



# VEGE<sub>edge</sub>

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**NEW Crop Rotation Recommendations for Swede Midge: Make Plans Now for 2021 Growing**

Season?

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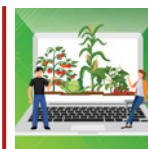
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## NEW Crop Rotation Recommendations for Swede Midge: Make Plans Now for 2021 Growing Season

*Christy Hoepting, Cornell Cooperative Extension, Cornell Vegetable Program*

### WINTER IS TIME TO PLAN 2021 CROP ROTATIONS

We all know that the best-laid plans can easily go awry in a cold wet spring, but it is still always a good idea to start with the best-laid plan. Swede midge can be a persistent pest of brassicas whose feeding damage can reduce marketable yield dramatically, especially in organic broccoli production. Several organic growers have had to abandon growing broccoli, because of swede midge. If you have a pesky swede midge problem on your farm that seems to be progressively getting worse, you may want to consider implementing a crop rotation plan that will prevent swede midge from ever reaching economically damaging levels.

### SWEDE MIDGE IS DIFFICULT TO CONTROL ON SMALL (ESPECIALLY ORGANIC) FARMS

Swede midge have 4-5 overlapping generations that are active from mid-May to late-October. On small farms where season-long production of brassica crops in close proximity is common, this continuous supply of host plants allows swede midge populations to explode. Fortunately, new research shows that economic damage to crops can be avoided by “crashing” the swede midge population using crop rotation.



Figure 1. Damage caused by swede midge larval feeding. Brown corky scarring deeming kohlrabi head unmarketable.

*Photo: C. Hoepting, CCE Cornell Vegetable Program*

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## About VegEdge

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:  
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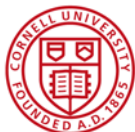
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*The next issue of VegEdge newsletter will be produced on February 1, 2021.*

Empire State Producers  
**EXPO**  
VIRTUAL CONFERENCE  
**2021**  
JANUARY  
**12, 13, 14, 15**  
MORE INFO & UPDATES: [NYSVGA.ORG](http://NYSVGA.ORG)

The New York State Vegetable Growers Association and Cornell Cooperative Extension invite all commercial vegetable and berry growers to this virtual conference. Speakers will offer research-based information from university and grower experts. The EXPO will be available online to those who register, no matter where you live! New York DEC credits will be available. A full session list and registration is available at [NYSVGA.ORG](http://NYSVGA.ORG)



## FAR AND LONG CROP ROTATION OPTIONS

### Preliminary Crop Rotation Recommendations

Preliminary crop rotation recommendations advised growers to rotate away from brassica crops by **at least 3,000 feet for a minimum of 3 years**. This was a conservative recommendation based on the knowledge that swede midge are weak fliers and can persist in soil for at least 2 years. Implementing such far and long spatiotemporal rotations is impractical for most small farms. To examine whether a reduced spatiotemporal rotation scheme could effectively mitigate swede midge damage, Cornell Vegetable Program researchers conducted an extensive project, which monitored swede midge populations and crop damage on seven small-scale organic farms in New York from 2015 to 2017. **This work resulted in new, less restrictive crop rotation recommendations** that center on reducing economic damage by depriving adult swede midge of susceptible host plants during peak periods of activity.

### New Spatial (Far) Crop Rotation Recommendations

In the monitoring project, **~500 feet between secluded fields was enough** to prevent swede midge that emerged from an infested field from finding brassicas in an uninfested field. Swede midge generally cannot fly long distances or cross over large physical barriers, so it is important that fields are separated by barriers such as wooded strips. Hedgerows and fences are not an adequate physical barrier. Note that in an open field (e.g. 8-12 acre), 500 feet between an infested site and a new brassica planting is not enough to prevent infestation of the new planting.

### New Temporal (Long) Crop Rotation Recommendations

In New York, peak emergence of adult swede midge (flies) from overwintered pupae occurs from mid-May to late June. Population monitoring indicates that there are usually two emergence peaks, after which only very low levels of overwintering adults will continue to emerge. **Therefore, a minimum 2.5 to 3 month gap in brassica crop production from May through July can be highly effective.** This means that the same field may be cropped to brassicas in consecutive years, but enough time must be given to crash the swede midge population in the spring. **Wait until mid-July when swede midge spring emergence has subsided to plant a brassica crop in such a field.**

Largest spring emergence of swede midge adults is expected following a brassica crop that was infested with swede midge during the previous fall. Heavy spring emergence may also occur following a brassica planting that was infested with swede midge during the previous summer. Extent of spring emergence following an infested planting during the previous spring is unknown, but it is expected to be minimal, because swede midge would likely have left the site in search of another brassica crop.

The new crop rotation recommendations will not eliminate swede midge from your farm, but can prevent swede midge populations from building up to economically damaging levels. (See crop rotation example using these new recommendations, page 4.)

### Conditions for New Crop Rotation Recommendations

- Have multiple secluded fields, ideally separated by wooded areas. 500 feet is not far enough in an open area (e.g. 8-12 acre field).
- Ensure brassica transplants are free from swede midge infestation.
- Combine crop rotation with timely post-harvest crop destruction to prevent swede midge populations from building.
- Avoid brassica cover crops such as mustard when rotating away from brassicas.

## WHEN CROP ROTATION IS NOT AN OPTION

The new crop rotation recommendations will not work for every farm. However, there are still other management strategies to consider. Even if you do not have secluded fields separated by 500 feet, **growing only fall brassicas** on your farm can reduce pest pressure by disrupting the swede midge population cycle (see crop rotation example, page 4). **Insect exclusion netting** is extremely effective and economically viable when swede midge pressure is high in a high-value brassica crop. Additionally, swede midge has relative preferences among brassica crops, and less-preferred crops consistently suffer lower levels of damage.

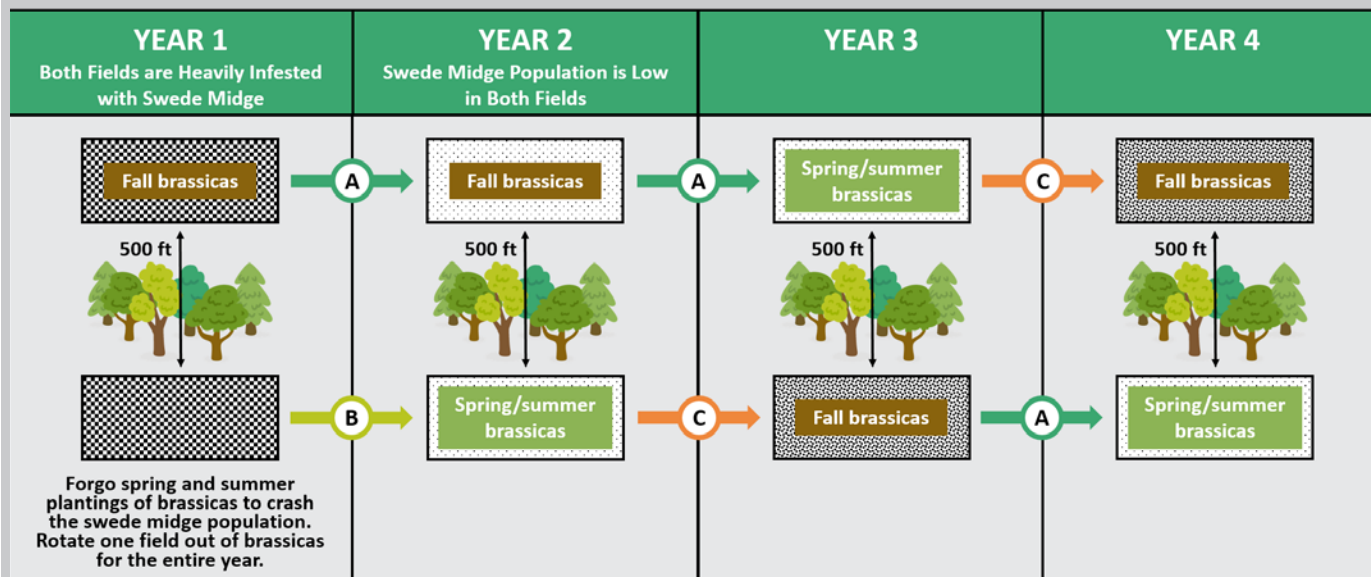
After three years of monitoring swede midge populations on small organic farms, it became obvious that broccoli and Red Russian kale are the most preferred hosts. Repeatedly, swede midge sought out these crops over all other brassica crops within a contiguous 4 to 12 acre area. Also, swede midge tended to remain in broccoli and Red Russian kale as long as these crops were producing new growing points. Therefore, know that if you plant broccoli or Red Russian kale under moderate or high swede midge pressure, these crops will very likely suffer economic levels of damage.

Alternatively, Chinese cabbage, savoy cabbage, and Bok choy consistently were not damaged in fields with high swede midge pressure. Curly kales, Lacinato kales, turnips, radishes and rutabagas also appeared to be less preferred by swede midge, but could be infested when a more preferred crop was unavailable. More tolerant crops could potentially withstand higher levels of swede midge pressure than susceptible crops, reducing economic losses. In general, red or purple varieties, such as red cabbage or purple kale, are more preferred by swede midge than green varieties. Also, once the growing points become inaccessible, such as when cabbage is heading, these crops become least preferred by swede midge. If crop rotation is not an option, strategically plant more tolerant brassicas where/when swede midge pressure is predicted to be high.

### EXAMPLE CROP ROTATION USING NEW RECOMMENDATIONS

In this example, we begin with a farm that has **two secluded fields separated by a 500 foot wooded area**, both of which are heavily infested with swede midge. Heavy spring emergence is expected in both fields. After rotating away from spring and summer brassica plantings for one year, the farm may resume season-long brassica production by rotating between spring and summer plantings in one field and fall plantings in the other.

**If two secluded sites are not available, two farms could consider collaborating by swapping ground in order to implement rotation of brassica plantings.** If susceptible brassicas must be planted in a heavily infested site, insect exclusion netting may be an option. More information on insect exclusion netting can be found in the online reports listed at the end of this factsheet.



#### Key



**Field with high swede midge pressure** (major crop losses occur in susceptible brassicas)



**Field with moderate swede midge pressure** (some crop losses occur in susceptible brassicas)



**Field with low swede midge pressure** (no damage or minor damage occurs)



Wait until after spring emergence subsides to plant fall brassicas no earlier than mid-July, and monitor your fall plantings in case unexpected damage does occur.



Plant spring and summer brassicas in field with lowest swede midge pressure.



Swede midge pressure is expected to be low following fall brassicas that were planted after spring emergence.



In absence of brassicas, swede midge population crashes to low levels.



Planting spring and summer brassicas in the same field will allow the swede midge population to build to moderate levels. Do not plant brassicas in the same field season-long.

**AVAILABLE  
NOW!**

**New! Fact Sheet on New Crop Rotation  
Recommendations for Swede Midge**  
*including relative crop preference chart*  
[cvp.cce.cornell.edu](http://cvp.cce.cornell.edu)



# Someone at the Farm Tested Positive for COVID-19 --- Now What?

Joan Sinclair Petzen and Libby Eiholzer, Cornell Cooperative Extension, NWNY Dairy, Livestock, and Field Crops Team

At this writing in mid-December 2020, community spread of COVID-19 is gaining momentum in rural areas of New York. As employers, farmers have certain responsibilities when one of their workforce tests positive for COVID-19. Because farmworkers are essential workers, there is sometimes confusion about what quarantine means for those who have come in close contact with the person who has received a positive diagnosis. In this article, you will find resources to help you sort out your responsibilities as an employer and know what steps to take should someone associated with your business test positive.

Once someone tests positive, the local health department (LHD) will work closely with that individual to isolate and trace contacts who may have been exposed during the incubation period for COVID-19. Businesses will be asked to assist the LHD with identifying close contacts of any worker who tests positive. This is where your [Forward NY Safety Plan](#) will come in handy. All businesses including farms are required to have one. The LHD will likely ask to review your plan to help you strengthen the processes you have in place to help stop the spread of COVID-19. Now is a good time to review the plan, update it if needed and be certain you are doing a good job of tracking contacts at your place of business. For assistance, your first and most knowledgeable resource is [your LHD](#). Please reach out to them. They are striving to connect with people who test positive and complete contact tracing within forty-eight hours of the report of a positive test.

Essential workers on farms may continue to work on farms during quarantine. [Guidance from New York State Department of Agriculture and Markets \(NYS DAM\)](#) addresses quarantine for essential workers who have been exposed to someone who has tested positive for COVID, as well as isolation and requirements for going back to work for people with positive tests. The Centers for Disease Control and Prevention (CDC) provides information on quarantine and explains the difference between that and isolation: <https://www.cdc.gov/coronavirus/2019-ncov/if-you-are-sick/quarantine.html>.

The United States Department of Labor details the [responsibilities of employers under the Families First Coronavirus Response Act \(FFCRA\)](#) to provide paid leave for employees affected by COVID-19 or who are caring for family members affected. Employers with fewer than 500 employees are able to receive a [tax credit for paid leave provided under FFCRA](#). The tax credit reimburses the employer for qualified sick or family leave wages, qualified health plan expenses and Medicare tax credit. To claim the credits, employer can (1) assess federal employment taxes that would otherwise be deposited, (2) claim the tax credit on their Form 943, Employers' Annual Federal Tax Return for Agricultural Employees or, (3) request an advance of the credits not covered by assessing federal employment tax deposit by filing [Form 7200 Advance Payment of Employer Credit Due to COVID-19](#).

Local health officials confirm that most of the spread of COVID-19 in our rural communities can be traced back to small gatherings of people without adequate precautionary measures. Now is a good time to remind your workforce about the importance of wearing a face covering, hand washing or sanitizing, social distancing and staying home to stay healthy. Many people are craving social interaction after many months of limiting our interactions to prevent the spread of COVID-19. With cases on the rise and our health care system once again being tested for its capacity to take care of those seriously ill with COVID-19, everyone must continue to adhere to prevention practices until vaccinations and warmer seasons have slowed the spread of the virus.

In summary, if someone from your farm tests positive for COVID-19, follow your Forward NY Safety Plan, and be sure you are doing a good job of tracking contacts. Work with your LHD to quarantine or isolate individuals as required. Understand when your essential workers may still be able to work during quarantine. Be aware of your employees' rights and your employer responsibilities under FFCRA for paid time off if employees are sick with COVID-19 or caring for a family member who is. Know you can apply for tax credits for qualified wages, health care plan expenses and Medicare tax paid under FFCRA. And most importantly, continue to do the very best you can to provide a safe and healthy work environment where people have adequate time for rest, so they are ready and able to come to work as needed. ●

## One-on-One Virtual Farm Food Safety Visits

Farm food safety shouldn't be on pause even if the rest of the society is! Robert Hadad and Caitlin Tucker, with the CCE Cornell Vegetable Program, are offering virtual farm visits to growers who need assistance with practical food safety implementation, facility layout/design for effective and efficient management, post-harvest handling and storage review. Virtual visits don't require a lot of high-tech skill. We can accommodate whatever you have to work with. Cell phone, tablet, or computer should work just fine.

Current topics include:

- Risk Assessment in the Wash/Pack Environment
- Wash/Pack Facility Layout Review for remodeling or new design - identifying and solving bottlenecks or hurdles for achieving efficiency in flow, tasks, minimizing microbial risks, cleaning and sanitizing, and more.
- Farm Food Safety Plan writing
- Developing Standard Operating Procedures (SOPs)

- Worker training
- Assessing food safety practices for leafy greens production
- GAPs/HGAPs audit preparation
- Crop rotation, cover crop utilization
- Other crop production or marketing issues

To schedule a "visit", contact Robert Hadad, 585-739-4065, [rgh26@cornell.edu](mailto:rgh26@cornell.edu), or Caitlin Tucker, 573-544-4783, [cv275@cornell.edu](mailto:cv275@cornell.edu) ●



# What's a Mesotunnel? What's it Good For?

Mark Gleason, Department of Plant Pathology and Microbiology, Iowa State University

[Sarah Pethybridge's EVADE lab at Cornell AgriTech is a collaborator on this project. Our focus in New York is to understand how this season long row cover will work in the North Eastern region of the United States. Our aim is to address questions regarding the feasibility, efficacy against major pest, and assess marketability of the fruit in the system for the organic growers in this state. Additionally, our research will help to advise organic growers in the state on the best methods for applying this system commercially to their fields. ed. Kellie Damann, Pethybridge Lab]

If you're a vegetable grower, you're probably familiar with high tunnels and low tunnels. But what are **mesotunnels**?

All three of these tunnel types are used to create some sort of protective barrier between crops and the environment. "Meso" means "middle," so mesotunnels are medium-size tunnels – taller than low tunnels and shorter than high tunnels. But mesotunnels fit into a niche that's different from either of the other types.

If tunnel types were cousins, mesotunnels would be first cousins to low tunnels and maybe third cousins to high tunnels. Mesotunnels and low tunnels are similar in that they are set up and taken down in the same growing season. High tunnels are long-term structures that stay in the same place year after year – or if they move, they do not move much.

Despite being first cousins, low tunnels differ from mesotunnels in form and function when it comes to cucurbit crops. There are many variations, but typical low tunnels are about 18 inches high. They are covered with a spunbonded polypropylene fabric (for example, Reemay or Agribon) that is supported on wire hoops. They have many uses. But for cucurbit crops in the field, the most common function is to protect the crop early in the season – from cold, high wind, hail, and insect pests. Warming inside the low tunnel can speed up plant growth. With low-tunnel protection, it's possible to plant earlier in the spring and get earlier yield.

Mesotunnels are different. For one thing, they are a lot taller than low tunnels – about 36-42 inches. The covering is also different: a breathable nylon-mesh fabric (brand names include ProtekNet, ExcludeNet and others) that resembles window screen. Mesotunnels have a different set of advantages compared to low tunnels. Their larger scale and more breathable covering (which prevents overheating even in midsummer) mean that mesotunnels can potentially be used throughout the growing season. This type of protection is different from low tunnels, which have to be removed when flowering starts in order to avoid overheating and overcrowding the plants.



Mesotunnels at ISU's Horticulture Research Station. Photo by Jose Gonzalez

Full-season crop protection by mesotunnels could be a key advantage in organic cucurbit production, especially where pest insects and the pathogens they carry can cause disease creating problems all season. Organic insecticides are not very effective for the control of major cucurbit pests like cucumber beetles, squash bugs, and squash vine borers. To make matters worse, cucumber beetles carry the bacterial wilt pathogen, *Erwinia tracheiphila*, and squash bugs carry the cucurbit yellow vine disease (CYVD) pathogen, *Serratia marcescens*. Strong pest pressure and poor efficacy insecticides are reasons why many organic growers already use some form of tunnels.

Since mesotunnels don't hold much heat, they probably won't help much with encouraging early yields. But like low tunnels, mesotunnels can protect against damage from hail and high winds. Mesotunnels have additional flexibility in that you can spray pesticides through the nylon-mesh fabric of mesotunnels, but not through the spunbonded polypropylene of low tunnels.

Small-plot field trials with mesotunnels in Iowa showed that they increased marketable yield in organic muskmelon and acorn squash compared to low tunnels – sometimes dramatically. But how will this play out at a commercial scale? We are doing more trials to answer that question in Iowa, Kentucky, and New York.

There are at least three important practical questions inside that last question. These need to be solved to make mesotunnels a viable alternative for cucurbit growers. First, how will pollination be done? Second, how will weeds be controlled? Third, under what scenarios would mesotunnels make sense economically?

Upcoming blogs in our series will drill deeper into these questions and explain how we hope to answer them over the next few years.

This research is funded through the USDA-NIFA Organic Research and Extension Initiative led by Iowa State University. Sarah Pethybridge and Kellie Damann (Cornell AgriTech, Geneva) are the New York collaborators on this project. More details on the New York research can be found by contacting Sarah at 315-744-5359, [sjp277@cornell.edu](mailto:sjp277@cornell.edu), or Kellie at 585-233-6779, [kcd48@cornell.edu](mailto:kcd48@cornell.edu).

Video on Installing Mesotunnel: <https://www.youtube.com/watch?v=oa1FDEpeiTU>

More mesotunnel news: The Current Cucurbit Project, <https://www.cucurbit.plantpath.iastate.edu/> Twitter: @TCucurbit; EVADE Lab (NY): <https://blogs.cornell.edu/pethybridgelab/> Twitter (NY): @Cornell\_EVADE ●

## Focus on Specialty Crops: Lovage

Robert Hadad, Cornell Cooperative Extension, Cornell Vegetable Program

I am always on the lookout for crops that might be decent addition to retail or wholesale vegetable growers marketing arsenal. There is a need to stand out and having a few unique crops that can provide a niche that could enhance profitability. One such crop is lovage.

### BACKGROUND

Lovage is related to carrots, dill, parsley, and fennel. Its Latin name is *Levisticum officinale*. It is a hardy perennial grown for the flavorful leaves, young shoots, roots, essential oil, and seeds. Most of the uses are culinary. Since it grows to become a large plant, the yields increase as the plant expands in size each new season.

### GROWING LOVAGE

As with rhubarb and asparagus, lovage requires permanent beds with focus on weed management. Lovage can be started from seed for plug transplants in late winter/early spring. Seeds can be slow to germinate, ranging from 7-28 days. Plant out in the field in mid-May before weather gets hot. Root division can be done with established plants either in the fall or early spring much the same as is done for rhubarb.

Spacing within row should be 1-2ft since the plants do grow large. Tighter spacing could be used if the plants are going to be used for cutting new shoots the having roots divided after the second season. Between row spacing should be 1.5-3ft or more to give room for the growth especially if production is for seeds. Weed management may also dictate wider spacing if equipment needs to get in between rows.

Not much work has been done concerning fertility rates. Lovage seems to be somewhat of a scavenger in the 2020 trial where no added nutrients were applied to prior use soybean ground. There didn't seem to be much difference in yields from plants grown in soil where clover had been used for a cover crop overwinter.

If you grow Italian parsley or cutting celery, then production practices for lovage can follow the same course of action. The plants do require moisture so consistent irrigation is essential.

### HARVESTING LOVAGE

for leaf/stem a lighter cutting for first year plants is recommended. Early shoots are more tender and length can be up to 10-14" banded into bundles of 8-12 like parsley or cutting celery. in the second season and beyond, heavier harvests can be taken. The plant will start to send up a flower stalks in the summer. If not harvesting for seed, the stalk can be cut after the flowering. New shoots can sprout up in the early fall.

For seed production, let the stalk flower. The flowers are umbels and once they start to dry, check to see if seed is present. A firm full seed is ready for harvest (about the size of parsley seed). Cut umbels and dry on screens in a warm dry place. Shake to remove seed and winnow to remove chaff.



A comparison between a fresh yellow umbel lovage flower and drying brown flower heads.  
Photo: R. Hadad, CCE CVP

Root production shouldn't occur to at least the third season usually later in the fall. Lovage is somewhat resistant to frosts so the foliage will linger before being finally killed off by a heavy freeze. Harvest of roots should be before a heavy freeze. Dig up roots. In softer soil roots can be straighter and more tapered but generally in heavier soils, roots are more gnarly. Trim off small side roots. Wash before bringing to market.

### MARKETING

Love parsley is one name for lovage and seems like it would be a great attention-getter at market. The flavor of the leaves is sort of celery-like with a dash of anise. It is distinctive without being overpowering. Younger shoots and leaves are tender. If harvested too late, the texture is tougher and a bit stringy. Being a fresh cut product, wilting is a problem so package to avoid moisture loss. Sell in bunches like parsley or cutting celery. The seed also tastes similar. The roots are good shredded into salads or in stews.

### PRICING

When starting off with a new product, sometimes low-balling the price might get people more tempted to buy and try it. Start off with bunches and try \$1-1.50 each (or more and increase price if sales take off). Provide a recipe card or a list of uses for the leaves etc. If you are selling bunches of Italian flat leaf parsley, don't sell lovage lower than that. Use good signage to attract customers attention.

Lovage seed pricing for culinary use can be sold by the ounce and if there are excited customers, prices could run from \$4-6/oz for clean seed. Cleaning and packing seed can be time consuming so figure out your costs and price it from there. ●



Lovage bunch ready for market.  
Photo: R. Hadad, CCE CVP

# Agricultural Supervisory Leadership Certificate Program Offered

## Cornell Agriculture Workforce Development Program

Supervisors are critical to the success of farm businesses. They have a major impact both on employees' daily work experiences and on the production performance of the business. The Agricultural Supervisory Leadership certificate helps farm supervisors and managers learn and apply human resource management practices and leadership skills that foster rewarding workplaces and drive business results. Confident managers who thoughtfully apply leadership and management skills improve employee performance, develop teams, reduce employee turnover, and increase employee engagement. The courses within the certificate program will offer extensive practice and engagement activities to build confidence and skill sets.

The first course "Transitioning to Supervisor" helps new and experienced managers make the difficult, but critical, transition from individual performer to supervisor. Participants learn essential leadership skills, such as: building effective work relationships, essential communication skills, managing conflict, leading a multi-cultural team, and how to build an effective workplace culture.

- 1. Transitioning to Supervisor:** Develop essential communication skills and manage conflict. Lead a multi-cultural team. Build an effective workplace culture. This course launches with an introduction on January 28 and runs for six weeks. Cost is \$275. [Registration is open through January 27.](#)
- 2. Organizing Work for High Quality Results:** Develop clear expectations and standard operating procedures. Delegate effectively. Diagnose and correct performance problems.
- 3. Managing Performance:** Understand motivation. Harness the power of performance feedback and coaching. Build clear and effective workplace communications, including leading team meetings. Set safety expectations. Conduct effective performance reviews.
- 4. Ethics and Employment Regulations for Supervisors:** Implement responsible and ethical labor practices and understand why this matters for agriculture. Recognize and prevent sexual harassment. Understand and follow minimum wage and overtime laws. Implement Equal Employment Opportunity laws to prevent discrimination and harassment. Use an employee handbook. Handle employee discipline and termination.

### WHO SHOULD ATTEND?

This course, and the whole certificate series, is appropriate for both new and experienced farm supervisors and managers, and those preparing to become supervisors. All participants will learn leadership concepts and practice skills that will improve their ability to build a positive workplace and get results through leading others.

### HOW TO REGISTER

An email address is required to register and only one registration per email address may be submitted. Members of the same company or farm may not register online using the same email address. The email address used should be unique to the person attending as it is used the track payments and attendance across events. If you are registering on behalf of the person attending, you will have the option to enter your email to receive confirmation emails for the person attending.

### HOW IT WORKS

The online courses are offered using the web-based platform, Moodle. From the comfort of your home or office, watch prerecorded presentations on your own schedule. Engage with instructors during weekly optional live discussion sessions. Virtual discussions with class members enhance the overall experience.

### ONLINE CLASSROOM

This online course is offered using Moodle, an easy-to-use online interface viewed on your personal computer's web browser. [Link for information on how to access this system after registering online.](#)

Presentations for each topic are prerecorded and are accessible whenever is convenient to the participant. An optional live discussion session with instructors is held each week via an online webinar. These sessions are also recorded and posted in the classroom for those unable to participate at the scheduled time.

### COURSE INSTRUCTORS

- Richard Stup, Cornell Agriculture Workforce Development Specialist
- Elizabeth Higgins, Ag Business Management/Production Economics Extension Specialist with the Eastern New York Commercial Horticulture Program

### QUESTIONS?

Contact Rachel McCarthy, Supervisory Leadership Certificate Program Coordinator, at [rachel.mccarthy@cornell.edu](mailto:rachel.mccarthy@cornell.edu). ●



## Upcoming Events

View CCE Cornell Vegetable Program events at [CVP.CCE.CORNELL.EDU](http://CVP.CCE.CORNELL.EDU)

### 2021 Agricultural & Food Business Outlook Conference

January 25, 2021 (Monday) | 10:00am - 3:00pm

FREE online conference

New York agricultural leaders learn about the short-and long-term outlook for agriculture and agricultural products. Break-out sessions concentrate on dairy, grains and feed, and horticultural products. By attending, you will: Better understand critical issues facing agriculture in New York and the Northeast; Learn about the near-term outlook for major New York commodities; Interact with fellow leaders of the vibrant New York agricultural industry. The conference is designed for industry leaders, agribusiness professionals, policymakers, educators, and farm managers. The instructors are Dyson School faculty and other experts. Conference Schedule TBD. Free.

For more information and to receive the Zoom links: [email Michelle Cranston](mailto:Michelle.Cranston@cornell.edu) or 607-255-1585.

### Remote Good Agricultural Practices Training & Farm Food Safety Plan Writing Session

January 27-28, 2021 (Wednesday-Thursday)

Online via Zoom

Join Cornell Cooperative Extension of Broome County, the Cornell Vegetable Program, Harvest NY, the Lake Ontario Fruit Team, and the Eastern NY Commercial Horticulture Program on January 27th for a remote GAPs training. Instructors will walk growers through how to conduct a risk assessment on their farm utilizing the seven areas of farm food safety. Participants will gain hands-on experience in creating a traceability system for their farm, as well as learn about packing house design with food safety principles guiding placement of equipment and suggested materials. Students will also learn about how to train their employees related to food safety and understand what they will need to implement on their farm in order to pass a third-party food safety audit, such as GAPs.

On January 28th growers can join us for a day focused on writing their farm food safety plan. Trainers will be joined by NYS Department of Agriculture & Markets Farm Products inspectors to give guidance and input for farms in creating their farm food safety plans to meet the needs for a potential audit. At the conclusion of day two growers will have all components of their farm food safety plans outlined with the most critical pieces.

The price is \$35 for a farm to attend both days, or \$10 to join on the second day for the farm food safety plan writing session. Day two is only for those who have previously attended a Produce Safety Alliance Grower Training or GAPs training. The price for both days includes a "Farm Food Safety Decision Tree", worker training posters for use on the farm, and a flash drive pre-loaded to the farm food safety plan template, standard operating procedures, and log templates for use by the farm.

In order for a farm to participate, you must have the newer version of Microsoft Word loaded onto your computer, or be comfortable working within Google docs. We are utilizing Zoom for the training, you will need a high speed internet connection for smoothest participation experience. We also recommend a microphone to help in communication with both students and trainers.

Registration is limited to 25 growers on either day so register by January 21st to ensure enough time to receive the workshop materials. Any questions can be directed to Laura Biasillo at [lw257@cornell.edu](mailto:lw257@cornell.edu). Register: [https://reg.cce.cornell.edu/gap-trainingfoodsafetyplan\\_203](https://reg.cce.cornell.edu/gap-trainingfoodsafetyplan_203).

### 2021 Pesticide Training and Recertification Series

Classes: February 2, 9, 16, 23 (Tuesdays) | 7:00-9:00pm

Exam: March 2, 2021 (Tuesday) | 6:00-10:00pm

Cornell Cooperative Extension-Ontario County, 480 N Main St, Canandaigua, NY 14424

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

COST & REGISTRATION: \$225.00 for certification which includes the training manuals and all 4 classes. Does not include the \$100.00 exam fee. Recertification is \$40.00/person/class. Contact CCE Ontario County, 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 is available on the website [www.cceontario.org](http://www.cceontario.org)

Due to COVID-19, each class size is limited to 15; social distancing and mask wearing will be required. An Assumption of Risk will also need to be signed each week.

For full session list and registration: [NYSVGA.ORG](https://nysvga.org)

Empire State Producers  
**EXPO**  
VIRTUAL CONFERENCE  
**2021**  
JANUARY  
**12, 13, 14, 15**



## EXPO SESSION

### **Soil Health: Cover Crops and Reduced Tillage**

**Tuesday, January 12 | 8:45am - 12:15pm**

**Session Organized by Ryan Maher, Cornell Small Farm Program**

Attend the Soil Health Sessions at the virtual 2021 Empire State Producers Expo to hear farmer experiences and research on cover cropping and no-till practices from around the Northeast and beyond. In Session I, you will learn the latest research on selecting and managing summer cover crops in your rotation from Rebecca Brown (University of Rhode Island). Then Skip Paul (Wishing Stone Farm, RI) will talk about the advantages of cover crop interseeding and share his successes and failures with establishing cover crops in brassica cash crops on his farm. In Session II, Chad Cochrane (USDA NRCS-NH) and Nathan Johanning (farmer and University of Illinois Extension) will team up to get into the details of managing no-till vegetables and the decision points for different crops. You will learn about NT vegetable transplanters, tips for modifying equipment, and NT management practices for sweet corn and pumpkins. Bring your questions for discussion and walk away with ideas on how you can keep more of your soil covered, reduce your inputs, and improve productivity with less tillage on your farm.

## EXPO SESSION

### **Vegetable IPM School**

**Wednesday, January 13 & Thursday, January 14**

**Sessions Organized by Abby Seaman, Amara Dunn & Marion Zuefle, NYS IPM; Elizabeth Buck, Cornell Vegetable Program**

The Vegetable IPM School on January 13 & 14 will have something for both experienced and new growers. In 6 info-packed sessions, learn from fellow growers and university experts, then make plans to use more IPM in 2021!

#### **Part 1: A Bird's-Eye View of IPM**

Integrated Pest Management is not a destination; it's a journey! On January 13, 8:45-10:30 AM come to Part 1 of the Veg IPM School. Leave with new ideas to increase yields and reduce risks to people and the environment on your farm.

#### **Part 2: Keeping Ahead of the Problems**

Veg IPM School Part 2 (Jan. 13, 10:45 AM - 12:30 PM) helps you keep ahead of pest problems with scouting and monitoring, using insect and disease forecasts, and keeping good records of where and when pests have caused problems in the past.

#### **Part 3: Off to a Good Start with Vine Crops**

Part 3 (Jan. 13, 1:15-3:00 PM) features IL grower Nathan Johanning and his recipe for enhanced efficacy and ecologically enlightened weed control in his grain-pumpkin cropping rotation. You'll also hear from Rutgers weed scientist Thierry Besancon and Cornell's Steve Reiners on weed management and the connection between plant nutrition and IPM in vine crops.

#### **Part 4: Keeping Ahead of Insects and Diseases in Vine Crops**

Veg IPM School Part 4 (Jan. 13, 3:15-5:00 PM) focuses on IPM for insects and diseases in vine crops and features MI cucurbit growers Ooman Brothers and experts from Cornell.

#### **Part 5: Bright Brassica Beginnings**

Brilliant brassicas start with good cultural practices, nutrition, and keeping ahead of weeds. Hear from NY grower Rick Pederesen and Cornell experts in Bright Brassica Beginnings: IPM School Part 5 (Jan. 14, 8:45-10:30 AM).

#### **Part 6: Clean Cole Crops**

In Part 6 of the Veg IPM School (Jan. 14, 10:45 AM - 12:45 PM) hear from award-winning Long Island grower Fred Lee, drawing on his decades of experience growing diverse brassicas. Plus using IPM for plant diseases and insect pests.

## EXPO SESSION

### Onion Sessions: Bulb Rot Deep Dive; Fragile FRAC 7 Fungicides and Unfair Trade

Thursday, January 14 | 8:45am - 12:30pm

Sessions Organized by Christy Hoepting, Cornell Vegetable Program

At the 2021 Empire State Producers Expo, we're going to Onion Rot School and we're bringing in the Nation's Masters to teach the class! Three onion enthusiasts will take us on a deep dive into the complexities of onion bulb rot. They will describe a pathway to tolerant onion varieties via a new technology on the verge of a breakthrough.

How are the fragile FRAC 7 fungicides like Luna Tranquility and Merivon holding up against Stemphylium leaf blight (SLB)? Did we lose our favorite SLB fungicides to resistance? Is there cross-resistance among the different sub-classes? The Cornell SLB team will present the latest field research and laboratory results regarding the future of FRAC 7 fungicide use for SLB by region in New York.

Finally, Greg Yielding, the Executive Vice President of the National Onion Association, will address the issue of cheap onion imports from Canada.

A total of 2.25 DEC recertification credits have been applied for these sessions.

## EXPO SESSION

### Weed Management

Thursday, January 14 | 1:15 - 5:00pm

Session Organized by Lynn Sosnoskie, Dept. of Horticulture, Cornell Agri-Tech, and Bryan Brown, NYS IPM

No new herbicide modes of action have been released in over 30 years. But with herbicide resistant weeds spreading rapidly, and technological advances aiding product exploration, that may change soon. Several companies have announced exciting new products in the pipeline. And with innovations in weed control using steam, electricity, and steel, weed management may look very different in coming years – especially as robotics and “intelligent” guidance systems become more accessible to farmers. These forward-thinking sessions aim to show farmers the state-of-the-art in weed control technology.

## EXPO SESSION

### A Five Year Lens – How Growing Produce is Changing

Friday, January 15 | 3:30 - 5:00pm

Knowing how to position yourself to stay ahead of the curve is a challenge. Join this session to find out what representatives at the forefront of agricultural management see as the key changes coming in the next five years. Topics will include crop protection, digital ag, weather resiliency, and pesticide regulations. Of note, our Canadian neighbors will share how pesticide de-registrations and restrictions are affecting their businesses and give valuable tips on how to work with regulators to receive better outcomes. Speakers include Larissa Smith (Syngenta), Abe Stroock (School of Engineering, Cornell University), Art Degaetano (Northeast Regional Climate Center), Jim Chaput (Ontario Ministry of Food, Agriculture, and Rural Affairs), and Chris Duyvelshoff (Ontario Fruit & Vegetable Growers Association).

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# Cornell Cooperative Extension Cornell Vegetable Program

480 North Main Street  
Canandaigua, NY 14424



VegEdge is the highly regarded 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 University 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 Cooperative Extension  
Cornell Vegetable Program**

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