An early outbreak of late blight has been found in NY so potato and tomato growers need to be vigilant scouting.

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Learn how to distinguish between two table beet diseases: Bacterial Leaf Spot and Cercospora Leaf Spot. Management options provided.

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Avoid contact with wild parsnip! This plant has human and ecological impacts and it is blooming along field edges and roadsides this week.

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VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Volume 14 | Issue 11 | June 20, 2018

Photo: Judson Reid

Cornell Cooperative Extension
Cornell Vegetable Program

ALERT: Late Blight Found in New York!

Darcy Telenko and John Gibbons, CCE Cornell Vegetable Program

Late blight was found on tomato transplants last week in Onondaga County NY. All potato and tomato growers should keep a close eye on your fields. Please report any outbreaks to your local extension office or CVP, so that we can get a confirmation, report and track movement. This is an early outbreak so everyone needs to be vigilant scouting. The isolate is a new genotype that has not previously been observed. As for best management options, Dr. Chris Smart recommends that products with the active ingredient mefenoxam should not be used since we have no evidence for sensitivity. Products with other active ingredients can be used, and it is important to rotate chemistries. For organic growers, products containing copper have been most effective. (See next page for an updated table of fungicides available.)

Late blight sporulation on tomato leaf. *Photo: J. Reid, CCE 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:
CCE Cornell Vegetable Program
480 North Main Street, Canandaigua, NY 14224
Email: cce-cvp@cornell.edu

Web address: cvp.cce.cornell.edu

Contributing Writers
Robert Hadad
Christy Hoepting
Julie Kikkert
Ali Nafchi
Judson Reid
Darcy Telenko

Publishing Specialist/Distribution/Sponsors
Angela Parr

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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.

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The next issue of VegEdge will be June 27, 2018.

continued from cover – ALERT: Late Blight Found in New York!

Late blight severity values continue to rise for many locations. The threshold for risk is 18 SVs and within about a week of reaching 18 SVs growers need to apply fungicide on all potatoes 4+ inches tall, and on all field tomatoes, to protect them against late blight. Potatoes are actively growing around the region. Based on weather forecasts using first emergence of potatoes on May 15, seven locations have exceeded the threshold, these include Albion, Buffalo, Gainesville, Penn Yan, Rochester, Versailles, and Wellsville. Once you've applied your first fungicide, use Simcast or early blight P-Days to help schedule your fungicide applications for the remainder of the season.

All stations racked up the P-Day values to spray for early blight through 6/22. Sodus was the only exception and it hit on the 6/23. We will be switching to SIMCAST next week.

Again please notify us if you suspect late blight. We will continue to watch the national occurrence map to track late blight movement.

Late Blight Severity Values* 6/19/2018

Location	Total	Forecast 6/20-6/22	Location	Total	Forecast 6/20-6/22
Albion	45	0	Knowlesville	0	0
Baldwinsville	9	0	Lodi	0	0
Bergen	2	0	Lyndonville	1	0
Buffalo	25	0	Medina	6	0
Burt	7	0	Niagara Falls	7	0
Butler	7	0	Penn Yan	31	0
Ceres	16	1	Rochester	20	0
Fairville	1	0	Sodus	5	0
Farmington	13	0	Versailles	20	0
Gainesville	89	0	Volney	4	0
Geneva	4	0	Wellsville	57	0
Kendall	4	0	Williamson	8	0

* Severity value accumulations start 5/15/2018

Fungicides labeled for use in tomatoes for early and late blight disease management, 2018.

Name	Diseases	FRAC Group	REI	PHI	Rate/A
Catamaran	Late blight	M5 + 33	12 h	0 d	5-7 pt
Curzate 60 DF	Late blight	27	12 h	3 d	3.2-5 oz
Forum	Late blight	40	12 h	-	6.0 fl oz
Orondis Opti A	Late blight	U 15 + M5	12 h	0 d	2-4.8 pt
ProPhyt or OLP	Late blight	33	4 h	0 d	4 pt
Presidio	Late blight	43	12 h	2 d	3-4 fl oz
Quadris F or OLP	Late blight	11	4 h	0 d	6.2 fl oz
Ranman 400 SC	Late blight	21	12 h	0 d	2.1-2.75 fl oz
Ridomil Gold Bravo SC	Late blight	4	48 h	5 d	2.5 pt
Zampro	Late blight	45 + 40	12 h	4 d	14 fl oz
Zing!	Late blight	22 +M3	12 h	5 d	36 fl oz
Ariston	Late blight, Early blight	27 + M3	12 h	3 d	1.9-3.0 pt
Cabrio EG	Late blight, early blight	11	12 h	0 d	8-16 oz
Flint / Flint Extra	Late blight, early blight	11	12 h	3 d	2-4 oz
Gavel 75 DF	Late blight, early blight	22 + M3	48 h	5 d	1.5-2 lb
Previcur Flex	Late blight, early blight	28	12 h	5 d	0.7-1.5 pt
Quadris Opti	Late blight, early blight	11 + M5	12 h	0 d	0.5-1.6 fl oz
Reason 500 SC	Late blight, early blight	11	12 h	14 d	4.0- 8.2 fl oz
Revus Top	Late blight, early blight	40 +3	12 h	1 d	5.5-7 fl oz
Tanos 50 DF	Late blight, late blight	11 +27	12 h	3 d	6-8 oz
Bravo Weather Stik or OLP	Late blight, early blight	M5	12 h	0 d	1 3/8 – 2 ¾ pt
Champ or OLP	Late blight, early blight	M1	48 h	0 d	1.3 pt
ManKocide	Late blight, early blight	M3 + M1	48 h	5 d	1-3 lb
Dithane DF Rainshield	Late blight, early blight	M3	24 h	5 d	1.5 lb
Catamaran	Early blight	M5 + 33	12 h	0 d	5-7 pt
Endura 70 WDG	Early blight	7	12 h	0 d	2.5-3.5 oz
Inspire Super	Early blight	3 + 9	12 h	0 d	16-20 oz
Luna Tranquility or OLP	Early blight	7 + 9	12 h	1 d	11.2 fl oz
Mettle 125 ME	Early blight	3	12 h	0 d	6-8 fl oz
Priaxor	Early blight	7 + 11	12 h	0 d	4-8 fl oz
Quadris Top	Early Blight	11 +3	12 h	0 d	8 fl oz
Rhyme	Early Blight	3	12 h	0 d	5-7 fl oz
Scala SC	Early blight	9	12 h	1 d	7 fl oz
Serenade Opti	Early blight	44	4 h	0 d	14-20 oz
Sonata	Early blight	44	4 h	0 d	2-4 qt
Switch 62.5 WG	Early blight	9 + 12	12 h	0 d	11-14 oz
Top Guard EQ	Early blight	3 + 11	12 h	0 d	4-8 fl oz
Ziram	Early blight	M3	48 h	7 d	3-4 lb

Leaf Diseases Found on Table Beets in New York State

Julie Kikkert, CCE Cornell Vegetable Program, and Sarah Pethybridge, Cornell

We've had several calls this past week about leaf spots in table beets. Upon inspection, most of the spots turned out to be caused by bacterial leaf spot (*Pseudomonas syringae* pv. *aptata*). However, a low level of Cercospora leaf spot caused by the fungus *Cercospora beticola* was also found. Time to review how to distinguish these two diseases in the field and options for management.

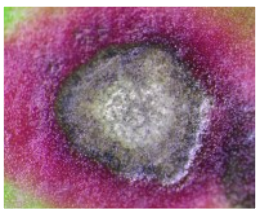
BACTERIAL LEAF SPOT (BLS)

This disease is favored by cool (less than 75 F), rainy weather and usually develops on young plants early in the season. Lesions are irregular shaped and have black borders. Bacteria often enter hydathodes (natural openings) or wounds on the margins of the leaves and progress inward. This causes a characteristic twisting and puckering of the leaves. If you use a hand-lens, there is a noticeable lack of any black pin-point fungal structures in the center of the lesion, which instead appear skeleton-like with colorless cells.

Bacterial Leaf Spot. Note leaf puckering and black borders surrounding lesions. *Photo: S. Pethybridge, Cornell*

CERCOSPORA LEAF SPOT (CLS)

Typically, a mid to late season disease, favored by warm (75 F to 80 F) weather and long periods of rain or humidity. Our Michigan sugar beet colleagues are seeing CLS at this time also, about 2 weeks earlier than usual. Lesions are larger than those of BLS and are often more distinct spots early in the disease cycle before they eventually coalesce and cause leaf death. The lesions are tan to gray. A distinguishing feature is the presence of stromata, tiny black pin-point structures that produce spores. These can be seen with a hand-lens.



Magnified view of a Cercospora leaf spot lesion. Note the characteristic black dots in the center, and the purple halo. *Photo: Noel Knight, Cornell*

MANAGEMENT CONSIDERATIONS

Proper disease/pathogen identification is the first step in management. If you need assistance, please contact Julie. It is also beneficial if you snap a photo or two with your smartphone and email or text it to one or both of us. We can decide whether a field visit or sample collection is needed based on what we are seeing nearby and/or our overall field visit plans.

Fungicides Registered for Control of Cercospora Leaf Spot in Table Beet in New York for 2018

Please check the most recent versions of the labels for updated information and safety guidelines.

Product	Active Ingredient	Rate (/A)[2]	Fungicide Resistance Grouping[3]	Pre-Harvest Interval (days)	Re-Entry Interval (hours)
Tilt®/PropiMax® EC	Propiconazole	3 to 4 fl oz	3	14	12
Merivon®	Fluxapyroxad + Pyraclostrobin	4 to 5.5 fl oz	7 + 11	7	12
Luna Sensation®	Fluopyram + Trifloxystrobin	5.8 fl oz	7 + 11	7	12
Luna Tranquility®	Fluopyram + Pyrimethanil	11.2 fl oz	7 + 9	7	12
[1]Double Nickel LC™	Bacillus amyloliquefaciens strain D747	0.5 to 4.5 pt	44	0	4
Badge® SC [1]Badge® X2	Copper hydroxide Copper oxychloride	0.75 to 4 pt	M01	0	48
[1]Cueva®	Copper octanoate	0.25 to 2.0 gal	M01	0	4
Copper Compounds (Various Formulations)	Copper	Use maximum recommended on label	M01	0	varies
The Group 11 fungicides below are no longer effective for Cercospora control in New York State.					
Quadris®	Azoxystrobin	9 to 15.5 fl oz	11	0	4
Cabrio® EG	Pyraclostrobin	8 to 12 oz	11	0	12
Flint Extra® 500 SC	Trifloxystrobin	2 to 2.9 fl oz	11	7	12
Gem® 500 SC	Trifloxystrobin	1.9 to 2.9 fl oz	11	7	12
Reason® 500 SC	Fenamidone	8.2 fl oz	11	14	12

[1] OMRI listed for use in organic production.
[2] Please check the maximum rate allowable per acre per season.
[3] According to the Fungicide Resistance Action Committee guidelines.

continued on next page

At this point, growers and consultants are often wondering "when and what to spray". The thought process should include: 1) Am I likely to experience economic loss based on my past experience and current goals and objectives, and harvest date for the field? 2) Does the weather forecast favor the development of one or more diseases? 3) Will the pesticide I chose be effective on the pathogen(s)? and 4) Is my field conventional or organic (yes there are OMRI-approved products for use in organic production)?

BLS tends to slow down as plants get older and the weather becomes hotter and drier. We don't have a lot of experience with this disease in New York, but on sugar beets it is generally considered not of economic importance. Still, if your young plants are hit hard and the weather is favorable, early season applications of copper products may be warranted. Last year, we conducted 4 trials in commercial organic fields where naturally occurring BLS was the prominent disease. Plots sprayed 3 times with a copper product had 30 to 40 percent less leaf disease than non-treated plots. Heavy weed pressure doubled the incidence of disease, regardless of copper application. The best plots had both hand weeding and copper application.

CLS starts in isolated patches in a field, but with favorable weather continues to develop through the season as spores are released and spread by rain and wind. Eventually, heavily infected leaves die. New growth may also become infected, repeating the cycle. Fungicides should be considered preventative as they will not cure an infection. Furthermore, resistance within *C. beticola* to some fungicide modes of action is a concern. Group 11 fungicides (strobilurins) now considered ineffective in New York.

For conventional production, Tilt (4 oz/A) is the most effective registered fungicide for CLS in New York at this time and we recommend using this product as the first fungicide to most effectively provide disease control. A different second fungicide (see table) is recommended for resistance management. If required, Tilt could be used again for a third application (there is a 14-day interval required between applications of Tilt). Fungicides will not control BLS, and hence, a copper product should be included if BLS is present in the field. Often there is a mixture of pathogens. For organic production, a tank mix of Double Nickel and a copper product will reduce the incidence of both leaf pathogens if required.

FOR MORE INFORMATION

Comparison of Cercospora and Bacterial Leaf Spots on Sugar Beet, Fact Sheet, North Dakota State University. https://www.ag.ndsu.edu/publications/crops/comparison-of-cercospora-and-bacterial-leaf-spots-on-sugar-beet/pp1244.pdf

Cercospora Leaf Spot Fact Sheet, Cornell University. https://cpb-us-e1.wpmucdn.com/blogs.cornell.edu/dist/0/5421/files/2014/12/CLS-Extension-Bulletin-Revised-2017_final-tbrddk.pdf

WNY Sweet Corn Trap Network Report, 6/19/18

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

Twenty-six of 37 sites reported this week. European corn borer (ECB)-E was caught at seven sites and ECB-Z was caught at 12 sites. Corn earworm was caught at five sites with three sites high enough to be on a spray schedule (see table below). No fall armyworm (FAW) or Western bean cutworm (WBC) were caught this week.

Scouting of bare ground sweet corn should begin when the tassel starts to emerge. When scouting focus on the emerging tassel. Separate the leaves and look down into the tassel for any signs of feeding, frass or larvae. The threshold for ECB and FAW is 15% infested plants at tassel emergence. I scouted a field in early tassel today that was just over the 15% threshold. To help you scout your fields please view the new video titled How to Scout Fresh Market Sweet Corn.This video will show you how and when to scout sweet corn using the Sweet corn scouting form (pdf).

European corn borer (bivoltine) development estimated using a modified base 50F degree day calculation.

Development Stage	Accumulated Degree Days
First Generation	
First spring moths	374
First eggs	450
Peak spring moths	631
First generation treatment period	800-1000
Second Generation	
First summer moths	1400
First eggs	1450
First egg hatch	1550
Peak summer moths	1733
Second generation treatment period	1550-2100

from J.W. Apple, Department of Entomology, Univ. of Wisconsin-Madison

WNY Pheromone Trap Catches: June 19, 2018

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	0	2	0	0	0	847
Batavia (Genesee)	0	0	0	0	0	841
Bellona (Yates)	NA	NA	NA	NA	NA	862
Eden (Erie)	0	3	0	0	0	852
Farmington (Ontario)	0	0	0	0	0	824
Geneva (Ontario)	1	2	0	0	0	838
Hamlin (Monroe)	NA	NA	NA	NA	NA	764
Kennedy (Chautauqua)	NA	NA	NA	NA	NA	767
Pavilion	NA	NA	NA	NA	NA	694
Penn Yan (Yates)	0	3	0	0	0	867
Ransomville (Niagara)	0	0	0	0	0	837
Seneca Castle (Ontario)	0	0	2	0	0	816
Williamson (Wayne)	0	0	1	0	0	714

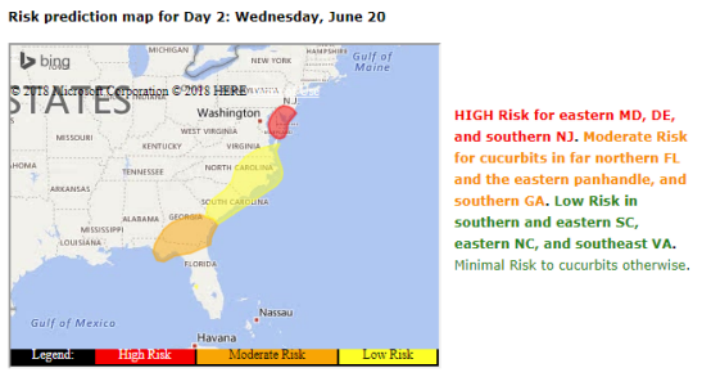
ECB - European Corn Borer
CEW - Corn Earworm
FAW - Fall Armyworm
WBC - Western Bean Cutworm
NA - not available
DD - Degree Day (mod. base 50F) accumulation

CROP INSIGHTS

Late blight has been found in NY! All potato and tomato growers should scout fields and implement management options (see Late Blight article on the cover of this issue of VegEdge). Please report any suspected sites to your local Cornell Cooperative Extension office or CVP so that we can get positive confirmation, report and track movement. – *DT*

CUCURBITS

The current Cucumber downy mildew risk is moving up the east coast. New positive reports this week from Georgia, North Carolina and Maryland. We will continue to monitor and update this weekly. – *DT*



Cucurbit downy mildew prediction map. cdm.ipmpipe.org/current-forecast

ONIONS

Welcome summer! The change from increasing to decreasing day length of the summer solstice triggers bulbing in onions. Earliest transplants have 2 inch bulbs and most direct seeded fields have 3 to 5 leaves. The maximum leaf stage for application of post-emergent contact herbicides is 5 and 6 for Buctril and Chateau, respectively. Goal 2XL/ Goaltender may be used until 45 days PHI (pre-harvest interval). Onion thrips (OT) are also starting to show up with hot spots having already reached spray threshold 1-2 weeks ago. Movento is recommended as the first insecticide spray in the sequence for OT control with a threshold of 0.6 to 1.0 OT per leaf (adults + nymphs), which works best prior to bulbing. Therefore, **we recommend applying Movento when OT reach spray threshold or at first sign of bulb swelling, whichever comes first.** With last post-emergent applications of Chateau encroaching on first application of Movento, there may be need to apply both in the same week. **Caution about using Movento close to Chateau:** Last year, Chateau and Movento applied within 2 days of each other caused severe injury to onion, most likely due to the surfactant used with Movento. Start with the pesticide spray for the highest pest priority and separate the two sprays by at least 3 days, perhaps more if Movento is used first.

Botrytis leaf blight (BLB) was very hard to find this week and most fields have not reached the spray threshold of 1.0 BLB lesion per leaf. However, it is definitely time to start scouting for BLB – see article, page 10. When conditions are not favorable for BLB, there is opportunity to save on fungicide sprays. As an example, during the hot and dry growing season of 2016, CVP onion scouting reported very low BLB pressure/risk and recommended skipping several fungicide sprays in Elba. Consequently, five Elba onion growers reduced the number of fungicide sprays for BLB by 74% to an average of 1.3 times and reduced their costs by 83% to only $13/A, and BLB never developed. Bravo has consistently been a top performer for control of BLB in Cornell trials. Unfortunately, when applied with Movento, efficacy of Movento may be reduced. If thrips and BLB need to be applied the same week, they may be applied in separate passes or Bravo may be substituted for Scala 9 fl oz + Rovral 1 pt.

Upcoming events: 1) Elba Muck Onion Twilight Meeting featuring weed control is this Thursday, June 19th, and 2) Wayne County Muck Donut Hour next Thursday, June 28th. See page 8 for details. – *CH*

Corn earworm larvae found in sweet corn tassels. *Photo: D. Telenko, CCE CVP*

POTATOES

Potatoes are really growing. All stages of Colorado potato beetle have been seen in fields.

SWEET CORN

We have beginning silk in some of our earliest plantings. Corn ear worm and European corn borer larvae are active in fields where moths were trapped last week. Scout fields that are at early whorl, tassel or beginning silk to determine if thresholds have been reached. See Sweet Corn Pheromone Trap report for more information.

Heat Necrosis in Transplants

Gordon Johnson, Extension Vegetable & Fruit Specialist, University of Delaware; from Weekly Crop Update, Iss. 12

Heat necrosis is a common problem on black plastic mulch in late spring and summer plantings in clear weather and at high temperatures. This is a common problem in later plantings of peppers and tomatoes grown in smaller cell sizes. Black plastic can heat up to well over 110°F on hot days in the late spring and summer. Vegetable transplants are exposed to these high soil temperatures at the soil line around the transplant hole. The stem tissue just at or above the level of the plastic may be killed at these high temperatures and the transplants will then collapse and die. Small transplants do not have the ability to dissipate heat around the stem as roots are not yet grown out into the soil and water uptake is limited. Another factor in heat necrosis is that there is little or no shading of the mulch with the leaves of small transplants.

Heat necrosis on pepper stem from excessive temperatures from black plastic mulch. *Photo: G. Johnson, Univ. of Delaware Cooperative Extension*

There are a number of practices that can reduce heat necrosis in later planted vegetable transplants:

- Avoid using tender transplants that have not been hardened off.
- Use larger transplants with greater stem diameters and more leaves to shade.
- Make a larger planting hole, cutting or burning out the plastic.
- When transplanting into the plastic, make sure the stems of transplants do not touch the plastic once set.
- Water sufficiently in the hole to reduce heat load.
- Plant in the evening once the plastic has cooled down or in the very early morning. Avoid transplanting on very hot days or when extended hot, sunny weather is forecast.
- Switch to white or aluminized plastic mulch for later plantings. This will reduce the heat loading significantly.
- In smaller plantings you may paint the planting zone on the black plastic mulch white with latex paint and then plant through this white strip once dry. Another option is to spray on white particle film at the plant base. You can also mulch around the planting holes with wet straw to reduce heat loading.
- Use overhead irrigation after planting to keep the plastic cooler.

Wild Parsnip in Bloom - Do NOT Touch It!

Darcy Telenko, CCE Cornell Vegetable Program

Wild parsnip (*Pastinaca sativa*) is a biennial or perennial herbaceous plant with human health and ecological impacts. It is blooming along field edges and roadsides this week.

Do Not Touch This Plant! The sap of wild parsnip contains chemicals called furanocoumarins which make skin more vulnerable to ultraviolet light. Skin contact with the sap in combination with sunlight can cause a severe burn that will appear within 24 to 48 hours. This reaction is called phytophotodermititis and can cause discoloration of the skin and increased sensitivity to sunlight for many years.

Protect yourself by learning to identify wild parsnip at the different life stages. Wear gloves, long-sleeved shirts, pants, boots and eye protection if working near wild parsnip to prevent skin contact with sap. Synthetic, water resistant materials are recommended.

For more photos and further information on identifying this plant and controlling its spread, contact DEC Forest Health or your local Partnership for Regional Invasive Species Management (PRISM) by visiting http://www.nyis.info/index.php?action=invasive_detail&id=61.

Wild parsnip growing in corn field. Flowers are similar in appearance to Queen Ann's Lace but are yellow in color. *Photo: D. Telenko*

Upcoming Events

view all Cornell Vegetable Program upcoming events at CVP.CCE.CORNELL.EDU

2018 Elba Muck Onion Twilight Meeting: Herbicide Trial Tours

June 21, 2018 | 5:30 PM - 8:00 PM
Mortellaro's Red Shop in the Elba muck land, Elba, NY 14058

All onion growers are invited to this event which will feature trial tours and demonstrations of pre- and post-emergent weed control in direct seeded onions. See page 9 for more info on planned agenda. 2.0 DEC recertification credits will be offered for those that attend the entire meeting. FREE! Contact Christy Hoepting at 585-721-6953 with questions.

Wayne County Muck Donut Hour

June 28, 2018 | 9:00 AM
Meet at Johnson's storage across from 4523 Fish Farm Rd, Sodus, NY

At this meeting CVP Onion Specialist, Christy Hoepting will review 2017 onion scouting data and spray records, and gear up for 2018 fungicide and insecticide spray season with emphasis on resistance management strategies and improvements to the ever evolving spray programs. Participants of CVP Onion Research Scouting program should plan on attending. Meeting open to onion growers and allied industry. Similar meetings will be scheduled in Elba (July 3 Donut Hour) and Oswego (TBA) soon. Contact Christy Hoepting for more info.

Garlic Twilight Meeting

July 5, 2018 | 6:00 PM 'til ?
Trials located at 14,765 East Lee Rd (State Rte 31A), Albion, NY 14411

Join CCE Cornell Vegetable Program Specialists Christy Hoepting and Robert Hadad for a viewing of replicated garlic field trials including a nitrogen fertility trial, a Fusarium fungicide trial, an Eriophyid mite control trial, and an herbicide trial (potentially).

We will discuss both conventional and organic treatments including dips, slurries, soaks, in-furrow drenches and hot-water treatments. What works and what does not. What happens when infested/infected seed is planted? How much nitrogen is enough? Attendees will learn about "E mite" and Fusarium diagnosis.

FREE! An RSVP would be appreciated to Christy Hoepting, cah59@cornell.edu; 585-721-6953. *Trials were funded in-part by NESARE Research and Education and New York Farm Viability Institute.*

Chautauqua Produce Auction Growers Meeting

July 10, 2018 | 6:30 PM
Mahlon C. Byler farm, 7156 Burdick Rd, Dewittville, NY 14728

This course will demonstrate pest management in fresh market vegetables in both field and greenhouse (high tunnel) vegetables, primarily for those growing for wholesale auction. We will walk the fields and provide a hands-on demonstration of weed, insect and disease identification in vegetables including management options. FREE! Contact Judson Reid at 585-313-8912 for more info.

Ontario Produce Auction Growers Meeting

July 17, 2018 | 6:00 PM - 8:00 PM
Jonathan Sensenig, 5299 Crowe Rd, Stanley, NY 14561

This course 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. FREE! Contact Judson Reid at 585-313-8912 for more info.

New York Soil Health Summit

July 18, 2018 | 9:30 AM - 6:00 PM
Empire State Plaza Conference Center, downtown Albany, NY

This event, organized by the New York Soil Health project, is for farmers, researchers, agriculture service providers, government agencies, non-profits and policy-makers interested in advancing soil health efforts across the state. Topics include local experts/grower panel, research and policies relevant to soil health, and Soil Health Roadmap breakout sessions.

Registration, summit agenda, and other details are available at: summit.newyorksoilhealth.org For more information, contact David Wolfe (dww5@cornell.edu) or Aaron Ristow (ajr229@cornell.edu). *New York Soil Health is funded through New York State Department of Agriculture & Markets.*

Finger Lakes Produce Auction Twilight Meeting

July 27, 2018 | 6:00 PM - 8:00 PM
5351 Jessop Rd, Dundee, NY 14837

This course 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. FREE! Contact Judson Reid at 585-313-8912 for more info.

Chautauqua Produce Auction Growers Meeting

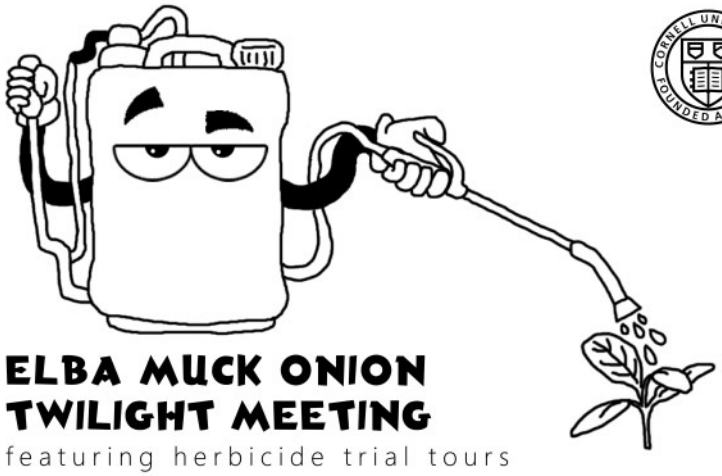
August 14, 2018
Andy E. Yoder farm, 2051 Rt 62, Frewsburg, NY

This course will demonstrate pest management in fresh market vegetables in both field and greenhouse (high tunnel) vegetables, primarily for those growing for wholesale auction. A crop walk will provide a hands-on demonstration of weed, insect and disease identification in vegetables including management options. FREE! Contact Judson Reid at 585-313-8912 for more info.

No-Till and Never-Till Soil Health Workshop

August 28, 2018 | 12:00 noon - 5:30 PM
Branton Farm, 8538 Route 237, Stafford, NY 14143

The Western New York Soil Health Alliance will be holding a Soil Health Workshop on August 28, 2018 focusing on No-Till practices and benefits. Frank Gibbs, a certified Soil Scientist who formed a Wetland and Soil Consulting Service in 2012 after working for 36 years for USDA in Ohio will be digging underground to look at a section of field that has NEVER had any tillage and will compare it to an adjacent area with a history of tillage practices. James J Hoorman, a NRCS Soil Health Specialist for Ohio & Michigan, will be sharing information on the problem of slugs and voles in the higher residue farming practices. DEC and CCA credits will be offered. Pre-registration fee is $15; $25 at the door. Red Osier food truck will be onsite for purchase of roast beef sandwiches from 12:00-4:00 PM. For more information, visit http://www.wnysoilhealth.com and click on the Events tab.



ELBA MUCK ONION TWILIGHT MEETING

featuring herbicide trial tours

THURSDAY, JUNE 21
5:30 DINNER; 6:00 – 8:30 PM PROGRAM AND TOURS

Mortellaro's Red Shop, 5955 Transit Rd will get you to the farm lane, red shop is at the end of the farm lane, Elba, NY 14058

Cornell Cooperative Extension | Cornell Vegetable Program

Topics include:

- Pre- and post-emergent control
- Weeds: pigweed, ragweed, lamb's quarters, nightshade, annual mustards, yellow nutsedge, etc.
- PRE-emergent herbicides: Prowl EC, Prowl H2O, Outlook, Buctril, Chateau, bicyclopyrone, Reflex
- POST-emergent herbicides: Goal 2XL, Goaltender, Chateau, Buctril, Stinger, Reflex, bicyclopyrone
- Timing to weeds, tank mixes, strategies, programs, crop safety

2.0 DEC credits available in categories 1A, 10 and 23. CCA credits available too.

FREE to attend thanks to industry support!
For more information, contact Christy Hoepting at 585-721-6953.

Revised EPA and NYSDEC Registration for Surchlor for Use on Onions to Reduce Bacterial Rot

Steve Beer, Department of Plant Pathology and Plant-Microbe Biology, Cornell

In the 2017 season, Steve Beer and his Cornell associates, including CCE Specialists, worked with more than a dozen commercial onion growers in NY to test the effect of Surchlor to reduce bacterial bulb rot in harvested onions. Surchlor [active ingredient (A.I.), sodium hypochlorite] had been tank-mixed with whatever other materials the particular growers needed to apply to their growing onions, on a weekly to 2-weekly basis.

Cooperators obtained disparate results from their trials with Surchlor sprayed on growing onions to reduce bacterial rot at harvest. We suspected that materials present in growers' spray tanks, along with the sodium hypochlorite in Surchlor, may have affected the activity of the A.I.

Based on analyses of growers' spray records, the 2017 cooperating growers had included a broad range of other materials in their spray tanks together with Surchlor. Collectively, they had mixed 6 insecticides, 12 fungicides, 1 herbicide and 14 adjuvants or other materials with Surchlor. We hypothesized that some of these may have affected the anti-bacterial activity of the A.I. Therefore, we designed assays to test the compatibility of the A.I. together with the materials that growers had combined with Surchlor in 2017.

Briefly, lab tests indicated that most of the spray materials that growers had mixed with Surchlor reduced the anti-bacterial activity of sodium hypochlorite, presumably reducing its effectiveness. (A more complete description of the tests used and their results, and a copy of the now current label for Surchlor will soon be available on the Cornell Vegetable Program website.) On the basis of the lab test results and the Beer program's and Surpass Chemical's suggestions, EPA and NYSDEC revised the registration and required label for Surchlor. The revision provides for separate sprays of Surchlor, rather than mixes with other materials that likely would inactivate the anti-bacterial activity of sodium hypochlorite. To find a copy of the label, search the NYSPAD website (http://www.dec.ny.gov/nyspad/products) for "Surchlor" and look for EPA Reg. No. SLN NY-170004. The main label is EPA Reg. No. 9357-2.

Scouting Tips for Botrytis Leaf Blight in Onions

Christy Hoepting, CCE Cornell Vegetable Program

Scouting for Botrytis Leaf Blight:
When scouting for Botrytis leaf blight (BLB), look for and count the tiny yellow lesions surrounded by silvery halos on the outer 3 leaves. The number of lesions per leaf is the number of lesions per plant divided by 3. Count the number of lesions on 20 to 30 plants per field. Identifying BLB lesions can be very tricky to the untrained eye.

BLB Lesions:
These are the tiny pin-prick to pin-head sized yellow necrotic spots surrounded by silvery halos (Fig. 1 lesions 5 & 6). The silvery halo is often blotchy in shape. Sometimes the necrotic spot is barely visible, which can make identification of such versions of these lesions tricky to identify (Fig. 1 lesions 2 & 3). When BLB lesions get old, the center becomes sunken and often splits, it is still yellowish in color and remnants of the silvery halo can usually still be seen (Fig. 1, lesion 9). Herbicide injury and various nicks and dings caused by blowing debris or herbicide injury may be confused with BLB lesions (Fig. 2). BLB lesions can be distinguished by their ghostly appearance not penetrating the leaf surface. BLB lesions are most abundant on the outer leaves, usually on the underside of the leaf, and are distributed anywhere along the leaf. All of these lesions are counted when scouting to use for spray thresholds for BLB.

Figure 1. Ten Botrytis leaf blight (BLB) lesions on an onion leaf. Lesion No. 1,4,5,6 & 7 have tiny yellow necrotic centers. In lesion No. 2 & 10, the necrotic center is not visible. Lesion No. 8 does not have a distinct yellow center and blends into No. 7. Lesion No. 9 is an old lesion with a sunken center and silvery halo still visible. *Photo: C. Hoepting, CVP*

Figure 2. BLB lesion amongst other necrotic spots on onion leaf.
Photo: C. Hoepting, CVP

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 6/12 - 6/18/18

Location**	Rainfall (inch)		Temp (°F)	
	Week	Month June	Max	Min
Albion	0.34	1.05	90	49
Baldwinsville	0.43	1.98	95	48
Bergen	0.45	1.40	90	47
Buffalo*	1.05	1.11	84	52
Burt	0.80	0.82	90	66
Ceres	0.77	1.79	88	44
Fairville	0.57	1.92	90	47
Farmington	0.44	NA	90	46
Gainesville	0.74	1.50	85	44
Geneva	0.13	0.91	89	50
Lodi	0.29	1.20	90	49
Niagara Falls*	0.44	0.85	90	54
Ovid	0.05	1.36	92	51
Penn Yan*	0.02	2.19	92	52
Phelps	0.29	1.15	93	43
Portland	0.92	1.23	86	52
Rochester*	0.25	1.21	90	50
Silver Creek	1.32	1.35	84	49
Sodus	0.29	NA	91	45
Versailles	0.90	0.94	86	47
Volney	0.55	1.06	90	48
Williamson	0.56	1.45	89	47

Accumulated Growing Degree Days (AGDD)
Base 50°F: April 1 - June 18, 2018

Location	2018	2017	2016
Albion	735	622	568
Baldwinsville	769	673	600
Bergen	685	600	504
Buffalo	776	652	617
Burt	622	572	NA
Ceres	651	590	448
Fairville	659	594	499
Farmington	688	595	527
Gainesville	562	519	404
Geneva	711	631	559
Lodi	796	736	626
Niagara Falls	819	724	651
Ovid	747	683	588
Penn Yan	756	683	592
Phelps	612	629	542
Portland	726	705	571
Rochester	795	685	601
Silver Creek	642	668	594
Sodus	647	617	480
Versailles	715	691	531
Volney	652	581	NA
Williamson	629	632	487

* Airport stations

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

Cornell 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. 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.

VEGETABLE SPECIALISTS

Robert Hadad | 585-739-4065 cell | rgh26@cornell.edu
food safety & quality, organic, business & marketing, and fresh market vegetables

Christy Hoepting | 585-721-6953 cell | 585-798-4265 x38 office | cah59@cornell.edu
onions, cabbage, potatoes and pesticide management

Julie Kikkert | 585-313-8160 cell | 585-394-3977 x404 office | jrk2@cornell.edu
processing crops (sweet corn, snap beans, lima beans, peas, beets, carrots) and dry beans

Judson Reid | 585-313-8912 cell | 315-536-5123 office | jer11@cornell.edu
greenhouse production, small farming operations, and fresh market vegetables

Darcy Telenko | 716-697-4965 cell | 716-652-5400 x178 office | dep10@cornell.edu
soil health, weed management, fresh market vegetables, and plant pathology

PRECISION AG SPECIALIST

Ali Nafchi | 585-313-6197 cell | anafchi@cornell.edu

PROGRAM ASSISTANTS

Amy Celentano | ac2642@cornell.edu

John Gibbons | 716-474-5238 cell | jpg10@cornell.edu

Angela Parr | 585-394-3977 x426 office | aep63@cornell.edu

Caitlin Vore | cv275@cornell.edu

ADMINISTRATION

Peter Landre | ptl2@cornell.edu

Steve Reiners | sr43@cornell.edu

Cornell Cooperative Extension
Cornell Vegetable Program

For more information about our program, email cce-cvp@cornell.edu or visit us at CVP.CCE.CORNELL.EDU