

Learn what works the best at controlling perennial sowthistle in the fall in onions.



New York offers many programs for farmers aimed at providing information. training, or

Learn about upcoming trainings.



Now is the time to evaluate how well your pest management programs worked





SURVEY: Impacts and Farmer Responses to 2017 Heavy Rainfalls. Share information on

how you coped with this year's rains.



Fall Burn Down of Perennial Sowthistle in Onion: Herbicide Trial **Highlights**

Christy Hoepting, CCE Cornell Vegetable Program

Cornell Vegetable Program

Previously, we (Hoepting and Buck) had only evaluated fall burn down treatments for control of perennial sowthistle (PST) during the growing season (simulated fall burn down). In our 2014-2015 study, treatments were applied in the fall when shortened day length and frost could affect their activity. Above-ground PST mortality was evaluated in the fall as well as its re-growth during the following growing season. Treatments were applied after an early onion harvest on September 18 when PST had reached mid- to late-rosette stage (Fig. 1). Treatments focused on use of growth regulator herbicides with active ingredients, dicamba, 2,4-D Amine and clopyralid (Stinger) that move down in the plant to kill the below-ground rhizomes. Some tank mixes with glyphosate (e.g. Roundup) were also included.

Figure 1. Re-growth of Perennial sowthistle following an early onion harvest is at the perfect stage (mid- to late-rosette) to apply a fall burn down program. Photo: C. Hoepting, CVF

VegEdge newsletter is exclusively for enrollees in the Cornell Vegetable Program, a **Cornell Cooperative Extension** regional agriculture team, serving 13 counties in Western New York.

The newsletter is a service to our enrollees and is intended for educational purposes, strengthening the relationship between our enrollees, the Cornell Vegetable Program team, and Cornell University.

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

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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

Cooperative Extension Cornell Vegetable Program

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The next issue of VegEdge will be October 1, 2017.

Late Blight Update

Darcy Telenko and John Gibbons, CCE Cornell Vegetable Program

Late blight continues to be active found in western NY and most counties in western NY have had a positive report. See map at https:// usablight.org/map.

All isolates continue to be identified as US 23 in NY, which is aggressive on both tomato and potato but generally sensitive to Ridomil.

Late Blight Risk Chart, 9/12/17

Location ¹	Blight Units ¹ 9/06- 9/12	Blight Units ² 9/13- 9/15	Location ¹	Blight Units ¹ 9/06- 9/12	Blight Units ² 9/13- 9/15
Albion	43	21	Lodi	NA	NA
Baldwinsville	34	19	Lyndonville	31	18
Bergen	21	18	Medina	37	21
Buffalo	38	20	Niagara Falls	24	19
Ceres	30	19	Penn Yan	31	21
Elba	NA	NA	Rochester	37	21
Fairville	47	21	Sodus	35	21
Farmington	35	19	Versailles	28	21
Gainesville	NA	NA	Volney	29	19
Geneva	28	21	Wellsville	36	20
Kendall	30	19	Williamson	23	19
Knowlesville	NA	NA	Wolcott	26	21

The wet weather this past week has

¹ Past week Simcast Blight Units (BU)

² Three day predicted Simcast Blight Units (BUs)

bumped most stations over the 30 BU threshold and those not quite there will go over based on the 3-day forecast. This triggers the recommendation for an addition fungicide application this week. See the table for the Blight Units (BU) accumulation from around the region. All tomato and potato growers, conventional and organic, should be applying a protectant fungicides and monitoring the DSS to determine spray intervals. Remember to rotate fungicide

Treatment (rate/acre)		FALL: PST Mortality (%)		SUMMER: PST Re-Growth 10 MAT ² (Jul-30)				
		13 DAT ¹ (Oct-1)	22-DAT (Oct-10)	30 DAT (Oct-18)	Ground Cover (%)	% Control of Ground Cover	Fresh PST Biomass (g/0.5 m ²)	% Control of Biomass
1	Untreated	0.0 i	1.9 h	6.2 e	46.6	0.0	464 c	0.0
2	Round-up 4 pt	0.7 f-i	20.8 gh	83.2 b	28.4	39.0	183 ab	60.4
3	2,4-D Amine high 4 pt	2.7 e-i	48.0 ef	66.2 c	40.9	12.2	240 b	48.3
4	2, 4-D Amine low 2 pt	0.1 hi	6.8 h	43.0 d	23.9	48.8	172 ab	63.0
5	Vision ³ (a.i. dicamba) 2 pt	4.5 d-g	68.2 b-e	96.0 ab	19.3	58.5	91 ab	80.5
6	Stinger 8 fl oz	4.7 d-h	32.5 fg	89.5 ab	27.3	41.5	150 ab	67.6
7	Round-up ⁴ + 2,4-D high ¹	0.7 ghi	40.0 fg	91.2 ab	19.3	58.5	134 ab	71.0
8	Round up + 2,4-D low	3.0 e-i	65.5 cde	94.5 ab	19.3	58.5	95 ab	79.4
9	Round-up + 2,4-D high + Stinger	6.7 cde	77.5 a-d	97.2 ab	29.5	36.6	217 ab	53.2
10	Round-up + 2,4-D low + Stinger	16.2 bc	73.2 a-d	89.5 ab	25.0	46.3	212 ab	54.2
11	Vision + 2,4-D high	6.7 def	72.0 a-d	97.0 ab	23.9	48.8	158 ab	66.0
12	Vision + 2,4-D high + Stinger	23.7 ab	87.5 abc	96.5 ab	28.4	39.0	152 ab	67.2
13	Round up + Vision	3.4 d-h	64.5 de	93.0 ab	26.1	43.9	226 ab	51.3
14	Round-up + Vision + Stinger	36.2 a	90.0 ab	98.8 a	18.2	61.0	162 ab	65.0
15	Round-up + 2,4-D low + Vision 1 pt	9.5 cd	93.2 a	96.5 ab	23.9	48.8	79 a	83.0
	p-value (α=0.05)	0.0000	0.0000	0.0000	NS (.2902)	-	.0026	

 Table 1. Evaluation of fall burn down herbicide treatments on control of Perennial sowthistle (PST) in onion; On-farm research trial, Elba muck, 2014-2015 (Hoepting and Buck).

¹DAT: Days after treatment.

²MAT: Months after treatment.

 ^3All treatments containing Vision were applied with NIS surfactant, Dyne-Amic 0.25% v/v.

⁴All treatments containing Roundup were applied with ammonium sulfate 0.25% v/v.

Highlighted: Best treatment in trial.

Results Highlights (Table 1):

- Dicamba was the best active ingredient for controlling perennial sowthistle in the fall. In this trial, it took Vision (a.i. dicamba) 2 pt (trt 5) by itself 30 days to achieve 96% burndown in the fall with only 4.5% and 68% burn down after 13 and 22 days after treatment (DAT), respectively. In the following growing season, it had the least re-growth with 79% and 59% control of ground cover on Jun-25 and Jul-30, respectively and 80% control of biomass on Jul-30.
- Best treatment in the trial was Vision low (1 pt) + 2.4-D Amine low (2 pt) + Roundup 4 pt. This treatment resulted in 93% mortality 22 DAT (best in trial) in the fall and in 49% control of PST ground cover and 83% control of PST biomass (best in trial) by Jul-30 in the following growing season.
- No benefit to tank mixing high rate of dicamba with high rate of 2,4-D Amine (4 pt). When Vision was tank mixed with 2,4-D Amine 4 pt (trt 11), there was no difference in final mortality 30 DAT in the fall and during the following season, this combination treatment provided less control (e.g had more weed re-growth) than Vision (dicamba) 2 pt alone.
- Stinger increased rate of kill in the fall. In each of four side-by-side comparisons, addition of Stinger to i) Vision 2 pt + 2,4-D Amine high (trt 11 vs. 12), ii) Vision 2 pt + Roundup (trt 13 vs. 14), iii) Roundup 4 pt + 2,4-D Amine high (trt 7 vs. 8), and iv) Roundup 4 pt + 2,4-D Amine low (trt 8 vs. 10), rate of kill increased. However, control of re-growth was only improved the following year when Stinger was added to Roundup + Vision.
- Roundup improved control of 2-4-D Amine at low and high rates, but was not needed with dicamba. In Table 1, compare treatments 3 to 7 (2,4-D Amine high), 4 to 8 (2,4-D Amine low), 5 vs. 13 (Vision). In fact, Vision 2 pt worked better without Roundup. Dicamba alone may offer a fall burn down treatment that is not harmful to cereal cover crops.
- In our plant back study, we did not detect any carry-over effects from fall applications of 2,4-D Amine 2 pts and 4 pts alone and in combination with Stinger 4 fl oz and 8 fl oz, and dicamba 2 pts in the succeeding direct seeded onion crop in the form of stunting or reduced yield and/or bulb size (data not shown).

FRAC groups and use contact fungicides in your program to minimize the chances of fungicides resistance.

Continue applying fungicides regularly, even past potato vine-killing, and even if you've abandoned a tomato planting, as long as any green tissue remains, to prevent the production of late blight spores.

Expand Your Markets through GAPs/HGAPs

Robert Hadad, CCE Cornell Vegetable Program

Looking to expand to new markets? Maybe you just want to stay competitive. Perhaps you just want to stay ahead of the curve when it comes to improving farm food safety practices. New York offers many programs for farmers aimed at providing information, training, or preparation for GAPs audits, probably more so than most other Northeastern state.

Farm food safety training is more than just having an audit. Incorporating food safety principles into everyday agricultural practices eases the burden of implementation in the long run. Granted, these practices take time, effort, and training and we all know that time is money. The benefits can outweigh the costs.

If buyers want a food safety plan or a food safety program audit, this is the new cost of doing business. More wholesalers are requiring this of farmers. Farm to school, cafeteria, or institution have begun to ask growers to have at least a farm food safety plan in place. If the buying program takes money from USDA then growers must have a certificate from a third party auditor or from a Good Agricultural Practices (GAPs) program.

Due diligence is another source of pressure for having a GAPs or HGAPs program for the farm. Legal liability from getting a consumer sick from food borne contaminated food can be costly for the farm. Having food safety practices in place will help to reduce problems through prevention or if contamination does occur, from perhaps spreading widely making lots of people sick.

Now there are new federal regulations governing farmers who grow fresh produce. The Food Safety Modernization Act (FSMA) requires many fruit and vegetable farms to adhere to standards and regulations. These requirements follow the same principles found in the GAPs and HGAPs programs. At the present time, many buyers still require GAPs or HGAPs while the government requires FSMA compliance. This new rule is being phased in over the next two to three years depending on the size of the farms' sales. FSMA training is a full day workshop.

The Cornell Vegetable Program along with the Lake Ontario Fruit Team are offering trainings in the coming months. Some of the trainings are just the GAPs/HGAPs programs offered as a two day course. The first day covers the details of the program while the second day offers assistance to the farmers in writing their farm food safety plan. The plan is a requirement if the farm needs certification through an audit. Other trainings will be a combination of the FSMA mandatory one day training and the GAPs/HGAPs program with a Day Two food safety plan writing session. FSMA doesn't require a food safety plan but having one makes implementation much easier to achieve.

The next GAPs/HGAPs training will be held September 26 - September 27, 2017, 9:30 - 4:00 PM each day.

The location is:

Southern Tier West Center for Regional Excellence 4039 Route 219, Suite 200 Salamanca, NY 14779

Day One of this training will be an educational training on farm food safety principles and practices to provide the background and information for farmers to understand how to minimize the risk of food born disease contamination. Day Two will be for those who want help with writing a farm food safety plan. If you want to be certified under the GAPs or HGAPs program, a farm food safety plan is needed for the audit.

Cost: \$25 for first farm attendee (\$15 for additional attendees from the same farm) for County Extension enrollees; \$35 for non -enrollees (\$15 additional attendees from same farm). Preregistration is required. Register online on the Cornell Vegetable Program website <u>https://cvp.cce.cornell.edu/event.php?id=784</u>. For more information, contact Robert Hadad <u>rgh26@cornell.edu</u> 585-739-4065

The next FSMA trainings will be in the late fall and winter. The Empire State Producers Expo and the Northeast Organic Farming Associations conferences both will have training sessions. The Expo FSMA session is Tuesday, January 16, 2018 and the NOFANY sessions will be January 20-21, 2018.

How Have Your Pest Management Programs Worked this Year? Now is the Time to Scout, Identify Issues, and Rate Effectiveness

Darcy Telenko, CCE Cornell Vegetable Program

Pest management plans (disease, insect, and weed) for each field/crop are important to maximize crop potential. Now is the time to evaluate how well they worked. Regular scouting is the only way to know which pests escaped treatment. Scouting will aid in documenting changes in pest populations over time and assist in directing future pest management programs.

1. Weed Management Program Goals

- reduce weed pressure in-season; reduce weed seed production. Many factors can contribute to the presence of weeds after a herbicide application or cultivation treatment. Did you experience a lot of weed escapes? Which weeds? If this occurred on your farm, did you implement post management options to catch the escapes? This could include a post emergence herbicide, cultivation or hand removal or combination thereof. Did they work? Scouting and creating a weed map in a field should occur at least two times for weeds: 1) early season soon after planting to evaluate the success of current season program 2) at or near harvest to help predict weed control practices for next year. Ideally scouting should continue at regular intervals throughout the season so weed escapes can be addressed in a timely manner before they go to seed.

2. Disease Management Program

Goals – protect susceptible crops from pathogens or disease epidemics as they move into the region. As a reminder, for a disease to occur in a crop three conditions need to be met: 1. susceptible host, 2. virulent pathogen, 3. favorable environment. If any of the conditions are not present disease will not occur. This season has been extremely wet favoring many of our fungal and bacterial pathogens so <u>#3 Favorable Environment</u> existed most of this season. <u>#2</u> <u>Virulent Pathogen</u> will depend on each specific pathogen life cycle –

our endemic pathogens (those present year after year) that causes diseases such white mold, early blight, Septoria blight, powdery mildew, and Phytophthora blight will be issues in fields with previous history of these diseases once environmental conditions are met. Pathogens that don't overwinter in New York need to blow from their overwintering sites in the south or be transported in or on infected tissue or seed. Late blight and downy mildew fall into this category. For these diseases forecasting models and national reporting programs help us track their movement so protective fungicide programs can be implemented in a timely manner. #1 Susceptible Host will all depend on the variety or type of crop that is exposed to the pathogen. That is why host resistance is one of the first and most important factors to implement when available. Disease control strategies can be grouped into four groups: Exclusion, Inoculum Reduction, Chemical Control, and Biological Control. When looking at your disease control strategies you need to look at whether they were designed for only crop protection or if they have systemic activity, did you select the correct fungicide for the pathogen, was timing appropriate or did you have delays in keeping a tight spray program due to inability to get in the field? Where protectants washed off in a rain? Did you rotate fungicide modes of action? These are just a few questions to consider if you have spots where diseases got out of hand. Similar scouting notes can be taken for diseases as in weeds. Identifying and mapping out hot spots in a field can be useful for future crop rotation planning and management options.

Insect Management Program Goals

 monitor insect pest populations
 and implement control tactics when
 population thresholds have been
 met. Minor insect damage can re

duce quality of many vegetable crops in markets that demand clean, unblemished fruit. Proper detection and identification of insects early before populations build up is important. Many of our insect pests in vegetables have multiple life cycles per season and without proper control by the end of the season these populations can blow up and cause significant yield loss. Like diseases we need to ensure rotating modes of action in insecticide to prevent resistance.

Scouting is the only way to know what worked. When scouting for pests you should record species, pattern across the field, growth stage, size and density, if they are alive or dead and if alive whether they are exhibiting symptomology from pest management tactic. Pests may have escaped management for several reasons including selection of pesticides with marginal activity, poor timing of application (weeds were too large or seeds escaped exposure to application and germinated, or insecticide applied at the wrong stage of the insect i.e. adult less susceptible than larvae), environmental factors reduced ability to make timely application (soil moisture, rain event, and soil characteristics [pH, texture and amount of organic matter]), or application issues (sprayer skips, poor calibration, poor spray coverage). Effective pest management programs should consist of mechanical, cultural, and biological (if available) tactics in addition to chemical. A combination of diverse tactics will reduce selection pressure imposed by any single practice, such as the exclusive use of one herbicide, and reduces risk of developing resistant populations of weeds, pathogens or insects.

Observant records on pest populations, including their distribution and density, will aid in documenting if changes are occurring in a field and allow you to make necessary adjustments for future pest management plans. •

SURVEY: Impacts and Farmer Responses to 2017 Heavy Rainfalls

Background: March through July of 2017 was a period of above average rainfall in much of New York. Rainfall often came as heavy downpour events, leading to agricultural damage and disease. The purpose of this survey is to gather information on regional impacts and how farmers coped with this situation, so that farmers and those institutions and industries that support farmers will be better prepared in the future.

Contact Information: For information and questions pertaining to this survey contact Shannan Sweet: Email - sks289@cornell.edu; Phone - 607 255 8641; Address - 126 Plant Science Building, Dept. of Horticulture, Cornell University, Ithaca, NY 14853

Please respond to the following questions if your farm experienced heavy rainfalls or flooding in spring-summer of 2017.

For those who prefer to complete the survey online, here is a link: https://cornell.qualtrics.com/jfe/form/SV_0uo09Hc67IsVFfn

1. Where is your farm located (nearest county)?

2. In the table below, list the crop (or top 5 crops) that you grow, approximate acreage, and your best estimate of 2017 percent yield loss due to heavy rainfalls and/or flooding.

Crop	Approximate Acreage	Estimated Yield Loss (0-100%)

3. Which of the options below describes issues or problems experienced on your farm related to heavy rainfalls in 2017 (circle all that apply)? Next to each issue that you circled please rate the importance of that issue in relation to economic impact on your farm (check one box for each issue circled).

	not	somewhat	fairly	very	extremely	
	important	important	important	important	important	N/A
a. Field flooding and/or saturated soils						
b. Soil erosion						
c. Crop disease						\square
d. Unable to use equipment due to flooding and/or saturated so	ils .					
e. Unable to plant and/or delays in planting or seeding						
f. Acres no planted						H
g. Acres not rotated						
h. Acres in "prevented" planting (i.e. for crop insurance)						H
i. Lack of field access for important farm operations						
j. Unable to fertilize, use herbicides and/or pesticides	=					H
k. Unable to harvest and/or delays in harvest	=					H
I. Animal access to fields was limited	=					H
m. Animal health was affected						\square
n. Manure management issues arose						H
o. Other (describe)						

4. Was the quality of your crop negatively impacted by any of the issues listed in #3 above (circle one)? Yes | No

5. Which of the options below best describes the likely economic impact the 2017 heavy rainfalls on your farm (circle one)?

- a. A nuisance, but almost no economic impact
- b. Minor
- c. Moderate
- d. Severe
- e. Other (describe)

6. Did you have enough infrastructure and/or equipment to help deal with heavy rainfalls in 2017 (circle one)?

Yes | No

7. What type of infrastructure do you have on your farm to help deal with heavy rainfalls (circle all that apply)?

- a. Drainage ditches
- b. Drainage tile
- Water holding ponds
- d. Other (describe)

8. Did heavy rainfalls in 2017 lead to the recognition of any weaknesses or limitations in infrastructure on your farm (circle one)? Yes | No

9. What is the dominant soil type on your farm (circle one)?

- a. Clay or clay loam
- b. Sandy or sandy loam
- c. Silty or silty loam
- d. Gravelly or gravelly loam
- e. Other (describe)

10. Which (if any) soil health practices have you adopted on your farm (circle all that apply)? Next to each practice used please indicate if this lessened the impact of heavy rainfalls in 2017 on your farm.

Lessened impact of heavy rainfalls in 2017 (circle yes or no)?:

- a. Use of winter cover crops Yes | No
- b. Reduced tillage Yes | No
- c. Use of composts or manure Yes | No
- d. Changed crop rotations Yes | No
- e. Use of mulches Yes | No f. Leaving crop residues Yes | No
- g. Other (describe) Yes | No

11. How frequently do you experience excessive rainfall or flooding issues on your farm (circle one)?

- a. Every 1 o 2 years
- b. Every 3 to 4 years
- c. Every 5 to 6 years
- d. Rarely
- e. Never
- f. Other (describe)

12. For the four questions (a-d) below rate your concern level (circle one for each question):

a.	How concerned are you that <u>heavy rainfalls and/or flooding will occur more frequently</u> in the future? not concerned somewhat concerned fairly concerned very concerned extremely concerned
b.	How concerned are you that <u>heavy rainfalls and/or flooding will negatively impact your farm</u> in the future? not concerned somewhat concerned fairly concerned very concerned extremely concerned
C.	How concerned are you that <u>drought will occur more frequently</u> in the future? not concerned somewhat concerned fairly concerned very concerned extremely concerned
d.	How concerned are you that <u>drought will negatively impact your farm</u> in the future? not concerned somewhat concerned fairly concerned very concerned extremely concerned

13. Indicate below what you might have done differently if you had known how wet 2017 would be (circle all that apply)

- a. Plant fewer acres
- b. Plant same crops earlier or later
- c. Diversify (i.e. stagger) planting dates
- d. Plant different crop or different variety of same crop
- e. More diversity in varieties and crops
- f. Expand drainage capacity (e.g. tiles, ditches, etc.)
- g. Changed fertilizing, herbicide or pesticide application timing
- h. Adopt soil health practices (i.e. cover crops, reduced tillage, composts, mulches)
- i. Other (please explain)

14. Indicate any ideas you have on how you might manage your farm and be better prepared in the future for flooding or excessive rainfall risk.

15. Indicate any ideas you have on how Cornell Cooperative Extension, university researchers, government or non-government agencies might help you make the best decisions in coping with flooding or excessive rainfall risk in the future.

Mail completed survey to: Shannan Sweet, 126 Plant Science Bldg, Department of Horticulture, Cornell University, Ithaca, NY 14853 0

UPCOMING EVENTS

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

Strategic Marketing Conference – Getting Started in Agri-tourism

September 20-21, 2017 | 8:30 AM registration on September 20 Becker Farms, 3724 Quaker Rd, Gasport, NY 14067

On September 20, speakers from around the state will provide tips on how to start an agri-tourism business, how to market an agritourism enterprise, and will share information from a variety of businesses covering: farm stays, wedding venues, farm-to-table restaurants, and you-pick operations.

On September 21, conference attendees will have the choice of joining a bus tour to several agri-toursim businesses in Western New York to hear from the owners and learn about successes and challenges in starting an agri-business.

The cost to register is \$60 for 2 full days. Farmer scholarships are available reducing the rate to \$20 for two full days. The cost includes materials, breakfast, lunch and dinner on September 20 and the bus tour on September 21. Lunch on September 21 and hotel accommodations will NOT be provided. Conference attendees are also responsible for their own hotel reservations. A block of rooms is reserved at Hampton by Hilton Lockport-Buffalo, refer to group code: CCE, to get the negotiated rate. Call (716) 625-6900 to reserve your hotel room.

To register for the Strategic Marketing Conference contact Megan Burley at <u>msb347@cornell.edu</u> or 716-652-5400 x138, or online at <u>https://reg.cce.cornell.edu/Agritourism_214</u>. The registration deadline is September 17.

Farmer / Buyer Meet & Greet

September 25, 2017 | 7:00 PM - 9:00 PM 42 North Brewing Company, 25 Pine St, East Aurora, NY 14052

CCE Erie County, Harvest NY, and Eden Valley Growers are inviting farmers and buyers to an exciting networking opportunity! While you mingle, sample innovative recipes using locally-sourced farm products that can be bought in large quantities at competitive prices. Listen to GAPs 101: A Discussion of Buyer Protocols and How to Become GAPs certified.

FREE to attend! Please RSVP by September 22 to Eva McKendry at 716-652-5400 x176 or <u>emb73@cornell.edu</u>. For more information about this event, or for special accommodations, contact Megan Burley at 716-652-5400 x138.

Good Agricultural Practices/Harmonized GAPs Farm Food Safety Training

September 26-27, 2017 | 9:30 AM - 4:00 PM Southern Tier West, Center for Regional Excellence, 4039 Route 219, Suite 200, Salamanca, NY 14779

Farm food safety is common-sense practices organized to assist farmers to improve their skill set to continue to grow safe and healthy food.

Day One of this GAPs training will be an educational training on farm food safety principles and practices to provide the background and information for farmers to understand how to minimize the risk of food born disease contamination. Day Two will be for those who want help with writing a farm food safety plan. If you want to be certified under the GAPs or HGAPs program, a farm food safety plan is needed for the audit.

Cost: Pre-registration is required. \$25 for first farm attendee (\$15 for second) for County Extension enrollees; \$35 and \$15 for nonenrollees. Register online at <u>https://cvp.cce.cornell.edu/event.php?id=784</u>. For more info, contact Robert Hadad at 585-739-4065.

Pickle Variety Twilight Meeting

September 26, 2017 | 5:30 PM - 7:30 PM Goodman Farms, 3701 Braley Rd, Ransomville, NY 14131

Vegetable growers are invited to tour an on-farm plot of early generation Cornell downy mildew resistant pickle breeding lines. Dr. Michael Mazourek, Professor of Plant Breeding, and lab members, will be on-site to walk growers through the plot and review plant selections. All growers that attend will be an integral part of helping make selections for the next generation of pickle varieties released!

In addition, Extension Vegetable Specialist, Darcy Telenko, will review the results from her 2-year trial evaluating organic control options for downy mildew in cucumber. Dr. Christine Smart, Professor of Plant Pathology, will also be joining the event to talk about her research projects and answer further questions on the management of downy mildew in cucurbits or other diseases of concern in vegetables. The use of the disease forecast warning systems (Cucurbit Downy Mildew PIPE) will also be discussed. Information will be provided for both conventional and organic growers at all levels of expertise.

Growers that attend will be able to provide feedback on the pickling breeding lines to guide the downy mildew resistant pickle breeding program. Growers will be encouraged to actively participate, and ask questions.

This event is FREE! Light refreshments will be provided. For more information, contact Darcy Telenko at 716-697-4965 or <u>dep10@cornell.edu</u>.

UPCOMING EVENTS

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

CleanSweepNY

October 3 (Watkins Glen), October 4 (Hornell), October 5 (Lakeville), October 6 (Waterloo)

CleanSweepNY is an Environmental Benefit Project that provides for the environmentally safe and economic collection and disposal of canceled, unwanted, unusable, or otherwise obsolete pesticides and other chemicals from agricultural or non-agricultural business activities. Fall 2017 CleanSweepNY will target NYSDEC Region 8. The collections are scheduled and organized by NYSDEC with the collaboration of NYSDOT who provide sites for the collection of these unwanted chemicals.

Pre-registration is required by September 15. Interested individuals should call the Albany DEC office at 877-793-3769 to obtain a signup packet or e-mail <u>info@cleansweepny.org</u>. For more information about this program, visit <u>http://www.cleansweepny.org</u>.

Season Extension - Stretching Tomato Season and Winter Greens

October 4, 2017 | 4:00 PM - 7:00 PM Canticle Farm, 3835 S. Nine Mile Rd, Allegany, NY 14706

What do you need to do to stretch out your high tunnel tomato season or establish a profitable crop of winter greens? Meeting the full season's nutritional demands of tomatoes under organic management is challenging. Juggling diverse succession crops and keeping the tunnel profitable year round adds an extra level of difficulty. Mark Printz of <u>Canticle Farm</u> will share his experiences. NOFA-NY and the Cornell Vegetable Program will discuss what they are learning through the New York Farm Viability Institute funded initiative, "Best Management Practices for Long Term Profitable High Tunnel Soil Fertility and Health."

Registration: <u>https://www.nofany.org/events-news/events/2017-on-farm-field-days</u>. \$15/individual, \$25 for two or more people from the same farm. Pre-registration closes three days before the event. *This event is produced by NOFA-NY in collaboration with Cornell Cooperative Extension with support from the <u>New York Farm Viability Institute</u>.*

Farm Food Safety and Purchasing Locally Grown Produce: What's It All Mean?

October 17, 2017 | 9:30 AM - 3:00 PM

NYS Agricultural Experiment Station, Jordan Hall, 630 W North St, Geneva, NY 14456

Attention locally-grown food buyers, purchasers, distributors, farm-to-school or -institution programs, chefs, and healthy eating programmers: Cornell Cooperative Extension through the Cornell Vegetable Program, the Lake Ontario Fruit Team, and NOFANY is presenting an educational session on farm food safety for all types of locally grown food buyers.

Every person that buys locally grown produce directly from farmers should have a basic understanding of the food safety guidelines and practices that the farmers follow. What is GAPs and why is it important to me? This training will allow you to ask your questions and you will leave having a clearer understanding of standards, regulatory requirements, and the practices followed by farmers to reduce microbial risk. The agenda will cover:

- What are GAPs, HGAPs, other third party audit schemes,
- FSMA federal regulations
- What does this mean for farmers and what are the financial impacts on farmers
- What does this mean for buyers
- Traceability and recall
- Farmer and buyer testimonials
- Locally processed foods regulation overview
- Action steps

Cost: \$25/attendee, includes lunch. Register online at <u>https://cvp.cce.cornell.edu/event.php?id=785</u> For more information, contact Robert Hadad at 585-739-4065 or <u>rgh26@cornell.edu</u>.

Controlled Environment Agriculture Conference

November 1-2, 2017 | 8:30 registration and refreshments, 9:00 - 4:45 program, 4:45+ refreshments and networking 401 Warren Hall, Cornell University, Ithaca, NY 14853

Have you been researching new ways to grow vegetables? Is your farm looking to diversify? Controlled Environment Agriculture (CEA) may be the answer – and this conference can help!

Controlled Environment Agriculture (CEA) enables year-round production of fresh vegetables through greenhouse environmental control (heating, lighting) combined with hydroponic/soilless production systems. While CEA is an increasingly popular method of meeting consumer demand for locally grown food, many factors must be considered when developing a business plan and assessing its viability.

This conference is intended to provide more detailed knowledge of CEA production systems, economics, marketing, and ways to access financing and state resources. It will also help guide new or transitioning operations through the process of developing a business plan for a CEA greenhouse vegetable business.

The group size will be limited to 30 businesses (each may send 1 or 2 representatives), and attendees must apply to be accepted into the program. More information is available at: <u>http://www.cornellcea.com/workshops/index.html</u>

BEETS

Conditions remain favorable for leaf diseases. Cercospora leaf spot is at high levels in some fields. Bacterial leaf spot also remains active. If your beets still have several weeks until harvest, Tilt fungicide is currently the most effective conventional fungicide labeled for Cercospora and Phoma leaf spot diseases. The PHI for Tilt is 14 days. Copper sprays can be applied to slow bacterial leaf spot and may have some activity against the other leaf spots. However, be mindful of residues if you are trying to sell beets with the tops on them. -JK

COLE CROPS

There have been reports recently of challenges controlling diamondback moths (DBM). Note the article in July 12 issue of VegEdge on control of DBM in the face of insecticide resistance. Proclaim, Radiant and Bts provided very good control of DBM under very high pressure in an on-farm field trial in Western NY in 2016. Note that when insecticide resistance is not an issue that the diamides (IRAC 28) including Coragen, Verimark, Exirel and Beseige also provide excellent control of DBM. – CH

ONIONS

This week's warmer temperatures have come just in time to push forward maturity of some of the later plantings, which are still quite green and barely lodging. The later in the season it gets, the longer it takes to dry the crop down and the higher the incidence of "stiff necks". This is when cool temperatures cause the onion plant to revert back to vegetative growth instead of bulb growth resulting in stiff necks that will never lodge. The cool season with adequate rainfall has provided excellent conditions for growing onions and it looks like the crop will yield very well.

Plant cover crops when possible to prevent soil erosion and to soak up any remaining nitrogen left in the soil, thus preventing it from being lost into waterways and polluting them. Nitrogen taken up by a cover crop will be released back into the soil after the cover crop dies in the spring and will be available for the onion crop next season. Oats and spring barley can be planted until the end of September and winter barley and winter rye can be planted until mid-October.

For extra control of yellow nutsedge, Dual Magnum may be applied in the fall. Apply Dual Magnum at 1 to 1.33 pt per acre to the soil surface after onion harvest in the fall as late as possible before the ground freezes. Typically, onion growers in New York apply Dual Magnum in early to mid-November. Incorporate Dual Magnum to a shallow depth of no greater than 4 inches. In the following spring, do not disturb soil below the depth of Dual Magnum incorporation, as this could drastically reduce its effectiveness. Dual Magnum is available as a Section 24(c) Special Local Needs Label in New York.

Extra control of perennial sowthistle with a fall burn down may be possible in fields that were harvested early enough for the regrowth of the weed to reach the mid- to late-rosette stage for the herbicides to be effective. It takes approximately 3 to 5 weeks for a perennial sowthistle rhizome to produce a new plant at the mid- to late-rosette stage, and then it takes another 4 weeks after application of burn-down herbicide(s) to achieve effective kill. Also, a hard frost will halt growth of perennial sowthistle. Therefore, **a period of 7-8 weeks after onion harvest and before a hard frost is required in order for fall burndown of perennial sowthistle to be most effective.** See cover article summarizing our 2014-2015 herbicide trial results. – *CH*

ΡΟΤΑΤΟ

In many fields vines are maturing and dying, and growers are harvesting. Be sure to wait until all foliage and vines are dead, brown and dry before harvesting to avoid any late blight infection to the tubers. – DT

TOMATO

Late blight is continuing to spread, continue to stay on top of your management programs to protect against late blight, especially if you have a late planting. – DT

WNY Sweet Corn Trap Network Report, 9/12/17

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

Twenty sites reporting this week. One sites caught European corn borer (ECB)-E and two sites caught ECB-Z. Corn earworm (CEW) was trapped at ten sites, with six sites high enough to be on a 4, 5, or 6 day spray schedule (see chart below). However, sprays are not required for fields that are within a week of harvest. Also if daily maximum temperatures are less than 80° F for the previous 2-3 days then add one day to the recommended spray interval. Fall armyworm (FAW) was caught at twelve sites, but the average trap catch has decreased greatly this week (see chart). There are still a few Western Bean cutworm (WBC) moths around, with five sites reporting trap catches this week.

WNY Pheromone Trap Catches: September 12, 2017

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Location	ECB-E	ECB-Z	CEW	FAW	WBC
Baldwinsville (Onondaga)	0	1	1	4	NA
Batavia (Genesee)	NA	NA	NA	NA	NA
Bellona (Yates)	0	0	0	0	0
Eden (Erie)	NA	NA	NA	NA	NA
Farmersville (Cattaraugus)	NA	NA	NA	NA	NA
Farmington (Ontario)	0	0	0	0	0
Hamlin (Monroe)	1	0	3	13	2
LeRoy (Genesee)	NA	NA	NA	NA	NA
Pavilion	0	0	1	5	0
Penn Yan (Yates)	0	0	0	0	0
Ransomville (Niagara)	NA	NA	NA	NA	NA
Seneca Castle (Ontario)	NA	NA	NA	NA	NA
Williamson (Wayne)	NA	NA	NA	NA	NA
ECB - European Corn Borer WBC - Western Bean Cutworm CEW - Corn Earworm NA - not available FAW - Fall Armyworm DD - Degree Day (mod. base 50F) accumulation					

Weather Charts

John Gibbons, CCE Cornell Vegetable Program

Weekly Weather Summary: 9/05 - 9/11/17

	Rainfa	all (inch)	Temp (°F)		
Location	Weekly	Month September	Мах	Min	
Albion	1.30	2.26	77	46	
Appleton, North	0.69	1.57	71	42	
Baldwinsville	0.68	1.13	74	44	
Buffalo*	1.56	2.43	70	45	
Ceres	1.26	1.78	75	41	
Elba	NA	NA	NA	NA	
Fairville	NA	NA	NA	NA	
Farmington	1.75	2.02	75	40	
Gainesville	NA	NA	NA	NA	
Geneva	1.12	1.35	76	43	
Lodi	2.38	2.59	77	42	
Niagara Falls*	0.47	1.11	75	46	
Ovid	NA	NA	73	42	
Penn Yan*	1.15	1.67	73	45	
Phelps	1.24	1.51	75	41	
Portland	1.50	2.40	68	47	
Rochester*	0.58	0.96	73	45	
Silver Creek	NA	NA	69	44	
Sodus	NA	NA	72	46	
Versailles	0.99	1.58	73	39	
Volney	1.22	1.54	70	41	
Williamson	0.75	0.93	71	45	

Accumulated Growing Degree Days (AGDD) Base 50°F: April 1 – September 11, 2017

Location	2017	2016	2015
Location	2017	2010	2013
Albion	2155	2573	2414
Appleton, North	1972	2290	2096
Baldwinsville	2174	2521	2411
Buffalo	2186	2628	2450
Ceres	1882	2085	2097
Elba	NA	NA	NA
Fairville	1977	2322	NA
Farmington	2001	2380	2277
Gainesville	NA	NA	NA
Geneva	2106	2454	2330
Lodi	2315	2683	2540
Niagara Falls	2400	2788	2309
Ovid	2236	2558	2472
Penn Yan	2239	2600	2465
Phelps	2164	2452	2352
Portland	2217	2465	2298
Rochester	2243	2661	2517
Silver Creek	2192	2433	2257
Sodus	2181	2446	2261
Versailles	2095	2345	2234
Volney	2012	NA	NA
Williamson	2124	2410	2224

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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Cornell University Cooperative Extension Cornell Vegetable Program

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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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