



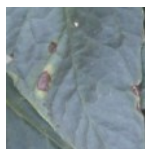
Powdery mildew has become more common in carrots and related crops in NY. Current conditions are favorable for the disease. Be on the lookout!

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Soil composition, soil pH, and weather conditions can cause tomatoes to exhibit nutrient deficiencies. Learn how to differentiate between them.

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Early blight has been detected in our area. Look for an initial dark lesion surrounded by a yellow halo. Read about this disease of tomato and potato.

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The Cornell Vegetable Program is hosting many upcoming field meetings. Our full list of events is on our website at cvp.cce.cornell.edu

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VEGEdge

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• Volume 12 | • Issue 15 | • July 27, 2016

Photo: Cordelia Hall



Cornell University
Cooperative Extension
Cornell Vegetable Program

Conditions are Favorable for Powdery Mildew of Carrot, Parsley and Related Crops

Julie Kikkert, CCE Cornell Vegetable Program

Powdery mildew (*Erysiphe heraclei*) has become more common in carrots and related crops in New York, with severe outbreaks in hot dry summers such as 2005 and 2012. Current conditions in our region are very favorable for this disease, and growers should be on the lookout.

The causal organisms for powdery mildew are specific to certain crops. That means if you have powdery mildew on cucumbers or pumpkins it won't attack carrots, and vice versa. *E. heraclei* infects only crops in the carrot family (Apiaceae, formerly known as Umbelliferae). Susceptible crops include:

- Carrot
- Celery
- Dill
- Fennel
- Parsley
- Parsnip



Powdery mildew on carrot leaf. *Photo: Julie Kikkert, CVP*

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VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension regional agriculture team, serving 12 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

Contributing Writers

Robert Hadad
Christy Hoepfing
Julie Kikkert
Carol MacNeil
Judson Reid
Darcy Telenko

Publishing Specialist/Distribution/Sponsors

Angela Parr

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. Cornell Cooperative Extension staff, Cornell faculty, and other states' Extension personnel may request to receive a complimentary electronic subscription to VegEdge by emailing Angela Parr at aep63@cornell.edu. Total readership varies but averages 700 readers.

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Help us serve you better by telling us what you think. Email us at cce-cvp@cornell.edu or write to us at Cornell Vegetable Program, 480 North Main Street, Canandaigua, NY 14424.



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The next issue of VegEdge will be produced on August 3, 2016.



Cucumbers harvested today from the Cornell Vegetable Program's research site at the Cornell Lake Erie Research and Extension Laboratory, Portland, NY. Photo: Darcy Telenko, CVP

Spores of the powdery mildew fungus can spread by wind over long distances. The disease can also be spread by movement of people and machinery that have been working in infested fields. It is believed that spores can also contaminate seed lots. The fungus does not overwinter in New York.

Symptoms of powdery mildew are powdery fungal growth, which can occur on all above ground parts of the plant. The older leaves are the most susceptible. As the disease progresses, the fungus can completely cover the foliage, which then becomes chlorotic. Severely infested leaves may die.

Carrots can survive moderate infection without loss in yields. However, where healthy tops are required such as in machine harvest where the carrots are lifted from the field the disease can be problematic. It also causes cosmetic issues on the foliage of carrots, parsley and other crops.

Management

- Resistant varieties - see tables of disease resistance in carrots at <http://vegetablemdonline.ppath.cornell.edu>
- Maintain good plant vigor
- Avoid water stress
- Application of labeled fungicides when the infection begins early in the season or when there is concern over loss of foliage. ●

Buffalo Public Schools Seeking Farmers to Participate in the Farm-to-School Program

Cheryl Thayer, CCE Harvest New York

Buffalo Public Schools is seeking input from New York State farmers interested in supplying some of the district's fresh produce needs for the 2016-17 school year, as part of their farm-to-school initiative.

The goals, through this Request for Information, are to:

- Identify farmers that want to partner on the Farm-to-School initiative with Buffalo Schools;
- Identify farm products, estimated

quantities and the dates farmers can provide the farm products;

- Identify items not specifically listed on the request for information, but that farmers are interested in providing.

Please note that by responding to this Request, you are not legally committing yourself to provide the products listed nor is Buffalo Schools legally committing to purchase them from you.

To read more about the Buffalo school district's needs and to download the Request for Information form, go to http://harvestny.cce.cornell.edu/pdf/submission/pdf36_pdf.pdf. Or, if you wish to have a copy of the information and form mailed to you, contact Cheryl Thayer, CCE Harvest NY, at 607-592-9507 or cbt32@cornell.edu.

Responses to the Request for Information are **due August 15, 2016**. ●

Late Blight Risk – The Need for Fungicide Applications

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

No late blight (LB) has been detected in NYS, the Northeast, or most of the rest of the country in the past week. (Early blight is present at low levels in many fields, however. See article, pg 7.)

Only a couple of weather stations are approaching, or have reached, the 30 blight unit (BU) threshold for a fungicide spray during in the past week. However, 11 more stations will approach or reach the BU threshold in the 7/27-29 forecast period, and all the rest of the stations will approach or reach the - 15 fungicide (loss) unit (FU) threshold by the end of the 7/27-29 forecast period. These thresholds apply if chlorothalonil was used a week ago on a susceptible variety. Most varieties are susceptible. Kennebec and a few uncommon varieties are moderately resistant. Thresholds are lower for copper fungicides, Prophyt and Phostrol. Thresholds are higher for Gavel, Previcur Flex, Presidio, Ranman, Revus/Revus Top, Zing, Zoxium, and for mefenoxam/metalaxyl if the LB strain is sensitive. If you use the LB Decision Support System/BlightPro you can more safely tweak the fungicide and/or spray interval. Don't forget to factor in overhead irrigation, as well as rainfall, and remember that you don't need rain for LB development, just high relative humidity in the canopy.

Late Blight Risk Chart, 7/26/16¹

Location ¹	Blight Units ² 7/20-7/26	Blight Units ³ 7/27-7/29	Location ¹	Blight Units ² 7/20-7/26	Blight Units ³ 7/27-7/29
Appleton	10	10	Lodi	11	17
Baldwinsville	18	17	Lyndonville	0	17
Bergen	0	16	Medina	0	10
Buffalo	8	10	Niagara Falls	0	15
Ceres	25	18	Penn Yan	12	16
Elba	0	11	Rochester	16	16
Fairville	10	11	Sodus	15	17
Farmington	17	11	Versailles	12	16
Gainesville	34	19	Wellsville	14	12
Geneva	5	6	Williamson	11	17
Kendall	0	15	Wolcott	1	11

¹ Assuming: last fungicide spray 1 week ago; residual like chlorothalonil; susceptible variety

² Past week's Simcast Blight Units (BU) (Threshold = 30 BUs)

³ Three day predicted Simcast Blight Units ●

Nutrient Deficiencies in Tomatoes – How to Differentiate

Jodi Callwood and Darcy Telenko, CCE Cornell Vegetable Program

A number of factors can cause tomatoes to exhibit nutrient deficiencies including soil composition, soil pH, and weather conditions. Most nutrient deficiencies can be combated easily, but differentiating one deficiency from another can be difficult. There are few key differences that can aid in identifying which one you have and proper treatment. Before treating any deficiency, it is important to test the soil to determine what type of nutrient is missing and then determine the best treatment for that particular deficiency.

Nitrogen is essential to establishing and sustaining healthy plant growth. Deficiencies are characterized as dull yellow (chlorotic) coloring first appearing on the oldest leaves and gradually

moving up the plant. Prolonged deficiency results in yellowing thorough the plant, reduced leaves at the top, and wilting on the lower leaves. Oversaturation of the soil can dissolve nitrogen leaving the soil deficient, however combating this deficiency is a matter of applying a nitrogen rich fertilizer or compound to the soil, positive results should be apparent within a few days.



Phosphorus attributes to healthy root and fruit development while providing the nutrient for substantive plants. Phosphorus deficiency is characterized by stunted, slow developing plants

that can be mistaken for young slow growing plants that later develop a blue-grey sheen. If left untreated older leaves will begin to exhibit browning of the leaf veins. Cold soil temperatures, improper soil pH, and soil deficiencies can cause phosphorous deficiencies.



Potassium establishes and maximizes strong plant and fruit growth. Plants deficient in potassium do not usually make it to maturity and exhibit few signs of distress.

However, some plants exhibit physical characteristics of distress include yellow tips in early growth. If left untreated plants will exhibit brown leaves, curling and cracking of leaf tips. Soil oversaturation can cause potassium to wash out of the soil because it is extremely dissolvable.



Calcium promotes root and leaf growth, maximizes fruit yield in crop, and reduces the appearance of blossom end rot in fruit. Universal indicators of calcium deficiency is necrosis

or yellowing towards the base of the leaves and blossom end rot in fruit, characterized by dark flattening towards the end of the fruit. Dry soil attributes to calcium deficiency or poor transcription of transplants.



Magnesium promotes leaf growth, improves fruit production in the crop, and maximizes the fruit production in late stages. Magnesium deficiency lead to interveinal yellowing, from there the yellowing spreads through the leaves which produces a raised puckering leaf that is left untreated can brown at the tips.



Sulfur complements nitrogen and is an important component of the many nutrients found in tomatoes, deficiencies can be attributed to oversaturation of the soil. Often plants deficient in sulfur exhibit similar symptoms of nitrogen deficiency, however, unlike nitrogen, sulfur deficiency creates a pinkish tone on the leaves. If left untreated the tips of the leaves can develop brown lesions or yellowing of the leaf tips resulting in brittle leaves.



Manganese contributes to a plants ability to turn sunlight absorption into energy for healthy growth. Deficiencies are characterized by yellowing of the leaves in younger plants, and yellowing of netted leaves in older plants which become most apparent when natural light is shown through the leaf. Over time leaves can develop grey metallic sheen or purple luster, dark freckles can appear on the necrotic vein areas.



Molybdenum enables the plant to use nitrogen effectively in metabolic processes which can cause stunted growth and nitrogen deficiency, which creates a buildup of unused nitrates in the leaves. Signs of liberal molybdenum deficiency include circular yellow or brown spotting, yellowing of the leaves starting from the stem, and reddish under coloring of the leaves. In early plant development overall yellowing and a reddish under leaf are signs of which are similar to nitrogen deficiency.



Zinc is involved with interveinal regulations and chloroplast functions within the plant, and is caused by a lack of organic matter in the soil. Deficiencies in zinc are characterized by interveinal yellowing, in which younger leaves are yellow and older leaves show sectioned hollowing. Main



continued on next page

veins will remain green but there will be concentrated yellowing and brown spots between veins.

Boron is involved in the metabolic processes within the plant. Deficiencies in boron are characterized by green chlorosis, light green color, of plant leaves. Symptoms usually appear in younger plants yielding slight interveinal yellowing in older leaves resulting in yellow orange leaf tinting in the middle of the older leaves. If left untreated leaves can become brittle and fruit will be swollen and disfigured.



Copper aids in plant metabolic process and chlorophyll ability to store and metabolize sunlight. Upwardly curled light green leaves are signs of copper deficiency. Younger leaves can experience turgor, cell rigidity, matured leaves exhibit signs of green veins with sections of white to white-grey coloring. Some leaves develop sunken yellow, brown areas and droop downward.



Iron reduces the amount of nitrate and sulfate and assists in chlorophyll formation and photosynthesis. In young plants lower leaves begin to show signs of bleaching starting from the leaves closest to the base, overtime, if not treated, the plant will appear washed out. Bleached spots can often develop yellow spots that can eventually become brown. These are caused by the inability of iron to move through the plant veins easily.



Information source: <http://allaboutgrowingtomatoes.blogspot.com/2014/03/nitrogen-deficiency-in-tomato-plants.html>

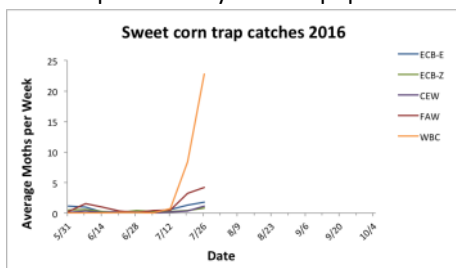
Photos source: http://www.haifa-group.com/knowledge_center/crop_guides/tomato/plant_nutrition/nutrient_deficiency_symptoms/

WNY Sweet Corn Trap Network Report, 7/26/16

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

Twenty-one sites reported this week for Western NY. European corn borer (ECB)-E was caught at nine sites and ECB-Z was caught at six sites this week. Corn earworm (CEW) reported at five sites, all high enough to require a 4, 5, or 6 day spray schedule (see table at bottom of post). Fall armyworm (FAW) continues to increase with 11 sites reporting trap catches. Western bean cutworm (WBC) numbers are increasing with 15 sites reporting trap catches. The site in Eden had 122 WBC caught this week.

Where CEW are being caught in high enough numbers to drive the spray schedule, the other worm pests should also be controlled. At locations with low CEW numbers, scout tassel emergence and silk stage fields for ECB, FAW, and WBC egg masses and larvae. Several sites have reached the degree day accumulations for 50% WBC emergence, however, degree day forecasts pertain only to local populations. Last year peak WBC trap catches occurred during the last week of July and the first week of August.



Degree-day accumulations in relation to percent moth emergence (beginning May 1, base 50°F)

Accumulated Degree-days	% Moth Emergence
1319	25%
1422	50%
1536	75%

Percent WBC moth emergence based on degree day accumulation, data from University of Nebraska

WNY Pheromone Trap Catches: July 26, 2016

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	3	1	0	4	45	1364
Batavia (Genesee)	1	1	6	0	24	1029
Belfast	0	2	0	0	2	1178
Bellona (Yates)	0	0	0	4	34	1447
Eden (Erie)	2	0	2	15	122	1241
Farmington (Ontario)	2	0	0	0	0	1275
Hamlin (Monroe)	NA	NA	NA	NA	NA	1297
LeRoy (Genesee)	NA	NA	NA	NA	NA	1269
Pavilion	0	0	0	NA	38	1036
Penn Yan (Yates)	1	0	0	0	32	1413
Ransomville (Niagara)	0	0	7	0	12	1422
Seneca Castle (Ontario)	0	0	0	5	29	1325
Spencerport (Monroe)	0	4	4	2	0	1432
Waterport (Orleans)	NA	NA	NA	NA	NA	1306
Williamson (Wayne)	0	0	0	0	0	1231

ECB - European Corn Borer

CEW - Corn Earworm

FAW - Fall Armyworm

WBC - Western Bean Cutworm

NA - not available

DD - Degree Day (modified base 50F) accumulation

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

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

CROP INSIGHTS

Japanese beetles are out in full force in most every type of vegetables.

CUCURBITS

DOWNY MILDEW CONFIRMED IN CATTARAGUS COUNTY NY!!! **HIGH Risk for cucurbits in western and west-central NY. Moderate Risk in south-eastern Ontario, northeast OH, PA except the Southeast, northeast KY, and**

southwest OH. Be on the lookout and if you suspect downy mildew please contact us to verify. Powdery mildew continues to increase in cucumber and squash planting around the region.

Remember a cover of good foliage is needed for plants to continue to produce fruit and to avoid sunscald.

DRY BEANS

Dry beans are flowering and beginning to set pods, but bushes are small, reducing yield potential.

Fields planted with Cruiser-treated seed should be protected from potato leafhoppers (PLH) through bloom unless pressure is especially high. Adult PLH may be present but they rarely feed on Cruiser-treated beans. In other fields the threshold is 5 PLH adults/sweep with a net. Only the presence of tiny, pale green, flightless PLH nymphs on leaf undersides indicates the loss of control in Cruiser-treated fields. The threshold is 1 nymph/trifoliate leaf. Some flea beetles, tarnished plant bugs and Japanese beetles have been observed.

A very high number of Western bean cutworm (WBC) moths were caught again this past week in a field in Riga, bringing the total there to 388 moths. The threshold for scouting nearby corn for egg masses and larvae is just 100 moths. Peak WBC emergence should occur soon. Dry bean pod scouting should begin 10 days after peak emergence. If pod damage is found in 20-30 min. of scouting a field it should be sprayed once with an insecticide. The WBC larvae will not be observed as they spend the day in the soil, and only climb up onto the plant to feed on the pods at night. Dry bean growers and industry representatives will be notified when WBC peak emergence occurs.



Western bean cutworm bean pod feeding damage, WNY, 2015. Fresh feeding will not be brown.
Photo: Carol MacNeil, CVP

ONIONS

Another hot week! Non-irrigated fields are showing signs of stress. Iris yellow spot virus is increasing in prevalence (more on this another week). Despite the hot and windy weather, **Botrytis leaf blight (BLB) increased in Elba** over the past week (BLB remains practically non-existent in Wayne and Potter). There were a couple of cool nights that dipped into the 40s and 50s, which resulted in leaf wetness from dew, and in combination with thick plant canopies, conditions were actually favorable for BLB development for the first time this season. At this stage, a little bit of BLB is not of concern, but the fact that conditions are now intermittently favorable for BLB is an alert to the possibility that downy mildew (DM), another cooler weather disease, might also occur. In other years, it has not been uncommon for first detection of DM to occur in July. **At this time, it is recommended that growers include a protectant for downy mildew (DM) in the tank mix.** Protectants for DM include mancozeb (Manzate, Dithane, etc.), phosphorous acid products (FRAC group 33; e.g. Phostrol, Rampart, etc.) or strobilurin fungicides (FRAC group 11) such as Quadris Top (3 & 11) or Merivon (7 & 11). So, if you are using Merivon or Quadris Top for Stemphylium leaf blight, there should be no need to add mancozeb to the tank mix at this time. If you are using Luna Tranquility (7 & 9), Inspire Super (3 & 9) or Scala (9) + Rovral (E3) for example, then mancozeb or phosphorous acid should be added to the tank mix. This protectant program does not prevent DM from occurring, but it helps to alleviate the spread and severity. Once DM has been detected, a curative program will need to be implemented and mancozeb included in every tank mix. So far, there have been no reports of DM in any of the muck onion growing regions.

Thrips control continues to be a challenge in this heat, especially in Elba. In Wayne Co., thrips pressure is much lower and growers are keeping the populations well in check. Many fields have been sprayed with two applications each of Movento and Agri-Mek, and depending on the crop maturity, there could be 4-5 more weeks left. Now is the time to plan your thrips program for the end of the season. Keep the following in mind:

- Insecticide options include Exirel (up to 4 apps at 13.5 fl oz), Radiant (up to 3 apps at 8-10 fl oz), Lannate (up to 6 apps at 3 pts) and Warrior (up to 8 apps at 2 fl oz).
- Radiant is the only product that can handle a population of 3.0 thrips per leaf or higher. Exirel and Lannate + Warrior should be able to hold a population that is 1-2 thrips per leaf.
- Assume that a single generation of onion thrips is about 2 weeks. Do not expose multiple generations to the same chemical class(es). Exirel, Radiant, Warrior and Lannate each belong to a different chemical class. Rotate away from a chemical class(es) for at least 2 wks.
- Refrain from applying Radiant as the last spray in transplanted onions or early direct seeded onions, because thrips exposed to Radiant in these crops (gen 1) will move to adjacent direct seeded onions where the next consecutive generation of thrips (gen 2) will be treated with Radiant, thus giving the population opportunity to develop resistance to Radiant.
- If harvest in transplants or direct seeded fields is still 4 weeks away, Radiant may be applied now and again next week (gen 1); then plan on rotating to Exirel or Lannate + Warrior for the following two weeks (gen 2) so that the population exiting the field at harvest will not be exposed to Radiant. Then, Radiant can be used in the adjacent field where they migrate into (gen 3). This way, two consecutive generations are not exposed to Radiant.

PEPPERS

Watch for thrips – we are still finding them the blossoms, but the good news is in most spots we are also finding the beneficial minute pirate bug, *Orius insidiosus*.

continued on next page

POTATOES

Potato yield and size can be significantly improved by irrigation in a dry year. Research in the Northeastern US shows that timely irrigation can improve yields by at least 50 cwt/acre, more in a very dry year, and especially on lighter soils. Irrigation is generally not needed early in the season, and should be avoided during the weeks before harvest. Potatoes respond most to irrigation from the time of tuber set (well before flowering) when the ends of underground stolons begin to “hook,” through tuber bulking. During this time potatoes use about 1.3” of water per week (from soil, rain and/or irrigation) under average weather conditions. Even soil moisture during this time also reduces the risk of scab in susceptible varieties, and reduces defects in tuber shape caused by alternate wet and dry periods. Whether a grower irrigates or not, it is important to have a good water management system in place in case of sudden heavy rainfall.

Use of a maleic hydrazide (MH) sprout inhibitor in the field, such as Royal MH-30, Drexel Sprout Stop, or generics, can reduce potato volunteers next spring. Volunteers can be an important source of late blight. Because there are so many formulations it’s important to read the label directions. Potato foliage needs to be green and free from significant disease or insect damage. Apply the MH formulation 2-3 weeks after full bloom when most flowers have dropped, and when the smallest tubers to be harvested are 1.5” in diameter (2” for Norchip). Early application can result in phytotoxicity or reduced tuber size. Do not apply to potatoes under stress, or if temperatures will reach 85 degrees on the day of spraying. Don’t mix with other pesticides. Some MH labels state not to use adjuvants. Wait 2 weeks to vine kill. Do not apply to potatoes for seed. There is a restricted entry interval (REI) of 12 hours.

If you see signs of significant bacterial blackleg Dickeya or *Dickeya dianthicola*, as described in recent issues, contact Carol MacNeil at crm6@cornell.edu or 585-313-8796 (cell/text). We are especially interested in getting information from the North American Certified Seed Potato Health Certificate, obtainable from the seed producer, for seed lots affected.

POTATOES & TOMATOES

We have found early blight in potato, keep a close watch on both your tomatoes and potatoes as this disease is appearing in the region. See article below for detailed description. Management options include: protectant fungicides like mancozeb and chlorothalonil are a good starting point, but must be reapplied every 7-10 days to provide protection to new growth; the QoI class of fungicides are highly active against Alternaria, but resistant isolates from tomato occur in NY, therefore the use of azoxystrobin in combination with a protectant such as Quadris Opti (group 11 +M5) or Quadris Top (group 11+3), do not apply more than on 1 sequential application of this product or other FRAC group 11 before alternating with a fungicide with a different mode of action (MOA); Other fungicide options include Endura 70 WDG (group 7), copper compounds, Switch 62.5 WG(groups 9+12), Inspire Super (groups 3+9), Tanos 50 DF + protectant (group 11), Reason 500 SC (Group 11), ManKocide (groups M3+M1), Revus Top (group 40+3), Cabrio EG (group 11), Pevicur Flex+protectant (group 28), Scala SC + protectant (group 9), Flint (group 11), Ziram 76 DF or OLP (group M3), Gavel 75 DF (groups 22+M3). Use TOM-CAST system to help setup a fungicide program. <http://newa.cornell.edu/index.php?page=tomato-diseases-tomcast>.

Early Blight in New York

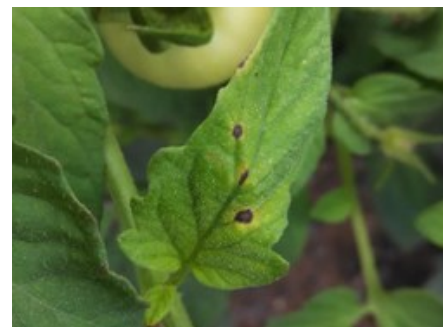
Gretchen Seigworth and Darcy Telenko, CCE Cornell Vegetable Program

Early blight has been identified in Erie, Cattaraugus, and Wayne Counties, NY on tomatoes and potatoes. This soil-borne disease can be present in fields and greenhouses that have received a steady supply of foliar irrigation. Early blight decreases leaf surface area in tomato and potato plants, which in turn causes a reduction in tuber and fruit number, size, and quality. Although plant loss due to early blight rarely exceeds 20%, losses of 70-80% have been reported.

Symptoms of early blight are first observed as small brownish-black lesions on the lower leaves near to or touching the ground. This symptom is shortly followed by yellowing of leaves around the abrasions. Lesions enlarge rapidly in a matter of days to form concentric rings (“bullseyes” or “targets”) Sunken brown lesions can also form on the stems of tomato and potato plants, and can cause collar rot in transplants and smaller plants. Tomato fruits can become infected with sizable round concentric rings near the stem attachment in either the green or ripe stage. Tubers show infection through sunk-

en irregularly shaped lesions. Symptoms and losses due are magnified when early blight is present in conjunction with another disease such as Verticillium wilt or blackleg.

Foliar symptoms can be reduced, but not eliminated; by the application of protectant fungicides (see June 8, 2016 VegEdge for available fungicides and see the Potatoes & Tomatoes section of CropInsights above). The optimum time for the first fungicide application is when airborne spores first appear. Higher rates of fungicide may be necessary as the season progresses. Early blight can overwinter in plant debris and soil, so it is good to rotate an infected field out of tomato/potato production for at least two years. The disease can survive from season to season on a variety of weeds, including horse nettle and black nightshade, so proper weed management during rotation is also important. To further avoid future infection, fully remove all tomato debris from the field after harvest. Postharvest, store slightly infected fruits and tubers in a cool dry area to slow the rate of development.



Initial dark lesion surrounded by yellow halo of early blight on tomato leaf. Photo: D. Telenko, CVP



Severe defoliation of tomato by early blight. Photo: D. Telenko, CVP

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

Vegetable Pest and Cultural Management Field Meeting

July 29, 2016 | 6:00 PM - 8:00 PM

Ontario County, David Fox farm, 3269 Lake-to-Lake Rd, Stanley, NY 14561



This course 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. This event is FREE! 1.75 DEC recertification credits available. For more information, contact Judson Reid at 585-313-8912.

High Tunnel Pest and Disease Management: Organic Control Strategies

August 2, 2016 | 4:30 PM - 7:30 PM

Fellenz Family Farm, 1919 Lester Rd, Phelps, NY 14532



How can you manage your tunnel to limit losses due to pests and disease? This field day will start with identification of common high tunnel pests and diseases and effective organic control strategies, including spraying. Andy Fellenz, with support from NE-SARE, has developed and will demonstrate a boom-style high tunnel sprayer, as well as discuss the proper use of backpack and other relatively low pressure, low flow single-tip sprayers. Variety selection, rotation, cultural practices and spraying all have a place in the overall farm strategy. Cost: FREE! Email Angela Parr at aep63@cornell.edu to register or call 585-394-3977 x426. *This event is sponsored by NE-SARE through a Farmer Grant. The Cornell Vegetable Program is cooperating with Fellenz Family Farm to bring you this event.*

2016 Elba Muck Onion Twilight Meeting

August 4, 2016 | 5:30 PM dinner; educational program begins at 6:00 PM

Mortellaro's Red Shop in the Elba muck land, Elba, NY 14058



Cornell Vegetable Program Specialist Christy Hoepting and Cornell Entomologist Brian Nault will be sharing preliminary research results from current season on-farm onion research trials. This year, attendees will see several herbicide trials, fungicide trials targeting Botrytis leaf blight and Stemphylium leaf blight diseases, as well as trialing several approaches geared to improved onion thrips and onion maggot control. This event is FREE! Contact Christy Hoepting at 585-721-6953 for more information.

Vegetable Pest and Cultural Management Field Meeting - Niagara County

August 8, 2016 | 6:00 PM - 8:00 PM

Robinson Farms, 3681 North Ridge Rd, Lockport, NY 14094

A hands-on demonstration of weed, insect and disease identification in fresh market vegetables including management options such as inter-row cover crops, grafting and, where appropriate, spray options. FREE! Contact Darcy Telenko for more info at 716-697-4965.

Organic Dry Bean Discussion Group Meeting

August 12, 2016 | 1:00 PM - 4:00 PM

Klaas, Mary-Howell and Peter Martens farm, 1443 Ridge Rd, Penn Yan, NY 14527



There will be viewing and discussion of the dry bean crop, cultivation for dry beans, the benefits of certain cover crops ahead of dry beans, and the potential for organic reduced tillage. There will be ample time for open discussion regarding organic dry beans. Preregister by August 9 by contacting Carol MacNeil at crm6@cornell.edu or 585-313-8796. Cold juice, water and soda will be available.

Vegetable Walk and Cut Flowers

August 15, 2016 | 5:30 PM

Werner's Farm, 8427 West Henrietta Rd, Rush, NY 14543

A discussion and field walk for cut flower growers. Topics will be production considerations, and disease and insect management. The vegetable field walk will be conducted by Cornell Vegetable Program Specialists Judson Reid and Robert Hadad and will cover identification and management of insects, diseases, and weeds. FREE! Contact Robert Hadad for more information at 585-739-4065.

Finger Lakes Soil Health Discussion Group Meeting

August 18, 2016 | 5:00 PM - 8:15 PM

Hemdale Farms, 2800 Orleans Rd, Seneca Castle, NY 14547



Why Hemdale Farms switched to zone tillage, and how they've been successful doing it for field crops and vegetables will be described. Equipment will be available for viewing. The many niches available for cover crop planting, and the benefits of different cover crops will be covered by Thomas Bjorkman, Cornell. There will be ample time for open group discussion on reduced tillage, cover crops, and all aspects of improving soil health. This event is FREE! DEC credits will be available. Preregistration by NOON on August 15 required. Contact Carol MacNeil at crm6@cornell.edu or 585-313-8796. A light supper will be provided.

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 7/19 – 7/25/16

Location	Rainfall (inch)		Temp (°F)	
	Week	Month July	Max	Min
Albion	0.05	2.98	93	54
Appleton, North	0.44	0.77	93	53
Baldwinsville	0.60	1.02	89	56
Buffalo*	1.04	1.80	89	55
Butler	0.54	1.55	90	53
Ceres	0.54	1.59	88	46
Elba	0.33	1.87	84	47
Farmington	0.53	1.85	90	52
Gainesville	NA	NA	85	46
Geneva	0.56	0.99	89	54
Lodi	0.54	1.23	94	51
Niagara Falls*	1.65	1.95	95	55
Penn Yan*	0.78	1.60	92	57
Rochester*	0.29	1.21	92	53
Romulus	0.42	0.92	90	53
Silver Creek	0.87	1.93	86	55
Sodus	NA	NA	89	52
Versailles	0.81	1.36	87	48
Williamson	0.27	1.16	89	52

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – July 25, 2016

Location	2016	2015	2014
Albion	1436	1381	1307
Appleton, North	1240	1158	1125
Baldwinsville	1403	1390	1436
Buffalo	1457	1412	1348
Butler	1384	1405	1391
Ceres	1118	1236	1184
Elba	1044	1063	1065
Farmington	1307	1330	1317
Gainesville	1051	1104	1048
Geneva	1361	1352	1349
Lodi	1501	1488	1477
Niagara Falls	1566	1308	1284
Penn Yan	1457	1441	1432
Rochester	1472	1477	1433
Romulus	1369	1381	1379
Silver Creek	1310	1287	1265
Sodus	1224	1224	1264
Versailles	1280	1304	1265
Williamson	1251	1253	1256

* 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, fresh market vegetables, and plant pathology

PROGRAM ASSISTANTS

Jodi Callwood | jbc278@cornell.edu

Amy Celentano | ac2642@cornell.edu

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

Cordelia Hall | ch776@cornell.edu

Gretchen Seigworth | gs649@cornell.edu

Mariam Taleb | mt786@cornell.edu

ADMINISTRATION

Peter Landre | ptl2@cornell.edu

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