



European Corn Borer in Tomatoes

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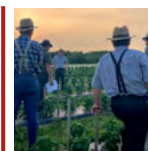
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## European Corn Borer in Tomatoes

Judson Reid, Cornell Cooperative Extension, Cornell Vegetable Program

European Corn Borers (ECB) are a well-documented pest of sweet corn, and fresh market vegetable growers also find they are common in peppers. However, ECB can also affect other vegetable crops including beans, potatoes, and tomatoes. This week we've found damaging levels of ECB in field plantings tomatoes.

As a reminder ECB overwinters in our area as a fully grown caterpillar, generally in corn stubble, although they have other hosts, including stemmy grasses. This caterpillar will pupate into a moth, which will lay eggs in host plants, leading to another caterpillar (often called worms), which will bore into stems. Damage in some crops, such as field corn is not as dramatic as in a young tomato plant. Smaller transplants that are infested wilt and die in short order. We attribute high levels of damage found recently from the incorporation of a grassy cover crop, immediately prior to transplanting.



Once inside the stem of a young tomato plant, insecticides are unlikely to reach ECB, and even if they do the damage is done. Photo by Judson Reid, CCE

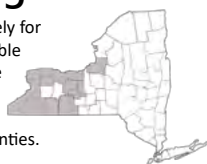


Corn borers chew through the center of the planting causing a complete wilt. Photo by Judson Reid, CCE Cornell Vegetable Program

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

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The next issue of VegEdge newsletter will be produced on June 27, 2022.

## Accumulated Growing Degree Days, 6/20/22

Emma van der Heide, CCE Cornell Vegetable Program

### Accumulated Growing Degree Days (AGDD)

Base 50°F: April 1 - June 20, 2022

Location**	2022	2021	2020
Albion	719	721	577
Appleton	660	666	519
Arkport	573	590	497
Bergen	678	663	568
Brocton	715	715	602
Buffalo*	705	746	584
Ceres	557	594	487
Elba	644	638	547
Fairville	661	648	553
Farmington	672	683	578
Fulton*	654	635	577
Geneva	693	708	596
Hammondsport	661	659	570
Hanover	703	691	591
Jamestown	594	624	504
Lodi	776	635	615
Lyndonville	576	677	562
Niagara Falls*	740	697	567
Penn Yan*	713	743	610
Rochester*	698	704	588
Romulus	712	716	625
Sodus	729	728	542
Versailles	687	658	585
Waterport	640	647	542
Williamson	646	624	532

\* Airport stations

\*\* For other locations: <http://newa.cornell.edu>



## How do we prevent ECB in tomatoes?

Pesticide treatments are not the first suggestion for several reasons.

1. Once hatched, ECB moves quickly from the exterior of the plant into the stem, making it difficult to reach.
2. Once the damage is done to tomatoes, the pesticide will not save the crop, even if it does kill ECB.
3. In New York, both the pest and crop must be listed for a legal pesticide application. ECB is such a sporadic pest of tomatoes, that the pest and crop aren't commonly paired, even when found on the same label. For example, although Avaunt (group 22) is an effective worm material and includes tomato on its label, it also states the ECB control is for peppers only.

If pesticides are the choice, check ECB trap counts for a location closest to the tomato planting. These trap counts can be found weekly in VegEdge. As moth flights peak, a pesticide application to recent transplants can be considered. Next, be sure that the produce is labeled for ECB on tomato. Radiant (group 5) can be applied at 5-10 oz/ac with a 1-day PHI. Organic? Entrust is labeled for this situation at 3-6 oz per acre with a 1-day PHI.

Moving past pesticides, let's consider the role of overwintering sites for ECB. In New York there are too many corn fields to suggest with a straight face a spatial separation of tomatoes from corn. Instead, we can encourage a temporal separation with the early incorporation of corn stubble or other host crop residue. Since grassy cover crops can host ECB, mow and incorporate these several weeks prior to tomato transplant. Finally, we'll mention the benefit of row cover as an exclusion tactic. Keep an eye out for tomato flowers, as row covers can interfere with pollination.



Row covers with hoops can exclude European Corn Borer moths from tomato plantings in the spring, but removal at flowering is important for pollination.

Photo by Judson Reid, CCE Cornell Vegetable Program ●

## Physiological Leaf Roll

Gordon Johnson, Extension Vegetable & Fruit Specialist, University of Delaware; from [Weekly Crop Update, Univ. of Delaware, June 3, 2022](#) ([udel.edu](http://udel.edu))

Late spring and early summer are the time of the year that we often see leaf cupping and rolling disorders appear in vegetable crops that are not related to pests or chemicals. This **can be seen in tomatoes, peppers, potatoes, watermelons, beans, and other crops**. This is a physiological disorder that may have many contributing factors.

In tomatoes, leaf roll starts at the margins which turn up, then roll inward, most commonly on the lower leaves. Upward cupping is also found commonly in watermelons and potatoes. Beans, peppers, and other vegetables may cup downwards. Leaves may stay in this rolled or cupped state for a short period of time and then return to normal, or they may remain permanently rolled or cupped. Rolled leaves may become thicker but are otherwise normal. Physiological leaf roll or cupping is often variety dependent with some varieties being more susceptible than others.

There are several possible causal factors for physiological leaf roll or cupping. Water relations are suspected in many cases where there has been a reduction in water uptake or increased water demand placed on the plant. The plant responds by rolling the leaves which reduces the surface area exposed to high radiation. High temperatures, excessive pruning, cultivation, and vine moving activities may also trigger leaf rolling. High nitrogen fertility programs followed by moisture stress may also trigger this type of leaf roll. Inadequate calcium moving to leaf margins may also cause a different type of leaf cupping. This is also related to interrupted water movement.

In most cases, yields are not affected by physiological leaf rolling or cupping. However, growers may choose to select varieties that are less susceptible to this disorder. ●



G Johnson, University of Delaware

Physiological leaf curl on tomato. Photo: G. Johnson, Univ. of Delaware

# Best Fungicide Options for Control of Botrytis Leaf Blight in Onion: It Depends on What Kind of Spot You Got

Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program

In recent years, we started evaluating some of our on-farm onion fungicide trials every two weeks and discovered that not all Botrytis leaf blight (BLB) lesions are controlled equally.

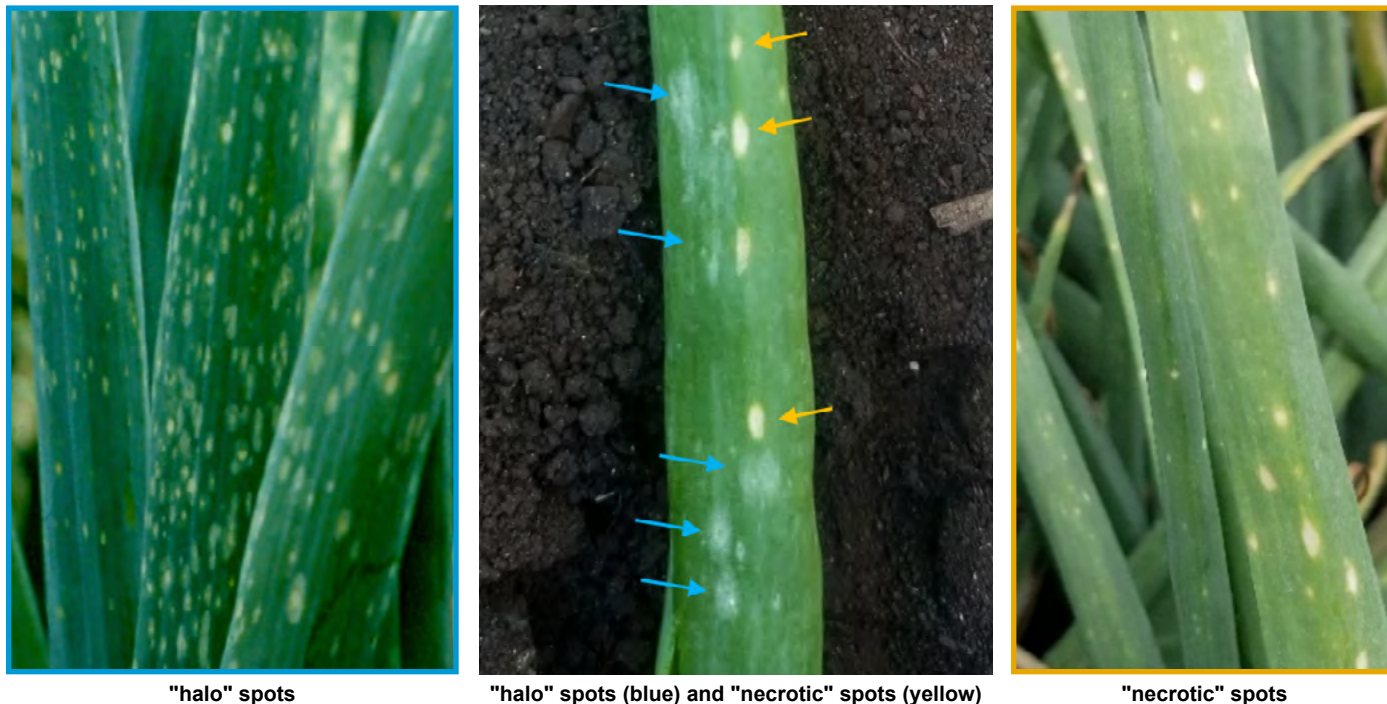


Figure 1. Botrytis leaf blight "halo" spots (blue) and "necrotic" spots (yellow) on onion. BLB necrotic spots are not to be confused with old BLB halo lesions. Photo by Christy Hoepting, CCE Cornell Vegetable Program

## Two Kinds of BLB Lesions: BLB Halos and BLB Necrotic Spots

### BLB halos

When BLB first occurs in June and early July, the lesions appear as a tiny yellow necrotic spot surrounded by a silvery halo. It is also common for the necrotic spot to be absent leaving just a silvery spot (Fig. 1).

### BLB necrotic spots

During the second half of July, BLB lesions often do not have the silvery halo. Instead, they are yellow spots, sometimes yellowish-white spots as they get bigger, with a round defined border, that are pin-prick to 1 mm or slightly larger in size (= BLB necrotic spots) (Fig. 1). These spots are not to be confused with old BLB halos where the initial necrotic spot becomes sunken and often split in the center and is still surrounded by remnants of a silvery halo. By August, BLB necrotic spots are often dominant, while BLB halos decline, especially in Elba muck. BLB halos tend to linger for the duration of the season in Wayne and Oswego muck-onion growing regions, although both do occur. BLB necrotic spots could be confused with contact herbicide injury. In the past, we have seen BLB necrotic spots blow up to high densities, which some refer to as "blast".

We have been trying to improve our understanding of BLB necrotic spots during the past few years and have been counting both types of BLB spots in the onion scouting program and in fungicide trials.

In 2021, frequent and heavy rains during July made for excellent conditions for BLB and we had especially high BLB halo pressure in our on-farm fungicide trials in both Oswego and Elba, which made for some valuable trial results. Table 1 shows the relative performance of several onion fungicide products, which also includes some common fungicide tank mixes, such as Luna Tranquility + Rovral.

## BLB Control Research Highlights

### FRAC 7 and M5 control of both types of BLB spots

- Luna Tranquility 16 fl oz/A + Rovral 1 pt/A resulted in the most consistent control of both BLB halos and BLB necrotic spots, which was very good, although Luna Tranquility alone was less effective on BLB halos than it was on BLB necrotic spots.

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- Bravo 3 pt/A was the only other product that consistently provided very good control of both BLB halos and BLB necrotic spots, although it was slightly better on BLB halos. In 2021 on-farm Oswego trial, Bravo 3 pt/A was one of the two best treatments in the trial with lowest BLB halo counts, which were 97% lower than the untreated.
  - It is important to note that efficacy of Bravo decreases with lower rates. Best BLB control is achieved with the highest 3 pt/A rate.
- Of the other FRAC 7 fungicides:
  - Miravis Prime (FRAC 7(4) + 12) and Merivon (FRAC 7(2) + 11) also resulted in very good control of BLB halos, but not as good control of BLB necrotic spots. Miravis Prime had mediocre activity on BLB necrotic spots, while Merivon had none.
  - Luna Experience was similar to Luna Tranquility in that it had mediocre activity on BLB halos and very good activity on BLB necrotic spots.

#### **Best control of BLB halos**

- **Omega (FRAC 29)** resulted in best control of BLB halos in the trial with 97% reduction in BLB halos compared to the untreated. It had only mediocre activity on BLB necrotic spots.

#### **FRAC 3 fungicides control BLB necrotic spots, but not BLB halos**

- Viathon 3 pt/A + Tilt 8 fl oz/A (FRAC 3c + P07, + 3a) resulted in the best control of BLB necrotic spots in the trial, which had 96% lower leaf counts than the untreated.
- FRAC 3 + 3 Quadris Top 14 fl oz/A + Tilt 8 fl oz/A, Viathon 3 pt/A and Inspire Super 20 fl oz/A (FRAC 3b + 9) also resulted in very good control of BLB necrotic spots.
- Tilt 8 fl oz/A (FRAC 3a) resulted in very good control of BLB necrotic spots in Oswego, but poor to no control in Elba. Tilt performed better for all leaf diseases in the Oswego trial than it did in the Elba trial.
- Quadris Top (FRAC 3b + 11) was mediocre for BLB necrotic spots.
- Fascinatingly, none of the FRAC 3 treatments had any activity on BLB halos.

#### **Scala and Rovral differed by location for BLB halos**

- Scala 18 fl oz/A (FRAC 9) had mediocre activity on BLB halos in Elba, while it failed to control BLB halos in Oswego
- Alternatively, Rovral 1.5 pt/A (FRAC 2) had mediocre activity on BLB halos in Oswego, while it failed to control BLB halos in Elba.
- Neither Scala nor Rovral alone had activity on BLB necrotic spots, but the combination of Scala 9 fl oz/A + Rovral 1 pt/A resulted in mediocre activity.
- In the past in Wayne Co., performance of Scala and Rovral tended to follow trends observed in Oswego.
- Thus, for using Scala and Rovral, when BLB halos are the target pathogen, either Scala or Rovral should be used alone. When BLB necrotic spots are the target pathogen, the combo should be used.

#### **Mancozeb controls BLB halos, but not BLB necrotic spots**

- The active ingredient mancozeb when used at the high rate is generally as good as Bravo 3 pt until BLB halos pressure gets too high (e.g. > 3 BLB halos/leaf).
- Mancozeb has no activity on BLB necrotic spots.

#### **BLB Fungicide Recommendations**

- Fortunately, there are several effective fungicides for control of BLB halos and BLB necrotic spots that belong to multiple FRAC groups.
- Bravo is not compatible with the insecticides used to control onion thrips that have translaminar or systemic activity, including Movento, Exirel, Minecto Pro, Agri-Mek and Radiant, because it reduces the efficacy of these insecticides. Tank mixing these insecticides with Bravo should be avoided.
- Since BLB halos are dominant early in the season (e.g. now) and BLB pressure is relatively low, mancozeb is an economical choice that is compatible with Movento.
- Although Stemphylium leaf blight has developed resistance to FRAC 7 fungicides, FRAC 7 fungicides are effective on BLB halos and BLB necrotic spots and may be used for BLB. FRAC 7 has medium-high risk for pathogens to develop resistance, so judicious use of FRAC 7 fungicides should be implemented to avoid BLB from developing resistance to FRAC 7 fungicides. Ideally, no more than 2 apps per FRAC per season. Note, that FRAC 7 tank mixes such as Luna Tranquility + Rovral will have utility for SLB (more on SLB in a future article), so you likely will not want to use more than one application of FRAC 7 during June and July.
- Scala (Elba) and Rovral (Oswego) will likely fit into spray programs for BLB control early in the spray season.



**Table 1. Relative Performance of Fungicides for Control of Botrytis Leaf Blight in Onion. Results based mostly on 2021 on-farm fungicide trials (Hoepting et. al).**

Relative Efficacy	BLB Halo Lesion		BLB Necrotic Lesions	
	Treatment Product and Rate/A	FRAC <sup>1</sup> Group(s)	Treatment Product and Rate/A	FRAC Group(s)
<b>Best!</b>	• Omega 16 fl oz	29	• Viathon 3 pt + Tilt 8 fl oz	3c + P07, 3a
<b>Very Good to Good</b>	• Miravis Prime 11.4 fl oz ± Rovral 1 pt	7(4) + 12, 2	• Quadris Top 14 fl oz + Tilt 8 fl oz	3b + 11, 3a
	• Merivon 9 fl oz	7(2) + 11	• Viathon 3 pt	3c + P07
	• Luna Tranquility 16 fl oz + Rovral 1 pt	7(1) + 9a, 2	• Inspire Super 20 fl oz	3b + 9a
	• Bravo 3 pt	M5	• Tilt 8 fl oz (Oswego)	3a
	• Mancozeb 3 lb*	M3	• Luna Tranquility 16 fl oz ± Rovral 1 pt	7(1) + 9a, 2
<b>Mediocre</b>			• Luna Experience 12.8 fl oz	7(1) + 3c
	• Luna Tranquility 16 fl oz	7(1) + 9a	• Bravo 3 pt	M5
	• Scala 18 fl oz (Elba only)	9a	• Scala 9 fl oz + Rovral 1 pt	9a, 2
	• Rovral 1.5 pt (Oswego only)	2	• Quadris Top 14 fl oz	3b + 11
	• Luna Experience 12.8 fl oz	7(1) + 3c	• Omega 16 fl oz	29
<b>Poor or None</b>	• Tilt 8 fl oz	3a	• Miravis Prime 11.4 fl oz	7(4) + 12
	• Inspire Super 20 fl oz	3b + 9b	• Mancozeb 3 lb*	M3
	• Quadris Top 14 fl oz	3b + 11	• Rovral 1.5 pt	2
	• Viathon 3 pt	3c + P07	• Scala 18 fl oz	9a
	• Cevya 5 fl oz	3d	• Tilt 8 fl oz (Elba)	3a
	• Oso 6.5 fl oz	19	• Merivon 9 fl oz	7(2) + 11
	• Rovral 1.5 pt (Elba)	2	• Oso 6.5 fl oz	19
	• Scala 18 fl oz (Oswego)	9a		
	• Gavel 2 lb	22 + M3		

**1 FRAC:** Fungicide Resistance Action Committee mode of action group. Products belonging to different FRAC groups should be rotated to avoid disease pathogens from developing fungicide resistance. Numbers in brackets (e.g. (1)) indicate that active ingredients belong to different sub-classes within a FRAC group, and letters following numbers (e.g. 3a, 3b, 3c) indicate different active ingredients within the same sub-class of a FRAC group.

\* Products that contain the active ingredient mancozeb include Manzate Max, Roper, Penncozeb, etc. ●

## Avoid Weak Pumpkin Stems by Thinking About Powdery Mildew

Robert Hadad, Cornell Cooperative Extension, Cornell Vegetable Program

I wrote this article last season, and it needs repeating. Pumpkin growers have a lot riding on this long-term crop. One hugely important selling point characteristic is the strong stem. There is not a sadder scene out in the U-pick pumpkin patch than a child finding their perfect pumpkin and, while lifting it up, having the stem break. That is a lost sale of a great pumpkin and depending on how hard it falls to the ground could be a mess in the field.

Powdery mildew (PM) is the bane of most winter squash and pumpkin growers in Western NY. When the humidity goes up and the nights cool down (even a little – enough for a dew), this disease shows up. We tend to think of it a foliar disease coating the leaves in the dirty powdered sugar effect. Without treatment, the leaves yellow and dry up. Too early in the season, the canopy opens to sun scald of the fruit and if a lot of foliage goes down too early, size of the fruit can also be decreased. If PM happens later in the season, some folks may not treat at all but some stems may have become infected.

PM also infects the stems. Stems infected with PM long enough can have dried handles that can break off more easily than uninfected stems. Stems can also shrivel up. All in all, for great pumpkin sales, strong stems are a must. There are newer varieties being offered by seed companies that seem to have more tolerance to PM. Older varieties can be more susceptible. All in all, keeping up with a strong spray program or spacing plantings further apart to allow more air circulation and planting in fields away from dead air spaces can help manage this disease.

Don't let your vine crop field look like the photo! Scout and look for early signs of the “white dust” on the leaves and begin vigorous treatment including treating fruit stems.



A pumpkin field heavily infected with powdery mildew. As the name implies, the leaves are covered with mildew resembling a dusting of bread flour. The disease can also be found on stems causing them to become soft and weakened. Photo: M. McGrath, CCE

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Margaret McGrath, Cornell Plant Pathologist provides [a great powdery mildew resource](#) on the Cornell Vegetable website ([www.vegetables.cornell.edu](http://www.vegetables.cornell.edu)) where she goes into great detail on management, pesticides, organic options, and photos. Here is a brief overview of McGrath's latest recommendations (edited by Elizabeth Buck, CCE Cornell Vegetable Program):

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### Conventional Fungicide Recommendations for Cucurbit Powdery Mildew (updated June 2022)

Powdery mildew control can be achieved using targeted fungicides. **Start applying when 1 in 50 older leaves has symptoms. Look at the lower surface** of older leaves as symptoms often appear there first. This disease typically starts around the start of fruiting so begin scouting or a preventative (protectant) spray program at first flowers.

**This pathogen has proven adept at developing resistance to fungicides**, thereby rendering many chemicals ineffective. Fungicide recommendations are based on [fungicide evaluations and resistance monitoring work conducted at LIHREC](#). Three WNY field samples were included in last year's resistance monitoring studies. **Alternating among fungicides that are chemically different (in different FRAC groups) is recommended** to manage resistance and to comply with label restrictions on number of consecutive applications, which is two for most targeted fungicides.

#### Top Choices to Include in a Fungicide Program

- DMI fungicides (FRAC 3). **Proline** is highly effective, seasonal limit for a crop is 2 applications. **Procure, Luna Experience, and Aprovia Top** are also good choices. Multiple DMI fungicides can be used in a program.
- **Vivando** (FRAC 50). Seasonal limit is 3 applications. Prolio, another FRAC 50, does not appear to be as effective as Vivando.
- SDHI fungicides (FRAC 7). **Aprovia Top and Luna Experience** have two active ingredients, a FRAC 7 (SDHI) as well as FRAC 3 (DMI).

#### Fungicides that Could be Included

- **Gatten** (FRAC U13) has exhibited variable efficacy; it was moderately effective in a fungicide evaluation in PA in 2021.
- **Quintec** (FRAC 13) or **Torino** (FRAC U8). One application of either of these might contribute to control. Pathogen isolates resistant to both fungicides were found commonly in commercial crops treated twice with Quintec in a program. Multi-fungicide resistance is common. Most of the Quintec-resistant isolates in the 2021 collection and all in the 2020 collection were also resistant to Torino and Endura although these fungicides were not used in almost all locations, and these fungicides are not cross resistant.

#### Fungicides Not Recommended Because of Resistance

- Topsin M (FRAC 1) and QoI fungicides (Cabrio, Flint, Quadris, etc.) (FRAC 11) are not expected to provide any control because almost all pathogen isolates tested have been found to be resistant.
- Endura, Pristine, and Merivon are not recommended because isolates with full resistance (insensitive to highest label rate) are common and there are other SDHI fungicides (Aprovia Top, Luna Experience) that bind differently enough that they are not fully cross resistant.

#### Example Recommended Targeted Fungicide Programs (there are other good combinations)

*Including a contact, protectant fungicide with each application is recommended. Each of these example programs uses the maximum number of applications of Proline and Vivando permitted to a crop.*

- Proline, Vivando, Proline, Vivando, Luna Experience<sup>†</sup>, Vivando (6 applications total).
- Proline, Vivando, Proline, Vivando, Procure, Vivando, Procure (7 applications total).
- Proline, Vivando, Proline, Vivando, Aprovia Top, Vivando (7 applications total).
- Proline, Vivando, Aprovia Top, Proline, Vivando, Luna Experience<sup>†</sup>, Procure, Vivando (8).

<sup>†</sup>Aprovia Top could be used instead of Luna Experience

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Another resource is the [2022 Cornell Integrated Crop and Pest Management Guidelines](#). Go online to the Cornell Book Store to order a copy, or contact your county CCE office. ●

# CROP Insights

*Observations from the Field and Research-Based Recommendations*

## BEETS

There are nice fresh market beets at the markets! Processing table beets are growing well where there was adequate moisture during planting and subsequent growth. Some good stands while others are more spotty. Weed control is important during this early period of establishment and growth. I haven't seen much disease yet, but we will be talking about that more in July when the risk for *Cercospora* increases in field grown beets. – JK

## GARLIC

Scapes are coming off. Ensuring a good supply of water after scaping will help your crop realize its full yield potential.

## ONIONS

Hello Summer! The summer solstice triggers bulbing in onions. Thus, most direct seeded fields in 5-6 leaf stage will be getting their first application of Movento/Senstar for control of onion thrips this week, timed to crop stage, instead of spray threshold in most cases. Generally, onion thrips pressure increased only slightly over the past week, with a few exceptions where thrips pressure reached the spray threshold of 0.6 to 1.0 thrips per leaf to signal the first insecticide application of Movento/Senstar. Botrytis leaf blight (BLB) halo lesions increased across the region and substantially in some fields, especially in areas that got more rain last week. Mancozeb 1-3 lb/A in combination with Movento is the most common fungicide being used right now for BLB halos which is an economical and compatible option to be tank mixed with Movento/Senstar. Mancozeb 1 lb/A is recommended for < 1.0 BLB halos/leaf and 3 lb/A for 3 or more BLB halos/leaf. Manzate Max, Roper and Penncozeb are examples of fungicides whose active ingredient is mancozeb. See article on BLB fungicide control options on page 4. Onions that sustained significant herbicide injury last week are eagerly outgrowing it as onions tend to have growth spurts at this time of year. And the disease and thrips control chapter begins.

Thank you to all 74 of you who participated in the Muck Onion Twilight Meeting in Wolcott last Thursday (during torrential thunderstorms) – it is always great to get the whole NYS onion industry together! – CH



*continued on page 9*



### PEAS

Harvest of the processing pea crop has begun. Hot temperatures this week will stress any peas with poor root systems from soil compaction, root rot, maggot feeding, or the like. Rain amounts have varied across our region and some fields are dry. In peas, daytime temperatures exceeding 78 F at flowering and pod fill will significantly decrease yields. In addition, high temperatures near harvest will mature the peas quickly resulting in a shortened harvest window. My field crops colleagues have reported pea aphids in alfalfa. The aphids may move over to peas when the alfalfa is cut. During vegetative growth of peas, aphid infestations usually do not cause economic damage. Aphid feeding on flowers and pods can reduce the number of seeds produced, particularly if aphid numbers are very high. In addition, lady bugs are attracted to aphids and can become a contaminant at harvest. Scout fields at flowering, early pod-set, and especially during early pod filling. Monitor pea aphid populations using a sweep net. After checking with several other states, we have determined an average threshold: if you find 25 to 35 aphids per sweep and the peas are more than ten days from harvest, insecticide treatment is recommended. In past years, Asana and Mustang Max have been used in processing pea fields. However, there are numerous labeled products. Make sure to consult the preharvest interval (PHI) when selecting a product to use. – JK

### POTATOES

Colorado potato beetles are laying eggs in potatoes. Treated seed and in-furrow insecticide applications should help control early populations, but farms that have seen high numbers in past years or signs of resistance should monitor numbers. – ML

### SNAP BEANS

Potato leaf hoppers are present across the region and any snap bean fields that did not have a Cruiser insecticide seed treatment should be scouted regularly. In non-Cruiser treated fields, during pre-bloom, treat when more than one nymph per trifoliate leaf is found or when the number of adults exceeds 100 per 20 sweeps with a sweep net. On newly emerging beans, lower densities of leafhoppers than those mentioned above may be damaging. Cruiser-treated fields (a seed treatment) generally do not need a foliar treatment before bloom, but one may be needed after bloom if the pressure is very high. – JK



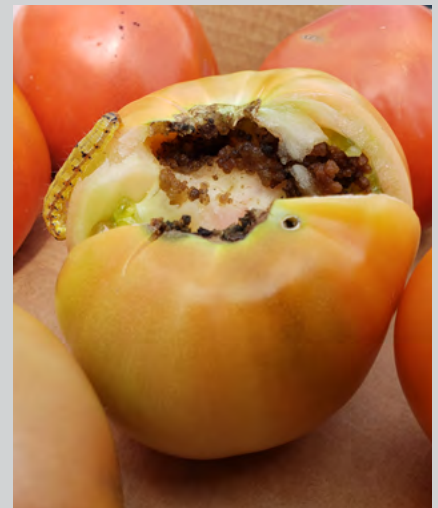
Colorado potato beetle laying eggs. Photo: Brian Nault, Cornell

### SWEET CORN

Silks are showing on the earliest plantings. More commonly tassels are starting to emerge. Seeing a lot of corn ear worm activity – stay on top of those trap counts and spray intervals once your silks emerge!

### TOMATOES

Again, seeing a lot of early corn earworm. Tomato fruit worm is the same insect as corn earworm. Worth checking tomatoes with fruit on them for damage.



Corn earworm in tomatoes. Photos: Judson Reid, CCE Cornell Vegetable Program

## Upcoming Events

### Cattaraugus Fresh Market Vegetable Meeting

June 29, 2022 (Wednesday) | Arrive at 6:15 pm to sign up for DEC credits; 6:30 pm - 8:30 pm  
Henry D. Stutzman Farm, 7700 East Flats Rd, East Otto, NY 14729

Produce walk will feature peer-to-peer learning. All attendees should wear long pants. Free to attend. 2.0 DEC credits in categories 1a, 10, and 23. **Pre-registration requested to 716-699-2377.**

### Orleans Fresh Market Vegetable Meeting

July 6, 2022 (Wednesday) | Arrive at 5:45 pm to sign up for DEC credits; 6:00 pm - 8:00 pm  
Curvin Martin Farm, 12829 Eagle Harbor-Knowlesville Rd, Albion NY 14411

Produce walk will feature peer-to-peer learning. All attendees should wear long pants. Free to attend. 2.0 DEC credits requested in categories 1a and 23. Contact Elizabeth Buck for more information: 585-406-3419, [emb273@cornell.edu](mailto:emb273@cornell.edu)

### Chautauqua Vegetable Grower Meeting

July 12, 2022 (Tuesday) | Arrive at 6:15 pm to sign up for DEC credits; 6:30 pm - 8:30 pm  
Hidden Valley Produce, 324 Warren Rd, Frewsburg, NY 14738

Fresh market field walk. All attendees should wear long pants. Free to attend. 2.0 DEC credits requested in categories 1a and 23. Contact Elizabeth Buck for more information: 585-406-3419, [emb273@cornell.edu](mailto:emb273@cornell.edu)

### Eden Valley Twilight Meeting

July 13, 2022 (Wednesday) | 5:15 pm dinner; meeting 6:00 - 8:00 pm  
Agle's Farm Market, 7952 Gowanda State Rd, Eden, NY 14057

Topics include laser scarecrows, tar spot control, disease management in cucurbits, optimizing your spray tank water, and cabbage maggot control debrief. 1.5 DEC credits requested in categories 1a, 10, and 23. Arrive by 5:45 to sign up for DEC credits.

Dinner cost is only \$5—thanks to the generous support of BASF. Pay for dinner the day of the event with cash. **Pre-registration for dinner required by NOON on July 8th** to Elizabeth Buck: 585-406-3419, [emb273@cornell.edu](mailto:emb273@cornell.edu). The meeting is free to attend.

### Vegetable Pest and Cultural Management Field Meetings for Auction Growers

July 15, 2022 (Friday) | 6:00 pm - 8:00 pm  
L. Stoltzfus Farm, 5825 Rt 414, Romulus, NY 14541 (Seneca County)

July 22, 2022 (Friday) | 7:00 pm - 9:00 pm  
Ray Hoover Farm, 4341 Rt 14A, Rock Stream, NY 14878 (Schuyler County)

July 26, 2022 (Tuesday) | 7:00 pm - 9:00 pm  
L. Weaver Farm, 3396 Depew Rd, Canandaigua, NY 14424 (Ontario County)

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

Free to attend. DEC recertification credits will be offered (2.0 credits in categories 10, 1a, 23; 1.75 credits in category 24). For more information, contact Judson Reid at 585-313-8912.

### Niagara County Twilight Meeting

July 28, 2022 (Thursday)  
Rickard Nursery Growers and Harris Farm Market, Gasport, NY

Topics include fresh market field walk on pest and disease management, laser scarecrows, powdery mildew management, phytophthora mitigation. More information will be available soon. Contact Elizabeth Buck for more information: 585-406-3419, [emb273@cornell.edu](mailto:emb273@cornell.edu)

## NY Sweet Corn Trap Report, 6/21/22

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

For the first time this season, fall armyworm (FAW) was caught, and Western bean cutworm (WBC) was caught in ENY.

Several sites have accumulated degree days that would indicate peak spring ECB flight and some are nearing the treatment period ([see table](#)). Scout your sweet corn for any signs of eggs, larvae or damage. When scouting focus on the emerging tassel. The threshold for ECB, CEW and FAW is 15% infested plants at tassel emergence. To help you scout your fields, please view the video: [How to Scout Fresh Market Sweet Corn](#). This video will show you how and when to scout sweet corn using the [Sweet Corn IPM Scouting form \(pdf\)](#). If you need additional help in learning how to scout, please contact me: Marion Zuefle at [mez4@cornell.edu](mailto:mez4@cornell.edu) or 315-787-2379.

If your field is over threshold, it is important to **time spray applications to target the larvae when they leave the tassel but before they bore into the plant**. Larvae feeding in the whorl are protected from insecticide applications and mortality will not be as high as at tassel emergence, when larvae feeding in the emerging tassel are exposed to the spray. Larvae will leave the tassel as it opens up and no longer provides a moist, protected feeding environment, and move down the plant looking for protected places to feed. Insecticide applications need to be timed to kill larvae before they bore into a new feeding location where again they will be protected from sprays. In fields with very uneven development, two applications may be necessary, one when approximately 25-50% of the tassels have emerged, and again after 75-100% of the tassels have emerged, if the field is still over threshold.



Tassel too early



Well timed



Tassel too late

### WNY Pheromone Trap Catches: June 21, 2022

Location	ECB-E	ECB-Z	ECB Hybrid	CEW	FAW	WBC	DD to Date
Batavia (Genesee)	0	0	NA	0	0	0	760
Bellona (Yates)	NA	NA	NA	NA	NA	NA	776
Collins (Erie)	NA	NA	NA	NA	NA	NA	714
Eden (Erie)	0	0	NA	39	0	0	758
Farmington (Ontario)	0	0	NA	0	0	0	782
Geneva (Ontario)	0	1	0	8	0	0	769
Hamlin (Monroe)	NA	NA	NA	NA	NA	NA	713
Leroy (Genesee)	NA	NA	NA	NA	NA	NA	753
Lyndonville (Orleans)	0	0	NA	4	0	0	709
Oswego (Oswego)	0	0	NA	0	0	0	651
Panama (Chautauqua)	NA	NA	NA	NA	NA	NA	653
Penn Yan (Yates)	0	0	0	1	0	0	747
Portville (Cattaraugus)	0	0	NA	0	2	0	689
Ransomville (Niagara)	0	0	NA	1	0	0	766
Seneca Castle (Ontario)	0	0	0	1	0	0	733
Williamson (Wayne)	NA	NA	NA	NA	NA	NA	548

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

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# Cornell Cooperative Extension Cornell Vegetable Program

480 North Main Street  
Canandaigua, NY 14424



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 Vegetable Program**

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