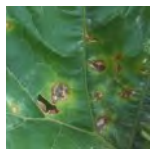


Despite abundant water and calcium, greenhouse tomatoes exhibited a

black ring around the blossom-end. BER? It can't be, can it?!

PAGE 1



A widespread bacterial disease of cucurbits, Angular Leaf Spot, will appear first on leaves but

can infect fruit and contaminate seed.

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The dilemma in onions: Bravo is best for Botrytis Leaf Blight and Movento is best for onion thrips,

but tank mixing them isn't best. What to do and how to decide?

PAGE 6



You won't want to miss the Fresh Market Veg Weed Management Field Days next week! Cultivation

equipment, new strategies, and maximizing control.

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VEGE_{Edge}

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

Volume 11 | Issue 10 | June 17, 2015



Cornell University
Cooperative Extension
Cornell Vegetable Program

Photo: Judson Reid

Internal Blossom End Rot (BER) of Tomatoes

Judson Reid, CCE Cornell Vegetable Program

Given the amount of rain recently, we realize the irony of describing a disorder caused by lack of water. However, local growers have been perplexed when greenhouse tomatoes exhibited a black ring around the blossom-end of tomatoes.

Blossom-end rot mainly occurs at the end of the fruit and is caused by a localized calcium deficiency (generally) induced by water fluctuations. Although the growers loathed to accept it, we diagnosed the black ring symptoms as Internal BER with the lesion just under the surface.

Water and calcium were abundant in this case, so we were forced to examine other factors that increase the incidence of BER. The plants were an early greenhouse crop grown in containers. We know that BER is worse under high relative humidity, as evapotranspiration and water uptake are reduced. It follows that relative humidity is often too high in cooler months (as growers ventilate less frequently). Higher levels of salts and ammonium nitrogen can also increase BER. Ammonium can become excessive when plants are over-



Black ring symptoms of internal BER with the lesion just under the surface.

Photo: Judson Reid, 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.



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Cornell Vegetable Program

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The next issue of VegEdge will be produced June 24, 2015.



Harvesting spinach in Western New York this week.
Photo: Julie Kikkert, CCE Cornell Vegetable Program

watered, grown in cool temps, or there is excess shade. All the above describe an early spring tomato greenhouse in NYS.

Prevention:

- Use a timer to ensure consistent water schedules.
- Avoid ammonium forms of nitrogen
- Reduce nitrogen application during cloudy weather/short days.
- Ventilate to reduce relative humidity and increase water uptake.
- Monitor soil and plant tissue levels of Ca. ●



Proposal to Protect Bees – Webinar 6/23 and Comment Period Extended

from www.epa.gov/pesticides

EPA is hosting a webinar that will provide information and additional details about its proposed plan to prohibit the use of all highly toxic pesticides when crops are in bloom and bees are present under contract for pollination services. The webinar will be on June 23 from 3:00 – 4:30 pm Eastern, online at <https://epa.connectsolutions.com/pollinatorproposal/> EPA is also extending the comment period on the proposal **until July 29**. Visit: [EPA-HQ-OPP-2014-0818](https://www.epa.gov/pesticides/epa-hq-opp-2014-0818) to read the plan and submit comments. ●

Late Blight Risk

Carol MacNeil and John Gibbons, CCE Cornell Vegetable Program

Late blight (LB) was reported on potatoes in NC in the past week, in addition to previous reports on tomatoes in CA (US-11), and on tomatoes and potatoes in FL (US-23).

Continuing frequent rainfall has been extremely favorable for the development of LB. Severity value (SV) and Simcast blight unit (BU) accumulations have been extremely high this past week. All weather stations are at or above the 18 LB SVs that trigger the first fungicide application on field tomatoes and on potatoes 4+ inches tall. At stations where 18 SVs were reached in the past week (*see the Severity Value chart*) get the first fungicide on as soon as possible!

All other stations reached 18 SVs earlier, fields in those areas should already have been sprayed, and recommendations switch to the LB Decision Support System (DSS) Simcast forecast. The accumulation of blight units (BUs) or fungicide loss units (FUs) since the last spray determines when the next spray should be applied. The *New Late Blight Risk Chart (below)* shows the BUs accumulated in the past week, and BUs predicted for the next three days based on the National Weather Service (NWS) forecast at each station. A 5 day or less spray interval has been and continues to be needed, with fungicide alternation if required by the label. Note: BUs can change rapidly, just like the weather!

The DSS threshold for applying the next fungicide spray is 30 blight units (BU) on a susceptible variety if the high rate of chlorothalonil, or many other fungicides, was last applied. Ranman, Revus Top, Previcur Flex or Presidio will hold until 37 BUs have been reached; Gavel or Omega (potatoes only) for 34 BUs. That's just a day or two in this extreme weather. Copper alone lasts until just 27 BUs have been reached. Varieties with moderate susceptibility, or moderate resistance, don't need spraying until 5 or 10 more additional BUs have accumulated, respectively. Go to: <http://newa.cornell.edu/index.php?page=potato-simcast> for links to tomato and potato varietal resistance, and to the simplified DSS (high rate of chlorothalonil assumed).

To make full use of the DSS Simcast program, based on your varieties, your farm/field location(s), and the fungicides you are using, and seeing fungicide loss info, contact Ian Small, Cornell, at ims56@cornell.edu to get a username and password. Contact Carol MacNeil at crm6@cornell.edu or 585-313-8796 for assistance setting up your personal farm account and using the DSS.

Late Blight Severity Values* 6/16/15

Location	Week	Total	Location	Week	Total
Appleton	17	19	Kendall	13	26
Baldwinsville	7	22	Lodi	7	22
Bergen	9	21	Medina	14	27
Farmington	10	20	Sodus	8	19
Geneva	16	29	Williamson	11	25

* Severity value accumulations start 5/13/2015

New Late Blight Risk Chart, 6/16/15

Location ¹	Blight Units ² 6/10- 6/16	Blight Units ² 6/17- 6/19	Location ¹	Blight Units ² 6/10- 6/16	Blight Units ² 6/17- 6/19
Arkport	55	18	Lock/Niag F.	47	11
Buffalo	46	12	Lyndonville	57	17
Butler	52	12	Penn Yan	53	16
Ceres	50	20	Rochester	50	11
Elba	56	11	Versailles	38	13
Gainesville	54	19	Wellsville	52	19

¹ Past week Simcast Blight Units (BU)

² Three day predicted Simcast Blight Units (BUs) ●

WEATHER

Reports of weather related injury including hail damage, pelting rain injury, sandblasting, washouts, and (of course) large wet spots. The combination of injury, heavy splashing, and plant stress can leave plants more susceptible to foliar diseases, especially if the weather is favorable for the pathogen to germinate and infect. Keep an eye out for things like anthracnose and angular leaf spot in vine crops, bacterial spot on peppers, and Septoria, early blight and bacterial diseases in tomato. Root rots like this weather, too. Watch your susceptible crops (like peas), new plantings, and fields with a history of pythium, verticillium, fusarium, etc. Ultimately, these are best managed through variety selection and drier conditions.

Remember, too, that N-fertility can leach away with heavy rain and continued wet conditions. Plan your side-dress timings, rates and materials according to the weather and variable conditions within your fields.

WEEDS

Keep a close eye on weeds – all this wet weather has limited access to many areas, while promoted the germination of many weed species. Yellow nutsedge is one weed that has stood out lately. It is distinguished by 3-angled stems with long grass-like leaves. Nutsedge is sensitive to dense shade therefore control measures as heavy shading crops, close crop spacing, and cultivation before canopy closure can utilize this characteristic. Vegetables with large leaves such as pumpkins and squash can provide enough shade to choke out nutsedge. Herbicides with good to excellent postemergence activity on nutsedge include Basagran, Gramoxone, and Sandea/Permit. Fall tillage and nonselective chemicals can be used once vegetable crops are harvested.

CABBAGE & COLE CROPS

Frequent rain events have delayed planting and saturated soil conditions and standing water have caused stunting and plant loss in fields. Wet weather seems to be keeping worm pressure low, but there have been some cases of slug feeding. If feeding damage caused by slugs is confused with worm feeding, spraying insecticides is a waste, because with exception of Lannate LV, insecticides do not have any activity against slugs.

The wet spring has been favorable for slugs. Slug pressure increases in the spring, especially in fields following corn, in weedy areas and along hedge rows. Slug feeding damage is characterized by large holes that skeletonize the leaves (e.g. leave the veins intact) and can definitely do some damage to small plants. Since slugs are generally nocturnal, they are often hiding during the day. Look for slime trails (Fig. 1) as a diagnostic indicator that the damage that you are seeing is in fact caused by slugs. In contrast, if this amount of damage is caused by caterpillars, the caterpillars can usually be found feeding on the leaves. Another way to distinguish worm and slug feeding is by their frass: worms leave greenish nuggets (Fig. 2A), while slugs leave blackish stringier mounds (Fig. 2B).

Deadline MP and Sluggo and other products with the active ingredients metaldehyde and iron phosphate (several OMRI-approved options), respectively are molluscicide baits that are labeled for control of slugs and snails in Cole crops. **Lannate LV** is available as a 2(ee) recommendation to control slugs in cabbage ONLY. The key to best control of slugs with Lannate is that it comes into contact with the slugs. Spraying at night (past 12 midnight) or in the early morning when temperatures are cool (50s or 60s) and foliage is wet with dew or rain is the best time to target slugs with Lannate. In Cornell studies, the addition of an adjuvant increased slug mortality when slugs were sprayed at night, as did multiple applications 7 days apart. Lannate is also labeled in Cole crops for control of caterpillars. The label is available at <http://128.253.223.36/ppds/531508.pdf>.

CUCURBITS

Cucurbits: Early planting cucumbers are starting to put on size, while the early plantings of squash are starting to see the first harvest. Many disease have reared their heads.

- Angular leaf spot is playing havoc in zucchini (see Pest Patrol article).
- Gummy stem blight has been found in melons. Symptoms on leaves range from water-soaked margins to individual, circular tan to dark spots; while on stems brown cankers will form and may produce a red to black exudate (gummy), fruit infection causes a black rot phase. A number of fungicides are available and should be used in preventative manner and applied on 7-14 day interval, these include Quadris, Bravo WS or other labelled product (OLP), Champ or OLP (copper), Switch, Inspire Super, Sovran, Diathane DF or OLP, Cabrio, Pristine, Topsin. Resistance to Quadris and Topsin has occurred in the United States, but not in New York yet, so make sure products are alternated with different modes of action, combined with other protective fungicides such as Bravo, and limited to one use per season when necessary.
- Powdery mildew has been found on a few leaves in the lower canopies of both cucumber and squash in the field. The humid weather is perfect for this disease to continue to spread, management programs should be initiated and continue on a 7-10 day spray program.

Cucumber downy mildew is moving up the south eastern coast with North Carolina receiving its first report. As for now the forecast is only high risk in southeast and central Louisiana with remaining southern states with moderate to low risks. We will continue to monitor as the season progresses and update when cucumber downy mildew heads north.



Fig. 1. Tell-tale slime trails on underside of leaf indicating slugs were the culprit. Photo: C. Hoepting



Fig. 2A. Photo: plantvillage.com



Fig. 2B. Photo: C. Hoepting

continued on next page

ONIONS

Despite the crop growing very nicely, this third week of June begins with a handful of challenges for onion growers including: 1) escapes and new flushes of weeds growing at an alarming rate; 2) barley nurse crops that sprouted late are needing to be killed; 3) spray thresholds being reached for Botrytis leaf blight (BLB) and onion thrips (OT) in the same field at the same time with the dilemma of fungicide-insecticide incompatibilities; and finally, 4) fields being too wet to do anything about anything! In general, onion smut (Fig. 1) and onion maggot seem to be more prevalent than we've seen in a few years. For more information about BLB and OT – see pg 6. For more info on weed management, plan to attend the two up-coming onion twilight meetings in Oswego (June 23) and Elba (July 1), which will both feature weed management – see *Upcoming Events*.



Figure 1. Black pustules of onion smut disease bursting out of infected outer leaf of 3-leaf onion seedling. Spores can persist in the soil for 15-20 years. Infected seedlings will eventually die. Photo: C. Hoefting

POTATOES

The earliest potatoes are filling the rows, late planted potatoes are emerging, and some fields are yet to be planted. Unfortunately soils in many fields are once again saturated, some seed has rotted, and some plants are wilting. The weather has been extremely favorable for the development of late blight (LB). See the Late Blight Risk article in this issue. More Colorado potato beetles (CPB) are emerging and potato volunteers in some fields are nearly defoliated. Egg-laying is occurring. If you are planning on using any of the following materials, which work best on small larvae, time the first spray when 25% of the earliest laid eggs hatch: Azera, Entrust, any azadirachtin/neem or any abamectin product, or Trigard. Agri-Mek should be mixed with a non-ionic surfactant. Use the high label rate of all materials for best results, and scout in 5 days to see if another application is needed. More on CPB control next week.

PROCESSING CROPS

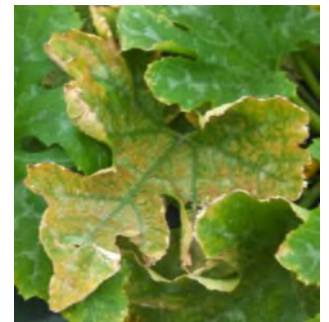
Another tough week across the region with fields remaining too wet for much of anything. Crops already in the ground are starting to show the effects with yellowing or death in saturated areas. Harvest of spring spinach is underway, and pea harvest should begin this week. Be on the watch for snails and slugs with this wet weather. We saw one species of snail (photo) that appeared to be coming out of grassy borders/ditches into the edges of spinach and pea fields this week. Please send any reports and photos of slugs/snails in these crops to Julie, jrk2@cornell.edu, for a research project this year.



Angular Leaf Spot on Cucurbits

One of the most widespread bacterial diseases of cucurbits

Angular leaf spot has been found in a number of early plantings of zucchini and yellow squash. Angular leaf spot is caused by the bacterium *Pseudomonas syringae* pv. *lachrymans*. This disease is one of the most widespread bacterial diseases of cucurbits and appears early to midseason as immature fruit appear and develop. It will appear first on leaves, but can infect fruit and contaminate seed. Angular leaf spot symptoms start off as small, water-soaked lesions on leaves. These spots will then expand until they are delimited by the secondary veins giving the angular appearance. As the lesions age they will dry out, turn tan to brown and often drop out. Susceptible varieties will also have yellow halos surrounding the lesion.



A leaf with numerous lesions of Angular Leaf Spot. Photo: D. Telenko

Management of angular leaf spot first starts with pathogen free seed. Two-year rotations away from cucurbits are recommended to reduce bacterial survival. Cultivation of soil when it is hot and dry will aid in reducing bacterial survival and destroying crop residue as soon as possible to limit infection of future plantings. Limiting leaf wetness through drip irrigation will also reduce the splash dispersal of the bacterium to uninfected tissues.

Spineless Beauty is very susceptible to angular leaf spot and is the variety where most of the current infections have been detected. Resistant varieties are available in both cucumbers and squash. See photo of susceptible Spineless Beauty vs. an intermediate resistant variety Green Machine.

Repeated applications of copper sprays as a foliar protectant is the only chemical option and may be ineffective once high levels of disease occur. ●



Green Machine and SV5391YG with intermediate resistance to Angular Leaf Spot (left) and susceptible variety, Spineless Beauty, in two rows on the right, near the road. Photo: Darcy Telenko, Cornell Vegetable Program

The Conflict of Simultaneous Control of Onion Thrips and Botrytis Leaf Blight in Onions

Christy Hoepting, CCE Cornell Vegetable Program

This week Botrytis leaf blight (BLB) reached the spray threshold of 1.0 BLB lesion per leaf in most transplanted fields and direct seeded fields with 5 to 6 leaves. At the same time the spray threshold of 1.0 onion thrips (OT) per leaf was also reached this week in the same fields, although there still are several direct seeded fields below the spray threshold.

THE DILEMMA: BRAVO IS BEST FOR BLB AND MOVENTO IS BEST FOR OT, BUT TANK MIXING THEM ISN'T BEST

Bravo is best for managing BLB early in the season, because in Cornell fungicide trials (7 trials in 2006-2008, 2011, 2013), it consistently was one of the top performing fungicides for reducing the number of BLB lesions per plant. The other front-runner for BLB in these trials was Scala 9 fl oz + Bravo 1.5 pt. To control OT, we strategically recommend using Movento for the first two sprays – see side bar *“The Momentum of Movento”*. Cornell studies have also found that when Movento, Agri-Mek and Radiant were tank mixed with Chloronil 720 (generic version of Bravo), thrips control was significantly reduced by 12 to 35%. So, the dilemma is that although we want to use Bravo and Movento in the same tank mix, it will be at the expense of Movento's ability to achieve optimal thrips control.

FYI – IT'S JUST A BRAVO THING

Later in the season once purple blotch and stemphylium leaf blight become the primary disease concerns, it is important to note that the fungicides used for their control do not compromise the efficacy of the insecticides, Movento, Agri-Mek and Radiant like Bravo does. Cornell tested the compatibility of Movento with mancozeb, Scala, Rovral and Quadris in the same tank mix and did not find any effect on control of onion thrips.

WHAT TO DO?

A) Substitute Bravo with another fungicide: Although a seemingly reasonable option, it is challenging, because no other fungicide is as good against BLB as Bravo for its cost. Early in the season from mid-June to mid-July, BLB pressure can be very high, especially in direct seeded onions. Other fungicides with activity against BLB (although performance was generally mediocre in Cornell trials) include Pristine, Merivon, Rovral, Quadris Top, and Scala. Most importantly, mancozeb and Quadris failed to control BLB and should not be used to substitute Bravo for BLB control. Inspire Super gave inconsistent results.

B) Increase the rate of penetrating surfactant and/or reduce the rate of Bravo: Movento has systemic activity and it is critical that it be applied with a penetrating surfactant to ensure that it gets into the plant where it needs to be to do its job. Cornell studies have shown that the addition of a penetrating surfactant to Movento improved control of onion thrips by 50% or more. Using a high rate of penetrating surfactant (e.g. 0.5% instead of 0.1 or 0.25% v/v – check labels for rates) with Movento when in a tank mix with Bravo can help to alleviate the negative effect of Bravo on Movento and improve thrips control over Movento + Bravo with a lower rate of surfactant. Check label rates of adjuvants carefully as not all are used at the same rate and high rates can cause leaf injury to the onions. Similarly, when tank mixed with Movento, 1.5 pt rate of Bravo resulted in better thrips control than 3.0 pt rate of Bravo. Since Bravo 1.5 pt + Scala 9 fl oz provided as good control of BLB as Bravo 3 pts, using the former instead of the latter in a tank mix with Movento would not compromise BLB control while alleviating the negative effect of Bravo on Movento for thrips control.

C) Apply fungicides and insecticides in separate passes: This would be the ideal solution to achieve best control of BLB with Bravo and best control of OT with Movento. In some cases, this may be reasonable. For example, if only a couple of

fields of transplants need to be sprayed with Bravo and Movento, versus the whole farm. Spray the insecticide first, wait until the residue has dried and then go ahead and spray the fungicide; seems the incompatibility only occurs when Bravo and Movento are in the same tank mix.

HOW TO DECIDE?

- **If OT is the primary target? Choose option A or C.** Do not compromise onion thrips control. For example, thrips are 2x spray threshold, while plants are naturally growing out of BLB and the weather forecast is hot and dry.
- **If BLB is the primary target? Choose option B or C.** Do not compromise BLB control. For example, BLB is excessively over threshold and more rain is in the forecast, while thrips are only approaching the spray threshold (e.g. 0.7 to 0.9 per leaf).
- **If both BLB and OT are the primary target? Choose option C.**
- **If both BLB and OT need to be sprayed, and are under control? Choose option B.** For example, BLB has been effectively managed and OT is on the verge of reaching the spray threshold, you could apply Bravo 1.5 pt + Scala 9 fl oz for BLB and PB + Movento 5 fl oz + penetrating surfactant at highest label rate for OT all in the same tank mix.

SUGGESTIONS – WHAT TO DO THIS WEEK

Several years of onion scouting experience has demonstrated that in direct seeded onions, BLB reaches the spray threshold in mid- to late-June and then counts continue to escalate for 3-4 weeks in spite of diligent use of Bravo/fungicides. Once the onions start to bulb, BLB counts drop (Fig. 1). In transplanted onions, especially when planted early, BLB rarely amounts to much in these larger plants (early transplants have already started to bulb). On the other hand, the window for a timely application of Movento to achieve *“The*

momentum of Movento” (see side bar), is now for early transplants.

- **For early transplants at threshold – make OT your priority.** You may co-apply with fungicides for target-spot diseases (Purple Blotch and Stem-phyllium leaf blight) such as Quadris Top, Merivon or Inspire Super that are compatible with Movento.
- **For direct seeded onions (5-6 leaf) – make BLB your priority.** With more rain in the forecast, thrips are not predicted to increase too quickly, and should still be in position for Movento a week from now.

For more information on relative performance of fungicides for management of leaf diseases in onions, visit the Cornell Vegetable Program website <http://cvp.cce.cornell.edu/>.

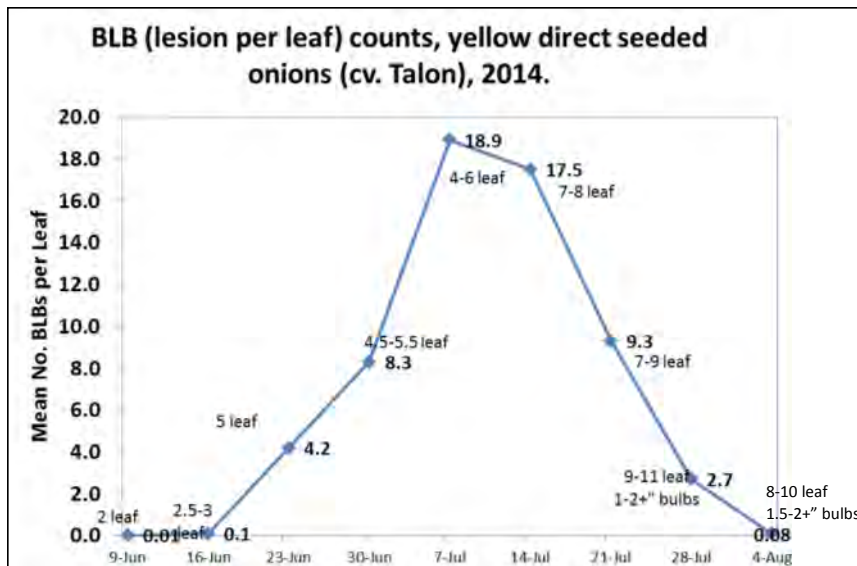


Figure 1. Typical progress of Botrytis leaf blight in direct seeded onions: Disease reaches spray threshold of 1.0 BLB lesion per leaf in mid- to late-June in 4-6 leaf onions, then continues to progress despite diligent use of fungicides, and then drops off naturally when the plants begin to bulb at the 8-10 leaf stage.

The Momentum of Movento

During the last couple of years, we have experienced that when Movento (plus penetrating surfactant without Bravo) is applied to young onions (pre-bulbing) at no greater than 1.0 OT per leaf at the beginning of the season that a single app can keep OT populations below 1.0 OT per leaf for 2 to 3 weeks! This is what we call “*The Momentum of Movento*” and it occurs about 25% of the time. The remaining 75% of the time, we see that two applications of Movento are needed in order to get a knock-down. We suspect that “*The Momentum of Movento*” is a function of the systemic activity of Movento being stronger in young plants, and that the double application is needed when plants start to get big (e.g. plants have 2 inch bulbs) and when more adult thrips occur in the population. Transplanted onions that are beginning to bulb or are about to bulb can be sprayed when OT are 0.7 to 1.0 OT per leaf at this time to hopefully capitalize on “*The Momentum of Movento*” before the plants/bulbs get too big. Cornell trials and grower experience have shown that when Movento is used later in sequence, it is not nearly as effective as when it is positioned first.

Cornell recommendation for early season thrips control:

1st spray: Movento 5 fl oz + penetrating surfactant @ 1.0 OT per leaf.

2nd spray: Movento 5 fl oz + penetrating surfactant 7-10 days after the first app if thrips reach 1 OT per leaf. If threshold is not reached again until 3 weeks later, avoid another app of Movento and continue with the next product in the sequence... more on the rest of sequence to follow in a future issue. 📌

WNY Sweet Corn Trap Network Report, 6/16/15

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

Fourteen sites reporting this week with European corn borer (ECB)-E caught at 5 sites and ECB-Z caught at 7 sites. ECB numbers are low at all sites except Eden, which reported 23 ECB-Z this week. Approximately half of the trap sites have reached 631 degree days which corresponds with peak ECB-E flight. Five sites are reporting corn earworm (CEW). Four of these sites (Erie, Yates, Orleans, and Monroe) have trap catches high enough to be on a 5 or 6 day spray schedule. Fall armyworm (FAW) was caught at 3 sites and western bean cutworm (WBC) has not been caught at any of the trap sites to date.

For fields that are in early tassel emergence, scout for any signs of eggs, larvae and feeding damage in the emerging tassel. Separate the leaves and look down into the tassel for any signs of feeding, frass or larvae. The treatment threshold at tassel emergence is 15% infested plants. 📌

WNY Pheromone Trap Catches: June 16, 2015

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Baldwinsville (Onondaga)	4	0	0	1	0	716
Batavia (Genesee)	0	0	0	0	0	672
Belfast	0	1	1	0	0	629
Bellona (Yates)	NA	NA	NA	NA	NA	742
Eden (Erie)	0	23	2	0	0	628
Farmington (Ontario)	3	0	0	0	0	639
Hamlin (Monroe)	NA	NA	NA	NA	NA	618
LeRoy (Genesee)	NA	NA	NA	NA	NA	591
Lockport (Niagara)	1	1	0	0	0	596
Pavilion	NA	NA	NA	NA	NA	591
Penn Yan (Yates)	2	2	2	0	0	712
Seneca Castle (Ontario)	3	2	0	0	0	651
Spencerport (Monroe)	0	3	4	0	0	716
Waterport (Orleans)	0	0	2	0	0	618
Williamson (Wayne)	NA	NA	NA	NA	NA	578

ECB - European Corn Borer

CEW - Corn Earworm

FAW - Fall Armyworm

WBC - Western Bean Cutworm

NA - not available

DD - Degree Day (modified base 50F) accumulation

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

Fresh Market Vegetable Weed Management Field Days: Cultivation Options

June 22, 2015 | 4:00 - 7:45 PM

Fenton's Produce LLC, 3323 Pratt Rd, Batavia, NY 14020



Research and Extension Educators will be leading demonstrations and answering questions on cultural and mechanical weed management options for fresh market vegetable growers. Attendees will see demos of new cultivation equipment in vine crops, beans, cabbage, and lettuce. Growers will learn what equipment is right for their farm and how to set-up (common equipment sweeps/shanks). CCA and DEC credits will be available. [Register and pay online](#), or 716-652-5400 and pay at the door. For more info, call Darcy Telenko at 716-697-4965.

Fresh Market Vegetable Weed Management Field Days: Weed Management in Vegetable Production

June 23, 2015 | 8:30 AM - 3:30 PM

CVP Weed Management Demo Site at Partridge's on the Farm Market, 4924 Ellicott St Rd (Rt 63), Batavia, NY 14020



Research and Extension Educators will be leading demonstration site tours and answering questions on cultural and mechanical weed management options for fresh market vegetable growers. Equipment options and considerations will be discussed and industry representatives will be on-hand to comment on their products. Topics include:

- Weed Management Between the Rows
- Weed Identification and Biology
- Tillage Options for Weed Management
- Essential Weed Management Equipment for the Beginning Farmer
- Herbicide Options in Sweet Corn
- Herbicide Injury Demo
- Perennial Bed Row Cover

CCA and DEC credits will be available for portions of the day. [Register and pay online](#), or call 716-652-5400 and pay at the door. We request pre-registering for the event so that we have a lunch count. For more info, contact Darcy Telenko at 716-697-4965.

Oswego Onion Growers Twilight Meeting

June 23, 2015 | 5:00 PM - 7:00 PM

John Dunsmoor Farm, 777½ County Route 53, Oswego, NY 13126



Highlights from the 2014 Oswego County onion herbicide trials, Christy Hoepting, Cornell Vegetable Program; preliminary results from the 2015 onion herbicide trial, Jonathan Schell, CCE Oswego; and an update on onion insect pest management, Brian Nault, Cornell.

Cost is \$10 dollars, includes dinner. Pre-registration required. Call CCE Oswego County at 315-963-7286 by Monday, June 22, to register or if you have special needs. 2 DEC recertification credits available.

Sponsored by: Seedway, Synagri, Crop Production Service, Stokes Seeds, Syngenta Crop Protection, Bejo Seed, Hazera Seeds, Bayer Crop Science and Helena Chemical.

2015 Elba Onion Weed Twilight Meeting

July 1, 2015 | 5:30 PM - 8:25 PM

Mortellaro & Sons, Mortellaro's Red Shop in the Elba Muck Land, 6550 Transit Rd, Elba, NY 14058



1.75 DEC credits available in categories 1A, 10 & 23. Featuring exciting new weed control options and novel approaches to weed control:

- POST-emergent control of broadleaf weed escapes including ragweed and yellow nutsedge
- PRE-emergent weed management in direct seeded onions
- Tank mixes, programs, crop tolerance, pipeline products
- Comprehensive management of perennial sowthistle
- 2015 on-farm trial results and demonstrations

Contact Christy Hoepting at cah59@cornell.edu or 585-721-6953 for details.

Crop Quality Control on Small-Scale Organic Farms & High Tunnels

July 8, 2015 | 3:00 - 6:00 PM

Falkimmer Farms Organic Growers, 8595 E Eden Rd, Eden, NY 14057



Tour several acres of cultivated fields to learn how the Falkowskis produce quality organic produce, and market it through direct-to-consumer opportunities. Cornell Vegetable Program Specialist Judson Reid will lead a demonstration and discussion of tomato pruning and other high tunnel production practices that improve quality, especially in organic systems. There will be time to network and ask questions, and bring a dish to pass for the potluck at the end of the event! To pre-register and pay, shop [online](#) or call Stephanie at 585-271-1979 ext. 509. The fees are \$15/person or \$25 for two or more people/farm. Pre-registration is encouraged and closes at 4pm on 7/6/15. *This event is produced by NOFA-NY, in partnership with Cornell Cooperative Extension, and with support from USDA-Risk Management Agency.*

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 6/02 – 6/15/15

Location	Rainfall (inch)		Temp (°F)	
	Week	Month	Max	Min
Albion	1.58	2.53	82	55
Appleton, North	1.75	2.69	80	54
Baldwinsville	2.69	3.95	81	58
Buffalo*	1.92	2.37	84	58
Butler	0.44	1.95	83	54
Ceres	3.08	3.22	85	51
Elba	2.10	3.63	79	53
Farmington	3.05	4.81	81	54
Gainesville	1.80	2.19	83	54
Geneva	3.05	4.48	81	56
Lockport	NA	NA	79	55
Lodi	1.70	2.71	88	57
Penn Yan*	2.59	3.96	89	57
Rochester*	2.88	4.69	81	56
Romulus	NA	NA	81	57
Silver Creek	1.27	1.92	84	58
Sodus	2.63	5.06	79	53
Versailles	NA	NA	85	58
Williamson	1.19	3.07	79	56

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – June 15, 2015

Location	2015	2014	2013
Albion	650	530	568
Appleton, North	499	403	446
Baldwinsville	672	621	578
Buffalo	669	534	645
Butler	691	603	NA
Ceres	584	492	482
Elba	500	422	519
Farmington	639	565	536
Gainesville	529	430	NA
Geneva	651	579	611
Lockport	596	490	NA
Lodi	749	651	666
Penn Yan	712	613	616
Rochester	716	618	663
Romulus	663	586	NA
Silver Creek	614	497	592
Sodus	564	541	NA
Versailles	628	527	622
Williamson	578	518	542

* 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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