

If you're facing an outbreak of whiteflies in your high tunnel tomatoes, learn about the risk to your crop and how to best control this pest.

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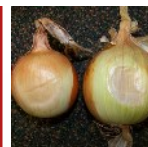
Colonies of cabbage aphids look like "white ash" and can contaminate marketable Cole crops. Learn what to look for and how to control them.

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Pumpkins and winter squash are still alive even after they have matured and are removed from the vine. Harvesting and curing tips are provided.

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Hot and humid weather isn't ideal for onion harvest due to the higher risk of sunscald and black mold. Wait for better weather conditions or follow our suggestions.

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VEGE

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Cornell University
Cooperative Extension
Cornell Vegetable Program

Photo: Julie Kikkert

Whitefly Management in High Tunnel Tomatoes

Judson Reid, CCE Cornell Vegetable Program

A rash of whitefly outbreaks this week has a number of high tunnel tomato operations scratching. There are several species of whiteflies; here we likely are facing the Sweet Potato Whitefly. Whiteflies are damaging to tomatoes in several ways:

- Removal of sap from the leaf
- Feeding damage results in uneven fruit ripening
- Whiteflies transmit viruses
- Sooty mold often follows a whitefly outbreak

Whiteflies do not survive NY winters, so allowing tunnels and greenhouses to freeze to ambient temperatures will be the best approach to preventing further problems. Prompt removal of all vegetative matter (including weeds) is important.



Whiteflies on high tunnel tomato. *Photo: Judson Reid, 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.

We're interested in your comments. Contact us at:
CCE Cornell Vegetable Program
480 North Main Street, Canandaigua, NY 14224
Email: cce-cvp@cornell.edu
Web address: cvp.cce.cornell.edu

Editor

Carol MacNeil

Contributing Writers

Robert Hadad
Christy Hoepfing
Julie Kikkert
Carol MacNeil
Judson Reid
Darcy E. P. Telenko
Elizabeth Buck

Publishing Specialist/Distribution/Sponsors

Angela Parr

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The next issue of VegEdge will be produced in 2 weeks: September 16, 2015.

WNY Sweet Corn Trap Network Report, 9/1/15

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

Twenty-three sites reporting this week. Eight sites reporting European corn borer (ECB)-E and eight sites reporting ECB-Z all in the single digits. Corn earworm (CEW) was reported from seventeen sites all high enough to require a 6, 5, 4, or 3 day spray schedule. These sprays will also control other worm pests. Fall armyworm (FAW) was caught at 13 sites and drastically increased from the previous week. Western bean cutworm (WBC) continues to decline but was still caught at eleven sites.

From Robert Hadad, CVP: European corn borer may be showing up in low numbers in sweet corn but they are causing damage in pepper and tomato. ECB will burrow into pepper fruit usually leaving small holes up near the stems. Feeding inside the pepper, this will lead to rot or at least an unpleasant surprise from a consumer cutting into the pepper.

ECB will also feed on tomato. When on tomato, they are referred to as tomato fruit worm. Larger round holes in the fruit sometimes in several locations on the fruit make them unmarketable. Sometimes ECB will damage egg-plant as well. ●

WNY Pheromone Trap Catches: September 1, 2015

Location	EBC-E	EBC-Z	CEW	FAW	WBC	WBC to Date
Baldwinsville	0	0	6	25	0	139
Batavia (Genesee)	0	0	15	0	0	22
Belfast	0	0	4	0	0	4
Bellona (Yates)	3	9	29	248	0	200
Eden (Erie)	0	0	5	93	4	956
Farmington (Ontario)	0	0	0	0	0	20
Hamlin (Monroe)	2	1	12	6	10	98
LeRoy (Genesee)	2	1	5	4	8	82
Lockport (Niagara)	1	0	0	9	0	29
Pavilion	0	1	92	321	2	521
Penn Yan (Yates)	2	0	12	87	NA	65
Seneca Castle	3	1	5	NA	1	19
Spencerport (Monroe)	0	0	5	2	2	10
Waterport (Orleans)	0	1	7	0	0	7
Williamson (Wayne)	0	0	5	0	0	0

ECB - European Corn Borer

CEW - Corn Earworm

FAW - Fall Armyworm

WBC - Western Bean Cutworm

NA - not available

DD - Degree Day (modified base 50F) accum.

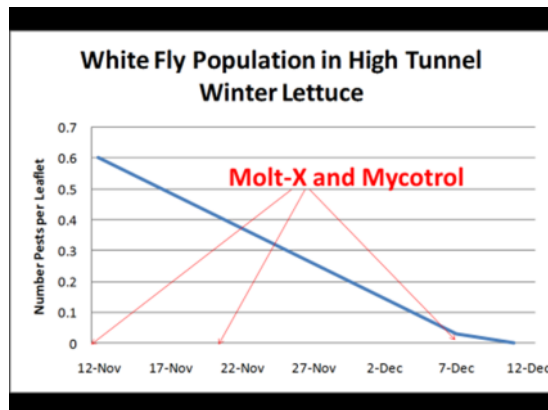
Biological control is an option for whitefly control. *Encarsia Formosa* and *Eretmocerus eremicus* are parasitic wasps that control whitefly populations by laying eggs inside the body of the pest. A combination of these two species is a wise approach as exact diagnosis of whitefly species may take too long. Many commercial greenhouses successfully use this approach. However, these species are temperature sensitive and as we enter the late summer, they may not respond well to nighttime lows.

A number of insecticides can be used to control whiteflies, however several of the more effective materials are not registered for high tunnel use in NYS. Close attention to the label is important.

For organic control Azadiractin products can act as anti-feedants and several are OMRI listed. Mycotrol and Molt-X are an organic tank mix that has shown promise in CVP trials. JMS Stylet Oil also is listed for whiteflies.

In conventional tunnels, Admire Pro may be applied at a rate of 0.6 ounces per 1000 plants in a minimum of 16 gallons water to the root-zone via drip irrigation, with 0 day PHI. This is restricted to a single application per season, and cannot follow other imidicloprid applications. One biotype of the Sweet Potato Whitefly (type Q) has shown resistance to this and other neonicotinoids, so we stress the above ‘non-resistance’ approaches of freezing, sanitation and biocontrol.

Danitol 2.4 EC has the added benefit of controlling Two Spotted Spider Mite, which is currently at high levels in the same operations infested with whitefly. Danitol has a 3 Day PHI, but must be tank mixed with Belay Insecticide when spraying specifically for whitefly. Belay has a 7 day PHI and must not be applied during bloom or when bees are foraging. Danitol can be used to control other tomato pests such as Fruitworm and Hornworm without a tank mix. Capture (bifenthrin) is also a miticide/whitefly material with a 1 day PHI. Asana (1 day PHI) and Baythroid (0 day PHI) are not miticides but do have a whitefly label. ●



Cabbage Aphids in Cole Crops

Christy Hoepting, CCE Cornell Vegetable Program

Cabbage aphids are the primary pest in Cole crops. They are grayish green, but often appear bluish white because of their waxy coating, and their colonies resemble clumps of “white ashes” (Fig. 1). They suck plant sap, causing leaf distortion (curling and puckering), poor growth and stunting, and cabbage aphids can contaminate harvested parts. Colonies tend to form in younger, upper leaves, in cabbage heads, between cauliflower curds, or in long-season Brassicas such as Brussels sprouts. Cabbage aphids are particularly difficult to control once they enter sheltered parts of the plant, thus early control is essential, especially with Brussels sprouts. While cabbage aphids can damage crops in the summer, they tend to be more problematic in the fall.

Treatment should be applied when localized infestations are found. When scouting for cabbage aphids, unravel puckered leaves (Fig. 2) to reveal the cabbage aphids. Damage can closely resemble that of swede midge and sometimes both pests have been found in the same growing tip (Fig. 3).



Figure 1. Colony of cabbage aphids looks like “white ashes” and can contaminate marketable product of cabbage, Brussels sprouts and broccoli.
Photo: Christy Hoepting, Cornell Vegetable Program



Figure 2. Leaf puckering caused by cabbage aphid in Brussels sprouts.
Photo: Christy Hoepting, Cornell Vegetable Program

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Control by Natural Enemies: The primary parasite of cabbage aphids in the Northeast is a very small, black wasp, *Diaeretiella rapae*, which lays its eggs inside the aphid. The parasite larva feeds inside the aphid, turning it a bronze color and killing it (Fig. 4). After about two to three weeks from the time the parasite lays eggs, an adult parasite emerges from the dead aphid. Generally, there is a lag period between the outbreak of aphids and control by the parasite, so some other control that does not harm the parasite is warranted. Also, the presence of dead parasitized aphids can contaminate the marketable product.

Conventional Control Options: Most insecticides used for worm management will NOT control aphids. However, many of the **systemic insecticides that are used to control onion thrips WILL also control cabbage aphid, including:**

- Assail – Group 4A
- Admire Pro or other labeled formulations of imidacloprid (soil or foliar applied) – Group 4A
- Movento – Group 23
- Leverage – Group 4A + 3A
- Platinum (soil applied) – Group 4A

Other insecticides labeled for cabbage aphids include:

- Fulfill – Group 9B
- Beleaf – Group 9C
- Actara – Group 4A

Organic Control Options: In recent years, late season aphid outbreaks have been increasing in fall brassica crops on organic farms, though the reasons are not clear.

- **Insecticidal soaps, such as M-Pede.** Apply when numbers are low. Repeat applications two or three times, and ensure coverage of the parts of the plant where aphids live, including undersides of leaves and in the buds, shoots, or heads of Brussels sprouts, broccoli, cabbage, etc. Recent studies indicated five good, one fair, and two poor results against other aphid species. Soaps have not been found to be effective against the green peach aphid, however. Soap products are most effective when they dry slowly, so spraying in the evening or at night is best.
- **Neem products, such as AZA-Direct or Neemix** can provide some control. Based on a limited number of studies, neem products gave good control on turnip aphid (two studies); fair (four) to poor (three)



Figure 3. Leaf puckering and twisting of growing point, caused by cabbage aphid closely resembles damage caused by swede midge (left). Sometimes, both pests can be found in the same plant (right): yellow arrows point to cabbage aphid and red arrows point to swede midge.

Photo: Christy Hoepting, Cornell Vegetable Program



Figure 4. Bronzed appearance of parasitized cabbage aphids (red arrows) amongst healthy aphids; both can serve as contaminants of marketable product. Photo: Plantendoctoren

control of green peach aphid; and mostly good control of other aphids (two good, two fair, one poor) including cabbage aphid.

- **Kaolin clay** reduces aphid populations but leaves a white residue that may affect marketability. ●

Harvesting and Curing Pumpkin and Winter Squash

Adapted from J.M. Kemble, E.J. Sikora, G.W. Zehnder, E. Bauske. 2005. *Guide to Commercial Pumpkin and Winter Squash Production*. Alabama Cooperative Extension System. Publication ANR-1041, and J. Schultheis and C. Averre. 1998. *Storing Winter Squash and Pumpkins*. NC Cooperative Extension. <http://content.ces.ncsu.edu/storing-winter-squash-and-pumpkins/>, edited by Darcy Telenko

Many pumpkin and winter squash plantings are reaching maturity. The fruit of these crops are still alive even after they have matured and are removed from the vine. The objective of curing and storage is to prolong the post-harvest life of the fruit. Mature

pumpkins and winter squash store better than immature fruit. When mature, winter squash have hard skins that resist puncture with your thumbnail. Skins of winter squash appear dull and dry compared to the fresh, bright sheen of the skin of immature fruit.

Leave a long stem (handle) on pumpkins. On winter squash, such as the 'Hubbard' type, remove the stems completely. Keep in mind that dead vines do not indicate maturity in pumpkin and winter squash. When vines die prematurely from disease or drought,

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for example, the fruits are likely immature and will not store successfully. Curing involves elevating storage temperatures to 80° to 85°F with 75 to 80 percent relative humidity for approximately 10 days. Curing heals wounds, helps ripen immature fruit, enhances color, and insures a longer post-harvest life. After curing, reduce temperature and relative humidity as indicated in the Table. Curing is beneficial in pumpkins and some winter squash, but ‘Butternut,’ ‘Hubbard,’ and ‘Quality’ squashes have not shown any added benefits from curing. Curing is detrimental in Acorn types, such as ‘Table Queen.’

Table. Storage Recommendations For Pumpkins And Winter Squash.

Type	Approximate length of storage	Temperature conditions	Relative humidity	Remarks
Pumpkin	2-3 months	50-55 °F	50-75%	Should be well-matured
Winter Squash				
Hubbard	5-6 months	50-55 °F	70-75%	Holds well in storage
Acorn	5-8 weeks	50 °F	50-75%	Develops poor color at higher temperatures
Butternut, Turban, Buttercup	2-3 months	50 °F	50-75%	

Storage. All pumpkins and winter squash should be well matured and free from injury and decay when stored. They should be kept dry and provided with good air circulation. Control humidity because high humidities will promote decay and lower humidities will cause excessive weight loss. When winter squashes are taken out of storage, they should be marketed immediately.

Tips to minimize squash and pumpkin rots:

- 1) Maintain a good fungicide- and insecticide-spray program during the growing season to minimize foliar diseases
- 2) Avoid blossom-end rot of fruit by fertilizing and liming fields according to recommendations from soil test reports and by irrigating when needed.
- 3) Avoid injuring fruit while on the vine.
- 4) Harvest fruits when they are mature and the rind is hard, but before night temperatures are below 40°F and well before a frost or a hard freeze.
- 5) Do not harvest or handle wet fruit. Do not let harvested fruit get wet.
- 6) Harvest fruit by cutting the peduncle (stem) with pruning shears to leave a 3- to 4-inch handle for pumpkins and about a 1-inch stump for squash.
- 7) Harvest, pack, handle, and store fruit carefully to avoid injuries.
- 8) Discard all fruit that are immature, injured, or have rot or blemishes. These fruit should not be harvested or stored.
- 9) Do not pick up freshly harvested fruit by the peduncle, because it may separate from the fruit and provide easy access for rot organisms.
- 10) Do not stack the fruit higher than 3 feet.
- 11) Do not permit harvested or stored fruit to get wet.
- 12) Washing is usually not desirable, but if washing is necessary, be sure the water is chlorinated (at least 50 ppm, approximately one part 5.25% liquid bleach to 999 parts water). Prepare fresh wash solution when the water becomes cloudy and chlorine cannot be detected. Dry thoroughly.
- 13) For better keeping, some growers cure pumpkins for 10 to 20 days at 80 to 85°F with good ventilation (e.g. four air exchanges per day).
- 14) Harvested fruit should be stored with good ventilation (at least one air exchange per day) at 50 to 55°F and 50 to 75% relative humidity. Standard refrigeration temperatures (35 to 45°F) may cause chilling injuries and shorten shelf life. Storage at high temperature may result in excessive loss of weight, color, and culinary qualities, while high humidities may promote rots.
- 15) Storage life is typically 2 to 3 months without significant loss in quality. ●



Photo: Harris Seeds

CROP INSIGHTS



DRY BEANS

Don't miss the NYS Dry Bean Field Meeting, Thurs, Sept. 17, 5:15 pm, at Paul Stein & Sons Farm Bean Field in Caledonia. View standard and new black bean varieties in an on-farm trial. Get an update on dry bean diseases. Hear progress in breeding varieties with pods high on the plant. There will be a report on the increased Western bean cutworm moth counts this year, and the pod damage that was observed. 1.0 DEC credit, and CCA credits, will be available. **Preregister for supper by Mon, Sept. 14** – Carol MacNeil at: crm6@cornell.edu or 585-313-8796. For more details and directions go to: <http://cvp.cce.cornell.edu/event.php?id=433>

When you begin harvest be sure to do a soak test every 30 minutes to ensure that your combine is adjusted properly. As temperatures rise on a sunny day the relative humidity can drop substantially. Slowing down the cylinder speed will ensure that the beans thresh out with the least damage to their seed coats. Damaged seed coats/"checked skins" results in beans falling apart in the can, reducing their market potential. Count out 100 seeds and put them in a bucket of water. After 30 minutes the number of beans out of 100 with seed coats showing a hairline break equal the percent "checked skins."

ONIONS

Despite excessive leaf dieback in some fields (see last week's issue of VegEdge), the onion crop has generally had a good growing season and is bulbing very nicely. Downy mildew was very active again last week and has accelerated leaf dieback in some fields with the onions left "dying standing up" in the worst areas. Lodging is progressing well overall. Harvest has slowed during the hot and humid conditions as sunscald and black mold become more of a risk – *see article, pg 7*.

POTATO

Clean up your storages, boxes and handling equipment. Use compressed air and/or a pressure washer to clean off all debris. Check for breaks in insulation and vapor barriers in the storage to avoid cold spots which can result in drip. Air intakes, exhaust vents, air ducts and tubes should be clean and working properly. Take care during harvest to minimize tuber bruising to limit entrance points for Pythium leak, Fusarium dry rot and bacterial soft rot. On the harvester, pad deflectors and sharp points. Reduce drops to no more than 6". Adjust chain speeds to keep them full of potatoes to avoid roll back. Reduce chain bouncing. During potato washing water temperature should be at or above tuber temperature to avoid water, potentially with bacteria, being sucked into the lenticels. Sodium hypochlorite can be used in the wash water to prevent spread of bacteria. Check frequently to maintain 65-125 ppm chlorine, and a pH between 6.0 - 7.5. Use new foam rollers at the end of the wash line to remove as much water as possible from the tubers. Circulate lots of air around boxes of washed potatoes to completely dry tubers. Don't pack until tubers are dry. Holding in a cooled storage can further dry tubers. Don't bring in any air warmer than the tubers, however, or bring the cooled potatoes out into warmer air, to avoid condensation and disease development.

Several post-harvest, pre-storage treatments are available to reduce the spread of potato diseases during storage. They all require uniform treatment of tuber surfaces with a very fine, very low volume spray. *Note: If there is rot potential in a lot of tubers the extra water required for application of these products may cancel out any benefit from the fungicides.* Potatoes should be dry before placing them into storage. Bio-Save is a biological material that research has shown to reduce the spread of Fusarium dry rot (FDR) in storage. Continuous agitation is essential. Phostrol can suppress the spread of late blight (LB) and pink rot to new tubers in storage, but is not recommended for fresh market potatoes, especially if there are enlarged lenticels. The new product Stadium has been shown to reduce the spread of FDR and silver scurf. *From W. Kirk, MSU:* Stadium is a three-way mixture of azoxystrobin (Quadris), fludioxonil (Maxim) and difenoconazole (Inspire). The application rate is 1.0 fluid oz./20 cwt (a ton) of potatoes, in 0.5 gallons of water/ton of tubers. Results from several years of trials at MSU and U of ID show that Stadium provided effective disease control. Results from testing at MSU indicated the product also suppressed tuber LB, although this is not on the label. Follow label directions carefully regarding product rates/ton of potatoes and especially the amount of water/ton of potatoes.

PROCESSING CROPS

Harvest of lima beans started at the end of last week. The crop had a rough start to the season, with most fields suffering from waterlogging early on. A number of fields were replanted, only to suffer water damage once again. Where the lima beans survived, they have filled in the rows and put on a decent crop. Leaf spots of various types, white mold and gray mold have all been observed, but have not limited the crop so far. White and gray mold typically get worse through September and October as temperatures cool and moisture levels increase (not going to happen this week). Snap bean harvest continues, and white mold is not terribly problematic at this time. Harvest of beets and sweet corn is also ongoing, with few problems being reported. Carrots continue to size up. Fall spinach has been planted.

VINE CROPS

Green and black aphids are showing up in pumpkins and winter squash plantings. Generally, aphids not much of a problem late in the season if their numbers are low. They can vector virus and some seasons virus shows up a lot worse than others. We have seen a little virus in spots. Large concentrations of aphids can cause sooty mold. This problem is cosmetic leaving a blackened appearance on the fruit. Assail 30SG, BeLeaf, and Fulfill have done well in a small field trial we had this season.

Powdery mildew is severe where left untreated. Having big canopies out there taking advantage of the summer weather for the next week or so (finally) will allow for more vine growth and sizing up of fruit. There is still time to keep the vines going in good shape and shoot for a better crop.

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Saw a latter planted pumpkin patch that is doing extremely well right now. New fruit are forming fast while older fruit sets are sizing and coloring up. The planting has a heavy dense canopy and has been kept clean of PM with a regular mix of preventative sprays. Good fertility has also helped carry this planting through the season along with decent drainage during the heavy rains.

Downy mildew has hammered the cantaloupe crop all over the region. Canopy cover has been poor because the foliage has been damaged by disease. Sunscald of the melons has caused a lot of loss. Smaller melon size can be at least partially attributed to the poor state of the leaf canopy as well. A regular spray schedule can go a long way with keeping the leaves in good shape for most of the season. In a Cassaba melon trial conducted this summer by the CVP, several varieties held up nicely even with disease symptoms on the leaves. DM did show up but seemed to take a long time to spread. The lesions were small and the leaves stayed in good shape and remained dark green. Vines were long and had plenty of leaves. More work will be done with these varieties in the future.



Photo: Judson Reid, CVP

Concerns Harvesting Onions in Hot and Humid Weather

Christy Hoepting, CCE Cornell Vegetable Program

Recent hot, hazy and humid weather is not ideal for onion harvest, due to the higher risk of sunscald and black mold. If possible, delay pulling and harvesting until temperatures in the 70s and less humid weather resumes.

Sunscald

Succulent tissues of less mature, uncured bulbs are most susceptible to sunscald when they are exposed to hot temperatures (high 80's and 90s) and bright sunlight. Sun-scalded tissue appears bleached and then becomes indented (Fig. 1), and can easily be invaded by secondary bacterial pathogens. Avoid pulling immature onions (i.e. when they still have green leaves and outer dry scales are not properly formed) during bright sunlight and high temperatures. If possible, cover the pulled bulbs with the leaves of the other plants in the windrows. Or, for small-scale operations, remove onions from the field and dry in a sheltered area out of direct sunlight.

Black Mold

Black mold is caused by a soil-borne fungus that can survive on plant debris in the soil. It is generally endemic in areas where onions are grown regularly. Symptoms include black powdery spores arranged in splotches on the outer scales along the neck and shoulder area of the onion bulb or in streaks that typically follow along the veins of the bulb vertically (Fig. 2). Black mold looks like muck soil, but cannot be rubbed off. Infection of the bulb occurs through injured tissues, especially in the neck area as the top breaks over and/or are cut. Infection can spread from bulb to bulb by direct contact, through bruises or wounds, by mechanical means, or by airborne spores.

Harvesting during hot and humid weather is very favorable for the development and spread of black mold and can result in high incidence of unmarketable bulbs. Optimum temperatures for black mold infection, development and spread are 82 to 93°F; it is not active below 63°F or above 117°F. Infection is favored by high humidity (76 to 81%). Free moisture is required for 6-12 hours. When optimum temperature, humidity and free moisture occur, infection takes only 3 to 6 hours.

To avoid black mold, avoid harvesting immature onions, as topping will leave green neck tissue susceptible for infection to

occur. Avoid harvesting when temps are greater than 82°F. Avoid bruising.

Keep dryer temperatures less than 82°F and RH less than 76%, and use lots of air.



Figure 1. Onions exhibiting bleached and sunken injury caused by sunscald with (left) and without (right) outer scales removed. Photos: C. Hoepting, CVP



Figure 2. Black mold of onion looks like muck soil, but cannot be washed off. Black powdery spores can occur in splotches on the outer scales along the neck and shoulder area of the onion bulb (left) or in streaks that typically follow along the veins of the bulb vertically (right). ●

Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

New late blight (LB) confirmations are in for Niagara County, as well as additional samples from counties where it's already confirmed. The LB Decision Support System (DSS) reports a high number of blight units (BU) for the past week at the majority of weather stations, requiring the use of a 5 day spray interval with a systemic/longer residual fungicide. Most of the rest of the stations accumulated a moderate number of BUs. The NEWA Simcast forecast at: <http://newa.cornell.edu/index.php?page=potato-simcast> is now working properly, for those without a DSS account. Chlorothalonil is the assumed fungicide, however. The quick Critical Threshold Tool at: <http://blight.eas.cornell.edu/blight/upstate> is still available and offers a choice of fungicides. Only weather station locations are considered in these two options.

Continue applying a fungicide regularly, even past potato vine-killing, and even if you've abandoned a tomato planting, as long as any green tissue remains, to prevent the production of LB spores. One LB lesion can produce 350,000 spores, each of which is capable of producing a new infection. Spores can travel many miles on winds at night or during cloudy days. Wait to harvest until potato foliage and vines are completely dead and dry, to avoid exposing tubers to LB spores. If you grade on the harvester, don't drop cull potatoes back into the field, or pile culls at the end of the field. Potato tubers that survive overwinter and sprout in the spring, either as field volunteers or culls in a pile, are a major source of LB for the next year. See *potato post-harvest, pre-storage treatments in Crop Insights*, pg 6.

From Willie Kirk, MSU, 8/12/15: Nighttime temperatures of 50 - 60°F accompanied by light rain, fog or heavy dew, followed by days of 60 - 75°F with high relative humidity, typical September weather, are ideal for tuber LB infection and development. Tubers may become infected if spores produced on the foliage are washed down into the soil by rain. Water-borne spores appear to follow stems and stolons in a water film into the soil, reach tubers and cause infection. Tubers near the soil surface are thus more likely to be infected. LB can only survive in living potato tissue, and usually survive from year to year in infected tubers placed in storage, in piles of cull potatoes, or in infected tubers missed during harvest that remain unfrozen over winter (volunteer potatoes). 🍅

Late Blight Risk Chart, 8/25/15³

Location ¹	Blight Units ² 8/26-9/01	Blight Units ² 9/02-9/04	Location ¹	Blight Units ² 8/26-9/01	Blight Units ² 9/02-9/04
Appleton	30	19	Kendall	49	18
Arkport	49	21	Lodi	31	21
Baldwinsville	32	21	Lock/Niag F.	45	21
Bergen	19	21	Lyndonville	53	21
Buffalo	44	18	Medina	47	21
Butler	NA	NA	Penn Yan	53	21
Ceres	45	21	Rochester	46	21
Elba	56	21	Sodus	30	21
Farmington	32	21	Versailles	42	21
Gainesville	54	21	Wellsville	46	21
Geneva	35	21	Williamson	33	21

1 Past week Simcast Blight Units (BU)

2 Three day predicted Simcast Blight Units (BUs)

3 Threshold = 30 BUs (susceptible variety, last fungicide-shorter residual)

UPCOMING EVENTS *view all Cornell Vegetable Program upcoming events at cvp.cce.cornell.edu*

Central NY Soil Health Field Day

September 4, 2015 | 9:30 AM - 3:00 PM

Cuddeback Farms, 466 State Rte 38A, Skaneateles, NY 13152



Nationally recognized soil health experts Ray Archuleta, "Ray the Soils Guy," NRCS, and Frank Gibbs, known for his "tile line smoke machine," formerly NRCS, will be speaking on good soil health, and demonstrating how to evaluate your soil's health. Also, taking advantage of the Cornell Soil health Test, and interseeding cover crops into cash crops. FREE but contact Jason Cuddeback, Cayuga County SWCD, jcuddeback@cayugaswcd.org or 315-252-4171 x3 if you plan to attend.

2015 NYS Dry Bean Growers Field Meeting

September 17, 2015 | 5:15 PM - 8:00 PM

Paul Stein & Sons Farm, Caledonia, NY



View six standard and new black bean varieties in a grower-planted trial. Get an update on Sclerotinia white mold control, including info on fungicide resistance, and bacterial diseases. Hear about progress in breeding varieties with pods high on the plant, ensuring not only easier harvest, but also foliage drying to reduce disease pressure. Western bean cutworm moth counts were very high this year. Hear reports on pod and/or bean damage. 1.0 DEC and CCA credits will be available. *Sponsored by Empire Tractor, Genesee Valley Bean Company, Goya Foods, New York Bean LLC, and Treasure Valley Seed Company.*

Cost: Enrolled in the Cornell Vegetable Program - \$10; Not enrolled in the CVP - \$15. **Preregister for supper by Monday, September 14** – Carol MacNeil at crm6@cornell.edu or 585-313-8796. If you have special needs, call a week ahead so we can accommodate you.

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/25 – 8/31/15

Location	Rainfall (inch)		Temp (°F)	
	Week	Month August	Max	Min
Albion	0.00	3.35	86	49
Appleton, North	0.00	1.98	80	48
Baldwinsville	0.25	2.15	80	54
Buffalo*	0.09	4.36	79	55
Butler	0.06	3.99	82	54
Ceres	0.22	2.89	83	49
Elba	0.00	3.35	77	43
Farmington	0.01	2.69	82	49
Gainesville	0.02	2.55	78	45
Geneva	0.00	2.25	82	52
Lodi	0.00	1.38	87	50
Niagara Falls*	0.02	2.22	83	51
Penn Yan*	0.00	2.17	84	52
Rochester*	0.01	4.68	84	51
Romulus	NA	NA	84	52
Silver Creek	0.35	3.42	78	55
Sodus	0.09	4.68	81	51
Versailles	NA	NA	79	51
Williamson	0.24	6.44	81	52

Accumulated Growing Degree Days (AGDD)

Base 50°F: April 1 – August 31, 2015

Location	2015	2014	2013
Albion	2142	1948	2105
Appleton, North	1852	1731	1889
Baldwinsville	2145	2081	2159
Buffalo	2177	2032	2213
Butler	2153	2033	NA
Ceres	1865	1746	1784
Elba	1630	1574	1855
Farmington	2028	1917	1996
Gainesville	1678	1543	2253
Geneva	2075	1963	2091
Lodi	2257	2153	2315
Niagara Falls	2040	1947	2049
Penn Yan	2194	2085	2177
Rochester	2243	2099	2272
Romulus	2126	2002	NA
Silver Creek	2006	1955	2099
Sodus	1915	1854	NA
Versailles	1989	1900	2048
Williamson	1957	1858	2100

* 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 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.

VEGETABLE SPECIALISTS

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

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

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

Carol MacNeil | 585-313-8796 cell | 585-394-3977 x406 office | crm6@cornell.edu
potatoes, dry beans, and soil health

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

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

PROGRAM ASSISTANTS

Elizabeth Buck | 607-425-3494 cell | emb273@cornell.edu

Missy Call | mmc253@cornell.edu

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

Cordelia Hall | ch776@cornell.edu

Nelson Hoover

ADMINISTRATION

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

Steve Reiners | sr43@cornell.edu

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



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Cornell Vegetable Program