



Cornell University
Cooperative Extension

Eastern NY Commercial Horticulture Program

Vol. 4, Issue 12
July 14, 2016

Vegetable News

Sweet Corn Update

Chuck Bornt, *ENYCHP*

Early sweet corn harvest has begun and off to a good start as long as you were able to get water to it! Last week and this week we started catching our first Western Bean Cutworm adult moths which is a relatively new pest for us. They are right on time as we usually start to see them come in right after the first flight of European cornborers subsides and just as the second flight starts. Below is some information and pictures from Abby Seaman and Marion Zuefle of the NYS IPM Program:

“For WBC it is recommended that all fields that are in the whorl or early tassel stage be scouted for egg masses with a 4% threshold for processing sweet corn and a 1% threshold for fresh market sweet corn. WBC will usually lay eggs on the upper side of the top 1-3 leaves of pre-tassel corn, close to the leaf base. After tasseling has finished WBC

seek out younger corn or dry beans. It takes between 5-7 days for eggs to hatch. It is critical that sprays are timed before the larvae have a chance to enter the ear. The egg mass will become purple in color approximately 24 hours before egg hatch (see photo).”

The larvae look very similar as does the feeding damage in the whorl to ECB and is difficult to distinguish between them. However, WBC has a tendency in my mind to get into the ear more compared to ECB which is one of the reasons the threshold is so low (1 % infestation). If there is any good news, many of the insecticides we use for CEW, FAW and ECB are effective on WBC including Warrior, Baythroid, Belt, Coragen, Radiant and Blackhawk among others.

Larvae Stages (August-October)



Photo: John Obermeyer, Purdue University

Pictures from left to right: WBC egg mass shadow(Photo: T. Baute). WBC egg mass. WBC eggs become purple prior to hatch(Photo: Marlin Rice) and larvae.

In this issue of Vegetable News:

Leafminer: Hard to Manage	1-2
Tomato Updates	2-4
Upcoming Events & FYI	3
Postharvest Considerations for Garlic	5
Bacterial Diseases in Onions	5
Squash Bugs	6-7
Average Weekly Farmers Market Prices	7
Weather/ Sweet Corn Trap Counts	8

Leafminer: Easy to See, Hard to Manage

Maire Ulrich, *ENYCHP*

Leafminer (*Liriomyza* sp.) has been found on many crops this week. Damage can quickly make crops where greens are sold unmarketable and control is difficult.

Leafminer, as an adult, is a small grey/black fly. The female lays eggs within the layers of the leaf and the yellow/orange maggot/larvae then burrow around, in the the leaf, consuming the green tissue. The serpentine mines start as white scribbles, then turning brown or black as they age. When mining is severe, it can cause whole sections of the leaf to die, cut off from nutrients by the mines. These sections will bleach and die and

continued on next page

eventually crumble away leaving holes in the leaf.

For leafy greens, or anything where the leaves need to be attractive for sale, this quickly makes the crop unmarketable. For crops where the leaf condition is not part of the salable product (onions, peppers) it still reduces energy producing leaf area resulting in decreased production. Worse yet, the holes made to lay the eggs and where the next pupae emerges are entry points for bacterial disease organisms. Even a few mines on plants where leaves are not sold may end up in quantifiable crop damage.



Leafminer Damage on Basil

Because the maggot lives *within* the leaf, contact insecticides have limited control. Some systemic are labeled for leafminer so check the labels for your crop (investigate Agri-Mek SC & Exirel). Unfortunately, you almost have to apply BEFORE you see damage to get effective control, even with systemics, so that the chemical is already fully within the plant before the feeding starts so their first bites are fatal. Other choices include organic options such as oils and soaps that create oxygen barriers or desiccate to kill larvae. It is ineffective to try and control the adults prior to egg-laying due to their mobility. Exclusion of adults with row covers can be useful but again must be implemented before their arrival.

It takes 2-3 weeks for the maggot to develop into pupae and stop feeding. The pupae fall out of the plant and to the ground where they complete their life cycle, either becoming another fly or overwintering in the soil. This is why light cultivation and crop rotation is important to control. Another factor is weed management. Weeds such as chickweed, pigweed, lambsquarter and nightshades are attractive to leafminers.

Normally, once leafminers do their damage for 1 life cycle



Leafminer on Onion

we do not see them again for the next as they move on to other hosts. They tend to be sort of a one-hit-wonder in this respect. However, due to early sightings this year, there may be more damage to come. A life cycle is about 14 days, depending on temperatures. Areas north will follow some days later due to temperature relationship on development. The best management comes from cultural controls such as:

- Managing weeds at the edges of fields where these pests can build populations while waiting for your crop to emerge.
- Rotate crops. Fields where you had leafminer damage should not have a susceptible crop in it next year. Remember, adults travel well.

If you had lettuce in fields C&D this year with leafminer damage, putting sweet corn there in 2015 and the lettuce in fields B&E will result in similar levels of damage.

- Investigate tolerant varieties. There are not too many options for this management technique but some vegetable varieties are more or less attractive to the adults.

And, for those of you with greenhouses: leafminer can be problematic in greenhouses as well for all of those cosmetic reasons. If you have a field problem, be extra careful not to bring it in the greenhouse this fall.

What about Allium Leafminer??

Allium Leafminer (*Phytomyza gymnostoma*) is a different genus and species and it doesn't do the same winding trails in leaves. It, too, is a fly whose maggot larvae attach plants BUT they attack allium species ONLY. And they attack the plant at the neck causing damage to emerging leaves on more like a bullet-hole appearance than the winding mines of the species above. Allium Leafminer has been identified in Pennsylvania and in the next month or so we will be trapping for it in Orange County when the adults are flying again. No damage has been sighted in Orange.

Tomato Leaf Roll

Chuck Bornt, ENYCHP

Every year about this time I start to get the panic phone calls from growers about their tomatoes starting to leaf roll and every year I tell them pretty much the something—don't worry about it but no one wants to hear that as they want to spray something or feed it nutrients etc. I came across this article several years ago from Jerry Brust, a Vegetable Specialist with the University of Maryland, with probably the best explanation of leaf roll I've read and I thought it would be worth sharing with you.

“Tomato leaf roll is a problem with a variety of causes that we have been seeing a lot of this year. Tomato leaf roll starts with upward cupping at the leaf margins followed by inward rolling of the leaves. Lower leaves are affected first, and can recover if environmental conditions and cultural factors are adjusted to reduce stress. Not all leaves on a plant roll, but eventually the rolling can involve most leaves on a plant and last through the season. In severe cases, whole plants can be affected.”

continued on next page



The margins of adjacent leaflets may touch or overlap. Rolled leaves become rough and leathery but are otherwise normal in size and appearance. There is no discoloration of leaf veins associated with this problem. The good news is that leaf roll rarely

affects plant growth, fruit yield, or fruit quality.

Leaf roll is often seen just after plants are heavily pruned during dry soil conditions. If the tomato plant's top growth is more vigorous than root growth and we are hit with a dry hot period the foliage may transpire water faster than the root system can absorb it from the soil, and the plant will respond by rolling its leaves to reduce the transpiration surface area.

Another cause of this disorder is growing high-yielding cultivars under high nitrogen fertility programs. Oddly enough leaf roll disorder also has been found to be caused by excess soil moisture coupled with extended high temperatures. Leaf roll severity appears to be very cultivar dependent. Cultivars selected for high yield tend to be the most susceptible. Indeterminate cultivars seem to be more sensitive to this problem than determinate cultivars.

It has been found that sugar and starch accumulating in the lower leaves cause the leaf to roll; the more they accumulate the worse they roll. Leaf roll is usually something we see when we have hot dry conditions in June or July, when plants are most actively growing. Leaf roll seldom affects yield, therefore no corrective measures are needed.

However, it is important to distinguish leaf roll from other problems that affect tomato leaf shape. Some viruses or herbicide injury can look similar to tomato leaf roll, but if the symptoms appear suddenly, involve many of the plants in a field, and largely affects the lower leaves, it is probably leaf roll. You can reduce symptoms by maintaining consistent, adequate soil moisture of about 1 inch per week during the growing season. This will also help with calcium up-take, reducing blossom end rot problems. Growers also should not prune heavily during hot dry conditions or over-fertilize with nitrogen."

It's the last sentence in Jerry's article that preempted the phone call to me this week from one of our growers. They were really concerned about the leaf roll and upon making the visit, it was pretty apparent what was happening: excessive pruning.

These plants had been pruned so hard that the growing point had been removed so as you can imagine, with all the hot dry weather we've had coupled with heavy pruning, the plants were accumulating plenty of sugars and starches in those leaves that were left. It's always better to ask when you see a problem and I was very happy that this grower called as we solved why they had so much leaf roll!



Excessive pruning and hot dry conditions really helped show leaf curling symptoms in this tomato plant. Photo: CDB

UPCOMING EVENT

Produce Auction Growers Meeting

Date: Thursday, July 28th

Time: 5pm– 7pm

Location: Ray Zimmerman's High Tunnel
429 Brookmans Corner Road
Fort Plain, NY 13339

Join Crystal Stewart to discuss high tunnel tomatoes, melons, and fall brassicas, and any other issues we can find on the farm! The meeting will begin at Ray Zimmerman's High Tunnel and then move to Eli Martin's Farm. 1 DEC credit available. Refreshments will be provided.

FYI : SMALL FARM EQUIPMENT AUCTION, Sunday July 24th

New Minglewood Farm's equipment will be auctioned on Sunday July 24th in Greenwich, NY. If you are new to vegetable growing or want to pick up some additional equipment, this is a great opportunity! Check out the auction webpage for the full listing the full listing.: www.auctionzip.com/Listings/2744537.html

Despite Dry Weather: Be on the Lookout for Bacterial Diseases of Tomato!

Chuck Bornt & Teresa Rusinek, ENYCHP

One nice thing to say about the dry weather is that it seems to keep some diseases in check. However, in some cases it can make them even worse. I've found a few plants that I suspect have Bacterial Canker on a farm with a history of the disease and although the first defense needs to happen in the greenhouse sanitation and next with stake sanitation (if your staking your tomatoes) and then there are still a few things you can do in the field. Why do I say it can make Bacterial Canker worse? Because this bacterium is a clogger of the xylem which is what transports water and nutrients from the roots to the upper parts of the plants. As this becomes more and more clogged, drought stress becomes more evident, not because there might not be enough water in your soil, but because the plant cannot move enough water to the upper parts of the plant. All three of the major bacterial diseases, Spot, Speck and Canker can infect the fruit as well and make them either unmarketable or downgrade them to seconds or canners. As stated above, those who had these diseases in their fields last year are at greater risk this year as the bacteria persist in soils for several years as well as on stakes and in transplant production areas. Below are some tips on identification and management of these bacterial diseases.

Bacterial Speck (*Pseudomonas syringae*): dark blisters on fruit, development favored by cool moist conditions, dark lesions on leaves with discrete yellow halo.

Bacterial Spot (*Xanthomonas campestris*): dark, scabby lesions on fruit, can start on or spread to peppers, favored by warm weather and often misdiagnosed as speck.

Bacterial Canker (*Clavibacter michiganensis*): usually starts out looking like tipburn or dieback on leaves followed by slight whitish blisters with a dark center which we commonly refer to as "birdseye" symptoms on fruit. Infection is systemic and will eventually kill the plant.

The first infection on the farm is typically introduced through infected seed or plants. Once introduced on the farm, it can recur when rotation or sanitation practices are not adequate OR through new infections on seed or plants. These organisms are very difficult to detect on seed at low levels but can still result in a field epidemic. Plants may have no symptoms for 6-8 weeks or longer!

Management of Tomato Bacterial Diseases: Speck Spot and Canker:

The first defense starts with seed and greenhouse sanitation, followed by either new or very well sanitized stakes, but many of us are well past that stage now. What you can culturally do now is do not allow your workers to prune and tie when plants are wet—this only helps spread the disease. If you've had problems with bacterial diseases in the past, you may want to consider a copper spray a

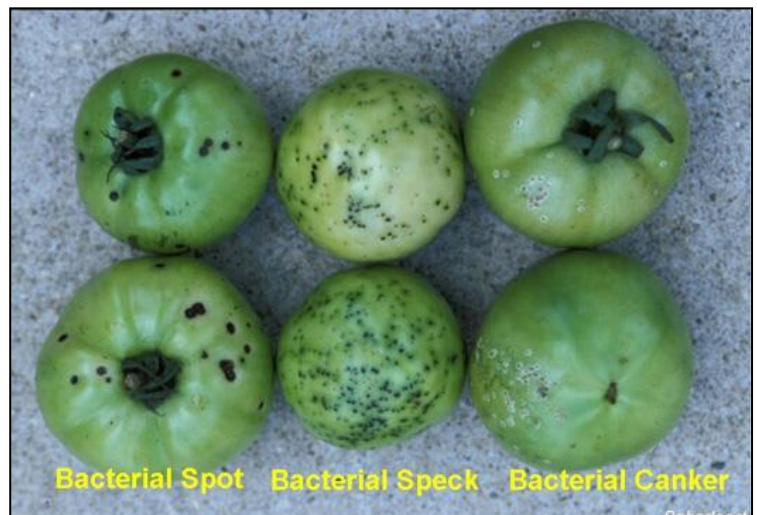
couple days before you know your crew will be pruning and tying those tomatoes. This may help protect the plants from workers spreading the bacteria throughout a planting, but this is only theoretical and common sense talking here.

Please be aware of the re-entry intervals for the different formulations of coppers.

Copper is still our main go to, but Tannos has some suppressive activity on Speck, Spot and Canker. I think using copper plus mancozeb is just as if not more effective. The reason for mixing the two together is the addition of the mancozeb increases the effectiveness of the copper by releasing more of the copper ions. Gavel is also labeled due to the mancozeb component of the material. In an organic system the grower is limited to OMRI approved copper compounds such as Champ or Cueva. Again, remember that if you use any of the mancozeb products in particular, it has a 48 hour re-entry interval as does several of the copper formulations and a 5 day pre-harvest interval!

Actigard, not approved for organic production, has a unique mode of action: it induces host plant resistance to speck and spot, but not to canker. Trials conducted by Cornell plant pathologists Christine Smart and Margaret McGrath found Actigard to provide excellent control of bacterial speck without a reduction in yield. They used 0.75 oz/A applied at 100 gpa on a 7-day schedule. It takes at least three days for Actigard to induce plant defenses, so it is necessary to begin applications before symptoms appear on the plant. Actigard is not labeled for fungal diseases.

When infected plants are found throughout a field, not more than 100 plants per acre should be removed in an attempt to restrict spread. Pulling out more is of little benefit. No resistant varieties are available. A minimum of two-year rotation for speck and spot is recommended and three years for canker. More on management can be found at http://vegetablemendonline.ppath.cornell.edu/NewsArticles/Tom_Bacter_06.html



Post harvest Considerations for Garlic

Crystal Stewart, ENYCHP

There are many places to successfully dry garlic, but most of them share some common qualities that each contribute to maintaining the quality of the crop. These factors include relative humidity, temperature, air movement, and time.

Temperature: The warmer you dry garlic, the faster the process is completed, up to 120 degrees F. If the environment is allowed to get hotter than this, garlic develops a physiological condition called waxy breakdown, which ruins the quality of the bulbs. Many growers using high tunnels or warm spaces such as hay mows shoot for 100-110 degrees F, which dries garlic effectively without causing anxiety about damaging the bulbs. Cooler spaces, such as garages and empty walk-in coolers, dry garlic days to weeks slowly, creating a longer window in which secondary diseases can form on moist tissue.

Relative Humidity: During the drying process, striving for the lowest RH possible is advised. An often-overlooked time to consider RH is at night. High tunnels especially have low RH during the day, but at night it can creep back to near 100%, and garlic may slightly rehydrate. Closing up the structure and running dehumidifiers can help maintain drying progress. Another way to manipulate the relative humidity of the drying space is to bring in less moisture. An effective way to do this is to cut the tops and leave them in the field. Mowing tops has not been shown to reduce the yield or quality of garlic, but can dramatically improve the drying environment, reducing losses.

Air Movement: Air movement helps to even out tem-



This drying area at Sky Meadow Garlic Farm demonstrates optimum temperature, relative humidity, air movement, and light infiltration.

perature and relative humidity. Running fans to circulate air and to move moist air out of the drying area is very important to maintaining quality. It is also important to set up your system to facilitate air movement. Hanging garlic in bunches can create very moist microenvironments with little to no air movement. The system in the image above maximizes air movement by placing garlic in a nearly single layer on wire mesh benches. Fans are located at one end of the structure and the sides can also be rolled up to move additional air through

the tunnel, particularly on warm days.

Sunlight and Garlic: Garlic exposed to direct sunlight may suffer from sunscald, which causes depressions in affected cloves. However, drying in tunnels protects garlic from the most damaging aspects of sunlight, and we do not see sunscald in this environment. Many growers still choose to put a layer of shade cloth on high tunnels. This also helps moderate temperatures. Sunlight does not cause garlic to turn green. This is caused by high nitrogen fertility.

For more information on post-harvest handling of garlic, please visit our website and find the study report: <http://enych.cce.cornell.edu/crop.php?id=14>

And please, if you find samples you suspect have fusarium, find the sample submission form also on the website, and send in a sample!

Stay tuned next week for information on what to do with your garlic once it is fully dry (besides sell it all or plant it!)

Managing Bacterial Diseases in Onions

Crystal Stewart, ENYCHP

The onion crop is generally looking pretty good despite some thrips pressure, particularly the irrigated plasticulture plantings. Surprisingly, given the dry weather, we are seeing some bacterial issues here and there, particularly on the sweet onions. Bacterial issues can be detected during the growing season often by looking for just one or two flagging leaves, often more towards the center of the plant. These leaves will die right into the bulb, either leaving one scale dead or spreading and causing soft rot of the bulb. Christy Hoepting and Dr. Steve Beer wrote a nice article a few years ago detailing the IPM strategies for combatting bacterial diseases and reducing their spread:

1. Choose less susceptible cultivars.

2. Limit amount of pre-plant applied nitrogen fertilizer.

Many feel that 100 pounds or less N per acre is appropriate.

3. Use water free of bacterial pathogens for spraying or sprinkler irrigation.

4. Avoid sprinkler irrigation, especially late in the season.

5. Maintain effective control of thrips, especially late in the season.

6. Pull/undercut onions when at least 50% of the leaves are down and during dry weather.

7. Do not top onions until neck tissue is completely dry (not green).

8. Harvest during dry conditions.

9. Harvest and handle bulbs gently
10. Maintain dry conditions during curing.
11. Pre-grade suspect lots of onions to eliminate rotten bulbs prior to storage.
12. Store bulbs at 32 °F to 37 °F (0 °C to 2 °C).
13. Avoid condensation forming on onions by circulating warm air over cold onions.



This onion had grown up tight with the plastic, creating a very warm little tent around it. This environment strongly contributes to rot.

Open the plastic around your onions

If the plastic becomes tight around onions due to small planting holes (which were of course a great weed control strategy earlier) it may be necessary to slice the plastic and increase air movement around the bulbs. The hot, moist environment under the plastic is perfect for bacterial growth, and the plastic directly contacting bulbs can cause physical damage, allowing another entry point for pathogens. Cut

slits along each side of the rows, avoiding the drip, as the onions size. Another solid strategy for future years is to use biodegradable mulch on onions. It will start to break



An onion with dead center leaves (left) and internal decay (right). This plant was also being restricted at the neck by tight plastic. cls

down as the onions size, automatically providing the needed ventilation.

Source: Update on Bacterial Diseases of Onion: Detecting Bacterial Pathogens, Bacteria in Soil and Water, Suppressive Soil, Varietal Susceptibility and the Effect of Actigard® on Bacterial Decay Steven Beer, Jo Ann Asselin, and Jean Bonasera, Plant Pathology and Plant-Microbe Biology, Cornell University and Christy Hoepting, CCE Cornell Vegetable Program

Squash Bugs

Amy Ivy, ENYCHP

Squash bugs are an annual challenge, but it seems they are worse than ever this year, both in the field on squash and also in high tunnel cucumbers where their feeding scars the fruit (see photo).

The adults are the easiest stage to spot but the hardest to control. Pesticides are most effective on the youngest nymphal stages. In addition to the pesticides listed below, cultural practices include thoroughly and deeply tilling under crop debris where the adults overwinter and using rowcover in spring until flowering. The adults are good fliers so rotating fields is not that effective. There are some natural predators and parasitoids but they are often not active early enough in the season to prevent damage in the field. In small scale settings some growers use a long stick with Tanglefoot® to hand pick the adults in the morning



while they are aggregated and moving slowly.

Squash don't directly transfer bacterial wilt the way cucumber beetles do, but their feeding does leave open wounds that can be susceptible to infection. In tunnels the scarring they cause to the high end fruit ruins its value. Conventional pesticide options in the field include Assail, Sevin, Asana, Warrior II with Zeon, Endigo and Pounce. Organic options are Pyganic and Entrust.



Earliest signs of feeding, turn leaf over to find nymphs.

In tunnels, conventional options are Asana, Baythroid, Brigade and Admire. Organic options are Pyganic, Entrust, Surround to prevent them and screening the side walls to keep them out.

continued on next page



Above photos left to right: bronze eggs on underside of leaf, nymphs cluster together when young on underside of leaves, adults roam around the plant.

Average Weekly Farmers' Market Prices

Product (NC = nonconventional)	Unit	Mid-Hudson	Capital	Saratoga - Lake George	Northern
Beefsteak Tomatoes	1 lbs.	\$3.50	\$4.23		
Beefsteak Tomatoes NC	1 lbs.			\$4.13	
Blueberries	pint		\$4.44	\$4.13	\$3.00
Blueberries NC	pint	\$5.00		\$4.00	\$3.38
Carrots	bunch		\$2.50		\$3.00
Carrots NC	bunch	\$3.13	\$3.50	\$3.17	
Cherry Tomatoes	1 lbs.				\$1.99
Cherry Tomatoes NC	1 lbs.	\$4.00		\$10.00	
Heirloom Tomatoes	1 lbs.				
Heirloom Tomatoes NC	1 lbs.				
Raspberries	1/2 pint		\$6.50	\$4.00	\$4.00
Raspberries NC	1/2 pint	\$4.00	\$3.00		
Red Potatoes	1 lbs.		\$4.00		
Red Potatoes NC	1 lbs.	\$2.00		\$4.50	
Russet Potatoes	1 lbs.				
Russet Potatoes NC	1 lbs.	\$2.00		\$3.00	
Salad Mix	1/2 lbs.		\$3.00		
Salad Mix NC	1/2 lbs.		\$5.08	\$4.64	
Shelled Peas	pint			\$3.00	\$4.00
Shelled Peas NC	pint				
Strawberries	pint		\$4.33	\$5.00	
Strawberries NC	pint			\$5.00	
Sugar Snap Peas	pint				\$2.75
Sugar Snap Peas NC	pint	\$3.00	\$3.72	\$4.63	\$3.00
Sweet Corn	dozen				
Sweet Corn NC	dozen				
Yellow Potatoes	1 lbs.		\$4.00		
Yellow Potatoes NC	1 lbs.	\$2.00		\$4.00	

Site	2016 Weekly Total 7/5-7/11	2016 Season Total 3/1-7/11	2015 Season Total 3/1-7/11	2016 Weekly Rainfall (inches) 7/5-7/11	2016 Total Rainfall (inches) 3/1-7/11	2015 Total Rainfall (inches) 3/1-7/11
Albany	140.8	1214.7	1291.5	1.32	9.76	14.04
Castleton	136.4	1172.4	1220.6	0.59	11.38	14.28
Glens Falls	131.0	1073.5	1083.5	2.19	12.89	13.72
Griffiss	125.8	966.8	1020.0	3.18	17.41	20.70
Guilderland	128.0	1087.0	1154.0	0.67	13.58	20.06
Highland	NA	1290.2	1312.9	1.02	12.62	17.63
Hudson	141.4	1276.7	1311.6	2.07	15.95	17.29
Marlboro	139.3	1222.1	1249.9	0.26	11.98	13.72
Montgomery	141.7	1215.2	1295.0	0.24	10.05	15.32
Peru	117.4	982.2	1005.0	0.84	8.16	15.44
Red Hook	134.0	1210.4	1242.6	2.48	10.78	14.07
Willsboro	116.6	965.6	975.2	1.36	10.22	18.91
N. Adams, MA	138.0	965.6	983.0	0.66	12.57	15.56

ENYCH Program Educators:

Fruit

Dan Donahue

Phone: 845-691-7117

Email: djd13@cornell.edu

Tree Fruit

Anna Wallis

Phone: 443-421-7970

Email: aew232@cornell.edu

Tree Fruit & Grapes

Laura McDermott

Cell: 518-791-5038

Email: lgm4@cornell.edu

Berries

James O'Connell

Phone: 845-691-7117

Email: jmo98@cornell.edu

Berries & Grapes

Vegetables

Chuck Bornt

Cell: 518-859-6213

Email: cdb13@cornell.edu

Amy Ivy

Phone: 518-561-7450

Email: adi2@cornell.edu

Teresa Rusinek

Phone: 845-340-3990 x315

Email: tr28@cornell.edu

Erik Schellenberg

Phone: 845-344-1234

Email: jk2642@cornell.edu

Crystal Stewart

Cell: 518-775-0018

Email: cls263@cornell.edu

Maire Ullrich

Phone: 845-344-1234

Email: mru2@cornell.edu

Business and Economics

Jesse Strzok

Phone: 518.429.1464

Email: js3234@cornell.edu

Content Editor: Erik Kocho-Schellenberg

Layout: Abby Henderson

Sweet Corn Pest Chart (week ending 7/11)

Location	CEW	ECBZ	ECBE	FAW	WBC
C. Clinton	0	1	0	0	0
S. Clinton	0	0	0	0	0
N. Washington	1	0	0	0	0
S. Washington	0	0	0	1	2
Albany	0	0	0	0	1
Rensselaer	0	0	4	0	1
Saratoga	NA	0	0	NA	0
Fulton	0	0	0	0	0
Schoharie	NA	0	1	NA	NA
Greene	0	0	0	0	0
Orange	1	0	0	0	0
S. Ulster	0	0	1	0	0
N. Ulster	0	1	0	0	0



Find us on
Facebook