

Prevention is key to controlling bacterial spot in peppers. Learn how to limit the bacterium spread

through your current crops and to future crops.

PAGE 1



Cucurbits that are maturing a heavy fruit load are susceptible to nutrient deficiencies.

Learn about this and other issues ailing cucurbits in Crop Insights.

PAGE 4



It is a good time to review the common caterpillars that might be infesting



PAGE 6



CleanSweepNY will be in NYSDEC Region 8 this fall. Register now so that you can rid your farm

of unwanted or unusable pesticides and waste chemicals.

PAGE 7



Bacterial Diseases in Peppers

David Ludwig and Darcy Telenko, CCE Cornell Vegetable Program

Over the past few weeks, our team has notice a sharp uptick in bacterial diseases in pepper when scouting across western New York. These diseases are widespread this year due to our continuing wet and humid conditions.

In pepper, there are two major bacterial diseases:

• Bacteria spot caused by Xanthomonas euvesicatoria and Xanthomonas perforans. Bacteria spot is one of the most important disease affecting peppers in New York. Symptoms start as small, irregularly shaped, water-soaked lesions on the underside of the leaves that can grow up to ¼ inch in diameter, turn dark brown, and become raised. These necrotic spots may be found on leaves, stems and fruit and as the disease progresses the lesions may coalesce resulting in large necrotic areas. Multiple spots can coalesce to form large areas of infected tissue, and leaves eventually drop if the infection worsens. Tomato stems and flowers



Pepper leaves with signs of bacterial leaf spot. Photo: David Ludwig, CVP



VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension regional agriculture team, serving 13 counties in Western New York.

The newsletter is a service to our enrollees and is intended for educational purposes, strengthening the relationship between our enrollees, the Cornell Vegetable Program team, and Cornell University.

We're interested in your comments. Contact us at: CCE Cornell Vegetable Program 480 North Main Street, Canandaigua, NY 14224 Email: cce-cvp@cornell.edu

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Help us serve you better by telling us what you think. Email us at *cce-cvp@cornell.edu* or write to us at Cornell Vegetable Program, 480 North Main Street, Canandaigua, NY 14424.

Cornell University Cooperative Extension Cornell Vegetable Program

Contents

Contact Us

	40
Cornell Vegetable Program	 10

Crops

Crop Insights – Our Observations from the Field and Recommendations04
Bacterial Diseases in Peppers01
Potato/Tomato: Late Blight Detected in Cattaraugus and Steuben Counties 06
Identification of Caterpillars in Sweet Corn06
Sweet Corn Trap Network Report, 8/1/1707

General

CleanSweepNY in Region 8 this Fall .	
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Upcoming Events

	Vegetable Pest and Cultural Management Meetings for Auction Growers	08
	Integrated Pest Management in High Tunnels	08
	Reduced Tillage Field Day: Tools and Tactics for Organic Vegetables	08
	WNY Soil Health Alliance Summer Field Day	08
	Sustainable and Organic Vegetable Pest Management Field Day	08
w	/eather Charts	.09

The next issue of VegEdge will be August 9, 2017.



Tuesday was Bring Your Child to Muck Donut Hour!

Every week during the growing season, CVP Specialist Christy Hoepting meets with onion growers in the Elba muck in Orleans County to answer questions and share her latest research findings. This week, children of some local growers joined the discussion. From left to right: Matteo Mortellaro (son of onion grower Matt), Rosie Mortellaro (daughter of onion grower Paul), Christy Hoepting (CVP onion specialist and host of the meeting), Paul Mortellaro (in white shirt), Matt Mortellaro (by truck), Alex Yos (special guest from BASF in green shirt), Jules Hoepting (Christy's daughter), and Gar Thomas (blue shirt).

are also at risk of infection. In severe cases, plants can become defoliated and fruits run the risk of being scalded by the sun. Fruits can also become afflicted with spots, and can become unmarketable.

 Pseudomonas Bacteria Spot caused by the bacterium Pseudomonas syringae pv. syringae. This bacterium can cause severe spots and yellowing on pepper, but the good news is even though symptoms can look severe, once environmental conditions become unfavorable for growth of this pathogen, new pepper growth is unaffected and the bacterium is not known to cause fruit lesions. Pseudomonas syringae prefers temperatures of 61-75°F and high humidity.

Laboratory diagnosis is generally necessary to distinguish these two bacteria diseases of pepper. So far this season all of our samples submitted to Dr. Chris Smart's lab have come back as Pseudomonas.

No scouting thresholds exist for these disease, and its risk for development is highest when plants are exposed to relative humidity of at least 85% for a few hours over a period of several days. At this time of year, the most important step to take to limit this disease is to ensure that there's a protective barrier on leaves before the pathogen has entered plant tissue. See table for a list of some options available for management of bacterial diseases. Traditional sprays are not effective once the pathogen is inside plant tissue. Even so, spraying when symptoms are first found can help prevent secondary spread of the bacterium to even more plants.

Prevention is the most effective way to control this disease. Growers should start preparing now to help limit the bacterium's spread through current crops and to future crops. Pruning shears, if used, should be sanitized often between different rows and fields. Avoid entering fields when plants are wet, as this is when the pathogen is most easily spread. Crop residue should be disked into the soil to encourage decomposition as soon as possible after all desired fruit is harvested. Cull piles should be placed as far from fields as practical to avoid spreading the pathogen to existing plants. If stakes are to be reused, they should be disinfected with a steam treatment or washed in a bleach or disinfectant solution.

When preparing for next year, plan to rotate fields to crops other than tomatoes and peppers for two years if practical. If not, strive for at least a one year rotation. Growers should not save seed from plants thought to have bacterial leaf spot. Resistant varieties are available for peppers. Seed purchased should be treated and/or certified and pathogen-free. Hot water treatments can be effective in eliminating pathogens from untreated seeds when done correctly. If using transplants, especially from southern states, ensure that they are certified and disease-free. Begin protective sprays on a seven to ten-day schedule shortly after transplanting into the field, especially if rainy and humid conditions prevail. All equipment used in greenhouses and for transplanting and shipping should be disinfected in between uses. If possible, only handle plants when foliage is dry to reduce the risk of spreading the pathogen between plants. Growers should remember that if symptoms are found on some plants in a particular area, adjacent plants may still be infected even if they are not yet showing symptoms.

Bacterial Spot Management

- Resistant varieties with tolerance to bacterial leaf spot (BLS) race 1, 2, 3 include Red Knight, Ironsides, Early Sunsation, Lexington, Lafayette, Aristotle, Boynton Bell, X3R Aladdin, X3R Sir Galahad, X3R Camelot, X3R Wizard, Intruder, Legionaire, Karisma, and Commandant.
- Crop rotation a minimum two-year rotation away from tomato and pepper crops.
- Use only disease-free, certified seed hot water treatment is an option for non-treated seed that could be contaminated – it will kill bacterium inside and outside the seed, but can reduce germination and vigor if done incorrectly. Treat seed with Thiram after hot water treatment.
- Plant only disease-free and certified transplants.
- Infected crop debris should be destroyed as soon as possible after harvest to remove inoculum source for future plantings.
- Keep greenhouse dry and avoid splashing water reduce spread in plant beds and flats.
- Sprays should be applied before and during periods of rain and high humidity. Plant surfaces need to be protected since once inside the tissue bacterium cannot be controlled.

Name	Common Name	FRAC Group	Rate/A	REI	PHI	Notes
Actigard 50WG	acibenzolar-S- methyl	21	0.33- 0.75 oz	12	14	For use on Chili peppers only.
Champ or OLP	copper com- pound	M1	1.3-2 pt	48	2	See label for details. Copper compounds may help reduce secondary spread, but effective- ness limited by rainfall and dew formation.
ManKocide	copper hydrox- ide + man- cozeb	M1+ M3	2-3 lb	48	7	Do not apply more than 39 lb product/A/season
Tanos 50 DF	famozadone+ cymoxanil	11+27	8-10 oz	12	3	Suppression of bacterial leaf spot. Do not make more than one sequential application of Tanos before alternating with a different MOA (not group 11). Must be tank mixed with contact fungicide such as copper, using least minimal labeled rate.
Agri-mycin 17 or OLP	streptomycin sulfate	25	0.5 lb/50 gal	12	0	Not for use in the field. Begin application in the 2-3 leaf stage and may be applied only prior to transplanting.
OLP =other labeled product. MOA= modes of action.						

Compounds Available for Management of Bacterial Spot on Pepper



High humidity and moisture conditions have favored many pathogens on fresh market vegetables; hopefully the warm, dry weather the past few days will slow these diseases down. We have seen a number of bacterial and fungal diseases wreaking havoc including gummy blight of melon, white mold, bacterial blight, bacterial spot, bacterial canker, powdery mildew, early blight on tomato, and late blight (reported in Erie, Cattaraugus, and Steuben Counties). Protectant programs need to be implemented if you know that any of these disease pathogens are problems on your farm.

Late Blight was confirmed on tomato for the first time in NY in 2017 in the Finger Lakes region. An unsprayed planting, showed infection on both cherry and slicing tomatoes. The disease is likely more wide spread than confirmed reports.

CUCURBITS

Powdery mildew is active in many cucurbits. Keep an eye on second plantings in a number of locations I've found powdery starting down inside the plants on young tissue and it is moving into pumpkins.

Gummy stem blight has been found in melons. Symptoms on leaves range from water-soaked margins to individual, circular tan to dark spots; while on stems brown cankers will form and may produce a red to black exudate (gummy), fruit infection causes a black rot phase. A number of fungicides area available and should be used in preventative manner and applied on 7-14 day interval, these include Quadris, Bravo WS or other labelled product (OLP), Champ, Switch, Inspire Super, Sovran, Diathane DF or OLP, Cabrio, Pristine, Topsin. Resistance to Quadris and Topsin has occurred in the United States, but not in New York yet, so make sure products are alternated with different modes of action, combined with other protective fungicides such as Bravo, and limited to one use per season when necessary.



Late blight on tomato, 2017. Photo: J. Reid, CVP



Late blight sporulation on tomato stem. *Photo: J. Reid, CVP*



Gummy stem blight leaf lesions seemingly starting on one-third of the leaf surface.

Cucurbit Downy Mildew Epidemic Status Mar



Gummy stem blight lesions on fruit. Storage rots will start from this type of infection. Wet soil conditions and cool nights with dews make the situation worse. Management of this disease is crucial now for control of storage rots in the fall.

Cucurbit downy mildew continues to be reported around the country. We have found downy mildew in Cattaraugus, Chautauqua, Erie, Genesee, Niagara, Seneca, and Yates Counties in western NY. Luckily the current forecast based on weather models is showing unfavorable conditions for spread over the next few days, but this can change if we start seeing an increase in rain or moisture conditions.

Cucurbits that are maturing a heavy fruit load are susceptible to nutrient deficiencies. This week, in particular, we observed manganese deficiency on cantaloupes on a number of farms in the Finger Lakes. Symptoms are a bright marginal yellowing, that can



Manganese deficiency on cantaloupes, Seneca County, 7/28/17. *Photo: J. Reid, CVP*

move inward on mid-to-older leaves. In our experience crops grown on saturated soils with high pH are most susceptible. There are chelated manganese products that can be applied foliar, but often this problem will subside in time without measurable yield loss.

Bacterial wilt is showing up. The disease stems from earlier cucumber beetle feeding. If the beetles are carrying the disease, their feeding on the early transplants or seedlings can infect the plant. Symptoms show up later in the season. Real good control of the beetles is the only key for holding back this disease.





Early leaf symptoms of bacterial wilt where the veins remain rigid while the leaf tissue rots away.



Vine wilting starting from the tip back towards the crown.

continued – CROP Insights

Belly Rot – This disease is found in wet fields where the fruit is touching the ground. Cucumbers and summer squash have been showing symptoms on the undersides of the fruit. It starts off as tannish water-soaked lesions on the undersides and blossom end. Some of the products available include Quadris F, Quadris Opti, Topsin M.

ONION

Not much new to report this week. Onion thrips, Botrytis leaf blight, Stemphylium leaf blight and downy mildew are all very well controlled. For onion thirps, there are several growers who are still riding the momentum of Movento, which means that the thrips populations have not yet reached the spray threshold after the second application. With thrips pressure being so low, most growers coming out of Movento have opted to go with Agri-Mek (as opposed to Minecto Pro). Even following applications of Agri-Mek, growers have been able to skip a week of spraying insecticide for thrips, because populations are so low. See July 19 issue of VegEdge for more info on when the ride with Movento is over.

Fungicide Timing for SLB Management; Stemphylium leaf blight (SLB) is favored by plant stress, and with thrips pressure being so low and growing conditions being so good (e.g. no draught stress), aside from some wet spots, in general the crop is growing really well and seems to be more immune to SLB. Consequently, some growers have backed off on SLB fungicides. In 2016 SLB fungicide timing trial (Hoepting *et al.*), preliminary data indicated that later and season-long applications of Luna Tranquility resulted in improved SLB control. In this trial, treatments included: 1) front-loaded: 3 weekly applications of Luna Tranquility 16 fl oz from Jul-9 (start bulbing) to Jul-24; 2) middle-loaded: 3 weekly apps of Luna Tranquility 16 fl oz from Jul-24 (1" bulb) to Aug-6; 4) end-loaded: 3 weekly applications of Luna Tranquility 16 fl oz starting Aug-6 (2" bulb) to Aug-22 (30% lodging); and 4) season-long: 7 weekly apps of Luna T from Jul-9 to Aug-22. SLB was significantly less progressed in the season-long program, compared to front-, middle- and end-loaded programs; and middle- and end-loaded programs had significantly less progressed SLB than front-loaded program. Season-long program had significantly less severe SLB rating than front-loaded program, which was not significantly different then the untreated. There were no significant differences among these treatments with respect to leaf dieback, green foliage and premature mortality. **Overall, these results suggest a slight trend towards SLB fungicide applications during the month of August being most important for SLB control**. This trial is being repeated again this year. Fungicides belonging to FRAC 3 and 7 have the best activity against SLB and it recommended that a fungicide belonging to one of these groups be used every week. See July 5 issue of VegEdge for more info on SLB management with fungicides and fungicide cheat sheet: https://rvpadmin.cce.cornell.edu/uploads/doc_583.pdf).

Sodium hypochlorite for Control of Bacterial Disease. Incidence of bacterial disease has increased in onion over the past few weeks and has reached concerning levels in some fields (Fig. 1). Managing bacterial diseases in onions is always a challenge with no silver bullets. This year, Surchlor with active ingredient sodium hypochlorite is available in New York as a special local needs label. In 2016 on-farm grower demonstrations, this active ingredient resulted in numerically less incidence of bacterial decay at harvest in 8 out of 14 comparisons, while there were no differences in 4 comparisons and higher decay in one comparison (Table 1). However, disease incidence was relatively low. More on-farm side-by-side grower comparisons are underway this year and with potentially higher levels of decay, we should get some good results regarding the efficacy of this active ingredient.



Figure 1. From a distance, bacterial disease in onion can be recognized as a collapse and bleaching of inner leaves (left). Up close, first symptoms include collapse and maceration of tissue of a middle-aged leaf (right). Eventually, all of the leaves will become symptomatic and collapse, unless the leaf dries up before the pathogen enters into the bulb. *Photos: C. Hoepting, CVP*

Table 1. Effect of Sodium/potassium hypochlorite on incidence of bacterial bulb decay in side-by-side on-farm grower demonstrations, 2016. Onion growers applied these active ingredients at a rate of 120 ppm chlorine in addition to their regular tank mixes. Tank mixes and number of applications vary among all growers. In each sideby-side comparison, green shading indicates which had less bacterial decay, while blue indicates no difference between treatments.

	Incidence of Bacterial						
Field	Bulb Decay at Harvest						
No.	Treated with	No Chlo-					
	Chlorine	rine					
1	1.9	2.7					
2	0.7	2.6					
3	4.7	8.3					
4	18.2	18.0					
5	14.3	16					
6	2.0	4.0					
7	2.5	2.7					
8	0.7	2.0					
9	15.5	8					
10	0	4					
11	5.5	23					
12	9	10					
13	7.5	10.2					
14	9.3	9.2					

томато

Bacterial diseases are beginning to wreak havoc in several tomato fields. Under moist field conditions they can cause localized epidemics affecting young developing fruit; in the greenhouse total crop losses can occur. The three major bacterial diseases we have seen include bacterial canker, bacterial speck, and bacterial spot. Bacterial speck is caused by *Pseudomonas syringae* pv. *tomato*. Initial leaf

symptoms appear as black lesions, 1/8 to ¼ inch in diameter with a distinct yellow halo. This disease is of most concern from planting until first fruits are one third of their final size. **Bacterial Canker** is caused by *Corynebacterium-michiganense* pv. *Michiganense*. Although usually sporadic in its occurrence, it is so destructive in nature that vigilance must be exercised. The early symptoms of the disease are wilting, curling of leaflets, and browning of leaves, often only on one side of the plant. As the leaves die, the petioles remain green and firmly attached to the stem. A cut through the stem shows yellowish brown discoloration of the vascular element. **Bacterial spot** is caused by *Xanthomonas campesiris* pv, *vesicatoria*. It is periodically a severe disease of tomatoes and sweet peppers in New York. Because bacterial spot and speck produce similar symptoms, they are often misdiagnosed (See article about bacterial spot on pepper.)

Management of bacterial speck and other bacterial diseases on tomato is limited. There are no resistant varieties. Two-year rotations away from tomato and pepper with non-host crops are recommended to reduce bacterial speck. Plant treated and/or certified seed and transplants. All plant stakes should be disinfested if they are to be reused, either by steam treatment or wash in bleach solution or disinfectant. Copper compounds, Actigard, Tanos, and Gavel are a few products labeled for use in managing bacterial specks. Follow label guidelines for tank-mixing and rotation for resistance management.

Late Blight Detected in Cattaraugus and Steuben Counties in New York!

Darcy Telenko and John Gibbons, CCE Cornell Vegetable Program

All of Western NY continues to still be at risk for Late Blight Infection. Late blight was found on potato in Cattaraugus County and on tomato in Steuben County, it has also been reported in Chester County, PA and Hampshire County, MA. The isolate from Cattaraugus was identified as US-23, the sample from Steuben is in progress. Severity values continue build at all stations. Reminder the numbers we use are based on potato first emergence on May 12 (values may differ slightly from individualized farm late-blight risks as first emergence and first spray dates may differ.) See the table for the Blight Units (BU) accumulation from around the region. The trigger in the Decision Support System (DSS) forecast for applying a fungicide is 30 BU's if the variety is susceptible. All tomato and potato growers, conventional and organic, should be applying a protectant fungicides and monitoring the DSS to determine spray intervals. All sites, except Ceres, Geneva, Kendal, Niagara Falls, Williamson, and Wolcott have exceeded the 30 BU's and those that haven't reached 30 will go over the threshold based on 3-day forecast. This triggers the recommendation for an addition fungicide application. Remember to rotate fungicide FRAC groups and use contact fungicides in your program to minimize the chances of fungicides resistance.

If late blight is suspected act immediately! Under favorable environmental conditions late blight develops very rapidly and can spread many miles in a short period.

Please **take a sample for isolate identification**. It is very important to **track disease movement**. Contact <u>CCE Cornell Vegetable Program Specialists</u> for assistance. Reach Darcy Telenko at <u>dep10@cornell.edu</u> or 716-697-4965.

Location ¹	Blight Units ¹ 7/26-8/01	Blight Units ² 8/02-8/04	Location ¹	Blight Units ¹ 7/26-8/01	Blight Units ² 7/26-7/28
Albion	49	18	Lodi	NA	NA
Baldwinsville	32	21	Lyndonville	32	13
Bergen	33	20	Medina	29	19
Buffalo	31	18	Niagara Falls	17	17
Ceres	28	18	Penn Yan	29	21
Elba	NA	NA	Rochester	38	19
Fairville	30	19	Sodus	34	19
Farmington	43	19	Versailles	34	19
Gainesville	NA	NA	Volney	32	19
Geneva	11	17	Wellsville	31	17
Kendall	24	13	Williamson	25	21
Knowlesville	NA	NA	Wolcott	28	20

Late Blight Risk Chart, 8/1/17

¹ Past week Simcast Blight Units (BU)

² Three day predicted Simcast Blight Units (BUs) **O**

Identification of Caterpillars in Sweet Corn

Julie Kikkert, CCE Cornell Vegetable Program

While New York sweet corn growers do a good job managing insect pests, some escapes do occur. With Western bean cutworm now widespread in New York, and flights near peak, it is a good time to review the common caterpillars that might be found infesting sweet corn ears now through the remainder of the season. Understanding where breaks occur in your management strategy can show where improvements might be made in future years. If you need assistance with insect identification or management, please contact one of our team members. Additional information can be found at https://sweetcorn.nysipm.cornell.edu.

European Corn Borer (ECB): Light colored caterpillar with a dark head capsule. They are often pink, tan or gray and have small dark spots. Fully grown, they reach up to 1 inch long. They make small holes in leaves and stalks and feeding can cause tassels to be knocked over. They will bore into ears.

Corn Earworm (CEW): This caterpillar may vary in color and often has longitudinal stripes. Small bumps and hairs covering the surface may give the body a rough texture. The head capsule is light yellowish brown. Fully grown larvae are 1 ½ to 2 inches long. They are often found feeding on the tips of the ear. They do not feed on the leaves.

Fall Armyworm (FAW): The distinguishing feature of this caterpillar is the inverted white Y on the head. The body is smoother and darker color than CEW. It also has stripes running the



CEW caterpillars (left) have a uniform light yellowbrown head, while FAW (right) have a dark head with a prominent, light colored area shaped as an inverted Y.

Photo: A.T. Eaton, Univ. NH Cooperative Extension

length of the body. Fully grown, they reach about 1.5 inches in length. They make large holes in leaves and feed extensively on above ground parts of the plant.

Western Bean Cutworm (WBC): Small larvae may be difficult to identify, but 4th instar or larger larvae (1/2 to 1.5 inches long) have 2 black rectangles behind the head. The larvae feed on leaves, tassels, pollen, silks and kernels. Large larvae are often found feeding on mature ears, usually at the tip but sometimes the sides. Several larvae may be found in one ear.



WBC larvae. Early instars (left) lack the identifying black rectangles that older larvae have. *Photo: J. Obermeyer, Purdue Univ.*

WNY Sweet Corn Trap Network Report, 8/1/17

Marion Zuefle, NYS IPM Program; http://sweetcorn.nysipm.cornell.edu

Thirty-three sites reporting this week. European corn borer (ECB)-E was trapped at fourteen sites and ECB-Z was trapped at five sites. Corn earworm (CEW) was trapped at sixteen sites, with ten sites high enough to be on a 4, 5, or 6 day spray schedule (see chart below). Fall armyworm (FAW) was trapped at thirteen sites and Western Bean cutworm (WBC) was trapped at thirty sites this week.

Where CEW are being caught in high enough numbers to determine the spray schedule, those applications will be sufficient to take care of other worm pests that are present. Where CEW are not determining the spray schedule, scout to be sure other pests are not above threshold.

Below is a graphical representation of moth emergence for the season. All reporting sites have been averaged to show



Sweet corn trap catches 2017

Average sweet corn trap catches for all reporting sites from 5/23/17 - 8/1/17



Chemung, Genesee, Livingston, Monroe, **Ontario, Orleans, Schuyler, Seneca,** Steuben, Wayne and Yates Counties

Tuesday, October 3 – Watkins Glen Wednesday, October 4 – Hornell Thursday, October 5 – Lakeville Friday, October 6 – Waterloo

the general trend for the 5 moth species for NY from May 23 to August 1. Western bean cutworm is clearly still on the rise and will probably peak in the next week or two.

WNY Pheromone Trap Catches: August 1, 2017

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	3	0	7	2	84	1370
Batavia (Genesee)	2	0	1	0	5	NA
Bellona (Yates)	0	0	0	12	51	1427
Eden (Erie)	0	0	1	0	128	1340
Farmersville (Cattaraugus)	1	0	NA	3	40	NA
Farmington (Ontario)	5	2	1	0	12	1268
Hamlin (Monroe)	6	0	0	2	16	1316
LeRoy (Genesee)	0	1	0	8	6	1319
Pavilion	0	0	1	0	12	NA
Penn Yan (Yates)	0	0	4	12	15	1425
Ransomville (Niagara)	2	5	6	0	13	1473
Seneca Castle (Ontario)	2	0	0	0	13	1337
Williamson (Wayne)	0	0	4	0	0	1253
ECB - European Corn Borer	WBC -	IC - Western Bean Cutworm				

DD -

Degree Day (mod. base 50F) accumulation

Degree-day accumulation moth emergence (begin	Percent WBC moth emergence based or degree day	
Accumulated Degree-days	accumulation, data	
1319	1319 25%	
1422	50%	-
1536	75%	

CleanSweepNY is an Environmental Benefit Project that provides for the environmentally safe and economic collection and disposal of canceled, unwanted, unusable, or otherwise obsolete pesticides and other chemicals from agricultural or non-agricultural business activities. The collections are scheduled and organized by NYSDEC with the collaboration of NYSDOT who generously provide sites for the collection of these unwanted chemicals. (Please do not contact NYSDOT for CleanSweepNY information.)

CleanSweepNY services are provided to farmers and owners of former farms, all categories of NYS certified pesticide applicators, cemeteries, golf courses, marinas, and other entities possessing unwanted or unusable pesticides and other waste chemicals. Each participant is responsible for transporting their materials to the collection site.

These services are NOT available to homeowners.

FAW - Fall Armyworm

CEW

FAW WBC

CleanSweepNY is supported by Cornell Cooperative Extension, the Agricultural Container Recycling Council, Soil and Water Conservation Districts, New York Farm Bureau, and related grower associations.

Pre-registration is required by September 15. Interested individuals should call the Albany DEC office at 877-793-3769 to obtain a signup packet or e-mail info@cleansweepny.org. For more information about this program, visit http://www.cleansweepny.org. •



UPCOMING EVENTS

view all Cornell Vegetable Program upcoming events at cvp.cce.cornell.edu

2017 Vegetable Pest and Cultural Management Field Meeting for Auction Growers

August 8, 2017 | 6:00 PM

Chautauqua County – Jacob Hostetler farm, 561 Frew Run, Frewsburg, NY 14738

These courses will demonstrate pest management in fresh market vegetables in both field and greenhouse (high tunnel) vegetables; primarily for those growing for wholesale auction. A hands-on demonstration of weed, insect and disease identification in vegetables including management options such as inter-row cover crops, grafting and where appropriate, spray options will be used to educate growers. Judson Reid, Senior Extension Associate with the Cornell Vegetable Program along with CCE associates Telenko and Hadad will instruct participants and facilitate peer-based learning. Details on each topic will focus on field observations at the farm.

This event is FREE! DEC recertification credits will be available. For more information about these events, contact Judson Reid at 585-313-8912 or jer11@cornell.edu.

Integrated Pest Management in High Tunnels

August 10, 2017 | 1:00 PM Andy Miller farm, 7396 Albro Rd, Gainesville, NY 14066

Join Cornell, NYS IPM, Cornell Vegetable Program, and CCE staff for a discussion on taking a pro-active approach to managing insects and diseases in the high tunnel or greenhouse setting. Andy Miller - Background on his farm, farm tour; Elizabeth Lamb & Don Gasiewicz - Creating your IPM plan and working with CCE; Judson Reid - Soil fertility project, soil and water testing; Brian Eshenaur - Preventative disease management; and Marvin Pritts - Berry production in high tunnels.

Cost: \$10/farm. Download the registration form at <u>https://cvp.cce.cornell.edu/event.php?id=792</u> to mail in your registration and payment by August 4. For more information or questions, contact Don Gasiewicz 585-786-2251 x113 or email Don at <u>drg35@cornell.edu</u>.

Reduced Tillage Field Day: Tools and Tactics for Organic Vegetables at Any Scale

August 14, 2017 | 4:00 - 7:00 PM Freeville Organic Research Farm, Cornell HC Thompson Vegetable Research Farm, 133 Fall Creek Rd, Freeville, NY

Join the Cornell Reduced Tillage Team for a field tour and discussion of practices to build soils and manage weeds in organic vegetables.

Can tarps help replace tillage? How can we integrate cover crops with reduced tillage? What tools can be used for more strategic tillage and cultivation? Hear about the latest research and share experience from your own farm.

- Tour research plots on tarping in direct seeded crops, cover crop mulching for summer transplants, and practices for permanent beds
- View demos of strip till and cultivation tools in high residue
- Learn how in-row cultivation tools work with Integrated Weed Management Specialist Bryan Brown (NYS IPM)

This event is free and open to the public. Pre-registration is preferred <u>HERE</u> but walk-ins are welcome. Co-sponsored by NOFA-NY. Email Ryan Maher at <u>rmm325@cornell.edu</u> with questions and visit <u>smallfarms.cornell.edu/projects/reduced-tillage/</u> for more on the project.

WNY Soil Health Alliance Summer Field Day

August 22, 2017 | 8:30 AM - 3:30 PM Orleans County 4-H Fairgrounds Trolley Bldg, 12690 Rt 31, Albion NY 14411

Two guest speakers will kick off this exciting event: Wendy Taheri, a nationally recognized expert in Mycorrhizal Fungi, and John Wallace, soon to be an Assistant Professor at Cornell with extensive experience in drilled interseedings of corn. In the afternoon, attendees will observe 8 cover crop trials and explore a soil pit, with on-site discussion led by Wendy Taheri, TerraNimbus LLC. There will also be cover crop interseeder and herbicide demonstrations. The full agenda and information on how to register is available at http://www.wnysoilhealth.com/events/. \$40/pre-registered participant; \$50/walk-in. Lunch included.

Sustainable and Organic Vegetable Pest Management Field Day

August 29, 2017 | 3:00 PM - 9:00 PM Cornell Lake Erie Research and Extension Laboratory, 6592 West Main Rd, Portland, NY 14769

Join Cornell Vegetable Program Specialists (Telenko, Hadad, Reid) and Cornell University faculty (Wallace, Smart, Reiners, Bjorkman) for an evening of touring Cornell Vegetable Program research sites and answering questions on sustainable and organic pest management options for fresh market vegetable growers. Information will be provided for both conventional and organic growers at all levels of expertise. Network for Environmental and Weather Application (NEWA) will be on-hand to teach growers how they can use the forecasting models for pest management in various crops. Sponsoring industry representatives will have the opportunity to meet with growers to comment on their products.

The full agenda is available at <u>http://tinyurl.com/2017VegFieldDay</u>. DEC and CCA credits will be available for portions of the day.









Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 7/25 - 7/31/17

	Rainfa	all (inch)	Temp (°F)		
Location	Week	Month July	Мах	Min	
Albion	0.48	3.37	87	53	
Appleton, North	0.29	3.94	83	52	
Baldwinsville	0.49	4.11	82	53	
Buffalo*	0.09	4.65	84	55	
Ceres	0.03	2.96	83	51	
Elba	NA	NA	NA	NA	
Fairville	0.69	5.12	83	51	
Farmington	0.34	6.24	84	50	
Gainesville	NA	NA	NA	NA	
Geneva	0.32	7.42	82	53	
Lodi	0.32	6.85	88	49	
Niagara Falls*	0.14	4.95	86	55	
Ovid	NA	NA	85	50	
Penn Yan*	0.30	5.93	84	55	
Phelps	0.58	5.51	85	52	
Portland	0.02	0.85	80	57	
Rochester*	0.54	4.29	84	54	
Silver Creek	NA	NA	83	56	
Sodus	NA	NA	80	55	
Versailles	0.06	1.28	84	49	
Volney	0.22	3.26	81	52	
Williamson	0.42	3.12	80	53	

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – July 31, 2017

Location	2017	2016	2015
Albion	1464	1579	1537
Appleton, North	1322	1373	1308
Baldwinsville	1499	1544	1541
Buffalo	NA	1605	1571
Ceres	1331	1243	1368
Elba	NA	NA	NA
Fairville	NA	1395	NA
Farmington	1388	1442	1476
Gainesville	NA	NA	NA
Geneva	1464	1494	1502
Lodi	1619	1654	1643
Niagara Falls	1647	1723	1459
Ovid	1549	1570	1595
Penn Yan	1565	1597	1597
Phelps	1472	1479	1521
Portland	1542	1496	1468
Rochester	1558	1624	1637
Silver Creek	1502	1450	1426
Sodus	1442	1478	1434
Versailles	1486	1415	1445
Volney	1353	NA	NA
Williamson	1419	1440	1367

Airport stations

Data from other station/airport sites is at: http://newa.cornell.edu/ Weather Data, Daily Summary and Degree Days.





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Cornell University Cooperative Extension Cornell Vegetable Program

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VegEdge is the award-winning newsletter produced by the Cornell Vegetable Program in Western New York. It provides readers with information on upcoming meetings, pesticide updates, pest management strategies, cultural practices, marketing ideas and research results from Cornell and Cornell Cooperative Extension. VegEdge is produced every few weeks, with frequency increasing leading up to and during the growing season.

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Cornell University Cooperative Extension Cornell Vegetable Program

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