

Vegetable News



Brassica Downy Mildew Detected

Ethan Grundberg, ENYCHP, Cornell Cooperative Extension

Unsurprisingly, given the extended period of cool, wet weather that plagued the region for the past month, brassica downy mildew is popping up in some early fields of cole crops and on cruciferous transplants in the greenhouse. One particularly severe infestation was found on broccoli that had been transplanted onto black plastic mulch and covered with remay; the combination of higher soil moisture content under the plastic and higher relative humidity in the crop canopy under the row cover allowed the disease to take hold without the grower noticing. The oomycete pathogen, *Hyaloperonospora brassicae* (formerly known as *Peronospora parasitica*), is responsible for downy mildew in cole crops. Similar to early symptoms caused by downy mildews of other crops, affected brassicas can develop yellow areas on the upper leaf surface, which can then turn brown and desiccate (fig 1). More advanced infections sometimes result in a grayish-blue streaking at the heart of leaf lesions with yellowish discoloration at the margins (fig 2, page 2). Downy mildew can also damage cabbage, cauliflower, and broccoli heads rendering them unmarketable. The cool evenings and dewy mornings that we've experienced lately are ideal conditions for the spread of the pathogen, which reproduces by generating spores on the underside of infected leaves.

If you notice downy mildew symptoms in your fields, take precautions to avoid spreading the disease into other brassica crops. The warmer, windier, and sunnier weather forecast for this week should



help reduce the risk of downy mildew spreading, but nevertheless take precautions to spray and harvest newer and unaffected brassica plantings first before working in fields with visible downy mildew symptoms to avoid transporting spores. If the forecast changes, growers should consider beginning a preventative fungicidal spray

(Continued on page 2)

Figure 1: Affected brassica with yellow areas on the upper leaf surface, which can turn brown and desiccate.

Table of Contents

- 1 Brassica Downy Mildew Detected
- 2 Weed Management in Tomatoes Grown on Plastic Mulch
- 3 Beware of Arugula Bacterial Diseases this Spring
- 4 Time to Put Up Sweet Corn Traps
- 5 Are You Required to Let the Public Bring Their Animals onto Your Retail Farm?
- 8 A New Approach to Newsletters for 2019
- 8 Upcoming Events

(Continued from page 1)



Figure 2: More advanced infections can result in a grayish-blue streaking at the heart of leaf lesions with yellowish discoloration at the margins.

program on all cole crops in proximity to plantings showing symptoms. Dr. Chris Smart at Cornell University has conducted fungicide efficacy trials for downy mildew control on brassicas. Manzate Pro-Stick (*mancozeb*, FRAC M3, only labeled for broccoli and cabbage) is effective when used preventively and can be alternated with Champ Formula 2F (copper hydroxide, FRAC M1). Bravo Weather Stik (*chlorothalonil*, FRAC M5) and Presidio (*fluopicolide*, FRAC 43, Presidio must be tank mixed with another fungicide with a different mode of action for resistance development prevention) are the other two fungicides recommended by Dr. Smart.

For organic growers, avoidance is crucial. Increase plant spacing to improve air circulation and minimize leaf-to-leaf disease transmission. Make sure to rotate fields out of brassicas for at least three years and work to control cruciferous weeds that may also act as sources for inoculation. Most OMRI-approved fungicides have little demonstrated efficacy. Organic copper formulations, like Badge X2 (copper oxychloride + copper hydroxide, FRAC M1) are the best bet, but products like Double Nickel 55 (*Bacillus amyloliquefaciens* strain D747, FRAC 44), Serenade (*Bacillus subtilis*, no FRAC), Stargus (*Bacillus amyloliquefaciens* strain F727 cells and spent fermentation media, FRAC 44) and Regalia (*Reynoutria sachalinensis* extract, FRAC P5) are also labeled for downy mildew on most cole crops and have shown some reduction in disease severity in trials when used preventatively. ■



Figure 3: Brassica downy mildew symptoms on the underside of a broccoli leaf.

Weed Management in Tomatoes Grown on Plastic Mulch

Andrew Senesac, PhD, Cornell Cooperative Extension Suffolk County

Editor's note (Chuck Bornt): I know many of you have been lucky to get some plastic laid for some of those early season warm vegetable transplants, but I know there is a lot more to go out. The biggest question I still get is what to do for weed control between the plastic. Our colleague Andy Senesac, a Weed Scientist from CCE Suffolk County, put together this article that gives a very good overview of herbicides labeled for using between the rows of plastic. The one addition that I would make is that we can also use Dual II Magnum (30 day PHI) which is not permitted on Long Island. I have seen where this mixed with metribuzin (Sencor, Dimetric) provides very good control early in the season. Here is something else that I want to be clear about – I would not recommend broadcast applying any of these products (with the exception of Poast and Select/Section) over the top of the plastic mulch before planting and hoping that a rain will be enough to wash it off the plastic. I think the risk of the material washing off the plastic and running into the holes after you planted is still too great as some of these formulations may not easily wash off the plastic. At the very least, try and block off the nozzles that would be right over the row, or better yet, purchase or build yourself a shielded sprayer. I've seen really simple, inexpensive units made from plastic totes and some angle iron! If you have any questions or comments, as always please feel to give me a call at 518-859-6213.

Even though black plastic mulch is a very useful tool for in-row weed control, it is not perfect. Weed control between the rows of plastic often becomes an issue. Uncontrolled weeds in these areas allow for unwanted competition and offer alternate hosts to insect and disease pests. In tomatoes, satisfactory weed control between the rows can be attained with these pre-emergent herbicides: metribuzin (Sencor), Devrinol, Prowl H2O, Treflan, Reflex (24c), Matrix and Sandea/Profine. Combining metribuzin with Devrinol, Prowl or Treflan can provide broad-spectrum annual weed control. Treflan needs incorporation to a 2-inch depth. Devrinol, Prowl and Metribuzin can be incorporated with a harrow or with rain or irrigation. Reflex should not be disturbed after application. ■

(Continued on page 3)

(Continued from page 2)

Often growers either wish to grow on bare ground or make broadcast applications before the mulch is laid. These herbicides can be used that way as long as the label's incorporation directions are followed. Post-emergence options for controlling weeds between rows include: Select Max, Poast, Aim, Sandea, and Matrix. Select Max (*clethodim*) or Poast (*sethoxydim*) will be helpful for control of emerged grasses like crabgrass, barnyardgrass and foxtail, but not yellow nutsedge. Aim (*carfentrazone*), a contact herbicide, is very active at low rates. It will not control grasses but can be useful for controlling small annual broadleaf weeds. Aim also needs to be shielded when applied because drift particles can injure the crop. Gramoxone SL can be used if plastic is laid and weeds emerge prior to planting. Even then, directed applications to the soil and not the plastic are recommended. Sandea is a useful tool to give post-emergence suppression of yellow nutsedge. Addition of a non-ionic surfactant is essential for optimal control. Although hedge bindweed is not claimed as a controlled weed by the Matrix label, our research has shown good early season suppression if the weed is shorter than 12"-18" at the time of application. This year, once again, the 24C registration (EPA SLN NO. NY-130006) is available for Reflex (*fomesafen*) use as a pre-transplant application to tomatoes and peppers. The SLN directions are unchanged from last year.



Photo: <http://blogs.ifas.ufl.edu/>

Labels are available from the DEC website: <http://www.dec.ny.gov/nyspad/products?4> or at local distributors. (AFS) ■

Beware of Arugula Bacterial Diseases this Spring

Elisabeth Hodgson, ENYHCP, Cornell Cooperative Extension

This spring, we have received two reports of *Pseudomonas* bacterial disease in high tunnel and field arugula, and one suspected infection of bok choi. Bacterial spot and blight are diseases that result in water-soaked, angular spots on both sides of leaves. The lesions can be brown or black, and portions of infected leaves can turn brown. The causal organisms of arugula bacterial spot and blight are *Pseudomonas cannabina* pv *alisalensis* and *P. syringae* pv. *maculicola*. Although the source has not been confirmed, diseases can arise from the environment or be seedborne, and can be worsened with cool, wet weather.

Once bacterial spot or blight is present in a crop, it is difficult to treat. The first step to managing bacterial diseases in brassica crops is to begin with disease-free seed. Hot water seed treatments, when performed at the correct temperature and duration, can kill bacterial pathogens. Early application of copper at the first onset of disease can be effective. Avoid overhead irrigation and other practices that cause splashing, which can allow the bacteria to spread between plants. Clean and sanitize tools and equipment that pass from infected fields into clean areas. Finally, maximize time between replanting the infected area with another brassica crop, as the disease can persist on plant debris in the soil for a couple of months. ■



Leaf lesions and discoloration due to Pseudomonas infection in arugula.

Time to Put Up Sweet Corn Traps

Teresa Rusinek, ENYHCP, Cornell Cooperative Extension

Trapping moths is a useful tool for monitoring flights of key sweet corn Lepidopteran pests, assessing pest pressure and timing sprays or releasing parasitoids. European Corn Borer (ECB) activity has not yet been observed in Eastern NY, however, low numbers of ECB moths are now appearing in a number of traps in south-central New Jersey. With temperatures finally warming up in Eastern NY, we expect ECB to begin emerging from overwintering sites in corn stalks or weeds in field borders. In our region we have two strains of ECB; Iowa-Z-I and NY-E-II that typically emerge late May to early June. As they emerge, ECB are attracted to the most advanced corn plantings, especially corn grown under plastic or row cover. Corn that is in late whorl to tassel emergence stage when egg masses are being laid does not show the typical larval feeding in the emerging tassel that we see in bare ground corn that is in the whorl stage during the flight. For this reason, tassel emergence scouting and thresholds have not been successful in plastic and row cover corn. Target newly hatching larvae using the moth trap catches or scout for egg masses to determine when sprays are needed. Growers have had good results when pheromone trap catches were used to time sprays for the first generation ECB in row cover or plastic corn. Growers waited until there was a significant increase in the ECB trap catches in their area and then timed sprays to coincide with egg hatch. ECB eggs require 100 degree days (base 50) from oviposition to hatch. Two to three applications bracketing the peak moth flight are generally effective. Degree day calculations for many locations may be found on the NEWA web site: <http://newa.cornell.edu>



Sweet corn started under row cover with traps set up along the edge.

Knowing when ECB flights begins, reaches, peak and ends in a given field is key to the proper timing of *Trichogramma* releases. *Trichogramma ostrinae* are small parasitic wasps that lay their eggs in ECB egg masses and have shown the highest level of ECB control in field trials. Releases should coordinate with the start of ECB moths egg-laying, when the corn is in the four to six leaf stage. You can use regional information about flight activity from your regional county



Extension program and target releases to that however, it is optimal to monitor flight activity in your own fields. Consult a supplier of beneficial organisms for more details (ex. IPM Laboratories www.ipmlabs.com; 315-497-2063); orders should be placed in advance of the growing season.

If you are interested in placing traps on your farm (which is ideal), you can order net and bucket traps as well as pheromone moth lures from Great Lakes IPM, www.greatlakesipm.com or Gemplers, www.gemplers.com. For sweet corn, we put out three heliothis net traps, two for each of the ECB strains and one for Corn Earworm which will be flying up from the south in a few more weeks. You may also want to monitor for Western Bean Cutworm and Fall Armyworm. Green bucket traps work well for these moths. If you need help ordering these items, feel free to email me at tr28@cornell.edu or call 845-691-7117. You can find lots of useful monitoring information for scouting fresh-market sweet corn at the NYS IPM Sweet Corn Pheromone Trap Network webpage: www.sweetcorn.nysipm.cornell.edu. You may be interested in following ECB and CEW moth flights if you grow peppers or tomatoes as these are susceptible crops particularly when local corn is drying down and less attractive to egg laying moths. For best results, the ECB E and ECB Z traps should be set at least 50 feet from each other and do not cross contaminate pheromone lures when servicing traps. ■



Female *T. ostrinae* on egg mass of European corn borer.
Photo by Sylvie Chenus, Entomology, Cornell University

Are You Required to Let the Public Bring Their Animals onto Your Retail Farm?

Wes Kline and Meredith Melendez, Rutgers University

An increasing number of customers are bringing animals with them when they visit farm markets, pick your own farms, or agritainment activities. Animals can pose a food safety risk to produce, introduce disease to farm animals, frighten or upset farm animals. Outside animals can pose a risk to employees, and other visitors. Farms need to consider compliance with regulations and buyer requirements specific to food safety and biosecurity to protect their farm animals. The Americans with Disabilities Act (ADA) governs what you are legally allowed to do in regards to service animals on your farm. This article covers the specifics of the ADA regulations, identifies animals that are not covered by the ADA regulations, provides sample policies for farms to follow regarding customer animals on the retail farm, and how to reduce risk on your farm from outside animals.

What do the ADA Regulations cover?

While many types of animals provide comfort and emotional support to their owners, only service animals are protected by the ADA, specifically title II and III. The ADA regulations define “service animal” as dogs, and less commonly miniature ponies, that are individually trained to do work or perform tasks for people with disabilities. These activities can include guiding a blind person, alerting people who are deaf, assisting a person in a wheelchair, alerting and protecting a person who is having a seizure, reminding a person with mental illness to take prescribed medications, calming a person with Post Traumatic Stress Disorder (PTSD) during an anxiety attack, or other duties. The work or task that a service animal has been trained to perform must be directly related to the person's disability. Some of these disabilities are obvious, others are not.

What questions can you legally ask?

When it is not obvious to you that an animal is a service animal you may ask just two questions to determine if the animal is a service animal.

- 1) Is the service animal required because of a disability?
- 2) What work or task has the service animal been trained to perform?

The service animal must have been trained to perform a specific task or work for a person with a disability in order to qualify for protection under the ADA regulations. Note that service animals do not always wear vests or harnesses.

What questions are you legally prevented from asking?

- 1) You may not ask about the person's disability.
- 2) You may not ask for proof of the person's disability.
- 3) You may not ask for documentation or proof that the service animal is trained.

- 4) You may not ask for an animal health certificate.

What should you do once you are satisfied the animal is a service animal?

- 1) Inform the handler which areas of the farm are open to the service animal and handler.
- 2) Inform the handler where the handwashing areas are located, and that they should wash their hands before handling and consuming produce.
- 3) Inform the handler of the proper area for the service animal to relieve themselves.
- 4) Inform the handler of where plastic bags and trash cans are available to them to dispose of fecal material.
- 5) Inform the handler of any farm policies specific to service animals.

Are comfort or emotional support animals protected by regulations?

Neither comfort nor emotional support animals are covered by the ADA regulations. Without the ADA regulatory protection these animals can be refused entry to your farm without fear of legal ramifications based on risk to your crops, your animals, farm employees or other farm customers.

What risks do outside animals pose for farm livestock and other farm animals? When outside animals are present on your farm there are diseases that can be spread to and by your farm animals and livestock. Zoonotic diseases are diseases spread between humans and animals. The most common way for these diseases to spread is through direct contact, indirect contact, vectors, and contaminated food. For more information on zoonotic disease risks and preventive controls, visit the [CDC Zoonotic Diseases webpage here](#).

Can you deny entry to service animals on the farm?

In general the ADA regulations state that service animals may be present where the public is normally permitted. You may restrict service animals from specific areas such as produce handling areas used for washing, packing, and storage (risk of food contamination), or farm animal areas (natural predator/prey relationships that can upset farm animals or potentially be a source of disease transmission).

What is appropriate behavior for a service animal and their handler?

Service animals should always be under the control of their handler. Service animals must be harnessed, leashed, or tethered, unless these devices interfere with the service animal's work or the

(Continued on page 6)

(Continued from page 5)

individual's disability prevents using these devices. Service animals have been trained on how to perform a service to their handler and should be focused on that task.

Can you ask someone with a service animal to leave the farm?

If the service animal is behaving in a way that indicates they are not under the control of their handler, or if the handler is unable to control the animal, you may ask them to leave. Examples of unacceptable behavior would be: consumption of produce, urination, marking, or defecation in the production areas, excessive barking, or aggressive behavior.

Can service animals go into you-pick areas?

You should consider your production practices and the risk involved with having an animal in your fields when determining what parts of the farm service animals can access. Crops grown in close proximity to the ground are inherently higher risk crops for contamination when compared to crops growing farther from the ground. Crops typically consumed raw are also higher risk, and in many pick-your-own settings, the customers are eating produce in the fields as they pick. Contact with animals can increase the risk of contamination of that produce. Handwashing stations should be provided to give the customers an opportunity to clean their hands after touching the service animal.

Can service animals go into farm markets?

Service animals may be given access to store areas that are generally open to the public. Service animals would be prohibited from food processing areas, such as a store kitchen, due to contamination risk. What should you provide to help reduce risk when service animals are on the farm? While the presence of service animals on your farm is likely to be a rare event, you should be prepared by having a designated area for service animals to relieve themselves, complete with pick-up bags and a trash can to dispose of fecal material. Handwashing facilities should be available for the handler.

Must I have restrictions on animals on my farm?

Should you allow animals other than service animals onto your farm be prepared to deal with customers and their animals frequently. At minimum you should consider the following:

- Where will these animals urinate and defecate?
- What supplies will you provide to allow proper clean up of defecation? (i.e. plastic bags and a trash can)
- Who will be trained to properly monitor this area to ensure that it does not become a contamination risk or an eyesore for your farm?
- Where will the customer handwashing station be so that their hands can be washed after handling their animal and after managing a defecation event?
- What signage will you need to instruct customers on your

expectation for animal behavior and handling at the farm?

- How will you handle a situation when the animal and/or the handler is behaving inappropriately?

What are the steps to enforce your policies when someone wants to bring an animal on the farm?

Your own policies regarding service animals on your farm will dictate the conversation you have with a member of the public who wishes to bring an animal onto your property. Below are two examples of a farm policy:

1) Allowing Only Service Animals Covered by ADA Regulations

- Animals other than service animals will be asked to leave the farm.
 - If the disability is not known or obvious the handler will be asked the following questions to confirm the animal is a service animal:
 - "Is the animal a service animal required for a disability?"
 - "What task has the service animal been trained to do?"
 - If the animal is confirmed as a service animal you will be informed of the following:
 - Areas that are open to the handler and service animal
 - Location of hand washing areas
 - Areas that the service animal can eliminate waste
 - Policies at the farm specific to service animals
 - If the animal is not a service animal, you will be asked to remove the animal from the property.
 - If you refuse to leave the property, the police may be called.

2) Allowing Any Outside Animal onto the Farm Property by Customers

- Animals are permitted on the farm property without restriction.
 - Customers are made aware of the farm policies regarding outside animals on the farm by prominent signage at:
 - ✓ The farm entrance
 - ✓ The designated animal relief area/s at the farm
 - Signage will inform the customer of the following:
 - ✓ Areas that are open to the animal
 - ✓ Location of hand washing areas
 - ✓ Situations that would warrant when it is appropriate to wash their hands

(Continued on page 7)

(Continued from page 6)

- ✓ Area/s that the service animal can eliminate waste
- ✓ Instructions for what the customer should do if their animal accidentally relieves themselves in inappropriate areas
- Animal Behavior that is considered unacceptable in the farm environment:
 - ✓ Consumption of produce
 - ✓ Urination, marking, or defecation in areas outside the designated relief area
 - ✓ Excessive barking
 - ✓ Aggressive behavioral towards other customers, employees, or farm animals
- Customers who are not handling their animals in accordance with the farm policies may be asked to leave.

What do you need to do to comply with the Food Safety Modernization Act/Produce Safety Rule or a buyer required third party audit?

Produce safety inspectors and auditors will focus on the potential risk of contamination with animals on your farm. You can expect

questioning to focus on the production areas where the animals are permitted access, the areas that the animals are allowed to relieve themselves, how those areas are maintained, availability of handwashing facilities for the handler, and relevance and prominence of appropriate signage for the handler. Inspectors and auditors will look for evidence of compliance with your stated policies by watching how animals, handlers, and your staff are behaving. Signage should be prominent and indicate your expectations for the animal handler, locations of areas to support proper handwashing and trash disposal, and appropriate areas for the animal to urinate and defecate.

Where can I learn more about the ADA regulations on service animals?

ADA 2019 Revised Requirements—Service Animals (https://www.ada.gov/service_animals_2010.htm)

Frequently Asked Questions about Service Animals (https://www.ada.gov/regs2010/service_animal_qa.html)

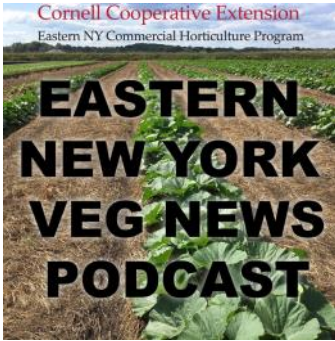
ADA State Specific Regulatory Table (<https://www.animallaw.info/topic/table-state-assistance-animal-laws>) ■

Rutgers Cooperative Extension would like to thank The Seeing Eye Inc., the New Jersey State Board of Agriculture, New Jersey Farm Bureau, and the New Jersey Department of Agriculture for their assistance in developing this resource.

		SERVICE ANIMAL
		EMOTIONAL SUPPORT ANIMAL
✓	SPECIALLY TRAINED (TASK-TRAINED)	✗
✓	ALLOWED BY FEDERAL LAW (AIR CARRIER ACCESS ACT) TO ACCOMPANY THE HANDLER ON FLIGHTS	✓
✓	ALLOWED BY FEDERAL LAW TO ACCOMPANY HANDLER IN RESTAURANTS, STORES, MOVIE, THEATRES, ETC.	✗
✓	ALLOWED BY FEDERAL LAW TO STAY WITH PEOPLE WHO ARE DISABLED IN APARTMENTS THAT HAVE "NO PET" POLICIES	✓
✓	TRAINED TO ASSIST JUST ONE PERSON	✗
✗	PROVIDE EMOTIONAL COMFORT TO MORE THAN ONE PERSON	✓
✗	MUST BE CERTIFIED OR REGISTERED	✗

A New Approach to Newsletters for 2019

Ethan Grundberg, ENYCHP, Cornell Cooperative Extension



We have received feedback from growers over the years that there is great content in our weekly vegetable newsletters, but that there isn't always time in the growing season to keep up with reading them. In response, we are trying something new this year: we will still send out a written newsletter every other week. On the weeks when we do not produce a written newsletter, all of the vegetable specialists will contribute to an audio newsletter or "podcast" that will be made available through a number of sources. If you have a smartphone, you can download apps like Apple Podcasts, SoundCloud, or Apple iTunes where you can subscribe to the Eastern New York Veg News. You can

also always listen to episodes that we have released right on our website at <https://enych.cce.cornell.edu/> or on our SoundCloud page at <https://soundcloud.com/easternnewyorkvegnews>. Finally, we will send everyone on our vegetable newsletter list an email with both sweet corn pest trap catch numbers and a link to that week's podcast.

If you have production issues or questions that you'd like us to address on the podcast, please do send your suggestions to me at eg572@cornell.edu. We hope that this new format will allow you to receive the time sensitive production information you need while driving to market, seeding in the greenhouse, or cultivating the squash! ■

Upcoming Events

Last Monday Grant Webinar for Fruit and Vegetable Growers

May 27, 2019 - 12:00pm-1:00pm

Webinar

Monthly webinar to disseminate information on available grants relevant to fruit and vegetable farmers in Eastern New York. To register, visit: <https://enych.cce.cornell.edu/events.php>

FSMA/PSA Grower Food Safety Training Course

July 15, 2019 - 8:00am-5:30pm

CCE Warren County, 377 Schroon River Rd, Warrensburg, NY

A grower training course developed by the Produce Safety Alliance (PSA) that meets the regulatory requirements of the Food Safety Modernization Act (FSMA) Produce Safety Rule. At least one person per farm producing more than \$25,000 worth of fruits and vegetables must attend this course once. Participants will receive a certificate of course completion by the Association of Food and Drug Officials. To register, visit: bit.ly/JulyFSMA

Summer 2019, 20-minute Ag Manager Lunchtime Webinar Series

Focused Business Topics for Busy Managers

12:30pm—1:00pm on alternating Tuesdays, June through August

- June 4—Understanding the Time Value of Money
- June 18—Making Capital Investment Decisions
- July 2—Understanding Financial Statements 1 (Balance Sheets)
- July 16—Understanding Financial Statements 2 (Income Statement)
- July 30—Understanding Financial Statements 3 (Budgets and Analysis)
- August 13—Ag Tax Topics - the Schedule F
- August 27—Ag Tax Topics - Sales Tax and Property Tax Issues for Ag in NYS

To register, visit: bit.ly/AgManagerWebSeries

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

