



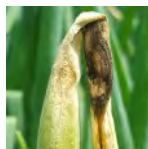
Air dancers are attempting to scare away birds in sweet corn fields. Other novel bird deterrents are being researched by the CVP as well.

**PAGE 1**



August is the time that leaf diseases in sweet corn may arise. Read about 3 of the fungal diseases most likely to be found in WNY.

**PAGE 4**



Detecting downy mildew in onions requires a trained eye because the disease changes as it progresses through its stages.

**PAGE 5**



The number of Western Bean Cutworm moths being caught is rapidly increasing. Read about what else we're finding in the fields in the Crop Insights section.

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# VEGEEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

● Volume 11 | ● Issue 16 | ● July 29, 2015

*Photo: Judson Reid*



**Cornell University**  
Cooperative Extension  
Cornell Vegetable Program

## Wildlife Damage to Sweet Corn

*Darcy Telenko, CCE Cornell Vegetable Program*

Just as sweet corn harvest is kicking into full gear, so are the wildlife. Raccoons and birds seem to be the major culprits as sweet corn varieties ripen. It is a constant battle to prevent depredation and extremely frustrating to take the first harvest off only to find areas where only 9 out of 70 ears have not been damaged by birds or 80% of ears destroyed by raccoon feeding (Fig. 2).

Bird damage is a persistent problem for vegetable producers, particularly in fresh market sweet corn. Wildlife damage not only leads to yield loss but the possibility of microbial contamination poses a huge food safety issue, especially in the wake of the new rules being developed from the Food Safety and Modernization Act. Several methods to deter bird pests have been evaluated – auditory and visual devices, chemicals, cultural practices and resistance cultivars. Even though many options are available success has been highly variable and damage continues to plague vegetable crops. Bird species have been shown to rapidly habituate to many auditory and visual devices rendering



**Figure 1.** A flock of birds scared out of a sweet corn field.  
*Photo: Darcy Telenko, Cornell Vegetable Program*

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**VegEdge** newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension regional agriculture team, serving 11 counties in Western New York.

The newsletter is a service to our enrollees and is intended for educational purposes, strengthening the relationship between our enrollees, the Cornell Vegetable Program team, and Cornell University.

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***The next issue of VegEdge will be produced August 5, 2015.***



Organic peppers being grown in WNY. Photo: D. Telenko, CVP

them ineffective. Many growers are attempting proactive measures to reduce damage by birds but continue to have mixed results and continued crop losses. In a 2014 survey of sweet corn growers in western NY, 84% reported bird damage and estimated an average loss of 16% in yield. Based on these estimates bird damage could cost a single farm with 20 acres of sweet corn greater than \$10,000 in lost revenue.

In attempt to help our growers mitigate this pest we are evaluating three novel bird repellants:

1. Avian Control a chemical deterrent just recently registered for unrestricted use in NY (Fig. 3);
2. Low-cost hawk-eye balloons currently used by some growers (Fig. 4); and
3. A novel high-costing “air dancer” and determine their actual effectiveness and utility in sweet corn (Fig. 5).

Identifying effective ways to mitigate the increasing issues of bird damage in sweet corn will help diminish losses and increase profitability for our vegetable producers. Over the last week these treatments have been placed in four on-farm trials as birds began to migrate into sweet corn fields. We are currently collecting data and hope to be able to determine if any are a viable option for future bird control. *This project is supported by a NE-SARE Partnership Grant.*



**Figure 2.**  
Raccoon  
damage to  
sweet corn.  
Photos: Darcy  
Telenko, CVP



**Figure 3.** Avian treatment being applied using a high-pressure sprayer boom.  
Photo: Darcy Telenko, Cornell Vegetable Program



**Figure 4.** Hawk-eye balloon treatment in sweet corn. Photo: Darcy Telenko, CVP



**Figure 5.** Air dancer treatments in sweet corn.  
Photos: Darcy Telenko, Cornell Vegetable Program

## Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

Late blight (LB) has now been confirmed on tomatoes and/or potatoes in the following counties: **Genesee**, Livingston, **Monroe**, Steuben, **Wayne**, Wyoming, **Yates**, Tioga, Oneida and Ulster. In most cases samples were submitted and the LB strain was determined to be US-23, sensitive to mefenoxam (Ridomil, etc.). LB has also been confirmed in Erie, PA, and in Ontario, Canada. Most are US-23 but in southwest Ontario US-22, a different mating type than US-23, was found.

Blight unit (BU) accumulations have been variable across the region. There are half a dozen sites where BUs are high enough to warrant a 5 day fungicide spray interval. Because LB has been found across and adjacent to the CVP region spray intervals should not exceed 7 days. LB is upwind of everyone's farm. If you are using the full LB Decision Support System (DSS), there's a weather station on or near your farm, and the DSS and your experience indicate it's advisable, other spray intervals

could be used. Sodus BUs are not high but fungicide (loss) units have reached the threshold.

Mefenoxam (Ridomil, etc.) is effective at preventing LB. It's effective at control if only a few lesions are present. If infection reaches 5% of the foliage then even mefenoxam can't prevent spread. Destroy hot spots immediately. The seasonal limit on Ridomil use, if 2 ½ pts/acre is used, is three applications.

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Cornell Plant Pathologist Bill Fry's LB Decision Support System (DSS) is an accurate LB forecast predicting when fungicide sprays are needed. The full DSS offers a choice of varieties and spray dates, a choice of many fungicides, and forecasts for your farm/field locations, in addition to using weather station data. A "lite" version of the DSS is on the [NYS IPM NEWA](http://newa.cornell.edu/) website: <http://newa.cornell.edu/>. There is a choice of varieties and spray dates, but chlorothalonil is the assumed fungicide, and only weather station locations are considered. The chart in the weekly "Late Blight Risk" section of *VegEdge* does not show fungicide (loss) units, assumes only susceptible varieties and the use of chlorothalonil, has only weather station locations, and only provides info once a week.

Ian Small and Laura Joseph, Cornell Plant Pathology, have come up with a [Quick Critical DSS Threshold Tool](#), to allow growers to determine the next recommended spray date. There is a choice of varietal susceptibility and spray date, as well as a choice of several fungicides, so it's more accurate than the NEWA or *Veg Edge* options. Only weather station locations are considered, however. Try the Quick Critical Threshold Tool and let us know what you think. Instructions:

- 1) Follow this link: <http://blight.eas.cornell.edu/blight/upstate>
- 2) Click on the weather station closest to your farm, and a report should appear.
- 3) Find the fungicide you last applied and susceptibility of your variety on the left.
- 4) Find your last spray date (at the top) for your field. The recommended spray date is where those inputs cross. (Numbers in red are the most accurate weather/disease forecasts.)

NOTE: This Critical Threshold Tool does not indicate whether weather data is missing and was estimated, unlike the full DSS.

## Fungal Leaf Diseases in Sweet Corn

Julie Kikkert, CCE Cornell Vegetable Program

August is the time that leaf diseases in corn may arise. Northern Corn Leaf Blight has already been found in New York. Sweet corn can be susceptible to this disease as well as numerous others. Dr. Zitter, Cornell outlines 13 diseases that can infect sweet corn in New York [http://vegetablemdonline.ppath.cornell.edu/NewsArticles/CornDiseases\\_News.htm](http://vegetablemdonline.ppath.cornell.edu/NewsArticles/CornDiseases_News.htm) (contact our office if you can't access the article online).

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

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

A description of three of the fungal diseases that are most likely to be found in WNY follow.

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

Late Blight Risk Chart, 7/28/15<sup>3</sup>

Location <sup>1</sup>	Blight Units <sup>2</sup> 7/22-7/28	Blight Units <sup>2</sup> 7/29-7/31	Location <sup>1</sup>	Blight Units <sup>2</sup> 7/22-7/28	Blight Units <sup>2</sup> 7/29-7/31
Appleton	8	14	Kendall	23	13
Arkport	42	12	Lodi	31	16
Baldwinsville	20	6	Lock/Niag F.	0	11
Bergen	14	12	Lyndonville	32	19
Buffalo	0	12	Medina	24	14
Butler	36	13	Penn Yan	13	10
Ceres	33	18	Rochester	5	10
Elba	47	19	Sodus	23	12
Farmington	22	11	Versailles	17	14
Gainesville	46	18	Wellsville	5	12
Geneva	19	6	Williamson	30	13

<sup>1</sup> Past week Simcast Blight Units (BU)

<sup>2</sup> Three day predicted Simcast Blight Units (BUs)

<sup>3</sup> Threshold = 30 BUs (susceptible variety, last fungicide-shorter residual)

If you are interested in a LB DSS account for your farm (field-specific weather/late blight forecasts, Alerts about critical thresholds, expanded fungicide options, etc.) contact Ian Small at: [ims56@cornell.edu](mailto:ims56@cornell.edu) for a DSS username and password.

To learn how to use the DSS in your office or on your mobile device, or for a review of using the DSS, contact Carol MacNeil, CCE Cornell Vegetable Program, at [crm6@cornell.edu](mailto:crm6@cornell.edu) or 585-313-8796. 📞



Northern Corn Leaf Blight. Photo: Iowa State University

# Scouting Tips for Identifying Downy Mildew in Onions

Christy Hoepting, CCE Cornell Vegetable Program

Downy mildew (DM) tends to occur sporadically in “hot spots” within a field. Detecting this disease often is the result of a trained eye recognizing the disease when one happens to come across it. The look of this disease changes as it progresses through its stages and can be tricky to identify.

**Stage 1:** Middle-aged leaves tend to become infected first; they turn pale and sometimes yellowish in elongated patches and have a grayish-purple fuzzy growth on otherwise green leaf tissue (Fig. 1). Sporulation is most easily observed when dew is present. This stage is generally not detected from a distance; scouting fields regularly on foot increases the chances of detecting DM in its earliest stage.



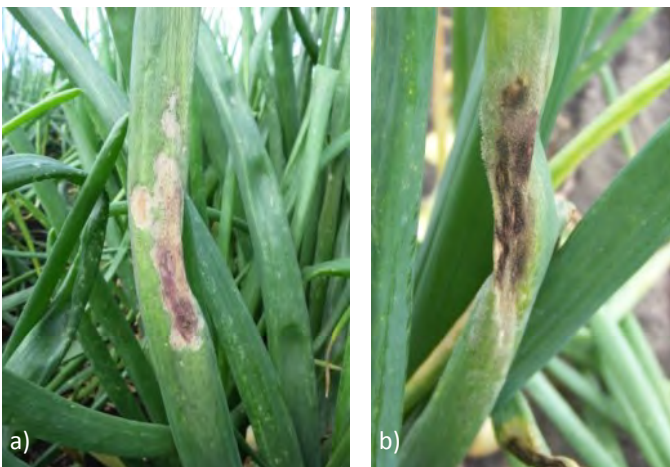
**Figure 1.** Early detection of downy mildew in onion (Stage 1): Look for elongated pale green or yellow patches with purplish fuzzy sporulation. Photo: C. Hoepting

**Stage 2:** DM attacks green leaf tissue and then kills it leaving a necrotic spot at the original infection site. Often, several necrotic spots occur in a group. The downy mildew spores or remnants of them can usually be seen on the lesion and extending along the surrounding green tissue – this is diagnostic of downy mildew (Fig. 2).



**Figure 2.** Downy mildew attacks green leaf tissue of onion and then kills it leaving a necrotic spot at the original infection site (Stage 2). Photo: C. Hoepting

**Stage 3:** The necrotic infection sites initially caused by DM are readily invaded by secondary pathogens including the purple blotch and Stemphylium leaf blight pathogens, which have purple or black spores (Fig. 3). At this stage, the target spot diseases make the disease complex showy and easier to spot, but close inspection is still required to identify DM in the mix.



**Figure 3.** Infection site of downy mildew in onion about 2-3 weeks old (Stage 3): Secondary pathogens purple (a) and black (b) in color invade the original infection sites while new spores occur on surrounding green tissue. Photos: Christy Hoepting, Cornell Vegetable Program

**Stage 4:** Eventually, multiple infection sites occur on the same plant, which eventually results in leaf dieback (Fig. 4). If you see patches in fields with a lot of black sporulation and leaf dieback, take a closer look and see if you can find purplish-gray spores on the green leaf tissue surrounding the necrotic and blackened patches (Fig. 5). At this stage, DM can be detected from a distance. By the time you find this stage, the disease has likely already been active and spreading in your fields for about 4 weeks.



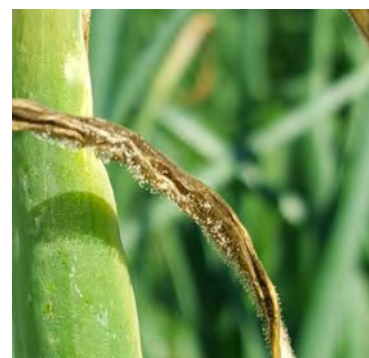
**Figure 4.** Older DM infections with multiple infection sites per plant, a lot of black sporulation, and resulting in leaf dieback (Stage 4). Photo: Christy Hoepting, Cornell Vegetable Program



**Figure 5.** Close-up of downy mildew sporulation along original infection site and black sporulation of secondary pathogens (Stages 3 & 4). Photos: Christy Hoepting, Cornell Vegetable Program

## Don't confuse downy mildew with Botrytis.

Sometimes sporulation of *Botrytis* spp. (Fig. 6) can be confused with sporulation of downy mildew. The differences are that sporulation of *Botrytis* occurs exclusively on necrotic tissue, especially on leaf tips, is gray in color and protrude farther out from the plant surface. ●



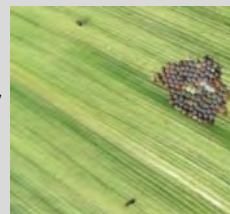
**Figure 6.** Sporulation of *Botrytis* spp. differs from that of downy mildew by exclusively occurring on necrotic tissue, especially on leaf tips, is gray in color and protrudes farther out from the plant surface. Photo: Christy Hoepting, CVP

# CROP INSIGHTS

Heat and water stress continue to hamper many plantings. Weed management is exasperating. Reduced fertility from washed out nutrients have hurt.

## DRY BEANS

More dry bean fields are in flower. Continue to scout for potato leafhopper (PLH) especially if you did not use the Cruiser insecticide seed treatment. PLH adults were seen in some organic beans, as well as some feeding injury from the small, black, elongated red-headed flea beetle. The news this week in dry beans is the rapidly increasing number of Western bean cutworm (WBC) moths being caught. Of the ten fields with WBC moth traps in the dry bean production area five have exceeded or are close to the 100 moth/trap threshold of concern: Riga, Wyoming, Lima, Stafford and Attica. Caledonia, Sparta, Geneva, Avoca and Wayland are currently low but could jump by next week. WBC moth catches in sweet corn fields in Eden (304) and Pavilion are also well over the threshold. Peak moth catch is expected within the next week. Moth catches are considerably higher than they've ever been. Scouting in corn, near dry bean fields where the threshold has been reached, has begun. Only low numbers of WBC egg masses were found so far (on the top of upper corn leaves). Egg masses are white but turn purple right before hatching (see the photo). Corn scouting will continue. Larvae in beans hide in the soil during the day. Scouting of bean flowers, pin pods and pods for damage will begin in a week or two. If any WBC damage is observed one spray of a pyrethroid insecticide such as Warrior, Asana, Baythroid, etc. is recommended, applied a week or ten days after the peak moth catch, based on research in Michigan. Organic growers using Pyganic may need more than one spray, beginning a few days sooner.



A Western Bean Cutworm egg mass beginning to hatch. The egg mass is about 3/8" in diameter.  
Photo: Carol MacNeil, CVP

## GREENS

Flea beetles and aphids are seemingly a continual problem. It is hard to use exclusion netting because of the high heat. More water is needed to keep the quality up while too much rain has let weeds take over plantings. FB seem to be mostly injuring newly emerging brassicas while older plants are being less bothered. Perhaps this is where a trap crop of napa cabbage or radish might help pull away FB where the trap crop could be sprayed (including the surrounding ground on either side of the row) or flamed. Put the trap crop out first by several weeks then seed the cash crop. This could help reduce the FB population (not eliminate it however).

Aphids are sporadic in plantings but can quickly build if not dealt with. Knock them back before crops like lettuce get tall and leafy. It is hard to get aphids out from between the leaves of a large head whether they are alive or dead.

## ONIONS

As we finish the last week in July, the onion crop is looking very good and bulbing nicely with onion thrips and leaf diseases well under control. Botrytis leaf blight is petering out while the target spot diseases, Stemphylium leaf blight and Purple blotch continue to show up and advance during the bulbing phase of production. Unlike Botrytis leaf blight, the target spot diseases continue to develop during hot temperatures. See July 8th issue of VegEdge for more info on management of target spot diseases. We have seen the odd downy mildew (DM) infections occur over the past 3 weeks, but nothing that appears to be spreading aggressively.

Downy mildew (DM) is to onions as late blight is to potatoes; it can be a very aggressive leaf defoliator resulting in the onions dying prematurely while they are still standing up, which results in reduced bulb size and quality. When weather conditions are favorable, it is very challenging to manage a DM outbreak, which is why we have been recommending protectant fungicides including mancozeb or phosphoric acid, or a group 11 fungicide including Quadris, Quadris Top, Pristine and Merivon, which can also be used for target spot diseases. Growers should also scout for DM. If DM is found, a Ridomil product may need to be applied. Early detection and identification of older dried up infections can be tricky – *see article, pg 5*.

## PEPPER

Reduced fruit set, shorter plants, bacterial spot, and sun scald can be found across fields. For those who have had too much rain, increase the frequency of running fertilizer through the drip lines. For those with drier areas, adding a fertilizer with Ca would help if we are to continue to get more hot weather. The Ca will help reduce the problem of blossom end rot. Of course, maintaining frequent waterings and not letting the crop dry down is the most important factor (same with tomatoes).

## POTATO

Some growers are harvesting for market. Late fields have set tubers, and earlier fields are sizing tubers. More counties in our area have confirmed late blight (LB). See the Late Blight Risk section. Controlling foliar LB reduces the risk for LB infection of potato tubers. To reduce the incidence of tuber blight the use of Ranman (high rate) or Presidio, with a mixing partner, is recommended later in the season. Gavel, or Forum plus a mixing partner, can contribute to reduced tuber blight. Foliar sprays of Ranman, phosphorus acid fungicides (Phostrol, ProPhyt, etc.) at the high rate, or Ridomil (if resistance isn't present), can help reduce pink rot of tubers. Use of Quadris Opti/Top or Cabrio Plus (alternate with an unrelated fungicide), or Revus Top in mid-season can help reduce black dot on tubers. A few adult potato leafhoppers (PLH) are being seen so scout your potatoes to prevent "hopperburn." Summer adult Colorado potato beetles (CPB) have emerged.

The 2015 Fresh Market Potato Variety, Late Blight & Colorado Potato Beetle Management Meeting has been scheduled for Wednesday, September 2nd, at Williams Farms in Marion. More details later.

## PROCESSING CROPS

Hot conditions this week are putting stress on plants that have shallow root systems from the prolonged period of wet soils in June and early July. Additionally, high temperatures may cause poor or split set in beans. In snap beans, more cases of bacteri-

*continued on next page*



al blights have shown up on pods. Initial watersoaked spots (see photo last week) generally are not causing issues during processing. However, as the spots progress, they will turn brown. An article on bacterial disease of beans was published in the July 1st issue of VegEdge. Regardless of species, the only treatment available is copper sprays, which may prevent further spread. Wet weather is conducive to this disease. The NYS IPM Field Crops team reports low levels of soybean aphids in New York at this time. In lima beans, the level of tan leaf spot in fields we have scouted generally appears less. This may be because plants have put on rapid growth over the past two weeks. Early fields are in flowering/pod set. A low level of adult leaf hoppers was observed this week. In sweet corn, Northern Corn Leaf Blight is beginning to be reported across the state. See the sweet corn insect trap report in this newsletter for details on worm pests. Beets and carrots – fields are being cultivated and generally have improved growth. Generally low levels of leaf diseases are present. Growers have been applying fungicides. Cooler, wet weather will bring these diseases on, so remain vigilant with scouting.

#### SWEET CORN

Wildlife seem to be hitting sweet corn areas – see cover article on current research.

#### TOMATO

Septoria is also starting to appear around the region. Late blight has been confirmed in both Yates, Monroe, and Genesee Counties on tomato.

We are seeing some damage by stink bugs on tomato fruit. Watch for stink bug damage in high tunnels, as well. The insects could be our native stink bugs or the brown marmorated stink bug. We haven't actually seen one feeding to ID which it is.

In Ontario Province, Canada, vegetable researchers are following this pest closely because of increased damage being seen there as well. The BMSB tends to feed on landscape plantings for the early part of the season but then later seem to jump over to fruiting crops. Many of the tomato insecticides are listed for stink bugs including BMSB. Using the kaolin clay, Surround, may also offer some protection on the fruit early on.

#### VINE CROPS

DM continues to spread across the region. A tight spray schedule is important to maintain using products with a short PHI. Spray right after a harvest and use enough pressure and fine droplet size to coat the undersides of the leaves. DM has also jumped to cantaloupe in a few spots. The melon crop has looked pretty good this season so do what it takes to keep the leaves in good shape while the fruit size up. A thick canopy will protect from sun scald.

With the wet conditions, gummy stem blight has been showing up as it did last year. GSB often shows up around the time of Powdery Mildew. So in many areas, this is now. A good management program for PM combined with a tank mix of products for GSB will knock both down.



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## WNY Sweet Corn Trap Network Report, 7/28/15

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

Twenty sites reporting this week. Eleven sites reporting European corn borer (ECB)-E. One site, Seneca Castle, had the high count with 159 moths. ECB-Z was reported from six sites. Corn earworm (CEW) was caught at six sites with four sites high enough to require a 6 or 5 day spray interval (see spray table at bottom of post). Thirteen sites reporting Fall armyworm (FAW) and eighteen sites reporting Western bean cutworm (WBC). Eden had the high count for both FAW and WBC with 81 and 289 moths respectively.

#### WNY Pheromone Trap Catches: July 28, 2015

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	5	0	0	4	52	1400
Batavia (Genesee)	NA	NA	NA	NA	NA	1082
Belfast	0	0	0	1	1	1261
Bellona (Yates)	NA	NA	NA	NA	NA	1485
Eden (Erie)	0	0	0	81	289	1314
Farmington (Ontario)	3	2	0	0	10	1333
Hamlin (Monroe)	3	1	1	0	5	1323
LeRoy (Genesee)	3	0	5	0	20	1288
Lockport (Niagara)	1	2	0	2	13	1301
Pavilion	0	0	0	69	120	1288
Penn Yan (Yates)	4	1	0	34	26	1438
Seneca Castle (Ontario)	159	3	0	1	8	1360
Spencerport (Monroe)	2	2	4	0	2	1466
Waterport (Orleans)	1	0	0	0	3	1323
Williamson (Wayne)	0	0	0	0	0	1264

ECB - European Corn Borer

WBC - Western Bean Cutworm

CEW - Corn Earworm

NA - not available

FAW - Fall Armyworm

DD - Degree Day (modified base 50F) accumulation

Degree day accumulations for sweet corn trap sites range from 1082-1485 (modified base 50F) with an average of 1333. The second generation ECB-E are predicted to fly at 1400 degree days (see chart below). WBC emergence is predicted to be at 50% when degree day accumulations reach 1422. We are currently well within the range for both of these to occur at several of the sites. It is also recommended that scouting for WBC begins when cumulative trap catches reach 100 moths, however egg masses have been found when trap catches were still in the single digits. WBC threshold for fresh market sweet corn is only 1%. It is important to scout late whorl and early tassel-emergence fields as these are most at risk. After hatching larvae will spend a few days feeding on the tassel before moving down to the ear. ●

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

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

From J. W. Apple, Department of Entomology, University of Wisconsin-Madison

### Common Corn Rust (*Puccinia sorghi*)

Appear as oval to elongate cinnamon brown (rusty) pustules scattered over the upper and lower surfaces of the leaves. Dusty red spores are spread by the wind and can infect nearby leaves. Partial resistance is expressed as chlorotic or necrotic hypersensitive flecks with little or no sporulation. Favored by heavy dew, moderate temperatures, and high nitrogen; this disease spreads to the Northeast yearly from spores blowing in from Southern regions. Some sweet corn varieties are more tolerant than others, and should be planted if possible. Staggered plantings should be separated if feasible so that fungal spores from earlier plantings are less likely to infect later plantings.

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



Common Corn Rust. Photo: H. Dillard, UC Davis

### Northern Corn Leaf Blight (*Setosphaeria turcica*)

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

### Gray Leaf Spot (*Cercospora zeae-maydis*)

Rectangular lesions that start on the bottom leaves of the plant. The sharp parallel edges and opacity of mature lesions are diagnostic. Can severely impact yield.

Susceptibility varies among hybrids. Infection is favored by prolonged periods of dew, fog and cloudy weather. Overwinters on crop debris.



Gray Leaf Spot. Photo: Iowa State Univ.

For additional management information see the 2015 Cornell Vegetable Guidelines. ●

## UPCOMING EVENTS *view all Cornell Vegetable Program upcoming events at [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu)*

### New Soil Health Seminar Center & Demo Plots at Empire Farm Days

August 11-13, 2015 | 9:30 AM each day

Tuesday – Cover Crops

Wednesday – Reduced Tillage

Thursday – Nutrient Management

Lot #922, Rodman Lott & Son Farms, Rt 414, Seneca Falls



At 9:30 am each day the NYS Soil Health Working Group will host featured research and industry speakers on the day's topic, followed by an experienced grower panel. Lunch will be sponsored by Kings Agriseeds for those attending. Field demos of cover crop interseeding will be nearby. SWCD, NRCS, Cornell and Cooperative Extension staff will be present to offer technical assistance or describe cost-share programs. For info on Empire Farm Days go to <http://empirefarmdays.com>. For more info on the Soil Health program at EFDs contact Paul Salon, USDA-NRCS at [paul.salon@ny.usda.gov](mailto:paul.salon@ny.usda.gov)

### Vegetable Pest and Cultural Management Field Meeting

August 12, 2015 | 7:00 PM - 9:00 PM

Seneca County – Jesse Stoltzfus farm, 5907 Rt 414, Romulus, NY 14541



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 associates Darcy Telenko, Robert Hadad and Elizabeth Buck will instruct participants and facilitate peer-based learning. Details on each topic will focus on field observations at these farms. DEC recertification credits will be offered. No cost to attend. Contact Judson Reid at 585-313-8912 for more information.

### Fresh Market Vegetable Twilight Meeting in Eden

August 19, 2015 | 6:00 PM - 8:30 PM

W.D. Henry & Sons, Inc., 7189 Gowanda State Rd, Eden, NY 14057



Join the CVP, CCE Erie County, and Cornell faculty to learn about exciting on-farm research projects and pest updates in fresh market vegetables. Tour the Eastern Broccoli Project variety trials. View a novel mechanical option for bird control in sweet corn. Go on a crop walk to talk about major vegetable diseases and research updates. Learn about the ROOT (Refugee On-site Occupational Training) pilot program. And hear from NYS Dept of Ag & Markets about risk management and insurance options for crops and your whole farm.

FREE to attend. DEC credits have been applied for. Contact Darcy Telenko at 716-697-4965 or [dep10@cornell.edu](mailto:dep10@cornell.edu) for more information.



## Weather Charts

John Gibbons, CCE Cornell Vegetable Program

### Weekly Weather Summary: 7/21 – 7/27/15

Location	Rainfall (inch)		Temp (°F)	
	Week	Month July	Max	Min
Albion	0.16	1.46	91	54
Appleton, North	0.01	0.59	89	50
Baldwinsville	1.29	3.13	85	56
Buffalo*	0.23	2.39	89	58
Butler	1.39	2.49	88	54
Ceres	0.14	1.64	88	46
Elba	0.89	2.71	84	49
Farmington	0.08	NA	88	52
Gainesville	0.08	2.84	86	47
Geneva	0.41	2.97	88	56
Lockport	NA	NA	NA	NA
Lodi	0.79	3.91	89	52
Penn Yan*	0.59	3.49	85	57
Rochester*	0.88	3.28	88	54
Romulus	0.40	NA	85	53
Silver Creek	0.03	4.86	82	58
Sodus	0.77	2.11	87	48
Versailles	NA	NA	86	52
Williamson	0.01	0.10	86	52

### Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – July 27, 2015

Location	2015	2014	2013
Albion	1431	1351	1455
Appleton, North	1204	1166	1283
Baldwinsville	1437	1477	1513
Buffalo	1463	1392	1563
Butler	1452	1432	NA
Ceres	1284	1224	1272
Elba	1104	1101	1362
Farmington	1378	1357	1381
Gainesville	1146	1083	NA
Geneva	1401	1392	1465
Lockport	NA	NA	NA
Lodi	1539	1522	1643
Penn Yan	1492	1478	1543
Rochester	1528	1478	1607
Romulus	1428	1423	NA
Silver Creek	1330	1307	1470
Sodus	1267	1303	NA
Versailles	1350	1307	1467
Williamson	1297	1298	1418

\* Airport stations

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

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# VEGEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

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VegEdge is the award-winning newsletter produced by the Cornell Vegetable Program in Western New York. It provides readers with information on upcoming meetings, pesticide updates, pest management strategies, cultural practices, marketing ideas and research results from Cornell and Cornell Cooperative Extension. VegEdge is produced every few weeks, with frequency increasing leading up to and during the growing season.



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