffolk Counties. Do not split application nor apply more the one application. Do not apply to potatoes grown for seed. Canola, corn, cotton, rice soybean, and sugar beets may be planted at any time after the application. Do not plant treated areas to wheat, barley, buckwheat, millet, oats, rye, sorghum, and triticale until 30 or more days after an application as a potato vine desiccant. Do not plant treated areas to crops other than those listed in this use precautions section un 120 or more days after application.	
<u>VidaEC</u>	5.5 fl oz if used alone 2.75-5.5 fl. oz. if combined with another desiccant	7	12	Make 1 to 2 applications with a minimum interval of 7 days. Do not exceed 2 applications or 11 fl. oz/A per crop season. Apply with either a non-ionic surfactant or crop oil concentrate in 20-50 gallons of water/acre. Use an approved buffering agent to obtain a pH of 5.0 or less if the water source has a pH greater than 7.5. See label for additional information.	

#### **Table 1: Labeled Desiccants for Potatoes in NYS**

# Still Need to Take the Produce Safety Alliance (PSA) Grower Training Course to Fulfill Your Farm's FSMA Requirement?

#### Elisabeth Hodgdon, CCE Eastern NY Commercial Horticulture

Since March, many in-person PSA Grower Training Courses have been canceled, and instead have been delivered online via Zoom and other platforms. Because the pandemic is still ongoing, the PSA has extended its remote delivery allowance until April. This winter, there will be several opportunities to take a remote course. The ENYCHP is teaming up with Oneida, Broome, and Madison Counties this November to offer a course on the 10-12<sup>th</sup> from 12:30 – 3:30 pm (see "Events"). Later on, we will offer courses in December and in February. Unlike our previous in-person courses, our remote PSA courses are spread out over multiple days to prevent "Zoom fatigue" and allow more flexibility for busy schedules.

To receive your certificate from a remote PSA course, you will need access to a computer with video and audio (camera and microphone) capacities to enable you to participate in the course. Your video will need to be turned on the entire time in order to successfully complete the course, either through a built-in or USB-connected webcam. We recommend a minimum of 3 mbps internet speed (up/down) to support the functionality required for our remote PSA courses. You can test your internet speed by typing in "Internet speed test" into your Google (or other) browser, and then clicking on "Run speed test," or a similar command depending on the internet browser.

If you are unsure whether or not you need to take the PSA Grower Training Course to meet FSMA or GAPs requirements, or have questions regarding remote courses, don't hesitate to contact Elisabeth Hodgdon at (518) 650-5323 or <a href="https://energy.org/licenses/by-nation-style="text-align: center;">https://energy.org/licenses/by-nation-style="text-align: center;">https://energy.org/licenses/by

Training will be held November 10th-12, 2020, from 12:30-3:30pm each day via Zoom. Please resister before November 1st using the link below: <u>https://reg.cce.cornell.edu/</u> 2020remotepsatraining\_203

Preduce Safety

\$30 PER

FARM

# CONTENT COVERED:

Worker health

\$

- HygieneSoil amendments
- Wildlife

2.

- Agricultural water
- Post-harvest handling and sanitation
- Developing a Farm Food Safety Plan

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PRODUCE

SAFETY ALLIANCE

GROWER TRAINING

Completion of this

VIRTUAL course will:

Food and Drug Officials

(AFDO) certificate

Satisfy the "FSMA Produce Safety Rule" for your farm

1. Earn an Association of

ONLINE COURSE TAUGHT BY CORNELL COOPERATIVE EXTENSION INSTRUCTORS

# **Events & Updates**

#### Design Your Succession Plan "Empowering Families to Get Started on Their Succession Plan" Online Zoom Series Coming to NYS in October

More than 80 percent of farm families hope to pass the family farm on to the next generation, but research shows only 30 percent of family farms survive to the second generation, and only 12 percent survive to the third generation. A successful transition to the next generation takes careful planning. How will your family farm operate in the future when the owner retires or is gone? Are you currently working with another generation who may be questioning their role in the future of the farm, or are you yourself questioning your current role? Succession planning is a critical component of on-going business planning and it is never too soon to start.

New York State farm families now can participate in *Design Your Succession Plan*, a newly designed program that provides the tools and resources to begin the farm succession planning process. This program is a working collaboration among Cornell Cooperative Extension, the Workforce Development Institute, and NY FarmNet. In NYS, the program will be offered as a four-evening remote course via Zoom in conjunction with an online learning platform used between meetings. The program will run from 6:30-8 p.m., October 8, 15, 22. and 29. For more information, contact your local CCE educator, information below, visit <u>http://cceoneida.com/</u> or <u>https://reg.cce.cornell.edu/dsp 230</u> to register online.

Participants will have an opportunity to open lines of communication with family to create a shared vision for the family business. They also will learn to choose and work with professional attorneys, accountants, lenders, insurance agents, and tax experts to construct a plan and documents that put the family's vision into action.

The program will prepare you to envision, communicate, plan, write, and shape the legacy of your family farm or ranch business, as well as save hundreds of dollars by completing these crucial planning steps before visiting with professionals.

This program is being offered via Zoom. The cost is \$60 per farm family and includes a workbook valued at \$20. Pre-registration is required. The registration deadline is Thursday, September 30 to ensure on-time delivery of the program workbook. For more information, contact Elizabeth Higgins at <a href="mailto:emh56@cornell.edu">emh56@cornell.edu</a>.

County	ECB-E	ECB-Z	FAW	WBC	CEW
Albany	N/A	N/A	30	0	50
Clinton 1	0	0	21	0	15
Clinton 2	0	0	36	0	13
Columbia	N/A	N/A	70	0	100
Dutchess	0	0	N/A	N/A	129
Essex	0	0	2	0	12
Orange	0	0	91	7	83
Rensselaer	N/A	N/A	N/A	N/A	28
Ulster 1	N/A	N/A	N/A	N/A	10
Ulster 3	0	0	N/A	0	N/A

#### **Corn Trap Counts**

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