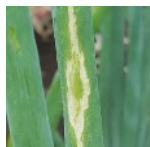




Are your heads of broccoli showing signs of heat stress? Cornell is developing heat -tolerant varieties suitable to be grown in the Eastern US.

PAGE 1



Iris Yellow Spot Virus of onion is vectored by onion thrips. Best management practices include effective control of onion thrips and to protect plants from stress.

PAGE 3



In 2015, the Cornell Garlic Bloat Nematode Testing lab can only accept a limited number of samples. An alternate testing site is available in Michigan.

PAGE 6



Powdery mildew (PM) is rapidly spreading through cucurbit crops. Severe infection causes the leaves to turn yellow, then brown and die. Learn how to manage PM.

PAGE 7

VEGEEdge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

● Volume 11 | ● Issue 18 | ● August 12, 2015

 **Cornell University**
Cooperative Extension
Cornell Vegetable Program

Photo: Cordelia Hall

Heat Stress in Broccoli

Christy Hoepting, CCE Cornell Vegetable Program

Generally, August is one of the more trying months for achieving high quality broccoli. Extreme fluctuations in temperatures and high nighttime temperatures can wreak havoc on normal head formation resulting in unmarketable heads due to various heat stress defects including production of inner leaves within the head, yellow or brown beading and cat eye, uneven beading and disjointed heads (Fig. 1).

The Eastern Broccoli project, under the leadership of Thomas Bjorkman, Cornell University, has made a lot of progress over the past 5 years to-



Figure 1. Heat stress in broccoli including yellowing/brown beading, uneven beading and inner leaves in the head. *Photos: Christy Hoepting, Cornell Vegetable Program*

continued on page 3



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:
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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.



Cornell University
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Cornell Vegetable Program

Contents

Contact Us

Cornell Vegetable Program10

Crops

Crop Insights.....04
Broccoli: Heat Stress01
Cucurbits: Pest Patrol – Powdery Mildew on Cucurbits.....07
Garlic: Changes to Garlic Bloat Nematode Testing Services for 201506
Onion: Iris Yellow Spot Virus of Onion03
Onion: Using Ridomil to Manage Downy Mildew in Onions06
Potato/Tomato Late Blight Risk08
Sweet Corn Trap Network Report, 8/11/1505

Events

Extended Donut Hour and Tour of 2015 Onion Thrips Research Highlights08
Fresh Market Vegetable Twilight Meeting in Eden08
WNY Soil Health Field Day.....02
Central NY Soil Health Field Day.....02

Weather Charts

.....09

The next issue of VegEdge will be produced August 19, 2015.

Soil Health Field Days

WNY Soil Health Field Day

September 2, 2015 | 12:30 PM - 6:00 PM

Duppengiesser Dairy Co., 7835 Butler Rd, Perry, NY

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. Cover crop planting equipment will be on display and discussed, and there will be a Cover Crop Walk.

An Advanced Soil Health Morning Session will be held from 10 AM – noon, limited to 50 preregistrations. Bring a root ball, your soil health test results, and questions for discussion.

Cost: \$10 if preregistered by 8/19, \$15 at the door, for the afternoon and dinner.
\$50 for the Advanced Morning Session, lunch, afternoon, and dinner.

Preregistration or questions: Wyoming Co. SWCD at: wcsxcd@frontiernet.net or 585-786-5070. Sponsored by WNY Crop Management Assoc., USDA, and American Farmland Trust

Central NY Soil Health Field Day

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

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

Same nationally recognized speakers as WNY Field Days (see above) . Also, taking advantage of the Cornell Soil health Test, and interseeding cover crops into cash crops. Contact Jason Cuddeback, Cayuga County SWCD at: jcuddeback@cayugaswcd.org or 315-252-4171 x3 for more info.

wards developing heat-tolerant broccoli varieties that are suitable to be grown in the Eastern United States including New York. Next Wednesday, August 19, 2015, the Eastern Broccoli project will be featured at the Fresh Market Vegetable Twilight Meeting in Eden Valley, including a viewing of 2015 variety trial show-casing a couple of new heat tolerant broccoli varieties (Fig. 2). For more information about the meeting, see the Upcoming Event section – pg 8, or visit <http://cyp.cce.cornell.edu/event.php?id=418> ●



Figure 2. Heat tolerant broccoli with nicely shaped solid head and no signs of heat stress. Photo: Christy Hoepting, Cornell Vegetable Program

Iris Yellow Spot Virus of Onion

Christy Hoepting, CCE Cornell Vegetable Program

Iris yellow spot virus (IYSV) is a relatively new disease of onion, first detected in New York in 2006. It is vectored by onion thrips. It occurs annually in the major onion growing regions of New York with some years being worse than others. Unfortunately, IYSV can take a bite out of onion yield. In Cornell studies (Nault *et. al*), bulbs of plants that were infected with IYSV two weeks prior to harvest did not continue to put on size compared to plants that were not infected. At harvest, the healthy bulbs weighed 0.1 lb more than the IYSV-infected bulbs. This translates into a reduction in yield of 75 to 250 cwt per acre if 30% to 100%, respectively, of the plants are infected with IYSV in a field with a plant population of 250,000.

On onion leaves, lesions are tricky to identify. In general, they are white and elongated, oriented along the long axis of the leaf with multiple lesions often off-set from each other. Symptoms are most likely to first occur on the middle-aged leaves (Fig. 1).

In general, IYSV increases as thrips pressure and plant stress increase. In NY, main and late season direct seeded onions, especially those under stress or exposed to high onion thrips pressure, are at highest risk for yield reduction from IYSV. Thus, the best management strategy is to provide effective control of onion thrips (fortunately, thrips control has generally been very good this year), and to protect plants from stress caused by drought, heat, compacted soil, moisture, herbicide injury, and low or imbalanced fertility (some of these factors are easier to control than others). It is important to remove volunteer onions in non-rotated fields by late May to early June, and to locate cull piles as far away as possible from onion fields, or to destroy culls.



Figure 1. Symptoms of Iris yellow spot of onion (IYSV) first appear on middle-aged leaves (a) as white elongated lesions, often oriented along the long axis of the leaf with multiple lesions often slightly off-set from each other (b). Although, sometimes the lesions can have greenish blurred borders (c), or even appear as a green island surrounded by a diamond-shaped white border (d). ●

Photos: C. Hoepting, Cornell Vegetable Program

CROP INSIGHTS

It is truly amazing at the huge discrepancy in vegetable production across the region. Many spots have suffered all season from too much rain. Other spots are in serious drought-like conditions. Several crops have been stressed by cool nights while others stressed from hot days. There are fields of cucumbers totally lost to downy mildew and others that haven't seen the disease yet. Same is true with late blight.

BROCCOLI

Normal head formation can be affected by heat stress – see cover article.

DRY BEANS

Some *Sclerotinia white mold (WM)* has been observed on pods and foliage. Fungicide sprays are only effective if applied at first flowering. It will be important to defoliate a field that's infected with either bacterial disease or WM as soon as 75% of the seed is physiologically mature to speed drying of the pods. Sample pods from across the field and from different parts of the plants. Remove the seed from the pods, and scratch off the seed coat. If the seed underneath shows any green it is not mature.

Western bean cutworm (WBC) moth catches are still up this week at a few traps in the area. All dry bean growers should consider their crop at risk of damage. Scout pin pods for cutting, and larger pods for feeding holes. WBC-like pod feeding was seen in two fields in the Southern Tier this week near a trap that exceeded the threshold moth catch. The damage was possibly caused by WBC but is being confirmed (see photo). A pyrethroid insecticide spray like Warrior, Baythroid, etc. is recommended if any WBC damage is present. Note: Where WBC moth catches have been very high in Western NY the past few years an insecticide spray is now routinely applied.



Dry bean pods with feeding damage possibly caused by WBC larvae. Photo: Carol MacNeil, CVP

ONIONS

The onion crop is bulbing very nicely and looks to be of very good quality. Monday night's rain (provided it was not excessive where you are) was the perfect timing during this critical stage for water just as the bulbs are bulking up. Onion thrips pressure is significant, but insecticide programs featuring Radiant are successfully keeping this insect pest in check. Despite very good thrips control, incidence of Iris yellow spot virus increased this week, which is mostly a function of the time of year. It is important to identify IYSV and distinguish it from target spot diseases – see article, pg 3. Both target spot diseases and downy mildew (DM) increased/spread over the past week with some fields needing to be sprayed with Ridomil Gold for DM – see article, pg 4. Downy mildew appeared to be kept in check in fields that were sprayed with Ridomil last week. As we near the end of the spray season, be aware of the maximum usage rates of the various fungicides, especially those used for the target spot diseases (Inspire Super, Scala, Merivon, etc.) – see Cornell Fungicide "Cheat Sheet" for Leaf Diseases in Onions available at <http://cvp.cce.cornell.edu/submission.php?id=231>. Please join us for an Extended Donut Hour and Tour/ Demonstration of 2015 Onion Thrips Research Highlights with Brian Nault and Ashley Leach next Tuesday, August 18, 2015 starting at the corner of Transit and Spoilbank in the Elba muck at 9:00 am (regular donut hour starts at 8:30 am).

PEPPERS

Bacterial spot, like in tomato, is showing up again in peppers with some fields showing significant damage on fruit. European corn borer also found borrowing into the stems and fruit. Green aphids are starting to congregate on pepper foliage.

POTATO

Aside from problems with saturated soils, did you have potato sprouts die in some of your fields a week or two after emergence? Did you have wilting and dying of potato stems around the time of flowering? This could be a sign of blackleg. Blackleg is caused by an *Erwinia* bacteria and is seed-borne. It causes soft rotting of tubers, and can cause infection and blackening of sprouts and stems, starting at the seed-piece. If the seed-piece doesn't decay, blackening of the stem at the soil line, and wilting of the foliage, may be the first symptoms seen. The vascular tissue of a slit stem may be black a foot above the soil line, even though the upper stem is still green. Blackleg was diagnosed on a field locally, from certified ME Reba seed. About 20% of the hills had lost stems. Eastern NY reports blackleg in Reba and Superior on some farms with up to 30% loss. Reba, Norwis, and Superior have been affected on Long Island, with up to 35% loss in the most severely affected fields. Most samples sent to ME for testing came back positive for *Erwinia Dickeya*, new to the U.S. From Melanie Wickham, Empire State Potato Growers, Inc: Blackleg is an increasing problem across the country. The National Potato Council held a conference call last week with state potato specialists and seed certification personnel to discuss this issue. There have been several reports of *Erwinia Dickeya*, a more virulent cousin to the common blackleg. The strain being found in the U.S. is not the same as the European strain but it is a big problem. Efforts to develop a strategy for addressing this emerging disease through seed certification were discussed. If you think you may have blackleg contact Carol MacNeil at crm6@cornell.edu or 585-313-8796.



Potato plant with two stems killed by blackleg. Photo: Carol MacNeil, CVP

PROCESSING CROPS

After a dry period, most areas received rain this week. However, some areas received too much rain too quickly, resulting in localized flooding. Harvest of processing snap beans, sweet corn and beets are all underway. Bacterial leaf and pod blights caused by *Pseudomonas*

continued on next page

or *Xanthomonas* sp. continue to show up in some fields of snap, lima and dry beans. From C. MacNeil, Cornell Vegetable Program: Copper sprays can reduce the spread of bacterial disease, which is spread by wind-blown rain, and by sprayers, cultivators, etc. driving through the beans when they're wet from rain or dew. Unfortunately copper sprays need to be applied weekly, or before the next rain after a spray. Drive through clean fields, parts of fields, before driving through your infected beans, and wash the equipment to remove bean debris afterwards. Management of white and gray mold in snap and lima beans should be high priority in fields that are coming into bloom. Growers should follow recommendations from the processors and crop consultants, who have been in consultation with Cornell faculty on which fungicides to use. Gray mold develops in dense plant canopies when the weather is warm and moist. White mold requires both moist soil conditions and leaf wetness (a light dew is enough). Dry soils and high temperatures will inhibit the development of this disease. White mold is most abundant when temperatures range from 55-60°F, but will develop at temperatures as high as 85°F. Scout fields with a history of white mold. Sclerotia in the top 1" of the soil surface will germinate and produce mushroom cups and spores that will subsequently infect the plants. Dense plant canopies also increase the risk of molds. If you think your white mold control isn't working, you could be dealing with Phytophthora blight instead. Look for dying leaves and foliage especially in wet spots or where heavy downpours occurred. When Phytophthora blight infects the pods, they become whitish and shriveled. White mold, Gray mold and Phytophthora blight often occur in the same field. However, we have yet to identify Phytophthora blight in processing snap beans in NY. Please contact one of our team members if you need assistance with identification.

SWEET CORN

Birds are continuing to wreak havoc. Darcy Telenko is collecting bird damage estimates, if you have experienced damage please call or email her. 716-697-4965/ dep10@cornell.edu

TOMATO

Septoria leaf spot is becoming more prevalent as is early blight (which is late all things considered). Keep up with the spray treatments. The leaf canopy needs to remain dense to protect the fruit from sun scald.

Still no report of late blight in Orleans County so far. Bacterial spot is showing up again with symptoms on fruit making them unmarketable.

VINE CROPS

Powdery mildew is kicking up in summer squash, zucchini, winter squash, and pumpkins. Angular leaf spot spreading again. Cucumber beetles are sparse in many fields while real heavy in others. Downy mildew is rampant and has spread heavily onto cantaloupe taking down foliage quite rapidly. Casaba melons, however, seem to keep growing despite having some DM. The disease doesn't seem to spread on this type of melon as severely as cantaloupe and the foliage stands up a lot longer.

WNY Sweet Corn Trap Network Report, 8/11/15

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

Twenty-one sites reporting this week. Twelve sites reporting European corn borer (ECB)-E and twelve sites reporting ECB-Z. Corn earworm (CEW) was caught at nine sites with six sites high enough to require a spray. Nine sites reporting Fall armyworm (FAW) and eighteen reporting Western bean cutworm (WBC).

Where CEW are being caught in high enough numbers to determine the spray schedule (see the chart below), those applications will be sufficient to take care of other worm pests

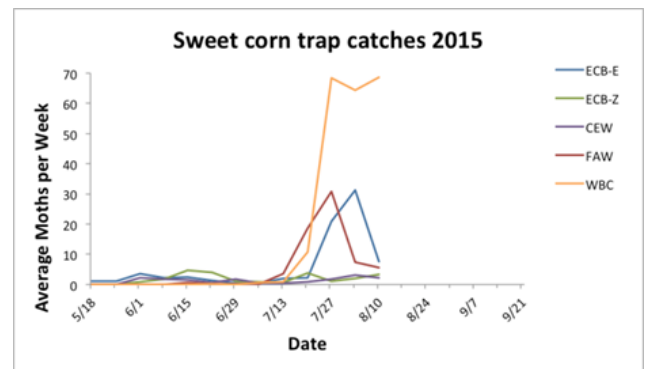
that are present. Where CEW are not determining the spray schedule, scout to be sure other pests are not above threshold.

The average degree days for the trap sites is 1606 base 50 (starting May 1), so the majority of WBC moths should have emerged according to the University of Nebraska model. Looking at the graph below it appears that WBC has leveled off this week but has not started to decline.

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

Average sweet corn trap catches for all reporting sites from 5/25/15 - 8/11/15.



WNY Pheromone Trap Catches: August 11, 2015

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	13	1	1	3	13	1684
Batavia (Genesee)	NA	NA	NA	NA	NA	1296
Belfast	3	2	2	0	1	1520
Bellona (Yates)	7	6	0	28	108	1781
Eden (Erie)	3	1	2	2	261	1582
Farmington (Ontario)	0	0	0	0	1	1597
Hamlin (Monroe)	3	2	4	2	22	1605
LeRoy (Genesee)	2	2	0	0	12	1556
Lockport (Niagara)	0	4	4	0	0	1571
Pavilion	0	0	0	12	184	1556
Penn Yan (Yates)	1	4	1	11	17	1727
Seneca Castle (Ontario)	44	4	NA	1	1	1635
Spencerport (Monroe)	0	2	3	0	0	1759
Waterport (Orleans)	0	0	0	0	1	1605
Williamson (Wayne)	0	0	0	0	0	1526

ECB - European Corn Borer

CEW - Corn Earworm

FAW - Fall Armyworm

WBC - Western Bean Cutworm

NA - not available

DD - Degree Day (modified base 50F) accumulation

Using Ridomil to Manage Downy Mildew in Onions

Christy Hoepting, CCE Cornell Vegetable Program

Protectants including mancozeb, phosphorous acid products (e.g. Phostrol, Rampart, etc.) or strobilurin (group 11) fungicides such as Quadris/Quadris Top or Merivon should be used when weather conditions are conducive to Downy mildew (DM). For example, when nighttime temperatures dip into the 50s with long periods of dew. This protectant program does not prevent DM from occurring, but it helps to alleviate the spread and severity. Once DM has been detected, the recommendation is to use a Ridomil Gold product (a.i. mefanoxam) in combination with a target spot fungicide such as Scala or Inspire Super, because target spot diseases quickly invade DM infection sites – see previous articles in July 29 and August 5 VegEdge.

Ridomil Gold Bravo SC can be applied every 7 to 14 days, up to three 2.5 pt applications per season. Ridomil Gold MZ can be applied in 14 day intervals with up to four 2.5 pt applications per season, so it needs to be alternated

with another DM fungicide in the week in between, such as Quadris/Quadris Top, Reason, Tanos or Merivon tank mixed with mancozeb as two DM fungicides are better than one. These materials will also help to manage the target spot diseases. **If you are applying Radiant for thrips and Ridomil Gold for DM in the same tank mix, consider using the MZ instead of Bravo formulation of Ridomil Gold to avoid tank mix incompatibilities when co-applying Bravo with insecticides – see July 17 article.** Ridomil Gold MZ is a dry formulation that contains 1.6 lbs a.i. mancozeb. The recommended rate of mancozeb is 2.25 lbs a.i. Therefore, Ridomil Gold MZ needs to be supplemented with additional mancozeb to achieve this rate. Note: Ridomil Gold SL is labeled for damping off in onions as an in-furrow application. It is not labeled for DM as a foliar application.

The fungicide program is to prevent further spread from the infected plants to healthy ones, so that the whole field

does not go down. Expect original DM hot spots to worsen (Fig. 1), despite fungicide sprays. To assess whether DM is being contained, look for lack of new infections, and lack of spores on old lesions. Unfortunately, when conditions are favorable for DM, it can still cause a lot of damage to onions, despite the best fungicide programs. If the weather turns hot and sunny, hot spots will dry out and shut down.

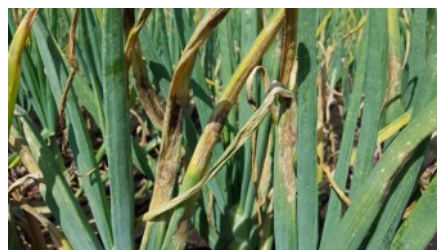


Figure 1. Downy mildew “hot spot” where several plants are infected with multiple infection sites per plant; original infection sites have been invaded by secondary target spot diseases (black and purple) and the leaves are starting to die back. If this level of disease occurs, Ridomil Gold should be considered.

Photo: Christy Hoepting, Cornell Vegetable Program

Changes to Garlic Bloat Nematode Testing Services for 2015

Crystal Stewart, CCE Eastern New York Commercial Horticulture Program

In the wake of Dr. George Abawi’s retirement and a reduction in staffing, the Bloat Nematode Testing Lab in Geneva needs to limit the number of samples that it can accept for 2015. This year, **the Geneva lab will accept samples from farmers wishing to plant or replant seed on their own farm, but is asking that growers who want to sell their seed to others send samples to the Michigan State Diagnostic Clinic.**

Each sample sent to the Cornell Bloat Nematode Testing Lab will cost \$40 this year, reflecting the end of the Specialty Crop Block Grant subsidy which reduced cost to the growers to \$20 per sample for the last two years. Samples sent to Michigan will cost \$75 dollars each. This is 3 times the in-state rate due to state subsidies for Michigan growers and the need for APHIS approval to accept samples from outside the state.

[The sample submission form for Cornell samples](#) can be found on the Cornell Vegetable Program website at cvp.cce.cornell.edu, and the Michigan State sample submission form can be found at <http://www.pestid.msu.edu/sample-form/>. On the Michigan form, the nematode testing information is towards the very bottom. Please remember to triple the rate if sending samples to Michigan.

As in previous years, if trying to detect Bloat Nematode, select suspicious bulbs for testing. Neither of these labs is offering certification, they are simply providing results based on the sample received.

Cornell Lab and Extension staff, as well as garlic grower advisory group, will work to determine if the lab at Geneva will be able to return to accepting all of



New York’s samples next year, and what the cost will be. This information will be made available as soon as possible.

In WNY, if you have any questions about this process, please contact Robert Hadad 585-739-4065, or Christy Hoepting 585-721-6593.

Powdery Mildew on Cucurbits

Darcy Telenko, CCE Cornell Vegetable Program

Powdery mildew is rapidly spreading through cucurbit crops. It will appear as a white, powdery growth on both the upper and lower leaf surface. These spots usually appear first on crown leaves and shaded lower leaves. Eventually as more of the leaf surface is colonized by the fungus the leaves will turn yellow, then brown and die. The two most common fungi associated with this disease are *Podosphaera xanthii* and *Erysiphe cichoracearum*. Powdery mildew can reduce the size and number of fruit, length in harvesting, and fruit quality (poor color and sunburn due to loss of leaves, and poor storage quality in winter squash). These fungi are obligate parasites, meaning they require a living host in order to survive. The primary inoculum is believed to be wind-blown spores moving up from southern states early in the season.

Resistant (tolerant) cultivars are available in cucumber, melon, squash and pumpkin. Fungicides programs sprayed on a seven-day interval as soon as powdery mildew is discovered in a field can minimize losses from this disease. Margaret McGrath (Plant Pathologist – Long Island Hort. Research and Extension Center), just release a pest management update for managing powdery mildew. Her suggestions follow:

“Conventional Fungicide Program for Managing Cucurbit Powdery Mildew Successfully in 2015”

KEYS TO EFFECTIVELY MANAGING POWDERY MILDEW IN CUCURBIT CROPS:

- 1) Begin applications before or at the start of powdery mildew development. The action threshold is one leaf with symptoms out of 50 older leaves examined. Protectant fungicides (chlorothalonil, sulfur, oil, copper, or biopesticides) can be applied before symptoms are found to slow initial development. Important to examine lower surfaces as symptoms may start there, especially when protectants are being used. Powdery mildew usually begins to develop around the start of fruit production.
- 2) Alternate among targeted fungicides with specific activity for powdery mildew based on their FRAC code. See list below. These do not have curative activity and thus will not affect spots already present, thus starting applications early is critical to successful management as well as minimizing selection pressure for resistance in the pathogen. Alternation programs have often been more effective than single products in efficacy trials, they are required to comply with label use restrictions, and they are important for managing resistance.
- 3) Apply targeted fungicides with protectant fungicide to manage resistance development and avoid control failure if resistance occurs, and also to comply with label use restrictions (most mobile fungicides are not permitted used exclusively).
- 4) Apply fungicides on a 7-day schedule.

Recommended targeted fungicides (first three are the best choices):

Vivando (FRAC Code U8) is a new fungicide with a new mode of action. Cucurbits are on a supplemental label. It has exhibited excellent control in fungicide evaluations conducted recently. Activity is limited to powdery mildew. Do not mix with horticultural oils. It can be applied three times per year with no more than two consecutive applications. REI is 12 hr. PHI is 0 days. 365 day plant back restriction for non-labeled crops.

Torino (FRAC Code U6) is a new fungicide with a new mode of action. It has exhibited excellent control in fungicide evaluations conducted recently. Activity is limited to powdery mildew. It can only be applied twice to a field in a 12-mo period. Consecutive applications are not recommended. REI is 4 hr. PHI is 0 days.

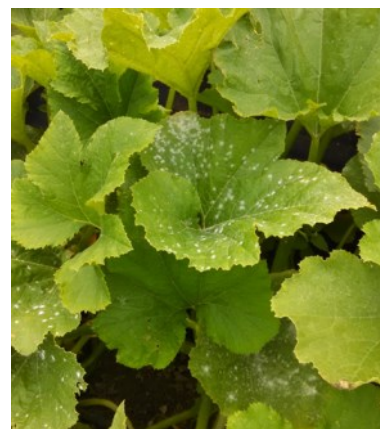
Quintec (FRAC Code 13) has been consistently effective in fungicide evaluations. Activity is limited to powdery mildew. Labeled crops are pumpkin, winter squash, gourd, and melon. The Quintec label specifies no more than two consecutive applications plus a crop maximum of four applications, and no aerial applications. There is no longer a crop rotational restriction of 12 months for non-labeled crops. Quintec continues to be the only fungicide in this chemical group available in the USA. It is the only mobile fungicide that does not move into leaves: it redistributes to foliage where spray was not directly deposited, including the underside of leaves, through diffusion and a continual process of absorption and desorption in the cuticular waxes of foliage. REI is 12 hr. PHI is 3 days.

DMI fungicides (FRAC Code 3) include Procure, Rally, Tebuzol, Folicur, and Inspire Super. Resistance is quantitative. Highest label rate is recommended because the pathogen has become less sensitive to this chemistry. Efficacy has varied in fungicide evaluations, therefore use sparingly. Procure applied at its highest label rate provides a higher dose of active ingredient than the other Code 3 fungicides. Five applications can be made at this rate. REI is 12 hr. PHI is 0 days. Powdery mildew is the only labeled cucurbit disease for these fungi-

continued on page 8



Severe powdery mildew infestation on zucchini – leaves have started to turn yellow, brown and die. Photo: Darcy Telenko, Cornell Vegetable Program



Initial powdery spots forming on zucchini in lower canopy. Photo: Darcy Telenko, CVP

cides, except for Inspire Super, which contains another active ingredient (Code 9) and is labeled for additional diseases. Its PHI is 7 days.

Pristine is the only carboxamide fungicide (FRAC Code 7) registered in NY. Strains of the powdery mildew pathogen resistant to Pristine have been detected and likely are the reason its efficacy has varied. Limit use. REI for Pristine is 12 hr and PHI is 0 days.

No longer recommended. Resistant pathogen strains are sufficiently common to render the following fungicides ineffective: Topsin M (FRAC code 1; MBC fungicide) and QoI fungicides (Code 11), which include Quadris, Cabrio and Flint.

Please Note: The specific directions on fungicide labels must be adhered to – they supersede these recommendations, if there is a conflict. Note that some products mentioned are not yet registered for use on cucurbits. Check labels for use restrictions. Any reference to commercial products, trade or brand names is for information only; no endorsement is intended. 🍌

Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

New confirmations of late blight (LB) have been coming in more slowly with the few weeks of dry weather we had. That's likely to change with the recent rain. Tompkins County is the newest place where LB was confirmed. On a couple of organic farms it was observed that trellised tomatoes had much less disease than those nearby in ground culture, and the variety Iron Lady was free of disease when other varieties were affected. Growers and gardeners are advised to immediately destroy fields and plantings if more than 5% of foliage is infected with LB.

According to the LB Decision Support System (DSS) on the DSS website blight unit (BU) accumulations have remained moderate to high in the region for the past week. In spite of the lack of rain long dew periods each night contribute to the LB pressure. In all locations where the threshold of 30 blight units (BU) was not reached, it is forecast to be in one more day, or the threshold for fungicide (loss) units (FU) was already reached. The figures in the chart assume the use of chlorothalonil on 8/4, and a susceptible variety.

If you are interested in information about LB contact Carol MacNeil at crm6@cornell.edu or 585-313-8796. 🍌

Late Blight Risk Chart, 8/04/15³

Location ¹	Blight Units ² 8/05-8/11	Blight Units ² 8/12-8/14	Location ¹	Blight Units ² 8/05-8/11	Blight Units ² 8/12-8/14
Appleton	30	10	Kendall	43	17
Arkport	53	18	Lodi	29	18
Baldwinsville	35	18	Lock/Niag F.	49	18
Bergen	28	18	Lyndonville	52	19
Buffalo	32	18	Medina	48	18
Butler	43	19	Penn Yan	46	20
Ceres	34	18	Rochester	49	19
Elba	54	19	Sodus	34	19
Farmington	28	19	Versailles	26	18
Gainesville	52	21	Wellsville	36	19
Geneva	30	18	Williamson	31	18

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*

Extended Donut Hour and Tour of 2015 Onion Thrips Research Highlights

August 18, 2015 | 8:30 AM donut hour followed by tour of research results at 9:00 AM

At the corner of Transit and Spoilbank in the Elba muck



Come chat with Christy Hoepting about onions at 8:30 and stay to tour the 2015 onion thrips research results. Cornell Entomologists Brian Nault and Ashley Leach will highlight lead the tour:

- Insecticide evaluations including comparison of Exirel to Radiant
- Interactions with adjuvants
- Potential for using thrips-tolerant varieties
- And other IPM strategies

Questions? Contact Christy Hoepting at 585-721-6953 or cah59@cornell.edu.

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. 1.5 DEC recertification credits available. Contact Darcy Telenko at 716-697-4965 or dep10@cornell.edu for more info.

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 8/04 – 8/10/15

Location	Rainfall (inch)		Temp (°F)	
	Week	Month August	Max	Min
Albion	1.97	2.32	84	52
Appleton, North	0.58	0.80	77	49
Baldwinsville	0.10	0.28	82	53
Buffalo*	0.45	0.45	84	54
Butler	0.65	0.98	80	52
Ceres	1.06	1.06	81	49
Elba	1.79	1.92	80	47
Farmington	0.65	0.70	84	50
Gainesville	1.05	1.14	81	47
Geneva	0.16	0.17	82	52
Lodi	0.05	0.14	85	52
Niagara Falls*	0.53	0.82	82	51
Penn Yan*	0.18	0.20	82	53
Rochester*	2.31	2.47	82	53
Romulus	NA	NA	80	53
Silver Creek	0.63	0.99	79	52
Sodus	2.12	2.19	82	48
Versailles	0.12	0.17	84	49
Williamson	3.82	4.13	83	48

Accumulated Growing Degree Days (AGDD)

Base 50°F: April 1 – August 10, 2015

Location	2015	2014	2013
Albion	1716	1583	1706
Appleton, North	1467	1385	1518
Baldwinsville	1722	1727	1759
Buffalo	1764	1638	1811
Butler	1727	1678	NA
Ceres	1524	1433	1461
Elba	1318	1289	1528
Farmington	1642	1584	1619
Gainesville	1364	1261	NA
Geneva	1677	1627	1706
Lodi	1835	1769	1898
Niagara Falls	1636	1569	1722
Penn Yan	1781	1725	1784
Rochester	1820	1727	1862
Romulus	1712	1662	NA
Silver Creek	1613	1551	1709
Sodus	1522	1528	NA
Versailles	1618	1530	1690
Williamson	1559	1523	1671

* 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.



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