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What Can Summer Cover Crops do for Soil Health and Future Crops?

Michelle-Infante-Casella, Rutgers Cooperative Extension, 7/14/23; edited by Robert Hadad, CCE

[Now is the time to consider AND plant summer cover crops in order to reap the benefits they provide vegetable growers. There are several great reasons to consider using summer cover crops and a recent article out of Rutgers Cooperative Extension sheds light on these advantages. At the end of the article, I included two links for cover crop selection not just for summer but for other seasons as well. ed. R. Hadad, CCE Cornell Vegetable Program]

Now that some of our spring planted crops have finished, rather than leaving fields fallow or replanting fields that may have had some issues with plant diseases or insect pests, consider replanting with a summer cover crop. It is not too late to take advantage of summer cover crop benefits.

Six Benefits of Summer Cover Crops for Soil Health and Future Crop Improvements

- Increase Soil Organic Matter One of the best attributes of having 1. organic matter in the soil is improvement in soil structure. Adding organic matter improves tilth, water infiltration, water holding capacity, nutrient holding capacity and reduction of soil crusting. Also, as important is the increase in beneficial soil microbes and earthworms. Beneficial microbes can compete with pathogens and help release nutrients. Earthworms can cycle nutrients and improve pore spaces in the soil.
- Reduce Soil Erosion Just like with winter cover crops, summer cover 2. crops can also reduce wind and water erosion in fields, especially those with slopes. During summer rainfall events, that can be significant if resulting from tropical storms, runoff may not just include soil loss, but also fertilizer and chemical movement. Therefore, keeping cover on a field during non-production times in any season is an excellent practice.



A stand of blooming buckwheat offers a thick weed suppressing canopy. Photo: Rutgers Cooperative Extension

About VegEdge

VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension partnership between Cornell University and CCE Associations in 14 counties.



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

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The next issue of VegEdge newsletter will be produced on July 26, 2023.

Accumulated Growing Degree Days, 7/17/23

Julie Kikkert, CCE Cornell Vegetable Program

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 - July 17, 2023

	_		
Location**	2023	2022	2021
Albion	1209	1260	1354
Appleton	1134	1190	1229
Arkport	1015	1080	1087
Bergen	1140	1212	1230
Brocton	1148	1241	1272
Buffalo*	1242	1265	1343
Ceres	970	1025	1112
Elba	1103	1147	1172
Fairville	1140	1167	1188
Farmington	1165	1185	1234
Fulton*	1164	1155	1198
Geneva	na	1235	1274
Hammondsport	1112	1183	1204
Hanover	1114	1223	1255
Jamestown	1109	1074	1106
Lodi	1280	1366	1095
Lyndonville	1157	1110	1241
Niagara Falls*	1283	1325	1291
Penn Yan*	1205	1279	1347
Rochester*	1207	1254	1280
Romulus	1258	1271	1313
Sodus	1261	1290	1300
Versailles	1100	1188	1207
Waterport	1140	1178	1210
Williamson	1088	1145	1174
* Airport stations			

Airport stations

** For other locations: http://newa.cornell.edu

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- 3. Nitrogen Cycling in the Soil Nitrogen is often the most limiting nutrient for crop production since it is so readily lost through nitrification and leaching. Storing nitrogen through plant cycling is an excellent way to improve fertility management. Whether it is a grass or non-leguminous cover crops N is still kept in the mix by the cover crop taking up residual N that would otherwise be lost. The cover crop plant takes up the nitrogen and after the crop is incorporated it decomposes, thus releasing the N for subsequent crops to use. If legume cover crops are planted, they have the ability to "fix" nitrogen from the atmosphere and through the same decomposition process will provide N for subsequent crops. Be sure to inoculate legume seed just prior to planting with Rhizobium bacteria to gain the maximum N fixation benefits.
- 4. Reduce Weeds When fields are left fallow after crops are harvested, weed growth can occur. If left to produce seeds, these weeds will multiply in subsequent crops. Therefore, managing the field by planting cover crops between cash crops is a great weed management option. As the cover crop grows, it will suppress the germination and growth of weeds through competition and shading. Some cover crop species can also suppress weeds biochemically, either while they are growing or while they are decomposing, which may prevent the germination or growth of other plants (allelopathy). Research has shown some cover crops like wheat, barley, oats, rye, sorghum, and Sudangrass may suppress weeds. In some cases, it has also been reported that residues and leachates from crimson clover, hairy vetch, and other legumes have shown weed suppression.
- 5. Impacts on Plant Diseases Cover crop residues could possibly be beneficial when it comes to plant pathogens or can in some cases increase plant disease organisms. Some cover crop species are in the same plant families as cash crops and may be susceptible to the same disease organisms. Therefore, carrying the pathogen to the next crop. This is why paying attention to crop rotations is so important. In other cases, the cover crop residue can improve soil health in order to produce a better environment for beneficial microbes. By improving soil health, water infiltration, air pore space and other positive attributes, some soil pathogens may not survive as well, as in the case of water molds and water fungi. Some cover crops, like sorghum-sudangrass and sunhemp, have been reported to reduce nematodes in soils. There are multiple positive factors from cover crops that can combat plant diseases.
- 6. Impacts on Insects Like with plant diseases, cover crops can be susceptible to the same insect pests as cash crops. However, they may also attract beneficial insects into an area. Insect pests should be monitored in cover crops, just like in cash crops in order to not let populations get out of control and then move into nearby fields after the cover crop is killed.

Resources

- Cornell Cover Crop Guide for NY Growers: <u>https://covercrop.org/</u>
- Penn State Summer Cover Crop Options: <u>https://extension.psu.edu/summer-cover-crop-options</u>

Foliar Sampling Season Runs from Mid-July through Mid-August

Anya Osatuke, Cornell Cooperative Extension, Harvest NY

Now is the time to collect foliar samples for blueberries, strawberries, and raspberries. Labs that analyze foliar samples include <u>Dairy One</u> in Ithaca, NY, and Waters Agricultural Laboratory. Waters has multiple locations, but the closest site to New York is in Warsaw, North Carolina.

Foliar sampling can provide in-season guidance for plant nutrient needs. Compared to soil sampling, which is done in the fall and gives information on physical soil conditions and status of most nutrients except for N, foliar sampling can provide information on whether N needs are being met, and whether the soil pH is adequate for nutrient absorption. Waters offers additional services for a fee: foliar aluminum, chloride, molybdenum, and sodium levels.

For all berries, collect foliar samples between mid-July and mid-August. Samples are typically 50g, which translates to about 40 leaves. Leaves collected should be the youngest fully matured leaves. Just like a soil sample, growers should sample each planting separately, and sample poorly performing sections separately as well. Sampling from a wide area within each section in a zig-zag pattern will improve the accuracy of the results. Samples are collected in a paper bag to avoid decay in trapped moisture.



These blueberry leaves are fully expanded, from this year's new growth - just right for tissue sampling. A complete sample requires at least 40 leaves like these, from 10-20 plants. *Photo: University of New Hampshire*

Strawberry foliar samples should be collected after renovation is complete and the strawberry leaves have had time to emerge from the crowns and mature. Dayneutral strawberry growers sometimes prefer SAP analysis—this one is performed only by Waters—as the test results are returned faster. For SAP analysis, only the petiole is sampled and the leaf itself is not sent in.

For questions about foliar or SAP analysis in berry crops, contact Anya Osatuke at 607-752-2793 or aco56@cornell.edu 鱼

Managing Tomato Bacterial Diseases? Biopesticides Could Help.

Amara Dunn, NYS Integrated Pest Management Program, and Chris Smart, Plant Pathology and Plant-Microbe Biology, Cornell University

Are you using copper to protect your tomatoes from bacterial diseases? Research from Cornell suggests that you could replace some of those copper applications with a biopesticide.

Preventing bacterial diseases on your tomatoes starts with good integrated pest management practices.

- \geq 3-year rotation out of tomatoes and peppers
- Clean seed or disease-free transplants
- <u>Heat treat</u> seed (unless it is pelleted or treated)
- Good sanitation in transplant production facility (e.g., new flats or sanitize between uses, sanitize greenhouse after each season)
- Inspect transplants and destroy any with symptoms of bacterial disease
- Do not work in tomatoes (e.g., tie, prune) when leaves are wet
- Either sanitize tomato stakes between growing seasons, or use new stakes each year (preferred)
- If you have an outbreak, till in plant debris quickly.



Bacterial canker lesions on tomato fruit. Photo: Amara Dunn, NYS IPM

If you are doing all of these things and still need some extra protection from bacterial diseases (e.g., in a wet growing season), pesticides might also be in your IPM toolbox.

In New York, we're fortunate that so far few bacterial isolates have been found to be resistant to copper. Copper resistance is a major problem in the southern U.S. and we'd certainly like to preserve its efficacy here in NY. Some people are also understandably concerned about the environmental impacts of using a lot of copper on their farms.

Cornell vegetable research programs led by Chris Smart and Meg McGrath have been testing products against our three bacterial diseases – spot (*Xanthomonas*), <u>speck</u> (*Pseudomonas*) and <u>canker</u> (*Clavibacter*) for a number of years. So far, two products – Double Nickel LC (1 qt/A recommended) and LifeGard (4.5 oz/100 gal water) – have been rising to the top. When comparing these products alone to alternating either with copper, both worked better as replacements for some copper sprays than alone. Some research trials only included the biopesticide by itself, but the Double Nickel label states that it should be applied only tank mixed or rotated with copper-based fungicides.

Double Nickel alone (one year of data in Geneva) was as good as copper against bacterial spot. Double Nickel alone (two years of data in Geneva) and LifeGard alternated with copper (one year on Long Island) were as good as copper against bacterial speck. While neither product is registered (legal) for use against tomato canker, in research trials in Geneva, Double Nickel (one year) and LifeGard (two years) alternated with copper controlled canker as well as copper alone. So if you are replacing some copper sprays with either Double Nickel or LifeGard, you'll likely notice some incidental bacterial canker protection, too.

New to Using Biopesticides? The New York State IPM Program has a new resource to help. <u>Biopesticide profiles</u> (scroll to bottom of webpage)	Biopesticide Pro	ofiles			
for Double Nickel, LifeGard,	Actinovate (pdf)	Contans WG (pdf)	Ð	Double Nickel (pdf)	\odot
and seven other products provide information on tank mix compatibility, shelf life, and other practical tips.	LifeGard (pdf)	() Regalia (pdf)	\bigcirc	Serifel (pdf)	\odot
	Stargus (pdf)	Theia (pdf)	\bigcirc	Timorex ACT (pdf)	9

Changes in pesticide registrations occur constantly and human errors are possible. Read the label before applying any pesticide. The label is the law. No endorsement of companies is made or implied.

CR P Insights

Observations from the Field and Research-Based Recommendations

GENERAL

Report of late blight in Simcoe, Ontario on potatoes. Simcoe is about an hour from Buffalo on the north shore of Lake Erie, an area that could cause us issues here in WNY. Apply protectants now to all potato and tomato fields, and scout twice weekly. Late blight will move long distances on storm fronts.

Seeing white mold in a number of crops (incl. melons, cabbage, cauliflower) and in several locations.

Great weather if you're a bacterial pathogen. Also great conditions for phytophthora blight. - EB

BEETS

Cercospora leaf spot (CLS) was confirmed on samples collected last week in two fields in Genesee Co. (different farms) but not in fields scouted in Orleans Co. Now is the time to proactively manage CLS on the farm. Beet plantings with closed, dense canopies are at highest risk because they retain moisture within the canopy. Such fields should be scouted weekly. An iOS app called "Sampling by Cornell" is available for iPhone and iPad users to assist with scouting for CLS. Fungicide applications are generally only warranted if disease is present in the field, there is high risk based on the weather conditions, and the field has a significant time until harvest by top-pulling machines or the beets are being sold with the tops on (bunching beets). The CLS decision support system (CLS DSS), which is available for free at https://newa.cornell.edu/ beet-cercospora-leaf-spot calculates the risk of infection based on temperature and relative humidity. Data accessed on July 19 (see table) indicated moderate risk of infection at Lyndonville and Waterport on Monday and Tuesday. Sodus reached high risk on Monday and moderate risk on Tuesday. The infection risk at other stations was low during this period. Please see the CLS DSS support manual online for further information or contact me. - JK

Risk of Cercospora leaf spot (CLS) on table beet from July 17 to July 21 using a forecasting model. Risk classification of CLS is based on cumulative 2-days/risk, and the forecast is based on weather data from Network for Environmental and Weather Applications (NEWA) models.

	achieved				
Location	July 17	July 18	July 19	July 20	July 21
Albion	3	1	1	0	2
Bergen	3	2	2	1	3
Elba	3	2	2	1	3
Geneva	2	2	2	1	3
Lyndonville	5	4	3	0	2
Medina	2	0	0	0	2
Sodus	7	6	3	0	2
Waterport	4	3	3	1	2

Cercospora Leaf Spot 2-Day Risk

Low \leq 3; Moderate 4 to 6; High \geq 7.

Data from newa.cornell.edu accessed 9:00 am on 7/19/2023.

CARROTS

Scouting should continue for leaf diseases (see last week's VegEdge) and leafhoppers. – JK

COLE CROPS

Saw some alternaria in mature cauliflower this week. White mold is around. – EB

CUCUMBERS

Soooo much angular leaf spot. See Robert's article from last week for more information. – EB

DRY BEANS

Mexican bean beetle (MBB) adults and larvae are present in bean fields. Both MBB adults and larvae can quickly defoliate a field. Earlier planted fields are starting to enter bloom, so white mold management should now be considered. An initial application of Omega 500F is recommended followed by a second application of Endura 70 WDG. The first application should be made at the early bloom stage. – ML

Western Bean Cutworm Report

Western bean cutworm trapping has begun at 12 locations in the region (Avoca Hill, Avoca Valley, Avon, Caledonia, Churchville, LeRoy, Penfield, Penn Yan, Wayland Hill, Wayland Valley, Wyoming Hill, and Wyoming Valley). All traps were set up the week of June 26. Most trap locations have started to collect low numbers of moths, and numbers are expected to increase over the next couple of weeks. Currently all trap locations are below the 50 cumulative moth threshold for scouting, and peak flight is expected around the end of July to early August. In addition, to the WBC traps listed in the sweet corn report, the following dry bean trap sites (see next page) are being monitored this year. This project is funded by the New York Farm Viability Institute and the NYS Dry Bean Endowment and led by Margie Lund, Cornell Vegetable Program.

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Western bean cutworm adult moth numbers by date for each dry bean
trap location.

Dry Bean Location	July 3	July 10	July 17	Cumulative Moths
Avoca Hill (Steuben Co.)	2	5	8	15
Avoca Valley (Steuben Co.)	1	0	12	13
Avon (Livingston Co.)	0	1	6	7
Caledonia (Livingston Co.)	1	0	8	9
Churchville (Monroe Co.)	0	1	11	12
LeRoy (Genesee Co.)	1	0	31	32
Penfield (Monroe Co.)	0	3	11	14
Penn Yan (Yates Co.)	0	1	2	3
Wayland Hill (Steuben Co.)	0	1	11	12
Wayland Valley (Steuben Co.)	3	4	14	21
Wyoming Hill (Wyoming Co.)	0	2	24	26
Wyoming Valley (Wyoming Co.)	0	1	18	19

MELONS

Evidence of virus infections is becoming more common in local watermelon and cantaloupe fields. The causal viruses could be Papaya Ringspot or Watermelon, Cucumber or Zucchini Yellow Mosaic Viruses. Mixed virus infections are common as the season progresses. Symptoms include mottled, puckered leaves, color breaking (green) on fruit, severity varying between causal virus and crop host. Cornell Guidelines states "diseases of cucurbit are spread by aphids, however, the use of insecticides to kill aphid vectors is not effective for controlling these viruses. Virus incidence is lower if crop is maintained with a healthy green color as opposed to yellowing. Irrigating in dry years may help mitigate impacts of virus infection." The earlier portion of the 2023 growing season did include widespread aphid infestations, which seem to have largely decreased recently. However, aphids can spread viruses (from weed hosts) to melons with a single feeding. Thus, even systemic insecticides do not prevent virus infection. Weed control may be an important management approach, as well as exclusion netting or row cover early in the season. Fruit that has set prior to the infection event will not display symptoms as the virus reproduces in new tissue. Flowers and fruit set after infection are often unmarketable. Given the delayed status of many melon crops, it is a judgement call when to terminate a crop based on the number of fruit set prior to infection. - JR



New growth in this cantaloupe crop shows signs of virus, possible WMV or CMV, both transmitted by aphids. *Photo: Judson Reid, CCE*

ONIONS

Onions look so beautiful this time of year. The plants have reached their full size and the leaves are green to their tips. Majority of direct seeded crop have 7-9 green leaves and 0.5 to 1" bulbs. Earliest planted early-maturing varieties were pulled this week and will be harvested by the end of the week.

The good news is that Stemphylium leaf blight (SLB) appears to be secondary for the most part. When SLB behaves like a primary pathogen, this means that the disease is actively infecting new leaves, including green leaves, and exacerbating leaf dieback. Primary SLB is characterized by:

- dark spores on necrotic leaf tissue
- appearance of concentric rings in the target spot lesions
- "greasy" tan target spot lesions
- black and purple target spot lesions
- target lesions on green tissue
- excessive leaf dieback

The top-performing fungicide treatments for control of SLB include:

- Double FRAC 3-product treatments with Tilt (FRAC 3a) and/or Viathon (3c + P07) such as Viathon + Tilt/Inspire Super (FRAC 3b + 9)
- Miravis Prime (FRAC 7 + 12)/Luna Tranquility (FRAC 7 + 9) + Oso 6.5 fl oz (FRAC 19)/Rovral (FRAC 2) +/- FRAC P07 product.

Since we are recommending no more than 2 sprays of FRAC 3 (No. 1), and no more than 2 consecutive sprays before rotating to another FRAC group, this results in 2 apps of FRAC 3 and 3-4 apps of FRAC 7 tank mixes for a total of 5-6 sprays with the best performing treatments. The question is always when during these 5-6 sprays, does one apply the 2 FRAC 3 treatments? I personally like saving at least one of them for the last or second-last spray to give the crop the best possible finish. Some growers have already made their first FRAC 3 + 3 spray, either ahead of tipburn to set the stage for future success or just as SLB had taken an ominous turn towards appearing primary. We have seen both of these strategies work. See article in July 5 issue of Veg Edge for more information on designing an onion leaf disease spray program (emphasis on SLB).

Botrytis leaf blight (BLB) necrotic spots first appeared a couple of weeks ago and are now increasing, and likely will continue to do so for the duration of the growing season (Fig. 1). BLB necrotic spots are not well understood, because we do not know exactly which species of Botrytis causes them (or even if they are all caused by Botrytis) or their impact on yield, and we do not

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have a spray threshold for them. But, they occur annually, sometimes at levels that are "too many to count" and often respond differently to fungicides than BLB halo lesions in the on-farm fungicide trials. Thus, they have a separate category from BLB halos in the <u>Cornell fungicide cheat sheet</u>. BLB necrotic spots are best controlled by double FRAC 3-product treatments and Luna products. We (Hoepting, Hay *et al.*) have a project underway to learn more about BLB necrotic spots.

Most fields have experienced at least one week of residual control of onion thrips following double application of Movento insecticide. There are several options for the next insecticide to spray in sequence. The newly designed <u>schematic diagram</u> with new spray thresholds is available online as well as an <u>article that describes</u> the different spray programs to consider. Onion related information can be found on the CVP website: https://cvp.cce.cornell.edu/crop.php?id=20

PUMPKIN

See melon section on virus infections. A slight difference between these and the melon crops, is that some color breaking on pumpkin fruit can be acceptable, even novel (Fig. 2). In this way maintaining crop health by controlling fungal diseases and providing water and fertility may be more worthwhile than a melon crop with a virus infection prior to flower set (Fig. 3). – JR



Figure 1. Botrytis leaf blight (BLB) necrotic spots are bright yellow round spots with defined borders that are pin-prick to 2 mm in size. They first appear on onion leaves in mid-July and remain present for the remainder of the growing season. *Photo: Christy Hoepting, CCE*



Figure 2. Possible WMV or CMV (or both) on foliage, transmitted by aphids. A small amount of flecking or color breaking on pumpkin may be acceptable for some markets. *Photo: Judson Reid, CCE*



Figure 3. Note that older leaves (right) do not display the mottling of the virus infected younger growth (lower left). Hopefully there is fruit set within the canopy prior to the onset of symptoms on new foliate. *Photo: Judson Reid, CCE*



Figure 4. Look for nitrogen deficiencies on older leaves in soils that have experienced excess leaching from heavy rainfall events. *Photo: Judson Reid, CCE*

Given the severe rain fall events in parts of the region, it is no surprise to see nutrient deficiencies of mobile nutrients such as nitrogen and magnesium. Where nutrients have been leached by heavy rain, look for yellowing of older foliage as the crop seeks to replenish levels in new growth, borrowing from the old (Fig. 4). Foliar testing can pinpoint these losses prior to visual symptoms. In situations where drip irrigation is present, the injection of modest levels of nitrogen may be advised. – JR

PEPPERS

Bacterial leaf spot until the cows come home. Can be managed, biggest risk to fruit is defoliation and reduced plant productive capacity. Must stay on top of treatments in perpetually favorable weather.

Phytophthora is happily eating peppers. See cut stem photo of a plant that was wilted from phytophthora (Fig. 5). Note the gnarly black death and decay of the outer stem tissues, discoloration of entire internal stem moving upwards from the crown. Roots are not always taken out before the plant goes down; you can see loss of roots at the center of the plant and decent-ish roots closer to the surface and edge at this stage of progressive decline. – EB

POTATOES

Second generation Colorado potato beetles are still active in potato fields, continue to monitor fields to time insecticide applications accordingly. With some field crops starting to be harvested, pests from those fields may start to move into potatoes. Keep an eye on potato fields nearby harvested wheat and other field crops for spikes in pests such as leafhoppers and aphids.



Figure 5. Phytophthora on pepper plant. Photo: Elizabeth Buck, CCE

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This week's late blight forecasting indicates that Ceres, Dansville, Fairville, Fulton, Penn Yan, Rochester, Sodus, and Wellsville have reached the 30 blight units (BU) needed to trigger a spray for late blight this week, with most others forecasted to reach the threshold by the end of the week. If the weather station closest to you has not yet reached 30 BU and the forecast indicates that it will in the next 2-3 days, a spray is still recommended. Late blight has been reported in Ontario <u>Canada on potato this week</u>. With continued wet weather throughout WNY, it is important to continue to be consistent with your spray programs this year. – ML

SQUASH

Squash bugs are active. Bacterial and angular leaf spot. Phytophthora. Powdery tends to come on as fruit load increases, especially in zukes and yellows. Check undersides of lower/older leaves. – EB

TOMATOES

Septoria leaf spot are among many leaf diseases we are seeing in tomato plantings this season. Blame it on heavy rains and humidity. Splashing soil moves spores onto the lower leaves. Further rain and workers and animals moving through the wet foliage spreads the disease down rows and across fields. There are a wide assortment of materials available for management. Check the Cornell Vegetable Guidelines for that list. If the rainy and humid weather pattern holds for future seasons, consider further spacing between staked plants. This would offer more air movement that can help in drying foliage faster. This will mean fewer plants per acre but reducing disease management should offer some savings in time and labor and less chemical purchases perhaps.

HIGH TUNNEL

Two Spotted Spider Mites are increasing in many local high tunnels and greenhouses. On tomatoes, look for white spots on the upper surface, eventually causing foliage to turn yellow and in severe cases, webbing is visible. The mites themselves are visible to some with the naked eye, although a 20X hand lens will make the two spots on the adults stand out and verify the species. Most insecti-

cides do not affect TSSM, therefore look for miticidal materials. Portal XLO (group 21A) is labeled for tomatoes with a 1 day PHI. No more than 2 applications per crop are permitted with a minimum of 14 days between applications. Given the rapid hatch rate of TSSM, Portal would ideally be rotated with another active ingredient. This could include Brigade (group 3A) with a 1 day PHI and minimum of 10 days between applications. There is little activity on eggs, so a 5-7 day pause between applications allows for a flush of susceptibility. Biocontrols can be effective at managing TSSM but should be released long before webbing is present. Biocontrol options include *Neoseiulus californicus*.

Late Blight Risk Chart, 7/19/23

Location	Blight Units 7/12-7/18 ¹	Predicted Blight Units 7/19-7/21 ²
Albion	17	28
Arkport	29	40
Baldwinsville	15	20
Bergen	22	28
Brant	25	36
Buffalo	26	44
Burt	-	-
Ceres	30	47
Dansville	37	56
Elba	23	35
Fairville	37	49
Farmington	29	40
Fulton	31	51
Geneva	22	28
Hammondsport	21	26
Knowlesville	28	40
Lyndonville	18	36
Medina	12	24
Niagara Falls	29	48
Penn Yan	46	66
Rochester	36	54
Sodus	39	50
Versailles	28	38
Wellsville	44	63
Williamson	7	18

Calculated using a May 31 crop emergence date. Last fungicide application July 12 on susceptible cultivar Reba. Numbers in red indicate locations that have or will surpass the 30 BUs needed to trigger a fungicide application.

1 Past week Simcast Blight Units (BU)

2 Three-day predicted Simcast Blight Units (BU)

Sweet Corn Pheromone Trap Network Report, 7/18/23

Marion Zuefle, NYS Integrated Pest Management Program, Cornell; https://sweetcorn.nysipm.cornell.edu/

Statewide, 30 of 35 sites reported this week. European corn borer (ECB)-E was caught at 3 sites and ECB-Z was caught at 0 sites. Corn earworm was caught at 17 sites with 14 sites high enough to be on a 4, 5, or 6 day spray schedule (see table below). Fall armyworm (FAW) was caught at 4 sites and Western bean cutworm (WBC) continues to increase, with 21 sites reporting catches.

FAW numbers also increased this week. At sites 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 that FAW and other pests are not above threshold.

WNY Pheromone Trap Catches: July 18, 2023

Location	ECB-E	ECB-Z	ECB Hybrid	CEW	FAW	WBC	
Batavia (Genesee)	0	0	NA	0	5	5	
Bellona (Yates)	0	0	0	0	0	4	
Eden (Erie)	0	0	NA	16	0	16	
Geneva (Ontario)	0	0	0	1	0	0	
Hamlin (Monroe)	2	0	NA	5	1	2	
Leroy (Genesee)	0	0	NA	5	79	27	
Lyndonville (Orleans)	0	0	NA	5	0	1	
Oswego (Oswego)	0	0	NA	1	0	6	
Panama (Chautauqua)	0	0	NA	8	0	20	
Penn Yan (Yates)	0	0	0	3	0	NA	
Portville (Cattaraugus)	0	0	NA	5	0	41	
Ransomville (Niagara)	0	0	NA	0	0	2	
Stanley (Ontario)	0	0	0	0	0	0	
Williamson (Wayne)	1	0	NA	2	NA	4	
Williamson (Wayne) 1 0 NA 2 NA 4 ECR: European Corp. ECH: Corp. Early corp. EAH:							

ECB: European Corn Borer; CEW: Corn Earworm; FAW: Fall Armyworm; WBC: Western Bean Cutworm

Upcoming Event

WNY Vegetable Field Walk

July 19, 2023 (Wednesday) | 6:00 pm - 8:00 pm Johnson Creek Produce, 12625 Roosevelt Hwy, Lyndonville

Walk from crop to crop, learning hands-on pest, disease and weed ID and scouting techniques. IPM control tactics for both preventative and reactive management will be discussed in group dialogues. 2.0 DEC credits offered (categories 1a, 23).

Tree Fruit and Small Fruit Twilight Meeting

July 27, 2023 (Thursday) | 7:00 pm - 8:30 pm Burnap's Farm Market and Garden Café, 7277 Maple Ave Ext., Sodus, NY 14551

Examine seasonal changes in tree fruit and berry crops, learn scouting techniques, and discuss integrative pest management solutions to maximize the health and productivity of berry and fruit plantings. Attendees are encouraged to bring pictures or descriptions of pests they are concerned about on their farm.

1.5 DEC credits will be offered in categories 1a, 10, and 22. Arrive at 6:45PM to sign-in for DEC credits.Free to attend. No pre-registration is required. Questions? Contact aco56@cornell.edu

Vegetable Pest & Cultural Management Field **Meetings for Auction Growers**

Seneca Produce Auction Meeting August 2, 2023 (Wednesday) | 7:00 pm - 9:00 pm

David Peachey Farm, 5426 Rt. 414, Romulus, NY 14541

This meeting gathers produce auction growers together to tour another farmer's produce farm. Cornell Vegetable Program staff will instruct participants and facilitate peer-based learning. Details on each topic will focus on field observations at the farm. 1.75 DEC credits offered (categories 10, 1a, 23, 24).

Niagara Regional Produce Meeting

August 2, 2023 (Wednesday) | 5:30 pm dinner; meeting 6:00 - 7:45 pm

Johnson Creek Produce, 12625 Roosevelt Hwy, Lyndonville

1.25 DEC credits available in 1a, 10, 23. Must pre-register by noon on 8/2 to attend dinner (585-406-3419).

Agronomic Weed Management and Cover Crop **Field Session**

August 15, 2023 (Tuesday) | 3:30 - 6:00 pm afternoon session; 6:00 dinner; 6:50 - 8:10 pm evening session 5701 Burton Rd, Orchard Park, NY 14127

DEC credits requested and pending approval in CORE, 1a, 10, 21 and 23.

For more information, contact Elizabeth Buck at 585-406-3419.

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Cornell Cooperative Extension Cornell Vegetable Program

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VegEdge is the highly regarded 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 University 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 Cooperative Extension Cornell Vegetable Program

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

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