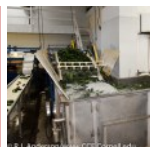


Hard black sclerotia drop to the soil and can overwinter, waiting for the right conditions to germinate and become a problem in subsequent years.

**PAGE 1**



Thinking of building or renovating a wash/pack shed? The "Ideal" Wash & Pack Facility

Layout paper is a must-read.

**PAGE 3**



The NYSAES vegetable breeding program is seeking stakeholder involvement to

help guide future plant variety development.

**PAGE 4**



Grading and packing guidelines are now available for 16 commonly grown vegetables in NYS. The

sheets depict acceptable quality standards and common defects.

**PAGE 8**



# VEGE<sub>d</sub>ge

YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE

● Volume 13 | ● Issue 25 | ● December 1, 2017

Photo: Judson Reid

**Cornell Cooperative Extension**  
Cornell Vegetable Program

## What to Do After a Bad Sclerotinia White Mold Season

Julie Kikkert, CCE Cornell Vegetable Program

Wet weather during the 2017 growing season was conducive to many diseases, particularly white mold, caused by the fungus *Sclerotinia sclerotiorum*. This disease can infect nearly every vegetable crop except monocots such as sweet corn and alliums. In New York, it is regularly seen in snap beans, dry beans, lima beans, soybeans and cole crops. Tomatoes, potatoes, lettuce, pumpkins, hubbard and other winter squash are also common hosts. White mold can also be seen on weed hosts such as velvetleaf and ragweed.

The first symptoms are often bleached, water soaked spots. As the fungus grows, white cottony mycelial strands appear, hence the name white mold. The fungus may grow on the outside of the plant, or may be hidden inside stems or seed pods. *Sclerotinia sclerotiorum* is distinguished from other molds by mounds of fungal mycelium that harden and darken into black sclerotia embedded in the cottony mycelium (see photo).

The sclerotia drop to the soil and much like weed seeds, they can remain in the soil waiting for the right conditions to germinate and become a problem



Different stages of white mold infection on lima bean pods. Note the mounds of fungal growth that turn into hard black sclerotia. This is diagnostic for this fungus.

Photo: J. Kikkert, CVP

continued on page 3



**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](mailto:cce-cvp@cornell.edu)

Web address: [cvp.cce.cornell.edu](http://cvp.cce.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 about enrolling in our program, visit [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu). Cornell Cooperative Extension staff, Cornell faculty, and other states' Extension personnel may request to receive a complimentary electronic subscription to VegEdge by emailing Angela Parr at [aep63@cornell.edu](mailto:aep63@cornell.edu). Total readership varies but averages 700 readers.

Information provided is general and educational in nature. Employees and staff of the Cornell Vegetable Program, Cornell Cooperative Extension, and Cornell University do not endorse or recommend any specific product or service.

This publication contains pesticide recommendations. Changes in pesticide regulations occur constantly and human errors are possible. Some materials may no longer be available and some uses may no longer be legal. All pesticides distributed, sold or applied in NYS must be registered with the NYS Department of Environmental Conservation (DEC). Questions concerning the legality and/or registration status for pesticide usage in NYS should be directed to the appropriate Cornell Cooperative Extension (CCE) specialist or your regional DEC office.

CCE and its employees assume no liability for the effectiveness or results of any chemicals for pesticide usage. No endorsement of products or companies is made or implied. **READ THE LABEL BEFORE APPLYING ANY PESTICIDE.**

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



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*The next issue of VegEdge will be January 1, 2018.*





White mold infected lower pod and normal cranberry bean (upper pod).  
Photo: J. Kikkert, CVP

in subsequent years. When the soil conditions are moist, shaded and cool (40 to 60°F) the sclerotia at or just below the soil surface produce tiny mushrooms called apothecia that release spores into the air. Senescing blossoms are a particularly good source of nutrients for the germinating fungal spores. Sclerotia in contact with roots or crowns of plants can also infect tissue directly.

#### WHAT TO DO IF YOU DETECT A WHITE MOLD INFECTION:

- It is too late to apply fungicides once the fungus is detected
- Rogue out infected plants if possible to prevent the formation of sclerotia
- Take and keep accurate notes about which fields or portions of fields are infected and how much white mold is seen. Record disease and yield data for different crops and varieties on your farm to help in future planning.
- Harvest infected fields last to avoid spreading sclerotia to non-infected fields.
- Tillage – current research supports the hypothesis that sclerotia degrade faster if left on the soil surface. Deep tillage buries sclerotia initially, but they are brought to the surface with subsequent tillage and may cause infection.
- Consider the use of the biocontrol fungus, *Coniothyrium mini-tans*, commercially available as Contans. This fungus is a parasite of sclerotia and degrades them. It takes several months to work and when there are a lot of sclerotia from an infested



Dry bean seeds with hard black sclerotia that have fallen to the ground. This allows the fungus to overwinter in the soil. Photo: J. Kikkert, CVP

field, it is best applied to the surface of the soil after harvest, with no or little tillage to follow. Used at a rate of 2 lbs/acre, the product costs about \$50 per acre. It will not completely eliminate white mold infection in future years, but can reduce the level of inoculum and subsequent crop damage.

- Plant only non-susceptible cover crops such as grasses and grains. Red clover and other legumes are hosts.

#### ADDITIONAL STEPS FOR FUTURE YEARS

- Crop rotation with grains and corn or other non-hosts for three or more years
- Plant disease-free seed
- Avoid fields where infected plant debris, such as cabbage leaves and winter squash were dumped.
- Manage plant canopies to improve air-circulation.
- In high risk situations, fungicide sprays to beans during the bloom period may be warranted. Check the Cornell Guidelines for more information and always read and follow product labels.
- Watch for additional information at our winter meetings.

Thanks to Sarah Pethybridge, Amara Dunn and Carol MacNeil from Cornell for resource information for this article. ●

## The "Ideal" Wash & Pack Facility Layout

Robert Hadad, CCE Cornell Vegetable Program

On our website, [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu), under the banner of Food Safety, there is a new addition to our list of resources created by the CVP. If you are looking to plan out a new wash/pack shed or thinking about renovating what you already have, the paper, [The "Ideal" Wash & Pack Facility Layout](#), is a must-read.

The paper gives a schematic layout of a wash/pack facility that has just about everything a produce grower might want to stick in it. The layout takes into consideration flow of produce out of

the field, through the various steps in washing and packing, storage, and exit for delivery. Infused into the layout are the principles and practices of why the set-up is the way it is based on food safety considerations.

Like everything in the "new" science of farm food safety, as we learn more, this document will evolve and be revised. There is new research being conducted on sanitizers, produce washing techniques, cleaning machinery, and post-harvest handling. All of the new information will be added to this document keeping it updated and relevant. ●



# Beyond Cabbage: NYSAES Vegetable Breeding Program

Hannah Swegarden, PhD student, NYS Agriculture Experiment Station, Cornell University

Established in 1882, the New York State Agricultural Experiment Station (NYSAES) has been a long-time resource for New York growers. Plant breeding has been central to the efforts at the Geneva campus, including the improvement of vegetable crops. The NYSAES vegetable breeding program is currently managed by Dr. Phillip Griffiths, who focuses primarily on the development of *Brassica* vegetable crops, common bean, and small-fruited tomatoes.

Currently, the program is seeking to leverage stakeholder involvement and feedback to help guide future plant variety development and ensure that the breeding program suits the needs of both regional and national food systems. Notably, the program is excited to showcase new breeding materials focused on diversification of leafy *Brassica* crops.

Many significant horticultural crops are members of the *Brassica oleracea* species, including diverse market classes or morphotypes such as kale, broccoli, cabbage, kohlrabi, kale/collard, Brussels sprouts, and cauliflower. Most of the modern market classes were heavily cultivated in European gardens as winter storage crops and brought to North America as early as the 1500s. Today, nearly all plant parts of *B. oleracea*, including the stem, axillary buds, leaves, and floral buds are harvested for human consumption.









**Figure 1.** Griffiths program showcasing the Brassica breeding nursery in 2016.  
Photo: Craig Cramer, Cornell

Though not formally defined, leafy *B. oleracea* crop types can be organized into six common market classes: collard, Siberian, red curl, Tuscan, green curl, and Portuguese troncuda (Table 1). Many leafy *Brassica* types are well suited to fall plantings and can withstand heavy frosts; some cultivars may even be able to recover from multiple harvests late into the season. Unfortunately, most cultivars currently available do not have easily accessible information regarding important horticultural traits, and breeding priorities, as outlined by growers and stakeholders, haven’t been well-defined.

Members of the *B. oleracea* species are both annual (broccoli and cauliflower) and biennial (cabbage, Brussels sprouts, kale/collard) in Northern climates. Biennial morphotypes require a vernalization period to mimic the winter period and trigger reproductive development. Though vernalization requirements vary among market classes, the plant’s seed-to-seed cycle can be accelerated to between 10-12 months in breeding programs. Due to the extended period from seed to seed, it is critical to identify breeding priorities and plan breeding schemes well in advance of the field season.

**Table 1.** Representative cultivars within common leafy *B. oleracea* market classes. Listed cultivars do not represent all currently available material on the market and have not been extensively evaluated in NY State.

--- Market Class ---					
Collard	Siberian	Red Curl	Tuscan	Green Curl	Port. Tronc.
					
'Top Bunch F <sub>1</sub> '	'Dwarf Siberian'	'Redbor F <sub>1</sub> '	'Black Magic'	'Darkibor F <sub>1</sub> '	'Beira'
'Champion'	'Siberian Frill'	'Scarlet'	'Nero di Toscano'	'Winterbor F <sub>1</sub> '	'Portuguese Tron.'
'Georgia Collards'	'Gulag Stars'	'Baltic Red'	'Dinosaur'	'Vates Kale'	Sukuma Wiki
'Green Glaze'	'True Siberian'	'Roulette'	'Cavolo Lacinato'	'Pentland Brig'	
'Tiger F <sub>1</sub> '	'White Russian'			'Meadowlark'	

continued on next page





**Figure 2.** Plants dug from the program's breeding nursery in Freeville, NY and tucked in a cool, vernalization chamber for two or three months, depending on the morphotype.

In the coming years, the vegetable breeding program at Cornell NYSAES seeks to engage downstream players in the breeding, development, and promotion of new material. New and diverse leafy *Brassica* hybrids developed at Cornell's NYSAES have been advanced to the point of on-farm evaluation, where, with support from the USDA Specialty Crop Block Grant through New York Farm Viability Initiative (NYFVI), they are being evaluated for their horticultural and market potential. Further, ongoing partnerships with the Cornell Sensory Evaluation center and the Cornell Institute for Food Systems (CIFS) have allowed the program to embark on research that seeks to evaluate methods to engage consumers in the plant breeding process.



**Figure 3.** Summer scholars in the Griffiths lab evaluating baby greens in the Cornell greenhouses.

**The NYSAES breeding program also maintains and continues to develop other *Brassica* crops of significant importance to NY, including cabbage, broccoli and baby greens.**

**If you are interested in helping our program identify breeding priorities for NY *Brassica* production, we invite you to participate in our online survey (to the right). We hope to use results from this survey to develop and advance materials that will provide new, diverse, and relevant product options for NY vegetable growers.**

Please [click here](#) or scan the QR code to participate in a brief survey, submit potential breeding priorities, and get a sneak peak at some of the hybrids that were tested on-farm this year!

Your input and feedback is greatly appreciated! 🍅



## ONION SESSIONS

Wednesday, January 17, 2018

Sessions organized by Christy Hoepting, CCE Cornell Vegetable Program

### Onion SLB Fungicide Resistance Workshop – Improved Plan for Sustainable SLB Management | 10:45 AM - 12:00 PM

Resistance of Quadris-type fungicides to Stemphylium leaf blight (SLB) now occurs in onion statewide. Although effective fungicides for managing this disease have been identified, fungicide resistance is always looming. First, Christy Hoepting, Cornell Cooperative Extension Onion Specialist will set the stage with the relative performance of several fungicides and what the optimal application timing may be featuring her 2017 on-farm trial results. Then, NYSAES Plant Pathologist, Frank Hay will share his laboratory findings regarding the relative sensitivity of SLB isolates to different fungicide active ingredients. Will his field and her lab findings concur? Next, Kerik Cox, another NYSAES Plant Pathologist with tremendous experience in managing fungicide resistance in tree fruit, will review fungicide resistance theory and draw from his experience to answer some tricky questions: If SLB is resistant to an active ingredient in FRAC 7, will it also be resistant to other active ingredients in this FRAC group? Is it better to rotate after 1 or 2 applications? Will resistant SLB spores from my neighbor's field spread to my field? Are some FRAC groups/active ingredients at higher risk to develop fungicide resistance than others? The session will conclude with a roll out of a new and improved sustainable SLB fungicide program.

### Onion Pest Management – Weeds, Thrips, and Pest Interactions with Nitrogen and Variety | 2:00 PM - 3:15 PM

Featured in this session will be the interactions among variety, fertility, yield, onion thrips, rot and other diseases. Brian Nault's graduate student, Ashley Leach will share interactions that she identified during four years of her graduate research, which focused on onion thrips. Is there a relationship between thrips and rot in NY? Do high rates of applied nitrogen result in more rot? What is the optimal rate of nitrogen for today's onion crop? Is spraying by threshold sufficient to control IYSV? What difference does variety make? What are the implications for improved management? Hoepting will also highlight results from her 2017 on-farm onion herbicide trials including Prowl EC vs. H2O, improving pre-emergent control of yellow nutsedge, marsh yellowcress and ragweed, and integration of Goaltender, and pipeline herbicides, Stinger, Reflex and a.i. bicyclopyrone into onion herbicide program for improved weed control and crop safety. Also, check out whether Surchlor reduced bacterial bulb decay in multiple on-farm demos in Steve Beer's update on his bacterial rot research in session III.

### Onion Feature Presentation – Onion Breeding in the 21st Century with Dr. Michael J. Havey | 3:45 PM - 5:00 PM

What makes onion breeding unique? What is the state of the onion breeding industry? What is on the horizon for new varieties bred for resistance to onion thrips and diseases, improved stress tolerance, health benefits, storability and heat tolerance? Do genetics dispose onions to bacterial bulb decay? One of the best minds in onion breeding in the country, Dr. Havey will address these questions and speak of the complexities of onion breeding in a language for all to understand. Dr. Havey is a USDA Research Geneticist and Professor at the University of Wisconsin – Madison in Alliums (onions and garlic) and cucurbits, a position he has held since 1988. He has led and been a team member on numerous multi-institutional federal grants addressing key stakeholder-prioritized constraints or attributes (including onion thrips with Cornell's Dr. Brian Nault). His lab has released key inbred onion lines and made significant contributions towards advancing onion breeding.

## TREE FRUIT IPM: SUDDEN APPLE DECLINE

Wednesday, January 17, 2018 | 3:45 PM - 5:00 PM

Session organized by Tessa Grasswitz, CCE Lake Ontario Fruit Program

Growers of high-density apple orchards in various parts of Northeastern North America are reporting an increasing incidence of 'Sudden Apple Decline', whereby young trees in the early years of production begin to decline and die. So far, no obvious or consistent causative agents have been identified, although several contributing factors have been suggested, including winter damage, sub-lethal effects of certain herbicides, and various other biological and environmental stressors. In this session, plant pathologist Dr. Kari Peter of Penn State University will discuss her experiences with Sudden Apple Decline in Pennsylvania (where the problem was first noted several years ago), while Drs. Kerik Cox and Tess Grasswitz will present an overview of the current situation in New York.

## PRECISION IRRIGATION

Wednesday, January 17, 2018 | 3:45 PM - 5:00 PM

Session organized by Darcy Telenko, CCE Cornell Vegetable Program

Water and nutrient management are key to sustainable and profitable crop production. Join Dr. Jaume Lordan Sanahuja from Cornell as he talks about precision irrigation opportunities for growers – how and why we should irrigate. He will use an example of a NY apple orchard and how precision irrigation can help deliver large sized apples. Darcy Telenko, CCE Cornell Vegetable Program, will then give an update on partnership with Environmental Geophysicist, Erasmus Oware from the University at Buffalo in a NYFVI sponsored project in using soil electrical conductivity measurements for precision water management in vegetable crops in western NY. This project aims to identify and account for sub-field soil variability for efficient water and nutrient management practices and is looking for additional cooperators for 2018.

The full program is posted on the NYS Vegetable Growers Association website at <https://nysvga.org/expo>



**SOIL HEALTH – NOVEL COVER CROPPING AND STRIP TILLAGE PRACTICES FOR VEGETABLES****Thursday, January 18, 2018 | 9:00 AM - 10:15 AM****Session organized by Ryan Maher, Cornell Small Farms Program**

Attend the Soil Health session at the 2018 Empire State Producers Expo to learn how you can integrate cover cropping and reduced tillage practices while overcoming the residue and weed management challenges. Hear Janaki Fisher-Merritt from the Food Farm (Wrenshall, MN) discuss how they have worked to incorporate cover crops in a diverse rotation with cover crop fallows, interseeding, and cut-and-carry mulching. Ryan Maher, from the Cornell Small Farms Program, will share research results from the latest trials on strip tillage in winter hardy cover crops and adaptations for organic cropping systems. Come to think through the approaches and tools that will work to reduce inputs and improve productivity on your farm.

**TREE FRUIT: TECHNOLOGIES TO REDUCE PRODUCTION RISKS ASSOCIATED WITH WEATHER****Thursday, January 18, 2018 | 9:00 AM - 10:15 PM****Session organized by Mario Miranda Sazo, CCE Lake Ontario Fruit Program**

Tree fruit growers can purchase multi-peril hail insurance but when a premium apple variety is lost due to hail, the indemnification from the crop insurance does not fully compensate for the high value of the crop. In addition, marketing programs for new varieties depend on having a pre-planned supply volume which is lost if the orchard receives significant hail damage. This past season, frequent, more intense hailstorms were experienced which had devastating economic effects for some growers. Therefore, increasing resiliency to extreme and unpredictable hailstorms will help to sustain current and future levels of fruit production and profit.

If you are a grower who is considering netting as a hail control option or would like to know more about it, you should attend the **2018 NY Expo** and tree fruit session on netting titled **"Technologies to Reduce Production Risks Associated with Weather"** on **Thursday January 18, 2018, from 9am to 10:15am**. A panel of horticulturists and netting suppliers will discuss the advantages and drawbacks of protective covers. Tom Auvil, invited speaker from North American Plants, Oregon, will participate during the netting discussion as well.

**BEGINNING FARMER: DEMYSTIFYING EQUIPMENT PURCHASES****Thursday, January 18, 2018****Buying Equipment for Your Current and Future Scale of Operation (Part A) | 9:00 AM - 10:15 AM****Buying and Scaling a Tractor and Appropriate Equipment (Part B) | 10:45 AM - 12:00 PM****Session organized by Anu Rangarajan, Cornell Small Farms Program**

***A two-part session at the Expo will review factors for making equipment purchases and will be paired with a tailored tour of the trade show to address participant's questions.***

Buying Equipment for Your Current and Future Scale of Operations Part A and B at the 2018 Empire State Producers Expo on Thursday, January 18 will provide an overview to help participants evaluate the many factors to consider when buying equipment, including the trade-offs of purchasing new or used, maintenance needs, and potential challenges.

During the second section of the track, presenter Shane LaBrake for a tour of the trade show floor to review key considerations for picking a tractor and scaling-up equipment, tailored to the interests of session participants. Shane will help participants think through working with the machinery, and begin to evaluate the costs and potential returns of having new and different pieces of equipment. While this session will build on the concepts discussed in Part A, participation in both sessions is not required. Participants will leave this session feeling empowered with information to make better decisions for purchases for their operation.

**BEGINNING FARMER: GETTING THE MOST FROM YOUR LABOR****Thursday, January 18, 2018 | 2:00 PM - 4:00 PM****Session organized by Anu Rangarajan, Cornell Small Farms Program**

This extended session will provide a framework for farmers and managers to consider when recruiting, hiring, and training employees.

During this session, Elizabeth Higgins, of the CCE Eastern NY Commercial Horticulture Program will share techniques for develop clear job descriptions, including information about hiring staff, and offering just in time feedback and performance appraisal to both correct problems and motivate employees. Presenter Kat McCarthy, Cornell Small Farms Program, will next explain how to develop components of an employee handbook, and how these materials can help with employee recruitment and retention. The session will conclude with information about how to establish and run effective training programs. Participants will leave with an outline of text/concepts they could include in the development of their own employee handbook, as well as a checklist for developing job descriptions and training programs on their own farm.



## Produce Pack Guide INFO SHEET

Robert Hadad, CCE Cornell Vegetable Program

The UC Davis Post-Harvest Center is a treasure-trove of information on all things post-harvest. One great resource focuses on standards for packing produce in an easy to read chart. Produce Pack Guide INFO SHEET: <http://asi.ucdavis.edu/programs/sarep/publications/food-and-society/infosheet-producepackguide.pdf>

This guide covers over 80 types of fruit and vegetables providing weights per varying units of packaging as well as types of packaging commonly associated with the produce. ●

## Records Required by the FSMA Produce Safety Rule

Robert Hadad, CCE Cornell Vegetable Program

Records Required by the FSMA Produce Safety Rule is a resource written by the PSA team and available on the Produce Safety Alliance website. <https://producesafetyalliance.cornell.edu/sites/producesafetyalliance.cornell.edu/files/shared/documents/Records-Required-by-the-FSMA-PSR.pdf>

This document spells out all of the record keeping items required under the Food Safety Modernization Act. When trying to figure out through the language of the rule just what paperwork is necessary for your records, this paper lays it all out.

Along with general information, there is a great deal of specifics about where in the rule the required record keeping refers to. It is a lot to read however, where neces-

sary, the authors have also include a template example (downloadable) of a record keeping sheet that is associated with each requirement.

Even if your farm is exempt or qualified -exempt, this resource spells out the necessary record keeping to help you prove your exemption. ●

## Growing for Wholesale: Grading and Packing Guidelines by Crop

Cheryl Thayer, CCE Harvest New York

Grading and packing guidelines are now available for 16 commonly grown specialty crops in NYS: broccoli crowns, Brussels sprouts, corn, green peppers, cucumbers, green cabbage, red cabbage, savory cabbage, cauliflower, eggplant, green beans, jalapenos, poblanos, Hungarian hot peppers, summer squash, and zucchini. Find all 24 sheets online at <https://cvp.cce.cornell.edu/submission.php?id=503&crumb=business|business>

Acceptable quality standards and common defects that should be sorted out on the grading line are depicted in these resources, both visually and in outline form.

This resource was developed through the support of Cheryl Thayer of CCE Harvest NY, Dave Walczak of Eden Valley Growers, Angela Parr and Robert Hadad of the CCE Cornell Vegetable Program, and Jim Monahan of Cornell Cooperative Extension. Further, development of this resource was made possible through grant funding from the USDA Local Food Promotion Program. ●



## Census of Agriculture is a Producer's Voice, Future, and Opportunity

In December farmers and ranchers across the nation will receive the 2017 Census of Agriculture. Producers can mail in their completed census form, or respond online via the improved web questionnaire. The online questionnaire has been revised extensively to make it more convenient for producers. Conducted once every five years, the census of agriculture is a complete count of all U.S. farms, ranches, and those who operate them; it is the only source of uniform, comprehensive, and

impartial agriculture data for every state and county in the nation. Farmers and ranchers, trade associations, government, extension educators, researchers, and many others rely on census of agriculture data when making decisions that shape American agriculture – from creating and funding farm programs to boosting services for communities and the industry. The census of agriculture is a producer's voice, future, and opportunity. For more information about the 2017 Census of Agriculture, visit [www.agcensus.usda.gov](http://www.agcensus.usda.gov) or call (800) 727-9540. ●





## UPCOMING EVENTS

view all Cornell Vegetable Program upcoming events at [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu)

### Potato Advisory Meeting

December 12, 2017 | 10:00 AM - 3:00 PM

CCE Ontario County, 480 N Main St, Canandaigua, NY 14424



This meeting provides an opportunity for growers to advise Cornell about what problems you'd most like research to solve. Let's ensure we collectively work on, and solve, real problems! Growers will lead the discussions, talking about their operations and what issues they consider most important to their profitability.

Cornell and USDA scientists who will attend include Sarah Pethybridge (soilborne diseases), Bryan Swingle (Dickeya), Xiaohong Wang (golden nematode), and Walter De Jong (potato breeding).

This event is FREE to attend. Lunch will be provided. For more information, contact Julie Kikkert at [jrk2@cornell.edu](mailto:jrk2@cornell.edu) or 585-394-3977 x404

### 2017 Processing Vegetable Crops Advisory Meeting

December 13, 2017 | 9:30 AM - 2:30 PM

First United Methodist Church, 8221 Lewiston Rd (Rt 63), Batavia, NY 14020



All processing vegetable growers and industry members are invited to attend. Discuss the 2017 growing season and management concerns. Reports and discussion of the 2017 Projects funded by the New York Vegetable Research Council/ Association. Review priorities and the role of the advisory group in applications for state and federal grants. Give your input on the format of future advisory meetings and future educational programs. [Full agenda is available online](#). CCA and DEC recertification credits have been applied for. Cost: FREE! No registration required. For more information, contact Julie Kikkert at 585-394-3977 x404 or [jrk2@cornell.edu](mailto:jrk2@cornell.edu).



### WNY Soil Health Alliance Annual Meeting and Soil Health Workshop

December 20, 2017 | 8:30 AM registration, 9:00 AM - 12:00 PM morning session, 1:30 PM - 3:30 PM break out sessions  
Batavia Quality Inn & Suites, 8250 Park Rd, Batavia, NY 14020

The workshop will include keynote speaker Karl Czymmek, Cornell University, who will talk about Resilient Soils and how to build and retain organic matter. Steve Groff, Cover Crop Coaching and inventor of the tillage radish, will present "Using Cover Crops to Manage Herbicide Resistant Weeds" and Jessica Ziehm on "Communicating with Landlords." The WNY Soil Health Alliance Annual Meeting will follow the guest speakers. DEC pesticide credits and CCA credits will be available for the morning session.

Afternoon breakout sessions will include an inter-seeding farmer panel (including results from Summer Trials at Toussaint Farms) with Steve Groff; A phosphorous study with Karl Czymmek; and how to gain and retain rented farmland with Jessica Ziehm.

Cost: \$20 if registered by December 13; \$30 at-the-door. Lunch will be provided. To register, download and complete the [mail-in registration form](#) or you may register by emailing your name and number of attendees to [wnysoilhealth@gmail.com](mailto:wnysoilhealth@gmail.com) and pay at door. More information is available at <http://www.wnysoilhealth.com/events/>.

### 2018 Produce Auction Growers Meeting (Yates County)

January 4, 2018 | 9:00 AM - 2:30 PM

Finger Lakes Produce Auction, 3691 Rt 14A, Penn Yan, NY 14527



This course will educate growers on disease and pest management, varieties and marketing issues in open field and high tunnel vegetables. Topics such as disease resistant varieties, pest/disease, cultural management and appropriate spray options. DEC recertification credits applied for. FREE to attend. For more information, contact Judson Reid at 585-313-8912.

### 2018 Becker Forum: Farm Employment Practices – Planning for the Future

January 15, 2018 | 8:30 AM re

Holiday Inn Syracuse-Liverpool, Exit 37

The forum will focus on agricultural workforce issues with three general themes: securing a legal agricultural workforce, labor law compliance and H-2A program topics. For more information, visit <https://cvp.cce.cornell.edu/event.php?id=834>. Online registration available at <http://nysvga.org/expo>

### Empire State Producers Expo

January 16-18, 2018 | 1.25 hr sessions throughout each day

SRC Arena & Event Center, Onondaga Community College, 4585 West Seneca Turnpike, Syracuse, NY 13215



This annual show combines the major fruit, flower and vegetable associations of NYS in order to provide a comprehensive trade show and educational conference. See some of the educational session descriptions (pg 6-7). Online registration available at <http://nysvga.org/expo>

More events on pages 8-9

# UPCOMING EVENTS

view all Cornell Vegetable Program upcoming events at [cvp.cce.cornell.edu](http://cvp.cce.cornell.edu)

## Produce Grower Food Safety Training – FSMA and GAPs/HGAPs

January 30, 2018 | 8:00 AM - 5:15 PM

CCE Niagara County Training Center, 4487 Lake Ave, Lockport, NY 14094



This program is for fruit and vegetable growers who need Food Safety Modernization Act (FSMA) certification or GAPs/HGAPs (Good Agricultural Practices/ Harmonized Good Agricultural Practices) training required by buyers (i.e. 3rd-party food safety audits based on a written food safety plan) or if you are just interested in learning about produce safety.

Over the course of the training, certified Produce Safety Alliance trainers will cover content contained in these seven modules:

- Introduction to Produce Safety
- Worker Health, Hygiene, and Training
- Soil Amendments
- Wildlife, Domesticated Animals, and Land Use
- Agricultural Water (Part I: Production Water; Part II: Postharvest Water)
- Postharvest Handling and Sanitation
- How to Develop a Farm Food Safety Plan

Cost: \$70 for first person from farm; a maximum of 2 additional attendees from the same farm/organization allowed at \$60 each. Pre-registration is required by January 25.

An optional farm food safety plan writing workshop is offered on January 31. Separate registration required. Cost: \$75 for first person from farm; \$20 each up to 2 additional people from same farm/organization. Pre-registration is required by January 25.

More information and online registration is available at <https://cvp.cce.cornell.edu/event.php?id=856> or vegetable producers can call Robert Hadad at 585-739-4065. (Fruit growers can call Craig Kahlke at 585-735-5448.)

## 2018 WNY Fresh Market Winter Vegetable Meeting (Western location)

January 31, 2018 | 8:00 AM registration, 8:30 AM - 3:30 PM

CCE Niagara County, 4487 Lake Ave, Lockport, NY 14094



A regional meeting to discuss results from 2017 research trials and present information on pest management. Research and outreach programs supported by NY Farm Viability Institute. 3.5 DEC credits available to those that attend the entire meeting. The full agenda including details on speakers and topics is available at <https://cvp.cce.cornell.edu/event.php?id=860>

Cost: **FREE to those that pre-register by Friday, January 26** so that we can get a lunch headcount. **\$20/person at the door** for those that have not pre-registered. Call 716-652-5400 to pre-register. Special accommodations (dietary or other) should be requested by January 26. Questions? Contact Darcy Telenko at 716-652-5400 x178.

## 2018 WNY Fresh Market Winter Vegetable Meeting (Eastern location)

February 1, 2018 | 8:00 AM registration, 8:30 AM - 3:30 PM

Irondequoit Public Library, 1290 Titus Ave, Irondequoit, NY 14617



A regional meeting to discuss results from 2017 research trials and present information on pest management. Research and outreach programs supported by NY Farm Viability Institute. 3.5 DEC credits available to those that attend the entire meeting. The full agenda including details on speakers and topics is available at <https://cvp.cce.cornell.edu/event.php?id=863>

Cost: **FREE to those that pre-register by Friday, January 26** so that we can get a lunch headcount. **\$20/person at the door** for those that have not pre-registered. Call 716-652-5400 to pre-register. Special accommodations (dietary or other) should be requested by January 26. Questions? Contact Darcy Telenko at 716-652-5400 x178.

## Improving Agriculture Labor Management Workshop Series

Offered in 5 sites in New York: Canandaigua (Ontario Co.), East Aurora (Erie Co.), Essex, Kingston, and Oriskany

**Workshop 1 – Marketing your farm as a great place to work**

**Workshop 2 – What is my job? Hiring, training and evaluating employees effectively**

**Workshop 3 – Keeping good staff when money is tight & managing conflict in the workplace**

**Workshop 4 – The compliance and safety workshop. Are you managing your risks as an employer?**

Cost: \$25 per workshop or \$60 for the entire series.

Each location is offering these workshops on different dates and times throughout the winter months.

To attend in Canandaigua, visit <http://www.cceontario.org/temp2.asp?id=ag-workshops#ImprovingAgricultureLaborManagementSeries> or call Marie Anselm at 585-394-3977 x402 or for more details.

To attend in East Aurora, contact Megan Burley at 716-652-5400 x138 or [msb347@cornell.edu](mailto:msb347@cornell.edu) for more details.



## UPCOMING EVENTS

view all Cornell Vegetable Program upcoming events at

### 2018 Pesticide Training and Recertification Series

Mondays, February 5, 12, 19, 26, 2018 | 7:00 PM - 9:30 PM  
Exam: Monday, March 5, 2018 | 6:30 PM - 11:00 PM  
CCE Ontario County, 480 N Main St, Canandaigua, NY 14424

Anyone interested in obtaining a pesticide certification and meets the DEC experience / education requirements **OR** current applicators seeking pesticide recertification credits should attend. 2.5 recertification core credits will be available for each class.

#### Class 1 - Pesticide Laws & Regulations:

Certification Regulations  
Pesticide registration  
FIFRA, OSHA  
Hazard Communications Standard  
Safety Transportation Act  
Sara Title III  
Endangered Species Act  
Worker Protection Standards  
NYS Reporting Law  
Pesticide Record Keeping

#### Class 2 - Pesticides & the Environment

Toxicity of pesticides, pesticide residue & tolerance  
Environmental considerations  
Pesticides and ground water  
Pesticides and wildlife  
Types & formulations of pesticides

#### Class 3 - Pesticide Safety

Personal & environmental safety  
Selection & use of personal protective equipment  
Symptoms of pesticide poisoning  
Pesticide storage & disposal.  
Understanding the pesticide label

#### Class 4 - Pesticide Mixing & Equipment Calibrations

Procedure for mixing and filling  
Calculations for mixing pesticides  
Equipment calibration  
Types of pumps, nozzles, sprayers

Cost: \$175.00 for certification which includes the training manuals and all 4 classes. Does not include the \$100.00 exam fee. Recertification is \$25.00 per class. To register, contact CCE Ontario County at 585-394-3977 x427 or x436 or email [nea8@cornell.edu](mailto:nea8@cornell.edu) or [rw43@cornell.edu](mailto:rw43@cornell.edu)  
Registration form will be available on the website [www.cceontario.org](http://www.cceontario.org)

### Vegetable Fertility Considerations for Season Extension

February 8, 2018 | 6:00 PM - 8:00 PM  
Frank W. Bratt Agricultural Center, 3542 Turner Rd, Jamestown, NY 14701

Interested in pushing your fruits and vegetables further with season extension techniques? Mulch, low tunnels, high tunnels and greenhouses all can increase yield and harvest window, but require a different fertility approach. In this L.E.A.F session hosted by CCE Chautauqua County, we will discuss how to provide adequate nutrients to your crops without overloading the soil. By taking a balanced approach we can assure long-term, high yielding soils. Nitrogen, phosphorus, potassium and much more! Judson Reid, Cornell Vegetable Program Specialist, will be the leader of this interactive workshop. Pre-registration required. More information available at <http://chautauqua.cce.cornell.edu/>



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# Cornell Cooperative Extension Cornell Vegetable Program

480 North Main Street  
Canandaigua, NY 14424



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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Cornell Vegetable Program