

New research is aimed at efficient water and nutrient applications based on site-

specific variations in the soil characteristics.

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Produce sales to food hubs and produce auctions may lead small farms to lose their qualified exemption status under FSMA.



shows how shifting the timing of tillage operations can impact how many

weeds and which species the field will experience that season.

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New research





State Producers Expo and Becker Forum.

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YOUR TRUSTED SOURCE FOR RESEARCH-BASED KNOWLEDGE Volume 13 Issue 24 November 1, 2017

**Cornell University Cooperative Extension Cornell Vegetable Program** 

### Partnering with University at Buffalo to Adapt Precision Agricultural Tools for Improved Irrigation Management in Vegetable Crops

Darcy Telenko, CCE Cornell Vegetable Program

Water and nutrient management are key to sustainable and profitable vegetable production. The water- and nutrient- holding capacities of soils are directly related to the soil properties. Current irrigation and nutrient management programs in vegetables in western NY employ field-wide water and nutrient application schedules without accounting for site-specific variations in the soil characteristics. Cornell Vegetable Program Specialist, Darcy Telenko has partnered with Environmental Geophysicist, Erasmus Oware from the University at Buffalo in a NYFVI sponsored project to identify and account for subfield soil variability for efficient water and nutrient management practices. The project employed electromagnetic soil mapping to create sub-field management zones (MZ) to guide the application of precise amount of water and nutrient to reduce water, energy, and fertilizer expenditures (Figure 1). Once management zones were identified infiltration tests were then used to determine optimal op-



Figure 1. The electromagnetic instrument mounted in a sled that is drawn across the field for soil variability mapping (left). Irrigation experiment with soil moisture monitoring at the 10 cm and 30 cm depth of the soil profile (right). Photos: D. Telenko, CVP

Photo: Judson Reid



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 December 1, 2017.

### **USDA to Survey New York Onion Growers**

USDA, National Agricultural Statistics Service, 10/18/17

During November 2017, the U.S. Department of Agriculture's National Agricultural Statistics Service (NASS) will conduct its biannual *Onion Grower Inquiry*. NASS will reach out to more than 100 New York onion growers in order to gather information for the November Onion Grower Inquiry.

The survey will collect information on acreage, production, and value of the 2017 summer dry onion crop. NASS will compile, analyze and publish the survey results in the Annual Vegetable Report, to be released February 13, 2017.

"Participating in this survey is a convenient and effective way for farmers to analyze and compare the different practices of production, acreage and values within their own communities, as well as at the national level. Data from the survey will benefit farmers, processors, and agribusinesses, by providing timely and accurate information to help them make crucial business decisions for the next growing and marketing season. Furthermore, policymakers use these statistical reports to update their understanding and to make decisions, I encourage farmers to take advantage of this opportunity to help, by providing accurate data," said King Whetstone (USDA/NASS Northeastern Regional Director).

The November Onion Grower Inquiry will be available online for sampled respondents starting November 1, 2017. This database and all NASS reports are available on the agency's website: <u>www.nass.usda.gov</u>. As with all NASS surveys, information provided by the respondents is confidential, as required by Federal Law. NASS safeguards the privacy of all responses and publishes only aggregate data, ensuring that no individual operation or producer can be identified. For more information on NASS surveys and reports, call the NASS Northeastern Regional Field Office at 1-800-498-1518.

erating range of soil water content for each management zone in a field (Figure 1).

During 2017, three farms participated in the soil mapping and data collection. An example of the ECa contour map that was generated is pictured in Figure 2 where two distinct zones were identified – dark green and light green regions. Within these management zones irrigation tests are then performed at selected locations (red dotes) to calibrate the water-holding characteristics representative of each zone. Results of the irrigation tests suggest that the two soil zones have different water-holding characteristics and, hence, should be irrigated differently. For instance, the water depletion profiles of the sensors found in the same soil zone behaved similarly compared to those found in different zone. The drainage profiles from both the 10 cm and 30 cm sensors reveal poor drainage of soil zone 1 dark green (MZ1S1 & MZ1S2) in contrast to those of soil zone 2 light green (MZ2S1 & MZ2S20), suggesting short but frequent irrigation in the



dark green zone and long but infrequent irrigation in the light green zone.

The knowledge of spatial variations in soil characteristics can instruct site-specific water and nutrient management decisions to reduce input costs (when water is not need), but also while increasing productively by irrigating at the right time and amount for the crop in a sustainable and environmentally friendly approach. We aim to continue to refine the use of these tools to help our growers become more judicious in their irrigation practices, which is critical in light of recent erratic weather conditions that have impacted water availability in recent years.

We are looking for additional cooperators for 2018, please contact Darcy Telenko for more information.



Figure 2. The red circles mark selected locations in the two soil zone for irrigation experiments to determine their respective water-holding capacities. The plots of the soil water depletion profiles of the 10 cm (top) and 30 cm (bottom) sensors for the irritation experiments at Field 1.

## Produce Sales to Food Hubs and Auctions May Lead Small Farmers to Lose Qualified Exemption Under FSMA

Robert Hadad, CCE Cornell Vegetable Program

Under the FDA's Food Safety Modernization Act (FSMA) the regulations allowed for certain well-defined exemptions for some small farm operations. Here is a section of the regulations: The "Standards for the Growing, Harvesting, Packing, and Holding of Produce for Human Consumption" rule (21 CFR Part 112) (the "Produce Safety Rule") (80 FR 74353 (Nov. 27, 2015)) provides a qualified exemption and modified requirements for farms that meet two requirements: (1) The farm must have food sales averaging less than \$500,000 per year during the previous 3 years; and (2) the farm's sales to qualified end-users must exceed sales to others (See 21 CFR § 112.5). A qualified end-user is either: (1) The consumer of the food or (2) a restaurant or retail food establishment that is located in the same State or the same Indian reservation as the farm or not more than 275 miles away (See 21 CFR § 112.3.) Well-defined might not be too accurate. During the first pilot training of trainers back in December 2015 the language they used in the definition of "qualified exemption" caused questions to be asked concerning sales. They used the term "retail" very loosely in the context of selling produce to the end user. As mentioned above, the regulation allows for any farmer who grows more than \$25,000 and less than \$500,000 in total food sales with over

continued on next page

50% of the produce sold to a qualified end user within 275 miles from the farm then the farm can have a qualified exemption from most of the rules. There are still some parts of the rule that need to be followed such as documentation of sales, certain signage and labeling requirements and an annual review of their status under the qualified exemption.

The issue of qualified end user is the sticking point. At the training, the question was asked if an otherwise qualified exempt farm sells produce to a food hub who in turn sells to other enterprises, how does this relate back to the point where the word "retail" sales comes in from the language of the regulation. In other words if the produce isn't sold as strictly retail and the buyer is the not the end user, then how does this affect qualified exemption status? The FDA representative at the training couldn't answer the question but advised that we send the question to their Technical Assistance Network (TAN). This we did.

Two weeks ago (22 months later) an answer came back via email from the TAN clarifying the language of the regulation. They quoted the language as such, "A qualified end-user is either: (1) The consumer of the food or (2) a restaurant or retail food establishment that is located in the same State or the same Indian reservation as the farm or not more than 275 miles away (See 21 CFR § 112.3)". They go on to say that selling to a food hub is wholesaling and the hub sells the produce to nonconsumers. If more than 50% of the farm's sales are not retail then the farm would not be eligible for the qualified exemption. So the clarification then is both on who the end user is and what percentage of total food sales goes to retail or wholesale.

Food hubs are and will be an important source of sales for our growers. These buyers can offer produce farms, particularly those who are in more rural locations, better access to markets then they could probably afford individually. Collaborative marketing options are the future for the success of small family farms. Through farm food safety education from Cooperative Extension and other groups, having to deal with FSMA shouldn't be a huge hurtle.

After digesting the response from FDA, a new question emerged. If smaller produce farms are to lose the qualified exemption because sales to food hub is not retail nor an eligible end user, how will this affect produce auction growers?

When the final version of the rule came out a lot of attention was given to how the produce auction itself would be impacted by the regulations. Would it be considered a handling facility? The word eventually came that a produce auction would not fall under the Protective Preventative Controls section of the FSMA.

Based on the response from FDA to the food hub and qualified exemption for smaller farmers question we posed, what then is the impact for produce auction growers? The answer seems to be that they too lose their qualified exemption. Full compliance with the federal regulation will be required.

There doesn't need to be any panic over these turns of events. The federal rule requires a full day training on farm food safety using the Produce Safety Alliance (PSA) curriculum created with a lot of input from farmers. The PSA is housed within Cornell so the group is very tied to NY growers. Implementing farm food safety practices on the farm shouldn't seem like a daunting task. There are great training programs out there along with readily available support. Produce farmers shouldn't feel they are alone in trying to get all that is being asked of them accomplished. The produce sales markets are increasingly asking their growers to be following food safety practices. Some just want the growers to be trained. Others want growers to have and follow farm food safety plan. Still others want farmers to be certified through an audit scheme. In NY there are educational and financial resources available to help.

The time table for farms to meet the FSMA regulations are based on a sales scale. Implementation for farms with **food** sales over \$500,000 have until the end of January 2018. Growers between \$250,000 up to \$500,000 have till the end of January 2019. Smaller growers with **food** sales above \$25,000 to \$250,000 have to January 2020. For growers under \$25,000 in **produce** sales, are exempt except for labeling and documenting sales of receipt to prove exemption.

Notice the words *food* and *produce* in the categories. FDA has set this language on purpose. For the under \$25000 exemption, the sales calculation is based just on produce sales. For the other categories, the sales calculations includes all produce plus any livestock, livestock products, crops for livestock feed, and hay.

For more information, questions, or assistance, contact Robert Hadad,

rgh26@cornell.edu 585-739-4065 or a Cornell Cooperative Extension specialist or educator in your county. Look for dates and locations for farm food safety trainings on the Cornell National GAPs site <u>https://gaps.cornell.edu/</u> or the Cornell Vegetable Program webpage <u>https://</u>

<u>cvp.cce.cornell.edu</u> or the Eastern NY Commercial Horticulture Program site <u>https://</u> enych.cce.cornell.edu/ •



### Shifting Tillage Timing to Manage Weeds

Annie Klodd, Penn State University; orig. published on Integrated Weed Management Resource Center website, <u>http://integratedweedmanagement.org/index.php/2017/10/09/shifting-tillage-timing-to-manage-weeds/</u>

[Both organic and conventional growers can benefit from a deeper understanding of weed ecology and the use of multiple weed management tactics on their farms. Read below to see if the timing of tillage may help in your battle with annual weed species such as lambsquarters. The Integrated Weed Management Resource Center is full of useful information from top weed scientists in the Northeastern U.S. and beyond. You can also sign up to have email notices when new articles are published. ed. J. Kikkert, CCE CVP]

New research was published by weed scientists in New York, New Hampshire, and Maine that shows how shifting the timing of tillage operations can impact how many weeds, and which species, the field will experience that season. This data can be communicated as an example on how weed populations differ depending on when fields get tilled. In the Northeast region, the group's results can also be used by local farmers to better understand how they could potentially manage local weed populations by shifting when they till their fields.



Timeline of when common weed species emerge in central Pennsylvania. The thickest parts of the black bars represent peaks in germination. *Source: When Do Weeds Wake Up, <u>http://integratedweedmanagement.org/</u>wp-content/up/ads/2017/03/When-Do-Weeds-Wake-Up.pdf* 

While an increasing number of conventional row crop farmers in the Northeast region are moving away from tillage in favor of no-till systems, organic row crop and vegetable farmers in the region rely on it and other mechanical and cultural tactics for weed management. It is well known that tillage can reduce emerged weeds, as well as prevent weed seeds from germinating. However, it can also stimulate emergence of other weed seeds, by providing the soil disturbance that they need to come to the surface and germinate. Paired with the fact that different weed species emerge at different times throughout the growing season, this means that the timing of tillage events impacts the weed populations in a given field.

For example: Waiting to till until late May, after lambsquarter seedlings have already emerged, will kill any emerged seedlings and lead to a lower population of lambsquarter for the season. In their place, the field would likely be dominated by species that emerge later in the season after the tillage occurs. In contrast, tilling in April (prior to peak lambsquarter emergence in the Northeast) may stimulate higher lambsquarters emergence by bringing buried seeds to the surface and exposing them to light and warmer temperatures.

### The Northeast tillage timing study

While we understand these general trends, more specific and regional information is needed on tillage timing for weed management. Additionally, most current research has addressed how weed populations differ depending on whether the field is tilled in the fall or spring. More data is needed on how smaller shifts in tillage timing (like one or several weeks later in the season) will impact weed infestations.

To address this question, the researchers set up plots that were treated the same except that they were tilled on different dates. They did this in four locations: New Hampshire, Maine, and two in New York state.

In all locations, the total amount of weeds during the growing season was higher if the field was tilled earlier rather than later. However, the timing by which tillage would have to be delayed to increase weed management varied a lot by location.

In one of the New York locations, the abundance of weeds dropped substantially if tillage was delayed just two weeks, from May 13 to May 27. This is a promising result, because it shows that in at least some cases, farmers may be able to delay tillage just a couple of weeks to increase weed control, while still having time to plant corn or soybeans.

However, in two of the locations a substantial decrease in weed abundance was only observed if tillage was delayed into the summer, past the point when many fields would be planted into for annual grain crops. However, in these cases they still found differences in the number and type of weed species that grew in the field, depending on how much they delayed tillage. For instance, dandelion and giant foxtail both reacted strongly to tillage timing. Different types of weed species (grasses vs. broadleaves, for example) reacted differently to changes in tillage timing. Some of them emerged more if tillage was delayed, while others decreased in abundance or did not change substantially. So even in these cases, shifting tillage from week to week still impacted the weed community in the field.

Shifting tillage, and thereby shifting the density and types of weeds that are in the field, can help farmers better address those weeds with cultural management tactics or perhaps target certain species of higher concern. This study highlights the importance of considering the timing of tillage into an integrated weed management plan.

### 2018 BECKER FORUM – FARM EMPLOYMENT PRACTICES: PLANNING FOR THE FUTURE Monday, January 15, 2018 | 8:30 AM registration Holiday Inn Convention Center, 441 Electronics Parkway, Liverpool, NY 13088 \$95 before January 5, 2018; \$120 after January 5 or at the door

The 2018 Becker Forum will take place on Monday, January 15, one day prior to the opening of the Empire State Producers Expo. 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.

Featured speaker Kristi Boswell from USDA will provide an overview regarding her agency's activities aimed at improving opportunities for agricultural employers to attract and hire a qualified and legal workforce.

Other speakers will provide a review of changes in both state and federal laws as well as key employment practices to ensure labor law compliance. Belen Ledezma, New York State Monitor Advocate (NYDOL) will review key labor regulations and provide necessary posters for the farm workplace. In addition, Ann Margaret Pointer, attorney with Fisher Phillips, will review key components of federal labor laws that apply to farm employers with a focus on federal DOL inspections and housing.

The afternoon program will focus on information related to the H-2A Program. Current changes in the H-2A program will be highlighted. Since each year H-2A participation in New York increases, a panel of growers with experience using H-2A will guide forum participants through procedures that they used to effectively hire foreign-born H-2A workers.

A roundtable discussion with the speakers at the end of the afternoon will provide an opportunity for questions and discussion regarding critical workforce issues.

### PRODUCE SAFETY ALLIANCE GROWER TRAINING COURSE

Tuesday, January 16, 2018 | 9:00 AM - 5:30 PM

Session organized by Craig Kahlke, CCE Lake Ontario Fruit Team, and Robert Hadad, CCE Cornell Vegetable Program, and Elizabeth Bihn, Food Science, Cornell University

### Pre-registration is required and space is limited to 60. For cost and more details, visit http://nysvga.org/expo

Seven training modules will provide an in-depth understanding of farm food safety practices including worker health and hygiene, using soil amendments, wildlife and domestic animals and land use, production and postharvest water guidelines, postharvest handling and sanitation, and how to develop a farm food safety plan for your farm.

### **BERRY SESSIONS**

Tuesday, January 16, 2018 | 9:00 - 5:00 PM

Session organized by Laura McDermott, CCE ENY Commercial Horticulture Program, and Jim O'Connell, CCE Ulster Co.

Growing berries in NYS continues to be a dynamic and promising sector of agriculture. Dr. Courtney Weber kicks the day off with his take on the Industry Trends and the opportunities that are available for NYS growers. Following on his heels will be some new information from the University of New Hampshire about extending the strawberry season. Several well timed breaks will allow attendees plenty of opportunity to visit the trade show.

The final three sessions will focus on pest management. Weed management topics will highlight innovative approaches, including using a crimped cover crop in a berry system and the use of abrasive particles to control weeds organically. After a lunch break the berry session will reconvene and focus on diagnosing and managing soil-borne diseases in perennial strawberry systems. This is a major limiter for berry growers statewide. A hands-on diagnostic lab will help growers understand the complexities to field diagnostics.

The final session will be a Farmer to Farmer Session focused on managing Spotted Wing Drosophila. Growers can talk with other growers and share successes and challenges in this informal, guided conversation format.

All growers – organic, small, large, conventional, direct market, UPick etc – are encouraged to attend.

#### SNAP BEANS/PEAS

### Tuesday, January 16, 2018 | 9:00 AM - 10:15 AM Session organized by Julie Kikkert, CCE Cornell Vegetable Program

With a focus on large scale/processing crops, the session will begin with updates on herbicides available for use in green peas and snap beans by Dr. Mark VanGessel from the University of Delaware. Dr. VanGessel will also address management of perennial weeds in crop fields. Cucumber mosaic virus was a major cause of yield loss in snap beans in New York and Wisconsin when the virus-vector, the soybean aphid was at high populations a number of years ago. Dr. Brian Nault, Cornell and Dr. Russell Groves, University of Wisconsin-Madison will update us on the status of the soybean aphid and virus situation in snap beans. Lastly, a team of scientists from Cornell and the Rochester Institute of Technology are working to bring new technologies to the age-old problem of white mold disease in beans. Come hear what they are up to.

Watch for the full program to posted on the NYS Vegetable Growers Association website at https://nysvga.org/expo

### CABBAGE: KEY COMPONENTS OF WPS FOR CABBAGE CREW, THE DIFFERENCE VARIETY MAKES FOR BLACK ROT, HERBIDIDE TRIAL RESULTS

Tuesday, January 16, 2018 | 10:45 AM - 12:00 PM

### Session organized by Christy Hoepting, CCE Cornell Vegetable Program

Cabbage is a labor-intensive crop with crews needed for planting, hand weeding and harvesting. Therefore, this year's cabbage session will include subject matter to address this important component of cabbage production. New regulations for Worker Protection Standards (WPS) went into effect in 2017 with still more on the horizon. Don Nelson, from NYSDEC will address some of these new regulations particularly as they pertain to cabbage production. Where can I get EPA-approved training materials? How do I navigate the Ag exclusion zone regulations? What is the future of special permit training?

Since 2017 was, unfortunately, a good year for black rot, NYSAES Plant Pathologist, Chris Smart will provide her insight into the difference variety makes with respect to development, spread and severity of black rot among several locally grown cabbage varieties. Does black rot stay in the leaves, not move into the head and not reduce yield in a tolerant variety? Is copper bactericide a waste of time on a susceptible variety?

Finally, CCE Cornell Vegetable Program specialists, Christy Hoepting and Darcy Telenko will share their research results on pre-emergent weed control in cabbage featuring control of ragweed.

### **BEETS/CARROTS**

Tuesday, January 16, 2018 | 2:00 PM - 3:15 PM Session organized by Julie Kikkert, CCE Cornell Vegetable Program

With a limited number of herbicides available for beets and carrots, it may be time to reconsider cultivation techniques for these crops. Newly hired NYS IPM specialist Bryan Brown brings his background in cultivation techniques to Cornell and will provide a review of the principles of cultivation with a focus on small-seeded crops. Rounding out the session, Dr. Russell Groves will review management of insects in carrots and whether incorporating newer reduced risk insecticides may be right for your farm.

### EMERGING MARKETS – PROFITABLE LOG-GROWN SHIITAKE MUSHROOMS Tuesday, January 16, 2018 | 2:00 PM - 3:15 PM Session organized by Steve Gabriel, Cornell Small Farm Program

Join us to learn about the potential for profitable mushroom cultivation, with a focus on outdoor wood-grown methods. Cornell has been doing research and extension work in this crop for over 10 years. Participants will hear from extension educators and two active growers who have been participating in a business development network to get their enterprises off the ground. Learn the basic methods and requirements for growing, along with information on pricing, markets, and regulations around selling mushrooms.

#### WEED MANAGEMENT

### Tuesday, January 16, 2018 | 3:45 PM - 5:00 PM Session organized by Darcy Telenko and Julie Kikkert, CCE Cornell Vegetable Program

Newly-hired Cornell Specialty Crops Weed Management Scientist, Dr. John Wallace will discuss how to identify and control emerging weeds in New York Cropping Systems. Dr. Wallace has responsibilities for all horticultural crops and this session should be of interest to all growers. A question and answer period will follow and will allow for feedback on the needs of New York growers as Dr. Wallace begins to focus his research and extension program.

### BIOPESTICIDES: HOW THEY WORK, WHY THEY DON'T, AND IMPORTANCE OF FORMULATION ON ACTIVITY AND USE Wednesday, January 17, 2018 | 10:45 AM - 12:00 PM

### Session organized by Darcy Telenko, CCE Cornell Vegetable Program

The biopesticide market has rapidly been expanding and many have become prominent tools in crop management. There are over 300 active ingredients registered with the EPA, with many approved for organic production. Interest in this new class of products is also occurring in conventionally grown crops.

Many growers who have already incorporated biofungicides into their disease management programs feel they are improving disease control and/or crop health due to resistance-inducing activity. Dr. Alyssa Collins from Penn State University will discuss how biocontrol can be used for soilborne diseases – how they work and when they don't. Mila Pearce from BASF will then talk about the different formulations of biologicals and how formulation can impact activity and success. Don't miss out on this session about this rapidly expanding group of products and the best ways to incorporate on your farm.



Expo online registration will be available from the NYS Vegetable Growers Association at https://nysvga.org/expo

### UPCOMING EVENTS

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

### Improving Agriculture Labor Management Workshop Series

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

Your employees are your most valuable asset. Wages, salaries, and contract labor expenses represent more than 40% of the cost of production in labor intensive crops like fruits, vegetables, and nursery products. This series of labor relations workshops will help you become better at managing your farm's employees.

### Workshop 1 - Marketing your farm as a great place to work

Do you have a lot of staff turnover? Do you want to improve your communication skills with your employees? Learn to create a work environment that attracts and retains quality employees. You will leave with an assessment of your current employee management strengths and weaknesses, and an outline of an employee handbook that will help you articulate your farm's values to your employees.

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

Everyone wants to have employees who know what needs to be done without being told. But getting your employees to this point is the hard part. We will help you develop a process to move your employees to this point more quickly. You will develop clear job descriptions, learn techniques in hiring, and training new staff and using just in time feedback and performance appraisal to both correct problems and motivate your staff.

### Workshop 3 - Keeping good staff when money is tight & managing conflict in the workplace

Although everyone likes to be paid, money is not the only, or even most important, motivator for staff retention and performance. This workshop will cover research on rewards and incentives in the workplace to learn tools to attract and retain staff and reduce staff turnover. Workplace conflict can be very demotivating for everyone. We will discuss and role-play managing conflict on the farm, terminating employees and managing employee departures.

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

This is the workshop that covers the nuts and bolts of risk management as an employer. This workshop will give you resources to help you comply with labor laws and regulations as well as mandated and recommended worker safety training. Representatives from the NYS DOL Ag Labor Program will be invited to present as well as NYCAMH. Participants will leave with an assessment of their farm's exposure to risk from having employees and strategies for reducing that risk.

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

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

To attend in Canandaigua, visit http://www.cceontario.org/temp2.asp?id=ag-workshops#Improving Agriculture Labor Management Series 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 for more details.

### Winter Storage School: Vegetable Crops

November 30, 2017 | 9:30 AM - 3:30 PM Gideon Putnam, 24 Gideon Putname Rd, Saratoga Springs, NY 12866

Keeping storage crops all winter requires healthy crops to start and storage conditions tailored to the needs of each vegetable. Join us to learn about the key crop considerations that affect long term storage, vegetable storage conditions specifics, cooler construction, controls and thermostats. Speakers include Chris Callahan, Assistant Extension Professor of Agricultural Engineering, University of Vermont; Crystal Stewart, Eastern NY Commercial Horticulture Program Vegetable Specialist; and Jean-Paul Courtens, Hudson Valley Farm Hub & Roxbury Farm. See the meeting flyer and agenda for further details on this event at https://enych.cce.cornell.edu/events.php

Cost: \$40 for ENY Commercial Horticulture Program enrollees (\$20 additional guests from the same farm) / \$45 for all others (\$25 additional guests from the same non-enrolled farm). Lunch included. Register online or call Abby Henderson at 518-746-2553.

### 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.

### **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). More will appear in the next issue of VegEdge.









### Please Participate in Our Online NEWA Survey – Help Us Build Our New Website

Dan Olmstead, NEWA Coordinator, NYS IPM Program

The Network for Environment and Weather Applications (NEWA) wants you to take our online survey — it'll only take about 10 minutes of your time.

### Take the survey now:

### http://bit.ly/2x0n7CK

Whether you've used NEWA's online pest forecast models for years or have never used NEWA at all, we will benefit from your responses. Why? Because we are building a new website at newa.cornell.edu, one that'll be as easy to use on your smart phone as on your desktop, and we want to build it <u>the way you want it to</u> <u>be</u>.

NEWA is an online agricultural decision support system that uses real time weather data, streamed over the internet from 573 weather stations throughout the Northeast, Midwest and mid-Atlantic. NEWA provides insect and plant disease pest management tools, degree days, and weather information for growers, consultants, Extension educators, faculty, and others.

NEWA models and resources are available free of charge, and are used to make informed localized crop management decisions. The NEWA website will be upgraded soon and we want to know what users', new and old, want and need out of the new website.

All responses are anonymous and confidential and will not be shared with any outside group.

Thank you for participating!

### For more information:

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NEWA Coordinator, New York State IPM Program Cornell University, NYSAES 630 West North Street Geneva, NY 14456

NEWA is a Partnership of the New York State Integrated Pest Management Program and the Northeast Regional Climate Center. •





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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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### Cornell University Cooperative Extension Cornell Vegetable Program

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