

branch elongation, making the heads less desirable.



Nitrogen applications in the last 4 weeks before broccoli harvest can cause early side-

Botrytis leaf blight (BLB) lesions in onions are tiny pin-prick to pinhead sized yellow necrotic spots

surrounded by silvery halos. Here

are tips for scouting for BLB.

PAGE 3

guidelines for managing downy mildew in vine crops.

Here are updated

PAGE 6



Got slugs or snails? Here are some long-term ecological practices that may help you manage

these slimy pests.

PAGE 7



Photo: J. Reid

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE Volume 15 Issue 09 June 5, 2019

Cornell Cooperative Extension Cornell Vegetable Program

Fine Tuning Broccoli Production: Timing Nitrogen Application for a High-Quality Summer Harvest

Thomas Björkman, Professor, Section of Horticulture, Cornell AgriTech, Geneva

One of the challenges with raising broccoli in the East is getting heads to stay dense. In the warmth of summer, the outer branches of broccoli tend to start elongating a little before harvest maturity. They "blow up" in the words of many producers. The result is a head that doesn't pack tightly in the box and has soft edges that are prone to damage in handling.

The solution is to let growth slow a little during the weeks before harvest. Growth is promoted by the combination of warmth, water,



Late nitrogen application can cause early side-branch elongation, making the heads less desirable on the market. The left image shows a tight head with solid side branches. The right image has a head that has begun to loosen at the sides. This effect can be reduced by having the last nitrogen application at least four weeks before harvest so that the growth rate is slowing down a bit just as harvest begins. *Photos: T. Bjorkman, Cornell*



VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a Cornell Cooperative Extension partnership between Cornell University and CCE Associations in 14 counties.

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

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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 enrolling in our program, visit about 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 Ochterski 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 newsletter will be produced June 12, 2019.



CVP Onion Specialist Christy Hoepting and her new Technician Emma van der Heide have been very busy this past May setting up research trials. We are very proud of all of the on-farm research that we do.

So far, we have underway:

- 2 in-furrow fungicide soil-borne disease (pink root and Fusarium) trials
- 2 onion variety nitrogen rot projects
- 10 herbicide trials (4 for pre-emergence control, mostly of yellow nutsedge, 4 for post-emergent control of pigweed, perennial sowthistle and marsh yellowcress, 1 for onion crop tolerance, and 1 greenhouse seedling bioassay)

We love setting up A LOT of plot stakes and flags in grower fields, and can't wait to see what new and exciting research results we will discover this year! Beginnings are so hopeful!

continued from cover – Fine Tuning Broccoli Production: Timing Nitrogen Application for a High-Quality Summer Harvest

nitrogen, and sunlight. Warmth is a given for harvests in July and early August, sunlight we have no control over, and abundant water sometimes comes whether we want it or not. The main management tool is nitrogen.

Slowing growth by reducing nitrogen is a considerable challenge because abundant nitrogen is needed during the vegetative growth to get strong, healthy, fastgrowing plants. The best approach is to supply nitrogen relatively early in the growing period, and not add nitrogen in the last four weeks.

Many popular broccoli varieties are harvested starting only eight weeks after transplanting. Therefore, the last nitrogen application should be only four weeks after transplanting. At that time, the foliage is near full cover, which a good time for a traditional side-dress application as well as cultivation to get escaped or newly germinated weeds. Fertigation through a trickle-irrigation system would be during the fourth week. At that time, the plants are large enough to take up the nitrogen but not so far along that excess growth at harvest will cause loose heads.

Applying all of the nitrogen before planting is a possibility. Ordinarily, applying 120 to 150 pounds per acre of nitrogen preplant is ill-advised because of the high likelihood of leaching before the crop takes it all up. However, because broccoli is only in the ground for about nine weeks through the end of harvest, and reaches its maximum uptake five weeks after transplanting, the risk of leaching loss is relatively low compared to the typical situation. Pre-plant application of the fertilizer opens up production options that don't allow side-dressing or liquid fertilization.

This early-nitrogen approach is also helpful in reducing hollow stem. Hollow stem is likewise a symptom of excessive late vegetative growth. The main tool for managing hollow stem is adjusting the plant population. If hollow stem is a problem, it's likely that both yield and quality will be improved by spacing the plants closer together. In New York we have found an in-row spacing of 8 inches to work quite well. But limiting late nitrogen also tempers the growth rate at the right time.

More information is on the Resources tab at <u>http://</u> <u>tinyurl.com/easternbroccoli</u>

Onion Scouting Tips for Botrytis Leaf Blight

Christy Hoepting, CCE Cornell Vegetable Program

Botrytis leaf blight (BLB) lesions are the tiny pin-prick to pinhead sized yellow necrotic spots surrounded by silvery halos (Fig. 1 lesions 5 & 6). The silvery halo is often blotchy in shape. Sometimes the necrotic spot is barely visible, which can make identification of such versions of these lesions tricky to identify (Fig. 1 lesions 2 & 3). When BLB lesions get old, the center becomes sunken and often splits, it is still yellowish in color and remnants of the silvery halo can usually still be seen (Fig. 1, lesion 9). Herbicide injury and various nicks and dings caused by blowing debris or herbicide injury may be confused with BLB lesions (Fig. 1 right). BLB lesions can be distinguished by their ghostly appearance not penetrating the leaf surface. BLB lesions are most abundant on the outer leaves, usually on the underside of the leaf, and are distributed anywhere along the leaf. All of these lesions are counted when scouting to use for spray thresholds for BLB. Count the number of BLB lesions on the outer three leaves of 20-30 plants per field. Numbers can be highly variable among plants, so it is good to take a look at several plants. The number of lesions per leaf is the number of lesions per plant divided by 3. The spray threshold is 1.0 BLB per leaf.



Figure 1. Ten Botrytis leaf blight (BLB) lesions on an onion leaf. Lesion No. 1,4,5,6 & 7 have tiny yellow necrotic centers. In lesion No. 2 & 10, the necrotic center is not visible. Lesion No. 8 does not have a distinct yellow center and blends into No. 7. Lesion No. 9 is an old lesion with a sunken center and silvery halo still visible. *Photo: C. Hoepting, CVP*

Figure 2. BLB lesion amongst other necrotic spots on onion leaf. Photo: C. Hoepting, CVP •



GENERAL

Seeing **root rots** in plantings of various crops that went in early and sat in cold, wet soils. In some cases, the later plantings are surpassing the early ones. -EB

Cold damage – I've seen tender cucurbits and tomatoes damaged by the very cool night temperatures. Chill injury will come on suddenly and look like water soaked, collapsed, or darkened foliage. – EB

Flea beetles (FB) numbers increasing on all brassicas in the field. Plantings under row cover have been mostly untouched except where the wind has opened up some space. FB quickly have gotten under the covers and it's like spring break in there. – RH

Remember, they may be feeding in the undersides of leaves, too. - EB

Cabbage Root Maggots (CRM) – Root maggots are turning up on roots with low to moderate feeding. – RH

Imported Cabbage Worm (ICW) – More activity with ICW. – RH

Striped Cucumber Beetle (SCB) – Surprising amount of adults seen going after newly emerging summer squash and zucchini. Be on top of this pest this spring. – *RH*

BEETS

Cool, wet weather favors Bacterial leaf spot (BLS). The symptoms of BLS are irregular-shaped to circular spots measuring 3/16th to 14th inches in diameter. The lesions have tan to dark brown centers with very dark to near black borders. Young plants are most susceptible, and often the infected leaves/plants curl and pucker. Copper fungicides (many are OMRI-listed) can be used. It is important to use the maximum labelled rate at regular (label specified) intervals. Control will also be enhanced with good air flow. In a 2017 Cornell trial, the severity of leaf disease in plots that were kept nearly weed-free with hand-weeding was 50% less than in weedy plots (maintained by a row cultivator only). – *JK*



Bacterial leaf spot on table beets in NY. Note dark to black borders of the leaf spots. *Photo: Sarah Pethybridge, Cornell*

ONIONS

The onion crop is looking very good. Most of the direct seeded onions are in the 1 or 2-leaf stage and all of the later-planted fields have emerged. We saw **Botrytis leaf blight (BLB)** lesions for the first time this week in transplanted fields of 5-6 leaf and larger, as well as the odd lesion in 2-leaf onion, and some transplanted fields have reached the spray threshold of 1.0 BLB lesion per leaf. (See BLB scouting tips, page 3). Bravo fungicide is recommended for protection against BLB at this time. Overall, weed control continues to be very good with more pigweed and Lamb's quarters escapes starting to show up now. Also, there appears to be more than usual **Outlook injury** this spring, which is favored by slow growing conditions (Fig. 1).

Peak emergence of the overwintering generation of adult **onion maggot (OM)** flies is occurring right now. OM flies begin to lay eggs at the base of onion plants 7 -10 days after they emerge, so in a couple of weeks OM damage will become more prevalent, although we did see 3 plants with maggots feeding on them this week. Typically, OM prefer to lay their eggs on onion seedlings that are about a pencil in diameter (e.g. 2-3 leaf onion), which is why direct seeded onions usually have more injury than transplanted onions when OM have a choice. It will be interesting to see the level of OM damage in fields/blocks where onions were planted late where the onions will be smaller (e.g. flag to 1leaf) than OM's first size choice. First line of defense for OM control is seed treatment (FI500 and Trigard)



Figure 1. Outlook injury. First leaf (red arrow) does not unfurl properly and gets caught (yellow circle) in the flag leaf (yellow arrow), which causes the first leaf to "loop" instead of stand upright. Once the flag leaf dies, the first leaf is released and will eventually straighten out. *Photos: C. Hoepting, CCE CVP*



Figure 2. Nature's biological control of onion fly. Light colored stripes are thousands of spores of a parasitic fungus *Entomophthora muscae* that infected and killed only this fly. Such infected flies can be found on the tips of onion leaves where they go to die so that they can shower their spores to infect even more flies. *Photo: C. Hoepting, CVP*

with Lorsban in-furrow with Trigard. Spraying for adult OM flies is not recommended. The cool and moist spring weather is favorable for some natural biological control of OM flies. For the first time in real life, I saw an onion fly infected with the parasitic fungus *Ento*-

continued – CROP Insights

mophthora muscae (Fig. 2), which apparently can infect and kill large numbers of adults. In this unusually cool and wet spring, we still have not seen any onion thrips, not that anyone is surprised or complaining, just saying! No need to spray for thrips yet. – CH

POTATOES

Potato planting continues; emergence and planting have been slowed by the cool wet conditions. **Colorado potato beetles** eggs and adults have been noted on volunteers. When temperatures warm, this pest will become much more active. Scouting programs and thresholds for initiating sprays have been developed for potato and tomato (see Vegetable Guidelines for more details). In general, the threshold for potato after sample 50 plants in a field is \geq 200 small larvae, \geq 75 large larvae, and \geq 25 adults. For tomato, thresholds are still in the development stage, but current data recommend a threshold of $\frac{3}{4}$ adult of \geq 10% defoliation in plants up to 10 inches tall; 1 adult or larvae per plant of \geq 20% defoliation for plants 10 inches to early fruit set; and \geq 10% defoliation or \geq 2% plants with one freshly injured fruit. – *JG*

PROCESSING CROPS

Planting and weed management remain the priorities at this time. Continued rainy weather, with few good drying days in between continue to plague field work. Take note of the following in regards to snap bean herbicides: Eptam 7-E (PPI) may be less effective in cold, wet soils or when heavy rains occur 1 or 2 days after spraying; Treflan HFP (PPI) is not adversely affected by cold, wet soils or heavy rains; with both Sandea (PreE) and Dual II Magnum (PPI or PreE) crop injury is possible on coarse soils if heavy rain occurs shortly after application. Injury may be increased if the rainfall and application occur just as beans are emerging. Soil texture and organic matter are important factors in selecting an appropriate rate. – *JK*

Late Blight Risk – Severity Value Accumulations

John Gibbons, CCE Cornell Vegetable Program

Late blight severity values continue to rise for many locations. The first fungicide application will usually be triggered by the late blight forecast and should occur as soon as possible after 18 Blitecast severity values have accumulated since first potato tissue emergence in your region. Based on weather forecasts using first emergence of potatoes on May 15, three locations have exceeded the threshold: Buffalo, Niagara Falls, and Wellsville. The forecast projects that several other stations will be closing in on 18 severity values by the end of the week (see table for other weather stations). When the 18 severity value threshold is reached or forecast apply a fungicide, as soon as you can to any potato fields or tomato fields with plants larger than four inches tall. Once you've applied your first fungicide, use Simcast or early blight P-Days to help schedule your fungicide applications for the remainder of the season. This can be found on NEWA: http:// newa.cornell.edu/index.php?page=potato-diseases

Late Blight Severity Values* 6/04/2019

Location	Total	Forecast 6/05-6/07	Location	Total	Forecast 6/05-6/07
Albion	5	3	Kendall	6	7
Arkport	5	2	Knowlesville	9	3
Baldwinsville	14	2	Lodi	NA	NA
Bergen	7	3	Lyndonville	9	3
Buffalo	22	3	Medina	13	3
Burt	7	6	Niagara Falls	21	4
Butler	13	3	Penn Yan	13	2
Ceres	9	4	Rochester	14	3
Fairville	3	3	Sodus	9	3
Farmington	10	3	Versailles	14	3
Fulton	12	5	Wellsville	28	3
Geneva	2	3	Williamson	4	4

* Severity value accumulations start 5/15/2019

The <u>BlightPro Decision Support System (DSS)</u> is a late blight management tool. This system was formally available on Cornell Servers but now the DSS has migrated, in 2019, to a fee service that will be managed by <u>UKKO Agro</u>. More information can be obtained by contacting – Ketan Kashish at <u>ketan@ukko.ag</u> We hope to have more information on this in the future.

There have been no new light blight reports nationally. The only positive sites remain in north Florida. •

Welcome CVP Technician Sarah Vande Brake

"I graduated from Houghton College with degrees in Environmental Biology and English Literature in May 2018. Following my graduation, I worked in the Houston, Texas area as an AmeriCorps member on a habitat restoration crew, which involved chainsaw work, vegetation management, and data collection. I love all kinds of field work, but working in agriculture is totally new to me! I'm excited to be the newest technician on Cornell Cooperative Extension's Vegetable Program team. Although I grew up in Rochester, I have lots to learn about vegetable production in Western New York. I'm most looking forward to developing a greater understanding of weed biology and working with growers to help reduce the impact of pathogens and pests on crop yield."



Sarah Vande Brake

Sarah will be a Technician for Christy Hoepting and Elizabeth Buck. Her office is in Albion, NY. She will be working primarily with Christy on onion, cabbage, broccoli and garlic research projects, and with Elizabeth on vegetable scouting and Phytopthora.

Updated Guidelines for Cucurbit Downy Mildew Management

Robert Hadad, CCE Cornell Vegetable Program

Dr. Meg McGrath, Cornell Plant Pathologist, out on Long Island has updated her guidelines on the management of downy mildew in vine crops. She and other pathologists have run research trials on the efficacy of disease management products each year or two. New products come onto the market and they are tested alongside older products. Disease resistance to the products is also studied. Her full article can be found at: <u>http://</u> <u>vegetablemdonline.ppath.cornell.edu/</u> <u>NewsArticles/Cuc_Downy.htm</u>.

If farmers rely on the same chemical sprays throughout the season, year after year, the disease organisms become resistant. As resistance increases, the chemical becomes less useful. Alternate products throughout the season.

Here are excerpts from that article.

Resistant varieties

Resistance was the main tool for cucumbers until a new strain of the pathogen developed. Since 2004, varieties with this resistance, which include most hybrids, have provided some suppression of the new pathogen strains present, but substantially less than the excellent suppression that was achieved against strains present before 2004. However, these resistant varieties are still considered a worthwhile component of an integrated program. Fortunately, new sources of resistance have been found and cucumber varieties with these new genes for resistance are starting to become available. In a cucumber variety evaluation conducted at LIHREC in 2017, DMR 401 exhibited the highest level of resistance. Bristol and Citadel (pickling type suitable for fresh market) were moderately resistant but were not significantly less severely affected than SV3462CS. SV4719CS. and Diamondback. Marketmore 76 exhibited limited resistance while Speedway was not significantly less severely affected than Straight Eight, the susceptible check variety. DMR 401, Bristol and Citadel were also the highest yielding varieties.

DMR 401 was developed by Cornell plant breeders. In evaluations conducted in 2016 and 2017 at University of Massachusetts, NY264, DMR 401 (both sold at http://commonwealthseeds.com/), and Bristol exhibited good resistance with NY264 and Bristol performing best under high disease pressure.

Guidelines on Managing Cucurbit Downy Mildew

1) Select resistant cucumber varieties

- 2) Sign up to receive alerts about downy mildew in the region http://cdm.ipmpipe.org
- 3) Inspect crops routinely for symptoms beginning at the start of crop development
- Apply targeted fungicides weekly with protectant fungicides and alternate among available chemistry based on FRAC codes to manage resistance development.

Here are just some of the products available. Go to full article to read about the rest and their ratings. Remember to fully read the label directions on all products.

Chlorothalonil and mancozeb are the main protectant fungicides for downy mildew. Copper is not as effective. Most fungicides labeled for downy mildew are also labeled for Phytophthora blight, which is caused by a related (oomycete) pathogen.

Orondis (FRAC Code 49, previously U15). The novel active ingredient, oxathiapiprolin, has exhibited excellent activity in fungicide evaluations. It is formulated with mandipropamid (FRAC 40) as Orondis Ultra (REI is 4 hr) and with chlorothalonil (M5) as Orondis Opti (REI is 12 hr). PHI is 0 day. Make no more than 2 consecutive applications of either before rotating to a different fungicide. When at least 3 applications for downy mildew will be made, Orondis fungicides can be no more than 33% of the applications, or a maximum of 4 applications per planting, whichever is fewer.

Ariston, Curzate or Tanos (27). These have some curative activity (up to 2 days under cool temperatures) but limited residual activity (about 3-5 days). They can be a good choice when it was not possible to apply fungicide at the start of a high risk period when temperature is below 80 F. Apply another targeted fungicide 3-5 days later. Both must be tank-mixed with a protectant. REI is 12 hr. PHI is 3 days.

Here is a list of some of the Downy Mildew fungicides, their efficacy for risk of resistance and effectiveness in trials over the last three years. Ridomil has known Downy Mildew resistance already.

FRAC Code	Fungicide	2018	2017	2016
4	Ridomil	not tested	not tested	not tested
11	Quadris	ineffective	ineffective	ineffective
21	Ranman	EFFECTIVE	EFFECTIVE	EFFECTIVE
22	Zing!, Gavel	EFFECTIVE	EFFECTIVE	EFFECTIVE
27	Curzate, Tanos	EFFECTIVE	poor	EFFECTIVE
28	Previcur Flex	EFFECTIVE	poor	EFFECTIVE
29	Omega	not tested	not tested	not tested
40	Revus	ineffective	ineffective	ineffective
40	Forum	EFFECTIVE	ineffective	ineffective
43	Presidio	ineffective	EFFECTIVE	ineffective
45	Zampro	EFFECTIVE	EFFECTIVE	EFFECTIVE
49	Orondis	EFFECTIVE	not tested	not tested O

NY Sweet Corn Trap Network Report, 6/4/19

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

Of the 16 sites that reported this week, 3 sites caught European corn borer (ECB)-E and one site caught ECB-Z. European corn borer egg masses and common armyworm were found in fields of V5 and V8 corn this week.

Corn earworm was caught at 3 sites (Portville, Hurley and Penn Yan). While we usually think of corn earworm laying eggs on silks and primarily damaging the ear, they will feed on whorl stage corn if

Location	ECB-E	ECB-Z	CEW	FAW	WBC	DD to Date
Batavia (Genesee)	NA	NA	NA	NA	NA	403
Bellona (Yates)	NA	NA	NA	NA	NA	422
Eden (Erie)	NA	NA	NA	NA	NA	415
Farmington (Ontario)	0	0	0	0	0	425
Geneva (Ontario)	NA	NA	NA	NA	NA	401
Hamlin (Monroe)	NA	NA	NA	NA	NA	358
Kennedy (Chautauqua)	NA	NA	NA	NA	NA	448
Lyndonville (Orleans)	0	0	0	0	NA	352
Penn Yan (Yates)	0	0	1	0	NA	417
Portville (Cattaraugus)	0	0	6	0	NA	449
Ransomville (Niagara)	NA	NA	NA	NA	NA	345
Seneca Castle (Ontario)	2	0	0	0	NA	378
Williamson (Wayne)	NA	NA	NA	NA	NA	324
ECB - European Corn Borer WBC - Western Bean Cutworm						

WNY Pheromone Trap Catches, 5/28/19

silk stage is not available. Feeding resembles that of fall armyworm more than European corn borer (see photo). No fall armyworm moths were caught this week and Western bean cutworm traps will be set over the next week.



Injury to corn leaves caused by corn earworm larvae, Champaign County, June 26, 2008. Photo courtesy of Dan Schaeffer, Illini FS, Tolono, Illinois

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

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

CEW - Corn Earworm FAW - Fall Armyworm

NA not available

DD -Degree Day (mod. base 50F) accumulation from J.W. Apple, Department of Entomology, Univ. of Wisconsin-Madison

Are Slugs and Snails Feeding on Your Vegetable Crops?

Julie Kikkert, CCE Cornell Vegetable Program

It's no secret that slugs and snails love wet weather, and reports locally and regionally indicate that active feeding is happening at this time. Large slugs and snails that you may have seen in May or early June likely overwintered in the adult stage. More commonly in the Great Lakes region, eggs of slugs/ snails that were laid last fall begin to hatch in mid to late May. Feeding occurs one to two weeks after egg hatch. Hence, significant feeding will begin in early to mid-June, with the heaviest feeding in late June and early July. Prolonged wet weather increases slug and snail activity in crops.

To determine if you have slugs and/or snails in your crops, look for signs of damage which may include complete loss of small seedlings; and in older plants, large holes where the veins of the leaf remain intact (skeletonized). There are often trails of slime that glistens in the sunlight. Finding the actual slugs and snails is easiest at

dusk or dawn. If you really want to know what is happening, go out with a flashlight in the middle of the night and you may be amazed at how many slugs and snails are out feeding. Slug traps can also be built by placing boards or other materials in the field and looking underneath (you can find options for these on the internet).

Populations of slugs and snails, are often highest in fields with more crop residue, in weedy fields and along hedge rows. While they often spend most of the time underground, pulling back heavy foliage will often find them feeding there. It is estimated that only 5% of the population will be above ground during the summer months. Tillage helps to reduce slug populations, but of course this practice needs to be weighed based on your soil health goals.

In regards to management, overall long-term ecological practices may be best.

- Avoid planting highly problematic crops (such as processing peas) in areas with known heavy slug populations.
- Avoid planting near fields with wet and lush borders, and near ponds and ditches.
- Consider a tilled strip between borders with slugs and your crop. ٠
- Maintain good weed control. ٠
- If slugs and snails are a contaminant in your crop, harvest during the daytime when fewer slugs/snails will be on the foliage.
- Baits are available for use around some crops, but generally must be kept off of the harvestable plant parts (read labels carefully).
- Lannate LV is labeled for control of slugs in cabbage only. The key to best control ٠ with Lannate is that it comes into contact with the slugs. Spray at night or in the early morning when temperatures are cool and foliage is wet with dew or rain.



Annual Oswego County Onion Twilight Meeting

June 20, 2019 (Thursday) | 4:30 - 7:00 PM educational meeting; dinner to follow at Sorbello's John Dunsmoor Lake Elizabeth farm

Contact Christy Hoepting, 585-721-6953, for more information.

Women in Agriculture Discussion Group: Maple and Agroforestry

June 24, 2019 (Monday) | 6:00 - 7:30 PM Gabel's Maple Syrup, 5095 Kaiser Rd, Lawtons, NY 14091

Each monthly Women in Ag discussion group meeting will feature an established, innovative Farm-her leading the group on a tour of her operation and sharing her expertise on business management and production. Several guest speakers, as well as Cornell Vegetable Program staff, will be brought in to act as resource people for developing solutions to common production challenges.

The June 24 meeting will cover maple production and putting woodlots to work led by Sharon Bachman, CCE Erie County. The meeting will be hosted by Lynn Gabel (<u>Gabel's Maple Syrup</u>). Lynn will share her experience in event agritourism and marketing value-added products.

View the full <u>Women in Ag discussion group schedule</u> on our website at cvp.cce.cornell.edu. For more info, including the most recent meeting and speaker schedule, or to join the discussion group, <u>contact Elizabeth Buck</u> at 585-406-3419.



Cornell Cooperative Extension Erie County Northeast AgEnhancement Cornell Cooperative Extension Cornell Vegetable Program

Vegetable Pest and Cultural Management Field Meetings for Auction Growers

July 3, 2019 (Wednesday) | 7:00 - 9:00 PM Jonas Peachy farm, 5461 Rt 414, Romulus, NY 14541 (Seneca County)



July 19, 2019 (Friday) | 7:00 - 9:00 PM Noah Hoover farm, 3095 Himrod Rd, Himrod, NY 14842 (Yates County)

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. Judson Reid, Senior Extension Associate with the CCE Cornell Vegetable Program along with CCE staff will instruct participants and facilitate peer-based learning. Planned topics:

- Weed Control in Row Crop Vegetables Why and How
- Tomato and Potato Disease Updates
- Cucurbits Grafting for Vigor and Yield, Downy and Powdery Mildew Management, Insect Pest Management
- Food Safety News
- Q&A and other farm-specific crop observations

DEC recertification credits will be offered. FREE to attend! For more info, contact Judson Reid at 585-313-8912.



Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 5/28 - 6/3/19

	Rainfa	all (inch)	Temp (°F)		
Location**	Week	Month May	Max	Min	
Albion	0.44	4.44	73	44	
Arkport	0.72	3.80	74	38	
Bergen	0.38	3.34	72	48	
Brocton	1.22	3.46	71	45	
Buffalo*	0.74	3.53	70	44	
Burt	0.59	4.22	72	46	
Ceres	2.08	4.10	78	38	
Elba	0.51	4.47	75	44	
Fairville	0.29	4.41	72	45	
Farmington	0.28	4.71	80	43	
Fulton*	0.86	5.78	75	43	
Geneva	0.81	4.42	78	46	
Hanover	1.53	2.75	73	46	
Lodi	0.70	3.72	77	46	
Niagara Falls*	0.44	4.87	75	43	
Penn Yan*	0.10	3.05	77	46	
Rochester*	0.20	2.66	77	43	
Sodus	0.31	4.77	76	44	
South Bristol	0.54	3.37	77	45	
Varick	0.83	6.36	80	46	
Versailles	1.18	2.95	73	45	
Williamson	0.21	3.50	72	45	

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 - June 3, 2019

Location	2019	2018	2017
Albion	257	495	353
Arkport	270	549	335
Bergen	272	467	339
Brocton	297	NA	NA
Buffalo*	247	535	366
Burt	205	409	310
Ceres	337	461	342
Elba	242	484	335
Fairville	251	458	337
Farmington	264	472	341
Fulton*	247	460	358
Geneva	288	482	367
Hanover	298	499	NA
Lodi	315	511	420
Niagara Falls*	224	541	415
Penn Yan*	319	514	399
Rochester*	322	541	401
Sodus	249	449	358
South Bristol	279	492	356
Varick	327	504	410
Versailles	310	496	410
Williamson	221	434	392

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

VegEdge is the award-winning newsletter produced by the Cornell Vegetable Program. 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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