Phytophthora blight is affecting cucurbits and peppers in areas with known infestation. The mold spores can be moved long distances through water.

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Late blight has been found on tomato in Genesee County. All of WNY continues to be at risk for late blight infection.

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VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Volume 13 | Issue 18 | August 9, 2017

Cornell University
Cooperative Extension
Cornell Vegetable Program

Photo: Judson Reid

Pest Patrol: Phytophthora Blight

Darcy Telenko, CCE Cornell Vegetable Program

Phytopthora blight caused by the water mold *Phytophthora capsici*, is impacting many cucurbits and peppers in areas with known infestation. *P. capsici* will attack roots, stems, leaves, and fruit. Stem lesions have been found at the soil line causing the tissue to become discolored and collapse. A systemic wilting symptom can be observed in infected plants across a field. Fortunately the short-lived spores of *P. capsici* cannot be spread by the wind between or within fields. The spores can be moved through water long distances and may also be splashed to aerial parts or between plants during heavy or wind-blown rain. If possible rogue infected plants and dispose of culled fruit to reduce spread of spores in water within an infested field. A preventative fungicide schedule is needed for effective control. This program should alternate between fungicide groups for resistance management.

A collection of Phytophthora infested fruit for population evaluation by Dr. Chris Smart's lab. These are the fruit you **DO NOT** want to compost or dump near fields that do not have Phytophthora to limit spread to new areas.
Photo: D. Telenko, CVP

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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:
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VegEdge is published 25 times per year, parallel to the production schedule of Western New York growers. Enrollees in the Cornell Vegetable Program receive a complimentary electronic subscription to the newsletter. Print copies are available for an additional fee. You must be enrolled in the Cornell Vegetable Program to subscribe to the newsletter. For information about enrolling in our program, visit cvp.cce.cornell.edu. Cornell Cooperative Extension staff, Cornell faculty, and other states' Extension personnel may request to receive a complimentary electronic subscription to VegEdge by emailing Angela Parr at aep63@cornell.edu. Total readership varies but averages 700 readers.

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

The next issue of VegEdge will be August 16, 2017.

Christine Smart to Lead Cornell Plant Science

Matt Hayes, Managing Editor, Cornell CALS

Christine Smart, a professor of plant pathology who specializes in the development of management strategies for vegetable diseases, has been appointed director of the School of Integrative Plant Science (SIPS). She began her tenure August 1.

Christine Smart has been appointed director of the School of Integrative Plant Science (SIPS). *Photo: Lindsay France/University Photography*

Smart had been serving as interim director since July 1, 2016, when Alan Collmer, the Andrew J. and Grace B. Nichols Professor in the SIPS Section of Plant Pathology and Plant-Microbe Biology, finished his 2-year appointment as the inaugural director.

"Chris has done an outstanding job this year leading SIPS as its interim director," said Kathryn J. Boor, the Ronald P. Lynch Dean of the College of Agriculture and Life Sciences (CALS). "I will continue to count on her to advance the visibility and meaningful impact of Cornell's work in plant sciences and advance SIPS as a global leader."

The school launched in 2014 to integrate five departments – Horticulture; Plant Biology; Plant Breeding and Genetics; Plant Pathology and Plant-Microbe Biology; and Soil and Crop Sciences – into a single CALS administrative unit. SIPS unifies distinct disciplines to tackle urgent challenges relevant to plant scientists, with the mission of creating useful plant improvements that improve human health and advance environmental sustainability.

Smart was appointed to a five-year term.

Read the full article at https://cals.cornell.edu/news/christine-smart-lead-cornell-plant-science

continued from cover – Pest Patrol: Phytophthora Blight

What you can do about it:

If you don't have Phytophthora blight yet…

- ✓ Never dump culled fruit or plants into production fields
- ✓ Know where your irrigation water comes from, and use uninfested water
- ✓ Obtain compost from a trusted source

If you already have Phytophthora blight…

- ✓ Promote good drainage and do not over-irrigate
- ✓ Grow bushing cucurbits, tomatoes, peppers, and eggplants on raised beds
- ✓ Plant tolerant sweet pepper varieties
- ✓ Rotate (watch your weeds!)
- ✓ Dispose of culled fruit or infected plants in a sanitary landfill, or by burying
- ✓ Prevent spread around your farm or into irrigation sources
- ✓ Rogue infected plants and harvest early from an infected field
- ✓ Use chemical fungicides according to the label

*(Adapted from **The facts about Phytophthora blight**. Dr. Chris Smart and Dr. Steve Reiners http://phytophthora.pppmb.cals.cornell.edu/images/resources/pcapbrochure.pdf)*

Phytophthora blight on pepper. *Photo: D. Telenko, CVP*

Phytophthora blight on cucurbits. *Photo: D. Telenko, CVP*

Cover Crop Reminder

Thomas Björkman, Section of Horticulture, Cornell University, Geneva

Mid-August is the ideal time to plant crucifer cover crops in Western New York. This note has a few reminders about how to make them work well.

- Plant at the right time. Planting too early, at the beginning of August, allows the plants to flower. That makes root growth in adequate and can cause seeds that volunteer the following year. Planting too late, at the end of August or into September, does not leave enough time for them to make the deep root system that's desirable. It also increases the chances of having small rosette plants that overwinter and go to seed in the spring.
- Use a low seeding rate. For many crucifers, the ideal seeding rate is between five and 10 pounds per acre. Planting too densely causes the plants to inhibit each other.
- Make sure they have nitrogen. Crucifers are excellent scavengers of residual nitrogen from the preceding crop, or nitrogen-rich crop residue. But if they are planted in the soil with little residual nitrogen, they will need about 25 pounds per acre of nitrogen fertilizer in order to put on enough growth to make the cover crop effective. Some people take this opportunity to apply liquid manure, recovering those nutrients in the cover crop biomass.

Cover crop radish planted at double density produces a poor stand because the seedling suppress each other. Most are turning pale, even yellow. One has given up and gone to seed. Radish makes the best root, and gives good weed suppression at about 7 lb/ac. *Photo: T. Björkman, Cornell*

High Tunnel Pest Update

Judson Reid, CCE Cornell Vegetable Program

The cooler summer has given relief from some tunnel pests such as Spider Mites and Whiteflies, yet there are numerous other insect pests active in high tunnel tomatoes right now.

Yellow Striped Armyworm

Yellow Striped Armyworms have been found at high numbers in tomato foliage. There are several types of armyworm, and this one is less destructive than Common Armyworm. In large numbers it can defoliate foliage and bore holes into green fruit.

Yellow Striped Armyworm in a Chautauqua County high tunnel.
Photo: J. Reid, CVP

Tomato Hornworm

Another chewing insect found in high numbers in tunnels is the Tomato Hornworm. These worms hatch from eggs laid by the Humming Bird or Sphinx Moth. The smaller stages are very well camouflaged and often the damage is detected before worms are seen. Although they are very damaging to tomatoes, they will also feed on peppers.

Fortunately there are a couple of good organic spray options to control both Hornworms and Yellow Striped Armyworms: Entrust and/or Bts such as Dipel. A rotation between these two materials is advised. Warrior II is a conventional option, but may not be applied to cherry or grape tomatoes and has a 5 day pre-harvest interval.

Hummingbird Moth, the adult stage of Tomato Hornworm.
Photo: J. Reid, CVP

Tomato Hornworm feeding on high tunnel peppers in Essex County.
Photo: J. Reid, CVP

Brown Marmorated Stink Bug

The invasive pest Brown Marmorated Stink Bug does not chew on foliage, but rather punctures tomato fruit with its straw like mouth, leaving behind speckled, or cloudy tissue. Work shared by Peter Jentsch of the Cornell Hudson Valley lab indicates that products with bifenthrin such as Capture and Brigade are most effective. These products have a 1-day pre-harvest interval. For organic growers there is some potential with Mycotrol, if applied under conditions of high humidity. For any material applied there must be contact with the stink bug, so higher pressure will be needed in dense determinate tomato canopies.

Brown Marmorated stink bug feeding on high tunnel tomato in Yates County. Note the feeding injury to the fruit.
Photo: J. Reid, CVP

CROP INSIGHTS

Most crop diseases exasperated from the recent cool weather.

BEETS

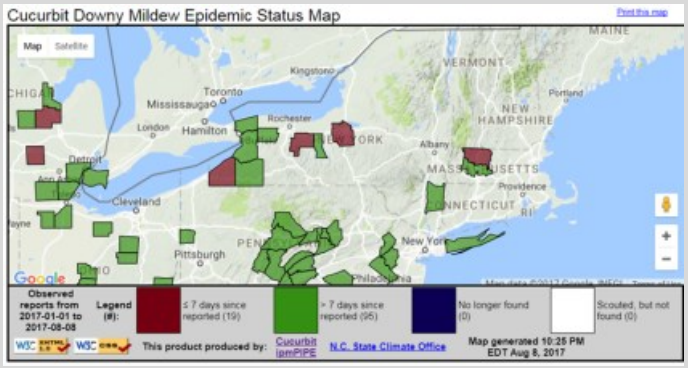
Bacterial leaf spot disease continues to be the most prevalent pathogen we've seen in beet fields this year and copper is the best treatment option. However, weather conditions have been very conducive to Cercospora leaf spot and in our inoculated trials at Geneva, the disease moved very quickly. A new fact sheet on Cercospora leaf spot is available at http://evade.pppmb.cals.cornell.edu/factsheets. Phoma leaf spot is another likely disease at this time. Please contact Julie if you need assistance in identification of beet leaf diseases. – *JK*

BUSH BEANS

Saturated soils causing root rot in new and slightly older bean plantings. Significant losses to seed rotting in the ground as well. Raised beds may help. – *RH*

CUCURBITS

Powdery mildew and downy mildew are appearing in many cucurbits around our region. Three new counties in New York have reported downy mildew – they include **Chautauqua, Ontario** and Onondaga (see map 1). The entire state is at high risk based on the prediction map (see map 2). Phytophthora blight continues to impact both old and new cucurbit plantings and rapid blighting and plant death has been seen in second plantings in areas where this pathogen is present. (See cover article for more information.) – *DT*



Map 1. Reports of downy mildew.
Source: http://cdm.ipmpipe.org/scripts/map.php.

Map 2. Risk of downy mildew.
Source http://cdm.ipmpipe.org/current-forecast

DRY BEANS

A crop alert was sent out earlier this week by email or mail for Western bean cutworm (WBC) in dry beans. If you did not receive this alert and would like to, please contact Julie. The flight of WBC is near peak (see info in the sweet corn trap report in this newsletter). Both the trap reports and scouting corn near dry bean fields can help determine the risk. It is difficult to scout dry beans for WBC egg masses or caterpillars since the caterpillars move to the soil during the daytime. However, you should begin to scout pods for signs of WBC damage and it is recommended to apply an insecticide if pod damage is found. Dry bean pod scouting should begin 7-10 days after peak emergence, in those fields that have accumulated over 100-150 moths/trap, near fields with high trap counts, or where WBC has been found in bean pods/seeds in recent years. – *JK*

GREENS

Flea beetles have persisted and even gotten worse in some brassica plantings.

Cercospora leaf spot is prevalent in Swiss chard.

Tarnished plant bug have been attacking lettuce causing browning of leaf veins. A variety of insecticides are listed in the Guidelines but managing surrounding weeds early in the season can keep populations lower.

Slug damage has been huge on a number of greens plantings. Weedy field edges or piles of organic mulches or depression (from pulled weeds) are places where slugs hide during the day. Slug bait can be used to knock back the slugs. Avoid sprinkling the pellets where they can fall into the greens and lettuce heads. – *RH*

ONION

The crop is bulbing nicely and is in the final stretch of the spray season. Onion thrips remain very low throughout the region, despite harvest of wheat, hay and transplanted onions. Normally, spikes in thrips populations occur when thrips move from these crops when they dry down/are harvested into onions. Consequently, several growers have been able to reduce their pesticide use significantly. Interestingly, there was an increase in Botrytis leaf blight (BLB) in Elba this week, which has not been reported in Wayne or Oswego muck onion growing regions (Fig. 1). With the crop being so close to harvest and the canopy being so big, BLB is no longer much of a concern despite high numbers of lesions per plant. Additional fungicides beyond those that are already being applied for Stemphylium leaf blight (SLB) are not recommended. Generally, most SLB fungicides provide some control of BLB with exception of Quadris Top. Also, FRAC 7 (e.g. Merivon and Luna Tranquility) generally have better efficacy than FRAC 3 for BLB. See article on BLB fungicides in June 14 issue of VegEdge for more information.

continued on next page

As many fields are lodging and tipburn has set in, SLB has become more prevalent (Fig. 2). This is the time of year that SLB can be aggressive. Over the last 2 weeks, we saw plants infected with SLB progress from early stages of excessive leaf dieback to dying standing up (Fig. 3). We also observed Purple Blotch (PB) lesions in muck onion production in greater prevalence than it has occurred in several years (Fig. 4). Since SLB was first diagnosed in New York in 2013, survey results indicated that SLB had mostly replaced PB in muck onion production with PB being detected in 0% of 22 fields surveyed in 2015 and 8% of 13 fields surveyed in 2016. During the same time, PB never showed up in on-farm fungicide trials either. Why the increased prevalence of PB at this time is unknown. In the field, it appears that SLB fungicide programs using higher proportions of FRAC 7 fungicides including Merivon and Luna Tranquility have the healthiest onion foliage at this time. Preliminary trial results indicate that critical timing for SLB fungicides is later in the season (Fig. 5). 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). *– CH*

Figure 1. During the past week we saw an increase in Botrytis leaf blight lesions in some fields. They had 1 cm necrotic spots with larger than usual silvery halos (yellow arrows). Being so close to harvest, this disease is not as much of a concern as are Stemphylium leaf blight and downy mildew. *Photo: C. Hoepting, CVP*

Figure 2. During onion bulbing, tipburn sets in, creating necrotic tissue, which is readily invaded by Stemphylium leaf blight (tan/brown/black spots highlighted in yellow) at this time of year. *Photo: C. Hoepting, CVP*

Figure 3. Onions infected with Stemphylium leaf blight and Purple Blotch progressed from early stages of excessive leaf dieback (left) to premature plant mortality (right: plants dying standing up in center of "hot spot") in just 2 weeks. Onions that die standing up are more prone to bacterial bulb decay. *Photos: C. Hoepting, CVP*

Figure 4. Stemphylium leaf blight (SLB) lesions typically occur on necrotic leaf tissue and are tan/brown (top left) or brownish-purple (top right) and can have black spores (top middle and right). Although lesions caused by Purple blotch (PB) can also be tan or black in color like SLB, they are more likely to occur on green tissue on any leaf (bottom left) and the purple lesions tend to be more pink/magenta in color (bottom photos). It is typical for SLB and PB to occur on the same plant. *Photos: C. Hoepting, CVP*

Figure 5. In fungicide timing trial (Hoepting 2016), three consecutive applications of Luna Tranquility 16 fl oz timed during the last three sprays of the season (right) resulted in reduced leaf dieback and less progressed SLB compared to three consecutive applications applied at start of bulbing (left). These results suggest that later applications of SLB fungicides are most critical for controlling SLB. *Photos: C. Hoepting, CVP*

continued on next page

continued – CROP Insights

PEPPERS

Bacterial leaf spot has been pretty common. Keep up with the copper sprays. European corn borders have been found damaging fruit earlier this season. A BTW product spray can be effective in keeping this pest down. – *RH*

Pseudomonas bacterial spots continue to be noted around the region. Phytophthora blight is also active in fields where this soilborne pathogen is present. (See cover article.) – *DT*

PROCESSING CROPS

White mold is being found in snap beans and the risk continues to be high due to generally wet weather. It is also more prevalent in the late summer as morning dews become more common. Make sure to protect beans as they come into flower. Soybean aphids have appeared in NY at low to moderate levels. The concern is that they can vector viruses in beans. Processing beets are beginning to be harvested. (See the separate beet leaf disease note.) Sweet corn should be scouted for insect pests as all four "worm" species are active at this time. If you need help with identification or management, please contact us.

TOMATO

Bacterial and fungal diseases continue to spread through tomatoes in the field. We continue to see localize epidemics of early blight, Septoria, and bacterial speck. Lower leaves are withering as the last lesions expand, brown, and die off.

Early blight lesion on tomato. *Photo: D. Telenko, CVP*

Soilborne pathogens are continuing to impact crops as high humidity conditions continue to favor white mold, Verticillium wilt, and *Phytophthora capsici*.

Botrytis has been seen in the corners of several fields where air circulation has been restricted from trees or hedgerows.

Repeated applications of fungicides are needed if this weather patterns holds. Small droplet size with high pressure is necessary to penetrate deep into the canopy for thorough leaf coverage.

Stay on top of your management programs to protect against late blight as more counties in NY have been added to the list. – *DT and RH*

Defoliation of tomato by Septoria leaf spot. *Photo: D. Telenko, CVP*

Join Cornell University faculty and Cooperative Extension Specialists 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.

SUSTAINABLE AND ORGANIC VEGETABLE PEST MANAGEMENT FIELD DAY

Tuesday, August 29, 2017 | 3:00 - 9:00 PM

Cornell Lake Erie Research and Extension Laboratory
6592 West Main Rd, Portland, NY 14769

$25 Cornell Vegetable Program enrollees / $35 all others, includes dinner and handouts.

Register by August 23 online at cvp.cce.cornell.edu or call 716-652-5400. Dinner cannot be guaranteed unless pre-registered. 3.0 DEC and CCA credits will be available. Attend the entire meeting to receive credits.

New Late Blight Reports in Pennsylvania and Genesee County, NY

Darcy Telenko and John Gibbons, CCE Cornell Vegetable Program

All of Western NY continues to be at risk for Late Blight Infection. Late blight was found on tomato in Indiana County, PA and **Genesee County, NY**. The isolate analyses are 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 will go over the 30 BU threshold except Geneva 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 CCE Cornell Vegetable Program Specialists for assistance: Darcy Telenko at dep10@cornell.edu or 716-697-4965 or nearest CVP Specialist to you at https://cvp.cce.cornell.edu/contact_information.php

Late Blight Risk Chart, 8/8/17

Location[1]	Blight Units[1] 8/02-8/08	Blight Units[2] 8/09-8/11	Location[1]	Blight Units[1] 8/02-8/08	Blight Units[2] 8/09-8/11
Albion	34	19	Lodi	NA	NA
Baldwinsville	24	13	Lyndonville	23	17
Bergen	18	16	Medina	41	17
Buffalo	36	17	Niagara Falls	29	17
Ceres	38	16	Penn Yan	32	12
Elba	NA	NA	Rochester	38	18
Fairville	31	11	Sodus	30	11
Farmington	36	17	Versailles	38	12
Gainesville	NA	NA	Volney	17	20
Geneva	12	11	Wellsville	38	16
Kendall	25	18	Williamson	24	12
Knowlesville	NA	NA	Wolcott	25	13

[1] Past week Simcast Blight Units (BU)
[2] Three day predicted Simcast Blight Units (BUs)

Late blight on tomato. Infestation on tomato leaf (left), underside of leaf (middle), and on tomato fruit (right). *Photos: Jan Beglinger, CCE Genesee County, August 2017*

Be on the Watch for Leaf Diseases in Sweet Corn

Julie Kikkert, CCE Cornell Vegetable Program

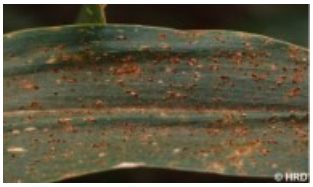
August is the time that leaf diseases in corn may arise. The wet/rainy and humid weather can get diseases going quickly. There are at least 13 diseases that can infect sweet corn in New York http://vegetablemdonline.ppath.cornell.edu/NewsArticles/CornDiseases_News.htm (Contact our office if you can't access the article online.)

The presence and severity of disease in a sweet corn field depends on the following:

- Disease resistance genes in a given sweet corn variety
- The presence of disease causing pathogens
- Weather conditions

A description of three of the fungal diseases that are most likely to be found in WNY follows. **Resistant varieties are available for most of the commonly seen diseases, and should be planted if a particular disease is severe in your area.** Contact your seed supplier for disease resistance information for their varieties. A list of the relative tolerance to common rust and northern corn leaf blight (as well as Stewart's wilt and common smut) can be found in the sweet corn section of the Cornell Vegetable Crops Guidelines.

Common Corn Rust (*Puccinia sorghi*)
Appear as oval to elongate cinnamon brown (rusty) pustules scattered over the upper and lower surfaces of the leaves. Dusty red spores are spread by



Common corn rust.
Photo: Helene Dillard, Cornell

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the wind and can infect nearby leaves. Partial resistance is expressed as chlorotic or necrotic hypersensitive flecks with little or no sporulation. Favored by heavy dew, moderate temperatures, and high nitrogen; this disease spreads to the Northeast yearly from spores blowing in from Southern regions. Some sweet corn varieties are more tolerant than others, and should be planted if possible. Staggered plantings should be separated if feasible so that fungal spores from earlier plantings are less likely to infect later plantings.

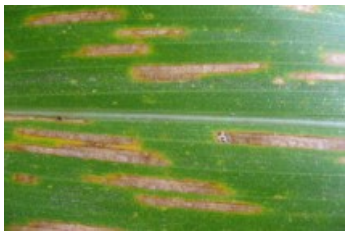
Damage Caused: Early infections (whorl up to tassel stage) can weaken plants and result in smaller ears with dehydrated kernels. Later infections typically do not affect yield, but the brown pustules on the husks render ears unsalable for fresh market.

Northern Corn Leaf Blight (*Setosphaeria turcica*) Produces long, elliptical lesions that are typically cigar-shaped. Generally starts on lower leaves and moves up the plant. Favored by moderate temperatures, high humidity and heavy dews. Infection during early growth may cause heavy loss in ear fill. When severe, plants are killed prematurely. Overwinters in corn debris, so use good crop sanitation and rotation.

Northern corn leaf blight. *Photo: Iowa State Univ.*

Gray Leaf Spot (*Cercospora zeae-maydis*) Rectangular lesions that start on the bottom leaves of the plant. The sharp parallel edges and opacity of mature lesions are diagnostic. Can severely impact yield. Susceptibility varies among hybrids. Infection is favored by prolonged periods of dew, fog and cloudy weather. Overwinters on crop debris.

For additional management information, see the 2017 Cornell Vegetable Guidelines.



Gray leaf spot.
Photo: Iowa State Univ.

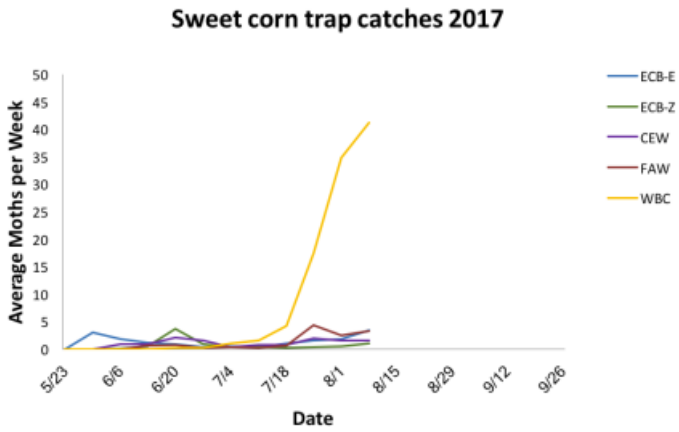
WNY Sweet Corn Trap Network Report, 8/8/17

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

Thirty-three sites reporting this week. European corn borer (ECB)-E was trapped at nineteen sites with a high of 76 caught at Hurley in Ulster County. ECB-Z was trapped at seven sites. Corn earworm (CEW) was trapped at sixteen sites, with eleven sites high enough to be on a 4, 5, or 6 day spray schedule (see chart below). Fall armyworm (FAW) was trapped at fifteen sites and Western Bean cutworm (WBC) was trapped at twenty-seven sites this week.

Degree-day accumulations for most sites indicate that between 50% and 75% WBC moths have emerged based on data from University of Nebraska. Peak flight is usually the first week of August, so we might see a drop next week.

Be sure to scout fields that are in whorl or early tassel stage for WBC egg masses, with a 4% threshold for processing sweet corn and a 1% threshold for fresh market sweet corn. It takes between 5-7 days WBC 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. Here is a video from Purdue on scouting for WBC egg masses and larvae. Corn in the tassel emergence stage should be scouted for ECB and FAW damage and larvae.



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

WNY Pheromone Trap Catches: August 8, 2017

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	3	0	2	1	63	1522
Batavia (Genesee)	4	0	4	0	40	NA
Bellona (Yates)	0	4	0	27	79	1567
Eden (Erie)	0	2	2	0	153	1465
Farmersville (Cattaraugus)	0	0	1	9	43	NA
Farmington (Ontario)	3	0	NA	0	10	1407
Hamlin (Monroe)	2	0	3	1	23	1463
LeRoy (Genesee)	1	0	4	0	29	1453
Pavilion	1	0	0	11	0	NA
Penn Yan (Yates)	1	0	9	5	9	1567
Ransomville (Niagara)	0	0	0	0	10	1544
Seneca Castle (Ontario)	5	1	0	0	12	1476
Williamson (Wayne)	0	0	0	0	0	1398

ECB - European Corn Borer
CEW - Corn Earworm
FAW - Fall Armyworm
WBC - Western Bean Cutworm
NA - not available
DD - Degree Day (mod. base 50F) accumulation

Degree-day accumulations in relation to percent moth emergence (beginning May 1, base 50°F)

Accumulated Degree-days	% Moth Emergence
1319	25%
1422	50%
1536	75%

Percent WBC moth emergence based on degree day accumulation, data from University of Nebraska

UPCOMING EVENTS

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

CANCELLED

Cost: $10/farm. Download the registration form at https://cvp.cce.cornell.edu/event.php?id=792 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 drg35@cornell.edu.

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 HERE but walk-ins are welcome. Co-sponsored by NOFA-NY. Email Ryan Maher at rmm325@cornell.edu with questions and visit smallfarms.cornell.edu/projects/reduced-tillage/ 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 http://tinyurl.com/2017VegFieldDay. 3.0 DEC and CCA credits will be available for portions of the day.

Good Agricultural Practices/Harmonized GAPs Farm Food Safety Training

September 26-27, 2017 | 9:30 AM - 4:00 PM
TBD but will likely be in Cattaraugus County

Farm food safety is common-sense practices organized to assist farmers to improve their skill set to continue to grow safe and healthy food.

Day One of this GAPs training will be an educational training on farm food safety principles and practices to provide the background and information for farmers to understand how to minimize the risk of food born disease contamination. Day Two will be for those who want help with writing a farm food safety plan. If you want to be certified under the GAPs or HGAPs program, a farm food safety plan is needed for the audit.

Cost: Pre-registration is required. $25 for first farm attendee ($15 for second) for County Extension enrollees; $35 and $15 for non-enrollees. Online registration will be available soon. For more information, contact Robert Hadad at rgh26@cornell.edu or 585-739-4065.

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/01 – 8/07/17

Location	Rainfall (inch)		Temp (°F)	
	Week	Month August	Max	Min
Albion	2.45	2.45	86	54
Appleton, North	0.82	0.82	85	53
Baldwinsville	0.99	0.99	88	56
Buffalo*	1.57	1.57	84	53
Ceres	2.29	2.29	84	50
Elba	NA	NA	NA	NA
Fairville	0.81	0.81	88	53
Farmington	NA	NA	86	50
Gainesville	NA	NA	NA	NA
Geneva	1.91	1.91	85	56
Lodi	0.38	0.38	88	53
Niagara Falls*	1.76	1.76	88	54
Ovid	NA	NA	87	57
Penn Yan*	0.65	0.65	84	55
Phelps	1.79	1.79	87	52
Portland	1.27	1.27	82	55
Rochester*	1.36	1.36	87	52
Silver Creek	NA	NA	83	55
Sodus	NA	NA	86	56
Versailles	NA	NA	82	51
Volney	1.44	1.44	86	53
Williamson	0.87	0.87	88	55

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – August 7, 2017

Location	2017	2016	2015
Albion	1612	1751	1669
Appleton, North	1461	1529	1429
Baldwinsville	1650	1720	1669
Buffalo	1640	1783	1708
Ceres	1451	1388	1474
Elba	NA	NA	NA
Fairville	1530	1562	NA
Farmington	1522	1611	1592
Gainesville	NA	NA	NA
Geneva	1602	1663	1626
Lodi	1766	1839	1779
Niagara Falls	1806	1906	1588
Ovid	1697	1745	1727
Penn Yan	1707	1773	1731
Phelps	1614	1655	1645
Portland	1678	1665	1596
Rochester	1705	1809	1771
Silver Creek	1639	1617	1560
Sodus	1613	1650	1560
Versailles	1610	1570	1567
Volney	1519	NA	NA
Williamson	1571	1613	1495

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

Cornell University
Cooperative Extension
Cornell Vegetable Program

480 North Main Street
Canandaigua, NY 14424

VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

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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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Cooperative Extension
Cornell Vegetable Program