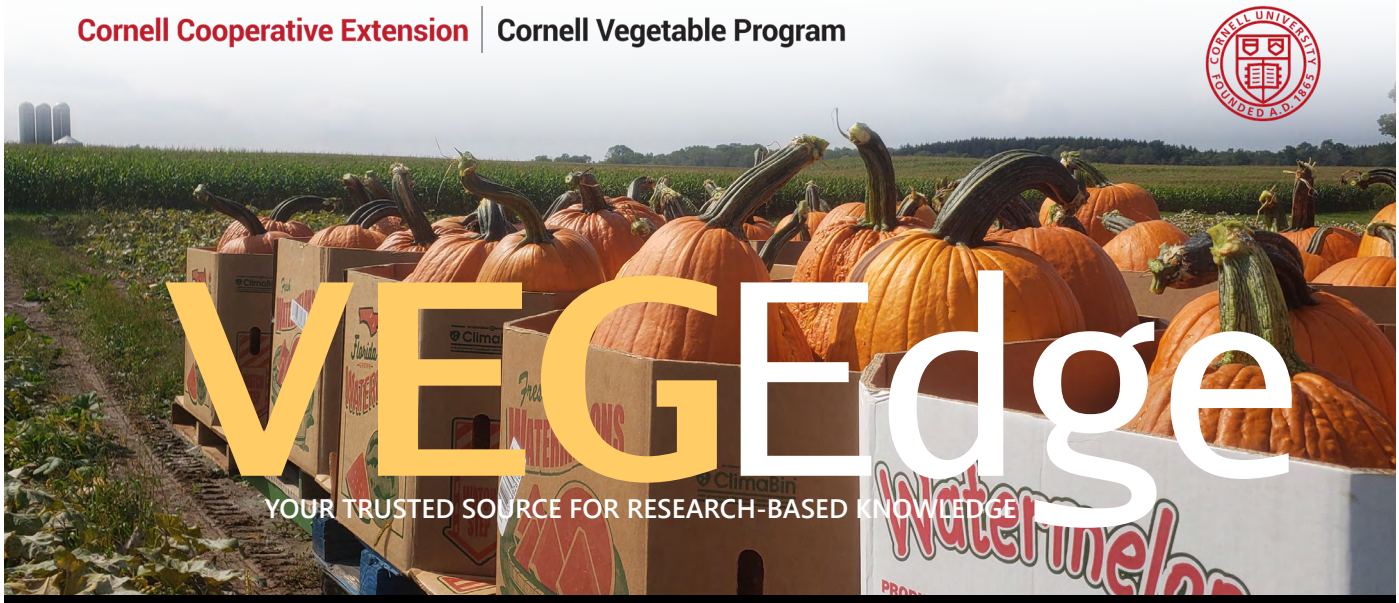
Cornell Cooperative Extension | Cornell Vegetable Program



VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Volume 17 • Issue 22 • September 15, 2021

Stop, Drop, and Cover Crop

Caitlin Tucker, Cornell Cooperative Extension, Cornell Vegetable Program

I'm not trying to rush your season. It is still technically Summer. I have to ask though– are you planning on cover cropping in your high tunnels this Fall/Winter? Not sure where to start? Here are a few things to think about.

WHAT DO YOU WANT YOUR COVER CROP TO DO?

- Scavenge nitrogen? Look to winter grains.
- Fix nitrogen? Legumes can help with that.
- Break up compacted soil? Consider a tillage radish.
- Compete against weeds? You'll want a fast-growing winter grain. You may see additional suppression by adding in a vetch to the mix.
- Support microbial health? The presence of living roots and retention of moisture and nutrients over the Fall/Winter is going to help sustain soil microbes. A cover crop mix may support a greater diversity of soil microbes compared to a single species.

HOW ARE YOU GOING TO TERMINATE AND INCORPORATE THE COVER CROP IN THE SPRING?

A general rule is to terminate winter cover crops two to four weeks prior to planting your cash crop. For high tunnel tomato growers that anticipate starting their season in late March,

High tunnel ready for cover crops. *Photo by C. Tucker, CCE*

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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:
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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.

Contents

The next issue of VegEdge newsletter will be produced on October 4, 2021.

Accumulated Growing Degree Days, 9/13/21

Julie Kikkert, CCE Cornell Vegetable Program

Accumulated Growing Degree Days (AGDD)
Base 50°F: April 1 - September 13, 2021

Location**	2021	2020	2019
Albion	2705	2483	2211
Arkport	2279	2169	1971
Bergen	2442	2421	2124
Brocton	2472	2405	2181
Buffalo*	2669	2630	2268
Burt	2340	2334	2048
Ceres	2181	2101	2052
Elba	2323	2299	2026
Fairville	2366	2369	2032
Farmington	2407	2380	2057
Fulton*	2351	2361	2053
Geneva	2453	2470	2174
Hammondsport	2316	2396	2060
Hanover	2450	2381	2165
Lodi	2008	2534	2218
Niagara Falls*	2618	2480	2157
Penn Yan*	2558	2567	2274
Rochester*	2500	2465	2352
Sodus	2538	2416	1987
South Bristol	2320	2339	2036
Varick	offline	offline	offline
Versailles	2361	2325	2126
Williamson	2326	2322	1980

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

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I'd err on the four weeks end of that spectrum. Cooler soil temperatures = lower microbial activity which means that biomass is likely going to take longer to break down. If you don't have a way to mow down biomass in the Spring, there may be an advantage to having a cover crop that winter kills*. It really depends on the equipment you have and the timeline you're on for Spring planting.

**Keep in mind that species that typically winter kill in field settings may survive in the high tunnel environment!*

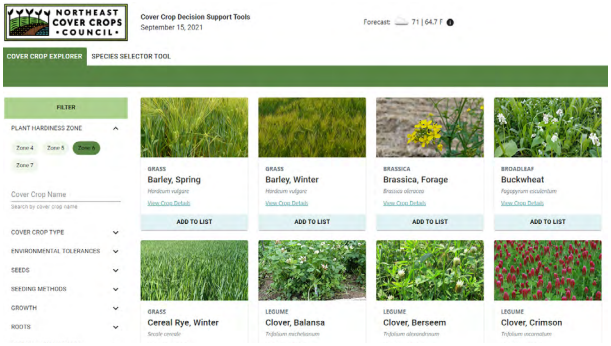
WHEN ARE YOU ABLE TO PLANT?

Now is ideal for most Fall/Winter cover crops but you can plant most winter grains as late as October. However, the later you plant, the less time that crop has to get a head start on growing before the cold temperatures set in. If you can't plant your cover crop until mid to late October, you might consider throwing row cover on top to help improve establishment and increase biomass. We've seen significant differences in cover crop biomass under row cover in our trials.

HOW MUCH DO YOU WANT TO SPEND?

Grain crops tend to be less expensive compared to pea, radish, clover, or vetch seed. With legumes you should also factor in the cost of inoculum, particularly if you've never had a legume planted in your planned area.

Consider checking out the **"Cover Crop Explorer"** and **"Species Selector Tools"** from the Northeast Cover Crops Council. https://covercrop.tools/ Here you can view profiles of different cover crop species that may be optimal for your soil and climate conditions and that also meet your cover cropping goals.



As always, you can also reach out to Judson Reid or myself directly!

Cucurbit Yellow Vine Disease: A New Disease to be On the Look Out For

Robert Hadad, Cornell Cooperative Extension, Cornell Vegetable Program

Cucurbit Yellow Vine Disease (CYVD) has recently been found again in New England and can be misidentified with other problems in melons, pumpkin and winter squash. This disease was first discovered back in 1988 in Texas and Oklahoma. Cantaloupe and watermelon were heavily affected. Over the years it has slowly spread to Nebraska, Missouri, Arkansas, Colorado then onto Massachusetts and Connecticut.

Pumpkin fields in Connecticut were at first misdiagnosed as having bacterial wilt, then it was believed to have been Fusarium crown and fruit rot or maybe Phytophthora. Lab samples came back as the bacterial disease, CYVD (*Serratia marcescens*). Symptoms tend to show up in late August with foliage declining while turning yellow. Progress of the disease is slow within seasons, but sometimes immature plants may suddenly collapse just as the first fruit sets. Leaves begin to yellow starting a few weeks before harvest. The terminal leaves stand erect, not expanding, and the margins curl inward. Older leaves look scorched and die back.

Yellowing of leaves due to CYVD. *Photo by Jim Jasinski, Ohio State University, Bugwoodorg*

HOW CAN CYVD BE MANAGED?

It is believed that adult squash bugs (*Anasa tristis*) carry the disease. Going after these bugs early is key in managing CYVD. If trap cropping using hubbard squash for cucumber beetle control is used, this may also help with squash bugs. Use treatments labeled for both insects.

Insecticide Sprays
Based on scouting for squash bugs and egg masses. Timing of spray is important; target the nymphs.

Crop Rotation
1 to 2 years out of cucurbits.

Mesotunnels
Physical barrier that can exclude squash bugs in organic production.

If you think you have this disease on your farm, contact the CVP.

Yellowing of younger (right) and older leaves (left). *Photo by Jose Gonzalez, Iowa State University*

Organic Control of Alternaria Leaf Spot and Head Rot in Broccoli

Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program, and Chris Smart, Hirut Betaw, and Colin Day, Cornell Agri-Tech, Geneva

September is often the time of year that increases occur in Alternaria leaf spot (ALS) and head rot (Fig. 1) caused by fungal pathogen *Alternaria brassicicola* specific to brassica/crucifer/Cole crop including broccoli, cabbage, cauliflower, Brussels sprouts, kale, etc. Optimum temperatures for ALS are 75° to 82°F, but when leaf wetness is prolonged for 20 hours or more, ALS can produce many spores outside of its optimum temperature range. Heavy dews of late August through September and remnants of hurricanes usually result in favorable conditions for ALS. It can survive in soil and crop debris and can be spread onto plants from splashing soil and over longer distances aerially.

When conditions are favorable for ALS and head rot, it is challenging enough to control this disease with conventional fungicides, let alone with organic products, which tend to be less effective. Unfortunately, **many organic plantings of broccoli, cauliflower and Brussels sprouts have been destroyed by this disease and fungicide trials generally report organic options such as copper bactericides and biologicals to be not significantly different than the nontreated controls.**

Figure 1. Alternaria leaf spot on foliage (left) and head rot (right) in broccoli. ALS lesions appear as black spots 1-3 mm in size that are surrounded by a yellow halo (yellow) as well as papery target-spot lesions with concentric rings of black spores (pink). *Photos by C. Smart, Cornell*

2021 ORGANIC FUNGICIDE TRIAL AT CORNELL AGRI-TECH FINDS SOME EFFICACY OF ORGANIC TREATMENT FOR ALS IN BROCCOLI

An organic fungicide trial conducted at Cornell Agri-Tech in Geneva this summer showed that Oso 5%SC OMRI-Listed fungicide was as good as conventional fungicides Bravo Weatherstik and Fontelis. We want to share these results early, because this is the first time that we have seen an organic fungicide controlling ALS in broccoli, especially under severe disease pressure. It is possible that concurrent and future trials may not yield such favorable results, but since ALS and head rot have been so challenging to control organically, we thought that if we got this information out now, perhaps growers may trial Oso 5%SC on their farms this fall and ideally it will be as effective as it was in our trial.

The organic fungicide evaluation of ALS and head rot in broccoli was conducted by Cornell Plant Pathologist Chris Smart and her team (Hirut Betaw and Colin Day) as part of the multi-state USDA-funded "Control-Alt-Delete" project (for more information, see April 1 issue of VegEdge and/or the Control-Alt-Delete website, https://alternariabroccoliproject.uga.edu/).

KEY ELEMENTS OF RESEARCH TRIAL

- Broccoli variety: Emerald Crown (notorious for ALS and head rot problems).
- 6-week-old greenhouse-grown plug transplants were planted on May 26.
- **Fungicide applications began 4 weeks after transplanting** on June 29 when broccoli had 12-16 true leaves.
- **Fungicide applications** continued **weekly for 5 consecutive weeks** until the main harvest.
- Fungicide applications were made using a CO2 backpack sprayer with a 3-nozzle boom with 8001VS flat fan nozzles, 40 gpa and 32 psi.
- No adjuvants were used in any treatment.
- **Five days after the first spray**, the trial was **artificially spray-inoculated** with spores of *Alternaria brassicicola* (concentration of 4 x 105 cfu/ml). Following the artificial inoculation, the trial received 3.6 inches of rainfall while temperatures were optimum for ALS. Consequently, **disease developed and spread rapidly and was severe (Fig. 2).**
- ALS severity of foliage and heads was evaluated as a percent coverage of plant tissue (see example in Fig. 2) per plot (not for individual plants within a plot) weekly, from which "area under the disease progress curve" (AUDPC) was calculated as a quantitative summary of disease intensity over the duration of the trial. Thus, % marketable heads per plot was not captured specifically.

RESULTS HIGHLIGHTS (FIG. 3)

- **OMRI-listed organic fungicide Oso 5%SC 13 fl oz/A (FRAC 19) was as good as conventional fungicides** Fontelis (FRAC 7 – not labeled in NY) and Bravo Weatherstik 1.5 pt (FRAC M5). It reduced ALS leaf spot severity by 52% and ALS head rot severity by 97% compared to the nontreated control. At harvest, **every head had at least one small lesion, even in the Oso 5%SC treatment**, while lesions covered up to 50% of the head in the nontreated control.
- **LifeGard WG 1.75** oz/40 gpa (= 4.5 oz/100 gpa water; FRAC P06) **and Microthiol Disperss** 5 lb/A (FRAC M2) **were not significantly different than Oso 5%SC**, although numerically they reduced ALS leaf spot and head rot severity by much less (LifeGard: 32% control of leaf spots/33% control of head rot; Microthiol: 41% control of leaf spots/48% control of head rot).

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Although labeled on brassica crops, **LifeGard and Microthiol Disperss are not labeled specifically for ALS in broccoli**, but for downy mildew and powdery mildew/Septoria leaf spot, respectively.

- **Regalia** 2 qt/A (FRAC P05) **and Double Nickel LC** 2 qt/A (FRAC BM02) **failed to control ALS leaf spots and head rot** and were not different than the untreated.
- Kocide 3000-O 0.75 lb/A (FRAC M1) reduced ALS spot severity by 25%, but was not significantly different than the nontreated control for ALS head rot.

OSO 5%SC MAY BE WORTH A TRY THIS FALL

The active ingredient in **Oso 5%SC** is polyoxin D zinc salt, which belongs to Fungicide Resistance Action Committee (FRAC) group 19. According to FRAC, **FRAC 19 has a medium risk for pathogens to develop fungicide resistance**. Comparatively, active ingredients with multi-site mode of actions (FRAC groups M1-M12) including Kocide 3000-O and other copper-based products (FRAC M1), Microthiol Disperss (a.i. sulfur, FRAC M2) and Bravo (FRAC M5) have low risk for pathogens to develop fungicide resistance. Alternatively, FRAC 7 conventional fungicides such as Fontelis, Priaxor, Endura, Miravis Prime and Luna Sensation have medium to high risk of pathogens developing fungicide resistance to them, while FRAC 11 fungicides like Quadris are at high risk.

The Oso 5%SC label allows for a maximum of 78 fl oz per crop per season (= 6 x 13 fl oz or 12 x 6.5 fl oz). The label suggests to **rotate to another FRAC group after two consecutive applications** for fungicide resistance management. **It is likely that the 13 fl oz rate of Oso 5%SC will cost around $80/A or more**. The lower 6.5 fl oz/A rate may be used in tank mixes. We have not trialed Oso 5%SC at the low rate or in tank mixes. Oso 5%SC is labeled on most brassica crops and it has a **0 days pre-harvest interval**.

See Fungicide "Cheat Sheet" for Alternaria Leaf Spot and Head Rot in Broccoli and Other Cole Crops for products, rates, FRAC groups, PHIs, maximum use rates, crop rotation restrictions and tips for building a spray program. Find it on the Cornell Vegetable Program website or contact Christy Hoepting at 585-721-6953 for a copy to be mailed to you.

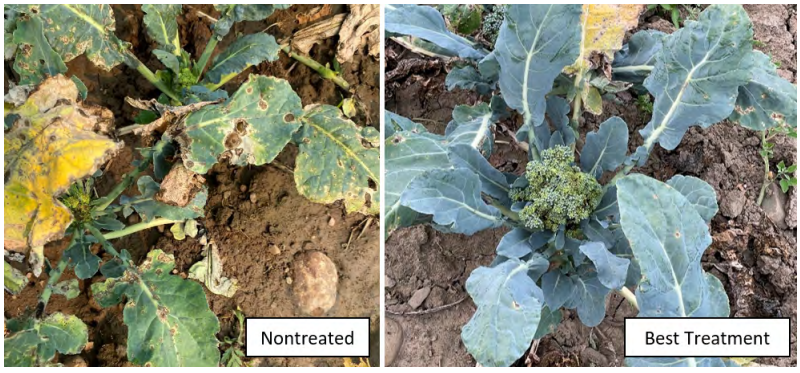

Figure 2. Severity of Alternaria leaf spot and head rot in nontreated control (left) and in one of best treatments (right) at harvest in Smart trial, 2021. As an example, the severity of ALS in the two broccoli plants in this photo of the nontreated would have been rated as 35% for foliage and 50% for the head. Similarly, ALS severity in this plant in the best treatment would have been rated as 5% for foliage and 10% for the head. It is important to note that uneven head formation was common in this trial due to stress caused by heat and waterlogging. *Photos by C. Smart, Cornell*

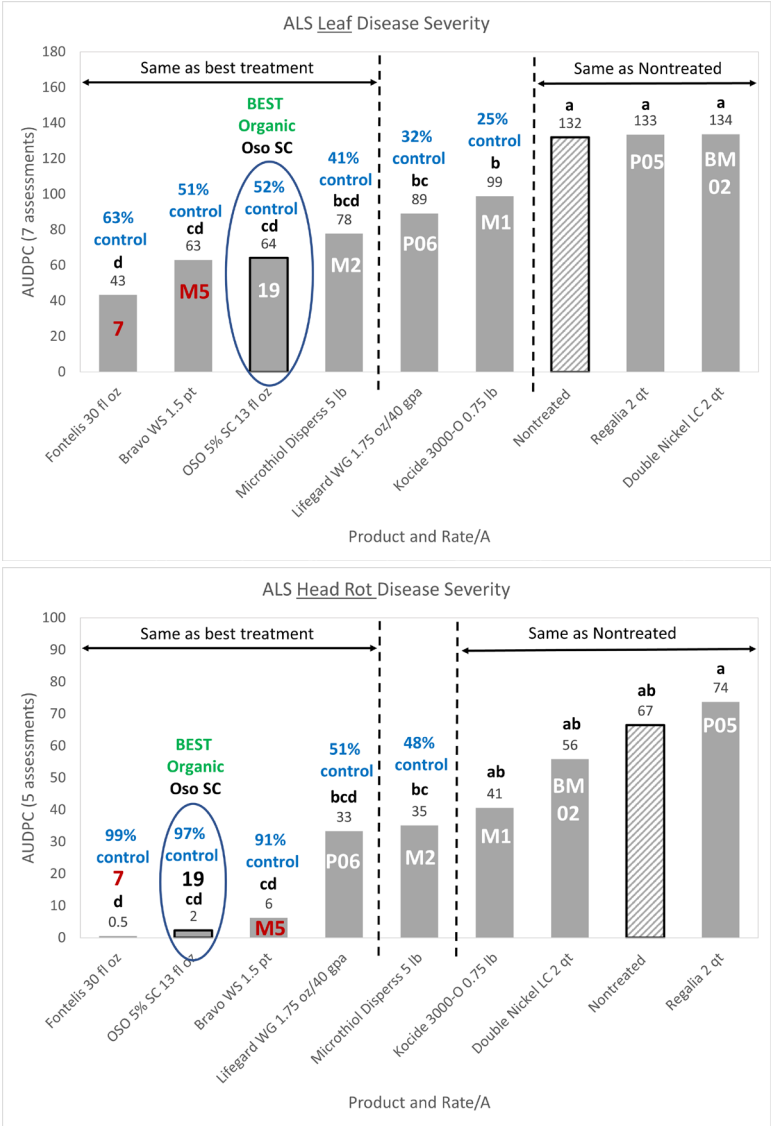

Figure 3. Severity of Alternaria leaf spot (ALS) on foliage (top) and head rot (bottom) of select organic fungicides compared to conventional fungicides in broccoli, Geneva, NY: Smart et. al., 2021. Presented in order from best to worst performing products.

AUDPC: **A**rea **U**nder the **D**isease **P**rogress **C**urve was calculated from 7 and 5 weekly disease severity assessments (% disease coverage per plant part per plot) for foliage and head, respectively. AUDPC is a quantitative summary of disease intensity over the duration of the trial.

Bars with the same letter are not significantly different, Tukey test.

White text on bars indicates FRAC (Fungicide Resistance Action Committee) group of which treatment belongs. FRAC groups color-coded in red indicate conventional fungicide treatments (Fontelis and Bravo).

CROP Insights

Observations from the Field and Research-Based Recommendations

BEETS

Harvest of processing beets for Seneca Foods is wrapping up with about 200 acres still to be harvested. There are several fields for Love Beets that will be harvested through the next month or so. Cercospora leaf spot has increased rapidly in some of the late harvested fields of Ruby Queen over the past two to three weeks and there is some defoliation being seen. Other fields with later planting dates or more aggressive spray schedules are still holding up well. So far, we have not found Alternaria leaf spot coming into the fields, but late season can be favorable for this disease. Because of pre-harvest intervals, a late spray of Quadris (0 day PHI) could be used for plantings that are several weeks to harvest. We typically do not recommend Quadris for Cercospora leaf spot during the main season because of known fungicide resistance. Quadris is effective on Alternaria leaf spot. – JK

CARROTS

Seneca Foods began running processing carrots on Monday. Generally, the crop has looked good over the season and tops have been healthy. Some processing crop was lost because of flooding in the Potter muck a few weeks ago. – JK

COLE CROPS

Rainy and warm temperatures have been favorable for Alternaria leaf spot (ALS) and head rot. See article on page 4 for Cornell's latest research results showing that an organic fungicide has potential to control ALS in broccoli. Also, the **Cornell Fungicide "Cheat Sheet" for ALS and Head Rot in Broccoli and Other Cole Crops** has been updated for 2021. It includes some additional products including generic options for Inspire Super and Switch, which may offer some cost savings.

Do you have cabbage heads that are being chewed by something? See Who is the Culprit article on page 10. – CH

ONIONS

Harvest is in full swing! The crop dried down quickly. Rain events have interrupted harvest intermittently, but generally it has been an enjoyable harvest so far. Yields have been variable, quality generally good. – CH

Spring barley is used as a cover crop after onion harvest for protection against wind and soil erosion. *Photo by C. Hoepting, CCE CVP*

Suggested Fall Cover Crops for Muck Soils (Carol MacNeil, years ago)

Cover Crop Type	Rate per Acre	Notes	Date to Plant By
Oats	0.75-1 bu (20-30 lb)	Will winter-kill and the residue will protect fields early in the spring. Avoid heavy seeding rates as soils will not dry out in the spring	**Sept. 30**
Spring barley	0.75-1 bu (30-40 lb)	Will winter-kill and leaves a residue into early spring. Warm temperatures in the spring will cause the residue to dissipate quickly.	**Sept. 30**
Winter barley	0.75-1 bu (30-40 lb)	Will remain green in the spring.	**Oct. 15**
Winter rye	0.75-1 bu (40-50 lb)	Will remain green in the spring, but must be plowed early. Vigorous growth causes stems and fiber to be a problem for some planting equipment	**Oct. 15**

POTATOES

Simcast forecasting indicates that almost all stations have surpassed the 30 blight units (BU) needed to trigger a spray for late blight or will by the end of the week (see chart on page 9). The chart assumes use of a susceptible potato variety, Reba, and an application of chlorothanlonil on September 8. For locations that are not close to a weather station, forecast information should only be used as a *general indication* of how favorable weather has been for late blight. Forecast BUs are subject to changes as the weather forecast changes, so check forecasting tools regularly to see if disease forecasts have changed.

This will be the last report for this season. If you would like to continue forecasting for your area visit http://newa.nrcc.cornell.edu/newaDisease/potato_for. No new reports of late blight have been made in the last week. Late blight has been previously reported in GA, ME, NC, Ontario, TN, and WI this season. – ML

PUMPKINS

Symptoms from suspected viruses are abundant. These include Papaya Ring Spot, Watermelon Mosaic, Cucumber Mosaic

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and Zucchini Yellow Mosaic. Which virus is present is not particularly important and by season end there may be a mix of viruses. All of these viruses are transmitted by aphids, with an infection period that likely occurred weeks if not months ago. Overly aggressive insecticide applications now are an economic and environmental mistake. Symptoms in include color breaking and warts, which in some ornamental gourds may be attractive. However, on edible crops such as zucchini, in addition to the aesthetic damage, fruit will break down sooner. The same may apply to pumpkins in some circumstances.

Pumpkins are at maturity across the region. **There is no benefit to leaving mature fruit in the field as they are exposed to further diseases which can lead to degradation of the handle**. Pumpkins can be harvested and stored in areas away from sunlight to preserve color and then marketed at a controlled pace to reduce price volatility. – JR

An otherwise perfectly healthy pumpkin shows color breaking, or ringspots. *Photo by J. Reid, CCE CVP*

Late Blight Risk Chart, 9/15/21

Location	Blight Units 9/8-9/14[1]	Blight Units 9/15-9/17[2]	Location	Blight Units 9/8-9/14	Blight Units 9/15-9/17
Albion	21	20	Geneva	25	14
Arkport	29	19	Hammondsport	17	14
Baldwinsville	0	14	Knowlesville	32	20
Bergen	18	19	Lyndonville	27	20
Brant	28	20	Medina	33	20
Buffalo	26	20	Niagara Falls	31	20
Burt	12	20	Penn Yan	34	21
Ceres	33	19	Rochester	34	20
Elba	26	20	Sodus	33	13
Fairville	31	14	Versailles	32	20
Farmington	31	14	Wellsville	38	21
Fulton	42	19	Williamson	20	14

Calculated using a May 26 crop emergence date. Last fungicide application Sept 8 on susceptible cultivar Reba. Red text indicates that the threshold to spray has been met for that station.

1 Past week Simcast Blight Units (BU)
2 Three-day predicted Simcast Blight Units (BU)

For some fall crops, the ringspots caused by cucurbit viruses may even be attractive. However, this fruit may break down sooner. *Photo by J. Reid, CCE CVP*

These zucchini are safe to eat, but the bumpy skin indicates a viral infection and shorter shelf life. *Photo by J. Reid, CCE CVP*

SNAP BEANS

Late season processing snap beans are looking good and harvest continues. White mold has not been a huge problem so far because of dry conditions for a period, and then pro-active fungicide treatments during wet weather. – JK

SPINACH

Cladosporium leaf spot on spinach. *Photo by J. Kikkert, CCE CVP*

Cladosporium leaf spot was recently identified in one processing spinach field. Cladosporium is characterized by round, tan spots that rarely exceed 0.25 inch in diameter. Dark green spores and mycelium later develop in the centers of the tan spots. The presence of dark green sporulation distinguishes Cladosporium from other leaf spot pathogens such as Anthracnose and Stemphylium. Often a trained eye and a microscope are needed to distinguish these diseases. More than one disease may be present at the same time. Anthracnose is favored by wet conditions and cool temperatures. Symptoms of this disease are small, round water-soaked spots. The spots develop into larger yellow or tan areas with distinct margins that coalesce to form brown lesions that become thin and dry like paper. Tiny black fruiting bodies on diseased tissue distinguish this pathogen from others. Stemphylium leaf spot is favored by prolonged periods of leaf wetness when temperatures are moderate. Symptoms are light gray to tan leaf spots ranging in size from 1/16th to 1/2 inch with larger spots being irregular in shape. Older spots often dry up and become papery. Products registered for this group of organisms include the group 11 fungicides Quadris and Cabrio, the group 3 fungicide Rhyme, as well as mixtures of products Merivon (group 11 + 7) and Topguard EQ (group 11 + 3). – JK

SWEET CORN

Northern corn leaf blight has increased in some processing fields but should not cause yield loss this late in the season. – JK

TOMATOES

Destroyed by disease, barraged by blights; I've seen nicer crops under abandoned parking lot lights. There is a little bit of something for everyone right now in the tomato patch: Early Blight, Septoria, Bacterial Speck. As we enter into cooler nights and longer dew periods these diseases will become worse. Although a diseased patch may limp along until taken out by frost, it is nowhere written that growers must keep them in the field until then. The more these diseases are left unchecked this fall, the more inoculum for next season. – JR

Who is the Culprit? Look at the Poop

Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program

Here is an example of a cabbage head that is being chewed on by something (Fig. 1). The likely suspects are diamondback moth, imported cabbage worm or cabbage looper.

Figure 1. Bug or slug feeding damage in cabbage head. Look at the poop left behind to determine the culprit. *Photo: C. Hoepting, CCE*

Usually, these worm pests can be found in association with the feeding damage. But, slugs can also cause such feeding damage. Since slugs tend to feed at night they often cannot be found during the day. Although it is not uncommon for slugs to be feeding in the daytime in sheltered locations when foliage is wet (Fig. 2). Bug or slug poop is often associated with feeding damage. Diamondback moth poop is tiny and looks like grains of sand (Fig. 3). Poop of imported cabbage worm and cabbage loopers is larger in size and looks like greenish-black nuggets (Fig. 4), while slug poop is blackish stringier mounds (Fig. 5).

If feeding damage caused by slugs is confused with worm feeding, spraying insecticides is a waste, because with exception of Lannate LV, insecticides do not have any activity against slugs. Deadline MP and Sluggo and other products with the active ingredients metaldehyde and iron phosphate (several OMRI-approved options), respectively are mollusicide baits that are labeled for control of slugs and snails in Cole crops. Lannate LV is available as a 2(ee) recommendation to control slugs in cabbage ONLY. The key to best control of slugs with Lannate is that it comes into contact with the slugs. Spraying at night (past 12 midnight) or in the early morning when temperatures are cool (50s or 60s) and foliage is wet with dew or rain is the best time to target slugs with Lannate. In Cornell studies, the addition of an adjuvant increased slug mortality when slugs were sprayed at night, as did multiple applications 7 days apart. Lannate is also labeled in Cole crops for control of caterpillars.

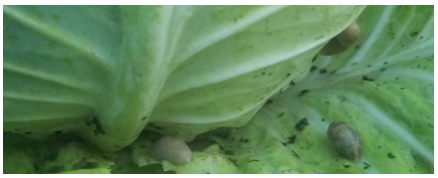

Figure 2. Slugs hiding in the moisture of the inner leaves at the base of a cabbage head. If left untrimmed, they will be a contaminant in the marketed product. *Photo: C. Hoepting*

Figure 3. Tiny granular sand-like poop of diamondback moth. *Photo: C. Hoepting*

Figure 4. Imported cabbage worm unloading greenish black nuggets (= poop), which can also be a contaminant if not trimmed out. *Photo: Plant Village*

Figure 5. Blackish stringy "swirls" of slug poop in the leaf axil between outer wrapper leaves and head of cabbage. *C. Hoepting*

NY Sweet Corn Trap Network Report, 9/14/2021

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

Statewide, 25 sites reported this week. European corn borer (ECB)- E was caught at only one site. ECB-Z was caught at 5 sites. The hybrid ECB was caught at two of the four reporting sites: Geneva (1) and Hurley (1). Corn earworm (CEW) was caught at 23 sites with all high enough to be on a 4, 5 or 6 day spray schedule (see table below). Fall armyworm (FAW) was caught at 21 sites this week. Western bean cutworm (WBC) was caught at only 3 sites this week.

Average trap catches of CEW and FAW continue to decline. Next week will be the last blog post as most corn at the trap locations is either harvested or has drying silk. *[VegEdge will not be produced next week, go to http://sweetcorn.nysipm.cornell.edu to read the final post. ed. A. Ochterski, CCE CVP]*

Average Corn Earworm Catch			
Per Day	Per Five Days	Per Week	Days Between Sprays
<0.2	<1.0	<1.4	No spray (for CEW)
0.2-0.5	1.0-2.5	1.4-3.5	6 days
0.5-1.0	2.5-5.0	3.5-7.0	5 days
1-13	5-65	7-91	4 days
over 13	over 65	over 91	3 days

Add one day to the recommended spray interval if daily maximum temperatures are less than 80F for the previous 2-3 days.

WNY Pheromone Trap Catches: September 14, 2021

Location	ECB-E	ECB-Z	ECB Hybrid	CEW	FAW	WBC
Batavia (Genesee)	0	0	NA	17	0	0
Bellona (Yates)	0	0	0	20	4	0
Brockport (Monroe)	0	2	NA	11	46	0
Collins (Erie)	NA	NA	NA	NA	NA	NA
Eden (Erie)	0	0	0	0	22	0
Geneva (Ontario)	1	0	1	22	12	0
Hamlin (Monroe)	NA	NA	NA	NA	NA	NA
Leroy (Genesee)	0	1	NA	43	1	0
Lyndonville (Orleans)	0	0	NA	53	3	0
Oswego (Oswego)	0	0	NA	18	5	0
Panama (Chautauqua)	NA	NA	NA	NA	NA	NA
Penn Yan (Yates)	0	2	0	14	12	0
Portville (Cattaraugus)	NA	NA	NA	NA	NA	NA
Ransomville (Niagara)	0	0	0	62	1	0
Seneca Castle (Ontario)	NA	NA	NA	NA	NA	NA
Williamson (Wayne)	0	0	NA	47	32	NA

ECB: European Corn Borer; CEW: Corn Earworm; FAW: Fall Armyworm; WBC: Western Bean Cutworm; NA: not available

Upcoming Events

Events are listed at CVP.CCE.CORNELL.EDU

Virtual Twilight Workshop Series from SCRUB: Bubblers/Aerators for Greens Washing

October 6, 2021 (Wednesday) | 6:30pm - 8:30pm
Online

Sanitizing and Cleaning Resources for Your Business (SCRUB) is a multistate/organization collaboration of food safety educators and specialists working to assist fresh produce farmers with successfully implementing farm food safety practices. Participating in developing and assisting farmers are Extension people from Cornell, U. Vermont, Michigan St. Univ, and the National Farmers Union. To see the complete workshop topic listing: https://go.uvm.edu/scrubevents

October 6 is with a panel of NY growers (but don't hesitate to sign up for any of the other programs in this series and hear what growers from other states are doing!) This meeting is for growers wanting to install or improve a greens bubbler/aerator. Get feedback from growers who built/improved their own systems. Examine designs and DYI resources, as well as perceived quality and efficiency gains from bubblers as compared to other washing methods.

At the workshop, all participating growers will share their knowledge and discuss challenges, successes, plans, resources or just ask questions on operation and cleaning of bubbler/aerators. Participating farms will then be eligible for individual technical assistance with related projects. The workshop will be recorded and posted later.

Space is limited! To register, complete this form by Friday, October 1: https://forms.gle/JYVeJVdfUKsGh3dz9 Contact Robert Hadad for more details, rgh26@cornell.edu

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 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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onions, cabbage, broccoli, garlic, pesticide management

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processing crops (table beets, carrots, peas, snap beans, sweet corn)

Margie Lund | 607-377-9109 cell | mel296@cornell.edu
potatoes, dry beans, and post-harvest handling and storage

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Cornell Cooperative Extension
Cornell Vegetable Program

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