

# Erie County Ag News

Cornell Cooperative Extension of Erie County

WINTER 2017



## UPCOMING AGRICULTURAL EVENTS AROUND WNY

### Seed to Supper

In February and March of 2017 CCE Erie will be offering a community training on Seed to Supper, a comprehensive beginning vegetable gardening curriculum designed for adults gardening on a budget.

See page 7.

### Baskets or Pallets

Course will cover building relationships with buyers, customer management & record keeping, pricing, grading & packaging, uniformity & consistency, and food safety, among many other topics!

March 1, March 22, April 5, & April 26, 2017 • Yorkshire  
See page 6.

### CORE Pesticide

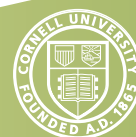
This training session is geared for individuals planning to take the CORE and Category Pesticide Certification Exam specific to the focus of their work.

March 10, 2017 • East Aurora  
See page 15.

### Veterinary Feed Directive

Informational meeting about the Veterinary Feed Directive (VFD) with guest speaker Dr. Cricket Johnson Seward.

February 21, 2017 • E. Aurora  
See page 6.



# Ag Staff



## Sharon Bachman

Community Educator

Sharon wears many hats including Invasive Species Management Integrated Pest Management in the areas of fruit, field crops and forestry; Agricultural Environmental Management Practice Education; Soil Testing and Nutrient Management; Pesticide Use and Safety; Diagnostics in coordination with Cornell faculty and staff; and Master Gardener Technical Support.



## Megan Burley

Farm Business Management Educator

Megan works with all farmers from rural to urban, dairy to small fruit from a farm business management perspective.

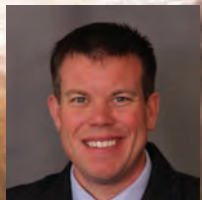
She is also working with refugees in Buffalo on a Beginning Farmer Project and runs a beginning farmer discussion group.



## Eva McKendry

Administrative Assistant

Eva designs the Erie County Ag News, creates graphics and support materials for CCE-Erie, updates much of the content on our website, and keeps you up to date with social media. She is happy to answer your questions and register you for our classes.



## Carl Moody

Regional Dairy Processing Specialist, Harvest NY

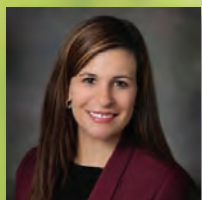
Carl works extensively with area manufacturers, educators, and the community to provide training and increase awareness of the products and career opportunities within the dairy industry in western New York.



## Darcy Telenko

Vegetable Specialist for the Cornell Vegetable Program

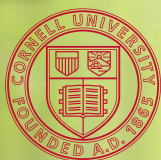
Darcy's programming focuses on Fresh Market Vegetable Production with emphasis on weed, and disease management. She is also part of the newly established Climate Smart Farming Extension Team.



## Cheryl Thayer

Local Food Distribution & Marketing Specialist, Harvest NY

Much of Cheryl's programmatic work focuses on finding solutions to some of the more pressing systemic barriers that hinder the development of the regional food system in Western New York.



**Cornell University**  
Cooperative Extension  
Erie County

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# CCE and Eden Valley Growers:

A partnership that produces

by R.J. Anderson, Cornell

Strong friendships typically spring from deep roots. That is certainly the case with Cornell Cooperative Extension (CCE) and Eden Valley Growers, Inc., a 50-year-old vegetable growing farm cooperative in western New York. It's also why CCE recently honored Eden Valley Growers with its 2016 Friend of Extension award.

"Excellent extension and research programming is not possible without grower involvement and that is where Eden Valley Growers comes into the picture," said CCE Director Chris Watkins during the keynote address at the Friend of Extension luncheon on Dec. 2, held at Cornell University's Moakley House. "Their member farms are key in connecting university research to real-world farm utility."

Based in Eden, New York, Eden Valley Growers consists of ten member farms, most of which are third or fourth generation. Members use the co-op for marketing and distribution of produce. Each year, the cooperative ships over half a million cases of fruits and vegetables throughout the United States.

For more than 30 years, the Friend of Extension award has been presented by Cornell Cooperative Extension and Epsilon Sigma Phi to recognize truly outstanding support of and personal involvement in Extension efforts.

In nominating Eden Valley Growers for the award, CCE of Erie County Executive Director Diane Held and CCE Erie Farm Business Management Educator Megan Burley along with Cornell Vegetable Team Specialist Darcy Telenko described members of the cooperative as always willing and able to answer questions from CCE educators, host farm tours and sit on panels for a grower workshops. In addition, Eden Valley Growers advise CCE staff on research projects and have participated in hiring searches to fill positions on CCE's Cornell Vegetable Team.

On hand to accept the award were representatives from member farms Henry W. Agle & Sons, Amos Zittel & Sons, W.D. Henry & Sons, MCR Farm and D. & J. Brawdy Farms. In accepting the award, Mark Zittel told the audience that the relationship between Eden Valley Growers

and CCE is a symbiotic one and that CCE provides unbelievable resources for vegetable growers throughout the state. The most important of those resources, he said, are extension specialists such as Telenko, who are wholly committed to assisting the cooperative's member farms.

Watkins said those farms in turn provide an important conduit for extending Cornell's research and agriculture expertise. "The member farms' support and willingness to host research trials and implement Cornell recommendations allows CCE to provide current solutions that keep the vegetable industry thriving across the state," said Watkins. "We are honored to call Eden Valley Growers a true Friend of Extension."



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Thank you to  
R.J. Anderson,  
Communications  
Specialist III  
at Cornell  
College of  
Agriculture and  
Life Sciences  
for sharing this  
story and photo.



## Erie County Farm Spotlight

### Thriving on Diversity

by Sally Colby. Reprinted with permission from Country Folks Grower, Lee Publications

When Mike and Gayle Thorpe started farming in East Aurora, NY as first generation farmers in the early 1980s, organic operations in western New York weren't common.

"They started switching to organic in the 1990s," said Abigail Thorpe, one of Mike and Gayle's six adult children who are now on the farm. "My dad was growing field crops and my mom was focusing on fruits and vegetables. They started switching strawberries to organic in the 1990s, and that was when the organic movement was starting to take hold in western New York. The entire farm became certified in 1999."

Today, the Thorpes farm about 2,700 certified organic acres, which includes both owned and leased land. The acreage includes a 200-acre certified

organic woodlot, which was one of the enterprises that pulled the family through the lean times as the farm was becoming established. "In winter, they sold firewood," said Abigail. "We have a gravel pit on the farm, and my dad built ponds, constructed driveways and plowed snow."

Abigail recalls that the transition to organic wasn't a big stretch because her parents had already been limiting pesticides and herbicides on crops. However, there was a considerable learning curve when it came to balancing cover crops, pest management, crop rotations and building healthy soil. She added that other area farmers were doubtful that the family would be successful as organic farmers, considering the additional time and effort require for organic production.

But the Thorpes were determined to build a successful farm, and received organic certification in 1999. Today, the Thorpes grow 700 acres of corn, 700 acres of soybeans, 400 acres of oats, 300 acres of triticale along with 25 acres of berries and 75 acres of vegetables; all certified organic.

The grain crops are sold to local feed mills for organic feed, and some of the straw is used for mulch and for bedding the livestock raised on the farm. Last year, after years of selling vegetables and small fruits from several versions of roadside stands, the family constructed a year-round market facility that includes a bakery.

Since cover crops are an integral aspect of weed and pest control in an organic system, the Thorpes are careful to plan such crops for both their field and vegetable rotations. "For vegetables, we use Austrian winter peas, oats, hairy vetch," said Gayle, describing the cover crops. "For the field crops, red clover is seeded in spring and drilled with oats or triticale. It grows and is mowed down, then it comes back in fall and puts on a larger plant and roots. Sometimes we'll harvest it for haylage. Then in spring it grows back again before it's plowed back under. Austrian winter peas and vetch are planted in late summer and grow through fall, then in spring they start to grow again. We plow them under before they get too large, but we want them to have the maximum amount of carbonaceous material between the tops and roots. The also produce nitrogen for the coming crop. We grow alfalfa, and vegetables will often follow alfalfa hay. Sometimes we plant oats for vegetable cover crop, then plow those under the following year."





In addition to the farm market, the Thorpes have marketed vegetables and small fruits through the farm's CSA for 14 years. "It wasn't a familiar concept around here when we started it," said Abigail, adding that they had about 20 members at first. "It wasn't easy to convince people to give up money ahead of time to buy vegetables. People have to be creative – they have to be okay with having an abundance of one thing and a shortage of something else. But it has worked well for us over the years." Today, the Thorpes average about 500 CSA shares for their summer program.

Abigail says that when they started the CSA, the family was growing vegetables that were unfamiliar to many of their customers. Items such as watermelon radishes, kohlrabi and celeriac weren't common in local grocery stores but grew well in the region. "For the first few years of the CSA, people didn't take those items," she said. "Especially kohlrabi. Now, the vast majority of our customers are familiar with it, they know how to prepare it and enjoy using different vegetables."

In addition to growing customer favorites, the family experiments with and promotes new and different vegetable varieties. "The explosion of food literature has been huge," said Abigail. "All of the different cookbooks, food blogs, television food shows and social media have been great for farmers. They do a great job introducing people to fruits and vegetables that have been overlooked for so long."

During the growing season, Gayle spends a lot of time taking notes about each crop. "She keeps detailed records of every variety grown, how well it produced in that year's growing conditions, flavor, appearance, how well the customers liked it," said Abigail. "She loves to experiment. For instance, with broccoli, she'll grow two

or three of the standard varieties we know we like, and try a couple of new ones."

Thorpe's Organic Family Farm added a winter CSA when they started growing citrus fruit in Florida about seven years ago. Gayle explains that the first 15 acres they purchased was already certified organic, which made the learning curve easier. "Then we bought the adjoining



40 acres, and that had to be mostly replaced," she said, explaining how she and Mike spend five months of the year. "We transitioned it all to organic – it will be organic in January." Because some of the varieties on the 40 acres were susceptible to citrus greening, those trees were removed and replaced with more popular eating varieties. Since they were already working in the citrus grove, the Thorpes added peach trees and planted vegetables between the rows. Although Mike and Gayle used to haul fruit and vegetables to New York themselves, they've switched to using a transporter so they can focus their efforts on growing.

The citrus grove includes a variety of oranges, red and white grapefruit, lemons and pomelos. Since Mike and Gayle are in Florida during the winter months, they grow several vegetable crops along with the citrus fruit. "She grows salad greens, tomatoes, strawberries, eggplant, zucchini, peppers and herbs," said Abigail. "But growing in sand is a lot different

than growing up here in New York, so she's been experimenting with different varieties."

Abigail says that she and her siblings have a lot of ideas, and take advantage of down time during the winter to discuss potential

changes for the farm. "That's something I really enjoy," she said. "The implementation of change, and trying to figure out what our customers want. The CSA wasn't popular at first, then it became popular.

Now I'm wondering if more people will want to shop at the farm store so they have more flexibility. It's a fun challenge trying to adapt to what our customers want and how to meet their needs."

The Thorpes will attend the upcoming NOFA-NY (Northeast Organic Farming Association of New York) in Saratoga Springs in January, where they will be recognized as that organization's 2017 Farmers of the Year.

Visit Thorpe's Organic Family Farm on line at [www.thorpesorganicfamilyfarm.com](http://www.thorpesorganicfamilyfarm.com). ■

# Veterinary Feed Directive

## Informational Meeting

February 21<sup>st</sup> • 7 PM • Free • East Aurora, NY

Cornell Cooperative Extension of Erie County will be hosting an informational meeting about the Veterinary Feed Directive (VFD) with guest speaker Dr. Cricket Johnson Seward, area state field veterinarian with the NYS Dept. of Agriculture and Markets.

This informational meeting will be held at Dard Hunter Hall, Cornell Cooperative Extension of Erie County, 21 South Grove Street, East Aurora, on Tuesday, February 21, 2017 at 7:00 pm.

This meeting will explain what the new Veterinary Feed Directive is, define what a valid Veterinary Client Patient Relationship is if a VFD order is needed, and provide detailed information on this new FDA regulation to ensure the proper use of medically necessary antibiotics in food producing animals. There will also be discussion on what the status of "minor species" (sheep, goats, and bees) is and how this may affect your farming practices.

All livestock farmers, and 4-H and FFA youth who raise livestock are encouraged to attend this open meeting to learn more about an important new regulation in the agricultural industry.

Please RSVP to Eva McKendry by Friday, February 17, 2017 at [ebm73@cornell.edu](mailto:ebm73@cornell.edu) or call 716-652-5400 x 176 to be sure that an adequate number of materials will be available. ■



## BASKETS or PALLETS

FOR BEGINNING FARMERS  
SCALING UP TO MEET YOUR MARKET CHANNEL



# WEDNESDAY EVENINGS

## 6:30 - 8:30 PM

PIONEER HIGH SCHOOL CAFETERIA • \$75/FARM

MUST PRE-REGISTER BY SEPTEMBER 27<sup>TH</sup>

FIRST COME-FIRST SERVE. PRIORITY GIVEN TO ACTIVE OR RETIRED MILITARY VETERANS.

12125 COUNTY LINE RD. YORKSHIRE, NY

March 1  
March 22  
April 5  
April 26

Marketing and Business Style  
SWAT analysis and business planning  
Record Keeping  
Production for Meat and Vegetable Producers

### 6 Field trips will be offered for more hands on learning:

Navigating Sales Through Produce Auctions – Centerville, NY  
Carcass evaluation – Hunt, NY  
Packing and grading Vegetables – Eden NY  
High Tunnel production – Warsaw, NY  
Urban Farming – Buffalo, NY  
Value Added-location to be determined

For more information or to REGISTER, contact Megan Burley, CCE-Erie • (716) 652-5400 ext.138 • [msb347@cornell.edu](mailto:msb347@cornell.edu)  
or Register online at: [erie.cce.cornell.edu/](http://erie.cce.cornell.edu/)



Cornell University  
Cooperative Extension



This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2015-70017-22882



## Deer Advisor Website Being Developed by CCE's Human Dimension Unit

Cornell and The Nature Conservancy's goal for the deer advisor web site is to help communities connect with resources and best practices for deer management by offering science-based decision support for the difficult decisions needed to make communities healthier, safer places to live—for both deer and people. (deeradvisor.org) As many communities are teaming up with wildlife experts, academics and agencies to develop community-based deer management plans, the team hopes this website may be a helpful resource throughout the decision-making process. If you have any comments about the website, they can be sent to Emily Pomeranz, PhD Candidate, Human Dimensions Unit in Cornell's Department of Natural Resource at [efp33@cornell.edu](mailto:efp33@cornell.edu). ■

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## New Factsheets from Cornell's Nutrient Management SPEAR Program

New information available from the the Cornell Nutrient Management Spear Program (NMSP) website

Dr. Quirine M. Ketterings, Professor of Nutrient Management with the Nutrient Management Spear Program (NMSP) in the Department of Animal Science in mid-December provided an update of information released from her program including four new Agronomy Factsheets including Factsheets: #92: **Guidance for Growing BMR Brachytic Dwarf Forage Sorghum**, #93: **Cover Crops for Field Crop Systems**, #94: **Forage Quality Parameters Explained**, and #95: **Improving Aggregate Stability**.



## Join Seed to Supper in 2017:

A beginner's  
guide to  
low-cost  
vegetable  
gardening

by Sharon Bachman  
Community Educator

Become a trained volunteer Garden Educator. In February and March of 2017 CCE Erie will be offering a community training on Seed to Supper, a comprehensive beginning vegetable gardening curriculum designed for adults gardening on a budget. Seed to Supper in New York is offered by Cornell's Garden Based Learning program in partnership with New York's Food Banks and Extension offices to build more food secure communities — places where all people at all times have access to enough food for a healthy life. Increasing community food security — whether urban, suburban or rural — through programs in gardening, nutrition education, advocacy, and community organizing goes hand-in-hand with CCE's work to help people living with low incomes meet their short-term food needs.

Those trained will be asked to join with such as their local food pantry to lead Seed to Supper classes to train others and implement the practices learned. The classes will be facilitated locally at a city location and will connect back to Cornell via webinar for student led presentation. Classes will be held Monday afternoons, with the 5-part series starting on February 27th.

If interested in participating or for more details, contact Sharon Bachman at 716-652-5400 x 150 or [sin2@cornell.edu](mailto:sin2@cornell.edu). Through an Engaged Cornell Project, we will have a undergraduate intern supporting our Seed to Supper efforts in Erie County this summer. ■

They have also posted an Impact Story: **Hosting NMSP Double-Crop N Rate Study Proves Useful to Curtis Martin's Farm** and a recent *What's Cropping Up?* Article: **Stalk-nitrate-test-results-for-new-york-corn-fields-from-2010-through-2016**.

Follow this web address <http://nmsp.cals.cornell.edu/> and look for the 'Featured Links' section in the center of the page. ■

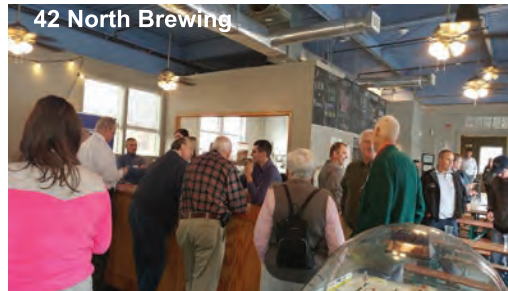
# Cheese – Keep it Coming!

by Carl Moody, Regional Dairy Processing Specialist, Harvest NY

On December 2nd 2016; Harvest NY collaborated with NYS Department of Agriculture & Markets and the Central Atlantic States Association for Food and Drug Officials to hold a cheese making and evaluation workshop held at 42 North Brewing in East Aurora, NY.

In attendance were 39 individuals from organizations such as New York State Agriculture & Markets, the Food and Drug Administration, local grocery chains (Tops and Wegmans), and representatives from many local food and dairy manufacturing companies.

In the first portion of the class, Charles Lindberg, Milk Control Program Manager with New York State Agriculture and Markets instructed the students on the fundamentals of the cheese making process. Explanation of the different steps involved as well as the differences between different types of cheese were explained. Each student was given 4 samples of cheddar cheese produced at different manufacturing facilities across the state. They were then coached through the process that a cheese judge would go through to evaluate these cheeses and identify defects that are present. These defects can include texture, flavor, and appearance defects. The cheeses were evaluated and a clear favorite emerged.



Following the cheese evaluation presentation a second presentation was given by Harvest New York Dairy Processing Specialist, Carl Moody, which sought to give exposure to various artisan cheese processors present in Western New York. Each cheese was paired with a beer

produced at the 42 North Brewery and the brew master helped in the presentation by giving a description of the locally produced beer and how it complements the complex flavors of the cheeses.

The first cheese factory was Reverie Creamery – Mayville, NY (Chautauqua County). Reverie Creamery and its head cheesemaker, Riko, produce a Tomme Style cheese they call Tom which won Gold at the 2016 State Fair dairy products competition for farmstead hard artisan cheese. Tom is a rustic cheese in appearance with a thin gray edible rind and an earthy aroma; the texture is open, smooth and buttery. The Reverie Creamery offers tours and has a cheese shop present on-site at the facility to purchase their cheeses. The next time you are visiting Chautauqua Lake make sure to stop at the Reverie Creamery.

[www.reveriecreamery.com](http://www.reveriecreamery.com)



The second cheese tasted was Underpass produced at the East Hill Creamery from Perry, NY (Wyoming County). The underpass cheese is a Raclette style cheese with a smooth and creamy texture.



CCE of Erie  
County  
**Erie County  
Master  
Gardeners**  
Offer College  
Scholarship

Erie County, N.Y. – All graduating seniors from Erie County high schools are invited to apply for a 2017 scholarship to study horticulture, botany or related field at an accredited NYS college or university. Amount of scholarship(s) will be up to \$500.

Applications and information may be obtained at [erie.cce.cornell.edu/gardening/](http://erie.cce.cornell.edu/gardening/) and select the 2017 Master

Gardener Scholarship option. OR [erie.cce.cornell.edu/gardening/-2017-cce-erie-county-master-gardener-scholarship](http://erie.cce.cornell.edu/gardening/-2017-cce-erie-county-master-gardener-scholarship).

All applications must be received by March 1, 2017 at the CCE Erie County office, 21 S. Grove St., East Aurora, NY 14052.





East Hill Creamery

This semi-hard alpine style cheese is known for its ability melt and is at its best when used in cooking. The East Hill Creamery has a cheese shop on-site at their impressive cheese making facility in Perry, NY. The owners, Gary and Betty Burley, welcome customers to come see the process, taste the cheeses and purchase some to eat on their way to Letchworth State Park.

[www.easthillcreamery.com](http://www.easthillcreamery.com)



Third was an aged Gouda which was produced at Jake's Gouda, from Deansboro, NY (Oneida County). The aged Gouda produced at Jake's Gouda is aged a minimum of 6 months to develop distinct sharpness and saltier finish.

[www.jakesgouda.com](http://www.jakesgouda.com)



The fourth cheese tasted was a Feta cheese from Lively Run Goat Dairy in

Lively Run



Interlaken, NY (Seneca County). This feta cheese is aged for one month in salt brine where it develops its characteristic salty flavor and crumbly texture that is perfect for use in salads and other recipes. [www.livelyrun.com](http://www.livelyrun.com)

The fifth and final cheese tasted was saved for the end because of its strong and piquant flavor – the Muranda Blue Cheese from the Muranda Cheese Company in Waterloo, NY (Seneca



Muranda Cheese Co.

County). Tom Murray and his family produce a strong raw milk blue cheese which is aged for at least 2 months and is perfect for the blue cheese lover in your family. The Muranda Cheese Company has a large tasting room which is a perfect stop on any trip to the Finger Lakes region.

[www.murandacheese.com](http://www.murandacheese.com)

The reception for the 2.5 hour presentation was very positive and Harvest NY hopes to offer this class again in 2017 in Erie County. ■

## NWNY Team to Host Forage Congress

New to the team's lineup this year is Forage Congress scheduled for February 28<sup>th</sup> at the Genesee River Restaurant & Reception Center, 134 N. Main St, Mt. Morris. This event covers timely topics recommended by the team's advisory committees.

Registration fee is \$35 per person for those enrolled with the NWNY team, \$50 if not enrolled; includes lunch. Certified Crop Adviser credits will be available.

PLEASE PRE-REGISTER to guarantee a lunch: Call Cathy Wallace, 585.343.3040. ext. 138 or [cfw6@cornell.edu](mailto:cfw6@cornell.edu). Registration is also available on the team's website at <http://nwnyteam.cce.cornell.edu/> under Upcoming Events. ■



# New Precipitation Models for NYS

## Extreme Precipitation Projections to Help New York State with Planning

Arthur T. DeGaetano, Professor, Earth & Atmospheric Sciences  
Director, Northeast Regional Climate Center, Cornell University

Millbrook, NY, January 17, 2017 – Hurricanes Irene, Sandy, and Lee are examples of extreme precipitation events that have caused destruction and deaths in New York State. In 2009 alone, 175 total flooding events in New York State led to \$32.82 million in property damage. The state is also still recovering from the \$42 billion dollar toll of Superstorm Sandy, among others. Climate change is resulting in an increase in the frequency of heavy rainfall events. To help New York State communities plan for effects of climate change, new graphics are now available showing the increased likelihood of heavy precipitation events. These graphs, called Intensity Duration Frequency (IDF) curves, show anticipated increases of storm events from 2- to 100-year intervals, and are projected into the future as far as 2099. They can be found at <http://ny-idf-projections.nrcc.cornell.edu/>. These products are designed for use by municipal officials, researchers, planners, highway departments, and other decision-makers who need to take storm events into account. These IDF curves display how precipitation events are being affected by New York State's rapidly changing climate.

In New York State, average summer and winter temperatures have been increasing since 1970 (2° F in summer and 4° F in winter). We are also expected to experience more extremely hot days and fewer cold winter days per year. These changes are affecting the water cycle, resulting in climatic effects such as an increase in the frequency and intensity of extreme precipitation events in the northeastern U.S. These changes could negatively impact society and lead to further distress for the State of New York.



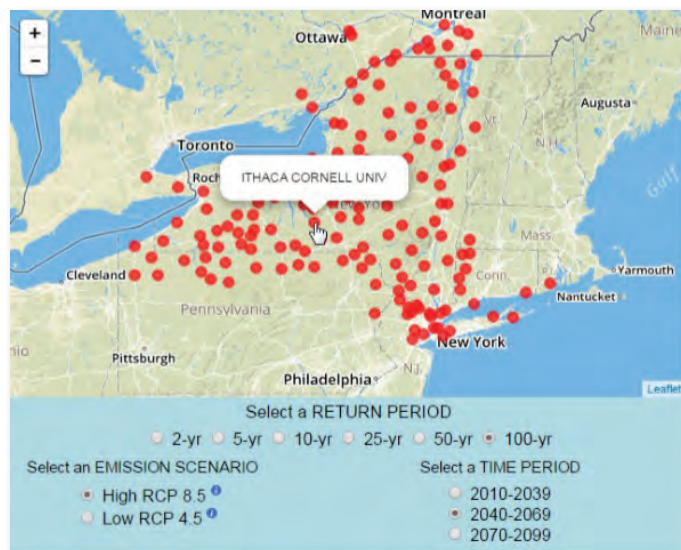
Flooding in Albany, NY in August 2014.  
Photo by All Over Albany.

In preparation for these impacts, the Department of Earth and Atmospheric Science at Cornell University has partnered with the New

York State Energy Research and Development Authority (NYSERDA) to downscale global climate model outputs and create extreme precipitation projections that will ultimately be incorporated into climate change adaptation planning for New York State. Christopher M. Castellano and

Arthur T. DeGaetano completed this project through the Department of Earth and Atmospheric Science at Cornell University.

Communities can use these projections to aid in planning for more resilient communities by understanding the increased likelihood of major precipitation events. Flood levels may be reassessed, floodplain maps and codes may be adjusted, and culvert and bridge crossings may be altered to account for the likelihood of extreme weather. The website



Map of weather station locations used for modeling from [HTTP://ny-idf-projections.nrcc.cornell.edu/](http://ny-idf-projections.nrcc.cornell.edu/).

allows users to examine specific data throughout New York. Users can choose different locations, return periods (e.g. a “100-year” storm event), and greenhouse gas emission scenarios. Information is presented in several types of maps and charts to visualize how severe a storm event may be expected in different parts of the state.

Take a look at the website to familiarize yourself with these models and better understand expected changes in our climate. <http://ny-idf-projections.nrcc.cornell.edu/>.

A short video also helps explain the models: <https://vimeo.com/187831975> ■





Private landowners, American Indian tribes and eligible entities are encouraged to apply by January 31st 2017 for the Wetland Reserve Easements (WRE) components of the Agricultural Conservation Easement Program (ACEP). The Agricultural Land Easements (ALE) component of the Agricultural Conservation Easement Program (ACEP) will have two application filing deadlines, January 31st, 2017 and February 24th 2017.

United States Department of Agriculture's Natural Resources Conservation Service (NRCS) in New York is making available up to \$3,978,708 in financial and technical assistance through the Agricultural Conservation Easement Program (ACEP).

"Conservation easements are an important tool to help eligible landowners and partners voluntarily provide long-term protection of our nation's farmland, ranchland, wetlands and grasslands for future generations," Gregory A Kist, State Conservationist for New York, said. "NRCS helps farmers, ranchers, private forest landowners and partners achieve their conservation goals using our technical expertise, Farm Bill funding and sound conservation planning."

NRCS in New York obligated 3.2 million in ACEP funding to enroll an estimated 970 acres of farmland, ranchland, grassland

and wetlands through ten new easement applications in fiscal year 2016.

Wetland Reserve Easements allow landowners to successfully restore and protect habitat for wildlife on their eligible lands, reduce impacts from flooding, recharge groundwater and provide outdoor recreational and educational opportunities. NRCS provides technical and financial assistance directly to private and tribal landowners to restore, protect and enhance wetlands through the purchase of these easements. Eligible landowners can choose to enroll in a permanent or 30-year easement; tribal landowners also have the option of enrolling in 30-year contracts.

Agricultural Land Easements allow eligible farmers and ranchers to work with eligible partners to enroll productive farmland and "grasslands of special environmental significance" into ALE. American Indian tribes, state and local governments and non-governmental organizations that have farmland or grassland protection programs are eligible to submit applications and partner with NRCS to purchase permanent conservation easements. ACEP's Agricultural Land Easements not only protect the long-term viability of the nation's food supply by preventing conversion of productive working lands to non-agricultural uses, but they also support environmental quality, historic preservation, wildlife habitat and protection of open spaces.


While ACEP applications may be submitted to NRCS at any time, ACEP – WRE applications for the current funding round must be submitted by January 31st, 2017. Applications for ACEP – ALE must be submitted by an eligible partner by either January 31st or February 24th

WRE applications are available at local USDA Service Centers.

Application materials for ACEP-ALE may be found on the NRCS-New York ACEP website.

To learn more about ACEP and other technical and financial assistance available through NRCS conservation programs, visit the NRCS-New York ACEP web page. To learn more about technical and financial assistance available through other NRCS programs nationally, visit NRCS' Get Started web page or your local USDA Service Center.

You may also Contact: Peter Gibbs, Easement Program Manager at 315-477-6543 for more information. ■

A graphic of a corn cob with yellow kernels, set against a green background that resembles a corn leaf. The text "2016 Corn Silage Variety Trial Report Available" is overlaid on the graphic.

## 2016 Corn Silage Variety Trial Report Available

The 2016 Corn Silage Variety Trials full report is now available at <http://bit.ly/2i6JR9o>. The Variety Trial report is put together by Cornell Pro-Dairy, the Department of Plant Breeding and Genetics and the Department of Animal Science. ■

# WNY Fresh Market Vegetable GROWER MEETING

offered in three convenient locations across our region

**February 9, 2017**

8:30 AM - 3:30 PM

CCE Cattaraugus County  
28 Parkside Drive  
Ellicottville, NY 14731

Register by February 6



**February 15, 2017**

8:30 AM - 4:00 PM

CCE Erie County  
21 South Grove Street  
East Aurora, NY 14052

Register by February 10



**March 7, 2017**

8:30 AM - 3:30 PM

CCE Wayne County  
1581 NYS Route 88 N  
Newark, NY 14513

Register by March 2



The CCE Cornell Vegetable Program is hosting Fresh Market Vegetable Meetings in three locations in western New York. Regional Vegetable Specialists will provide an update on wildlife management, high tunnel nutrient management update, vegetable disease and weed management update including the new iPiPE Program in vegetables, new Climate Smart Farming Tools, an update on Food Safety and Modernization Act and what you need to do for your farm, and other regional research and program updates. The afternoon will consist of a Cover Crop and Soil Health Workshop covering approaches to Phytophthora management, biofumigants, herbicide rotation restrictions, and climate smart farming tools. Dr. Mary Hausbeck from Michigan State will be joining the workshop on February 15 in East Aurora to discuss her work on Phytophthora management.

For more information, call Darcy Telenko at 716-652-5400 x178.

For DEC credit, bring your DEC card and sign-in at the registration desk within the first 5 minutes of the first presentation, then the roster will be closed. You must attend the entire meeting to receive credit. The rosters will be turned into the DEC for credit.



## REGISTER

ONLINE at [CVP.CCE.CORNELL.EDU/EVENTS.PHP](http://CVP.CCE.CORNELL.EDU/EVENTS.PHP), MAIL using the form below, or CALL 716-652-5400 x178.

**\$20 Cornell Vegetable Program enrollees; \$25 all others. Lunch included and guaranteed if pre-registered.**

Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.



### WNY FRESH MARKET VEGETABLE GROWER MEETING

This meeting is being offered in 3 locations. **CHOOSE THE LOCATION** you wish to attend ==> ☐ Ellicottville ☐ East Aurora ☐ Newark

Name \_\_\_\_\_

\$20 CVP enrollee

\$25 all others \$ \_\_\_\_\_

Farm/Business Name \_\_\_\_\_

Additional Attendee(s)  
(from the same farm) \_\_\_\_\_

\$20 CVP enrollee

\$25 all others \$ \_\_\_\_\_

Address \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

TOTAL DUE \$ \_\_\_\_\_

Make checks payable to: **Cornell Cooperative Extension**

Detach and return this form with payment to:

CCE Erie County, Attn: Eva McKendry, 21 South Grove St, East Aurora, NY 14052



**Cornell University**  
Cooperative Extension



# Extension Hosts New York Fruit and Vegetable Growers

by R.J. Anderson/Cornell Cooperative Extension

For commercial fruit and vegetable growers in New York state, winter is a time of reflection, preparation and guarded optimism. It's also a time to hone one's craft through continuing education and consumption of research-based analysis.

A buffet of that insight drew more than 800 attendees to the 2017 Empire State Producers Expo, Jan. 17-19 in Syracuse, New York. Co-hosted by the New York State Vegetable Growers Association and Cornell Cooperative Extension (CCE), the event featured Cornell scientists, CCE educators and experts from across the country presenting on topics including weed, wildlife and pest management; food safety; best growing practices; and business development tactics.

Tree fruit growers found sessions especially helpful as standing-room-only crowds packed the Syracuse Oncenter's ballroom for the morning and afternoon sessions. Kicking off the day, retired Cornell plant pathologist David Rosenberger detailed sudden apple decline, a troubling condition killing young apple trees across the state that has puzzled researchers.

The afternoon featured presentations from horticulturist Ines Hanrahan, a fruit safety expert with the Washington Tree Fruit Research Commission. She spoke about honeycrisp apple best management practices and reducing the spread of foodborne pathogens through proper orchard management. Joining Hanrahan

was Cornell horticulturist Greg Peck, who talked about the importance of soil health in apple orchards.

Highlighting the three-day event was a presentation by New York State Department of Agriculture and Markets Commissioner Richard Ball covering Gov. Andrew Cuomo's recently unveiled New York Certified and Grown Program. Identifying and promoting New York producers who adhere to

the state's food safety and environmental sustainability programs, the certification assures consumers that the food they are buying is local and produced at a high standard.

"Many of the attendees indicated that they left the session with a clearer definition of the program," said CCE's Darcy Telenko, extension vegetable specialist with the

Cornell Vegetable Program. "As a vegetable farmer himself, Commissioner Ball is able to connect our growers and has a great understanding of food safety and the need to promote New York agriculture through concise messaging."

Watkins agreed: "Commissioner Ball is a wonderful advocate for New York state farmers, and his willingness to attend EXPO and update the industry firsthand is priceless. It is in keeping with his often-spoken comments about our state being one based on partnerships, relationships and friendships."

With many of the sessions packed and attendance numbers significantly higher than in recent years, and an on-site trade show buzzing with activity, Telenko said the 2017 event was one to build on. "We had a number of very interesting and current topics and we brought in great speakers," she said. "I think anyone that attended an educational session – myself included – learned something new that we can take and implement on the farm to improve vegetable and fruit production in New York."

R.J. Anderson is a writer/communications specialist with Cornell Cooperative Extension. ■



Darcy Telenko, left, vegetable specialist with CCE, speaks with Richard Ball, center, commissioner of the New York State Department of Agriculture & Markets, and an attendee at the 2017 Empire State Growers Expo in Syracuse, NY.  
Photo Credit: R.J. Anderson/CCE.

"The Expo provides a great opportunity to network with growers, educators and scientists from throughout New York and beyond," said CCE Director Chris Watkins. "The single goal is that attendees drive home feeling that they have invested their time, energy and resources well, and hopefully with thoughts of how they can make changes in their operation to improve profitability."

# Winners and Losers in the Grocery Industry from Deflation

by Andrew Harig, Senior Director, Sustainability, Tax & Trade, Food Marketing Institute  
(Reprinted from *The Voice of Food Retail*, Food Marketing Institute, November 15, 2016, from <http://www.fmi.org/blog/view/fmi-blog/2016/11/15/winners-and-losers-in-the-grocery-industry-from-deflation>)

We're in the midst of one of the longest periods of food price deflation in more than 50 years. USDA reports that the consumer price index has been negative on a year-over-year basis since December 2015, causing severe pressure on same-store sales growth. Retail beef prices have declined in some areas by nearly 8 percent, with pork and poultry on a similar (but slightly less steep) downward trend. USDA predicts we could see up to a 19 percent decline in the CPI for eggs in 2016, and the dairy sector is in dire enough straits that USDA Secretary Tom Vilsack has authorized two rounds of government purchases of surplus cheese. It doesn't look like this trend is likely to let up in the near future.

This certainly is not the first time that the industry has had to face declining food prices, but an interesting plot twist this time around is that this deflationary period is taking place during an economic recovery, not during a recession. This is creating some unique winners and losers across the supply chain.

## Winner – Consumers

The biggest winners are consumers, who are experiencing lower prices on a host of products. There have been stories around the country of eggs selling for a dollar a dozen and other deals that seem too good to be true.

## Winner – Retailers That Can Work With Consumers to Tell a “Savings Story”

Retailers are finding that they need to be aggressive in working with consumers to help them take advantage of price

only accounts for about 15.9 percent of the average food dollar, and this number decreases as the role of food processing in a finished food increases (see infographic).



Operating a grocery business is vastly different than it was a decade ago with an onslaught of new competitive channels, a cantankerous regulatory environment and the fact that food shopping

has become a team sport among households, making it more difficult to pinpoint your customers. Some retailers are pushing prices even lower as a means to drive traffic into their stores. The end result is that already tight margins are being decimated.

## Loser – Farm Country

Even as retailers struggle to address the impact of deflation on their margins and the industry as a whole, they cannot afford to ignore the longer term effects on farm country. Whenever this period of deflation comes to an end, the supply chain is likely to look different than when it started.

“Smart Marketing” is a marketing newsletter for extension publication in local newsletters and for placement in local media. It reviews elements critical to successful marketing in the food and agricultural industry. Please cite or acknowledge when using this material. Past articles are available at <http://dyson.cornell.edu/outreach/smart-marketing-newsletter>.



savings. Retailers who can tell a strong savings story with their customers will clearly emerge from this deflationary period stronger.

## Loser – Retail Margins

This round of deflation has its roots in farm country, but farm production



# CORE Pesticide Applicator Training and Recertification Course

Thursday, March 10, 2017  
at CCE of Erie County  
21 So. Grove St., E. Aurora, NY  
CORE TRAINING 8:15 am to 12:15 pm  
Questions? 716-652-5400 X 150

This training session is geared for individuals planning to take the CORE and Category Pesticide Certification Exam specific to the focus of their work.

**3.5 CORE credits are in application for** certified applicators, private or commercial, seeking recertification credits **for attending the training class from 8:15 am to 12:15 pm.** You must bring your Pesticide Certification ID card with you.

**Instructors:** Sharon Bachman (Erie) and Don Gasiewicz (Wyoming): Agriculture Community Educators with Cornell University Cooperative Extension of Erie and Wyoming Counties and Allen Young with Erie County Soil & Water Cons District.

## Topics to be covered include:

- Pesticide Applicator Certification, State Laws and Regulations, Federal Pesticide Laws
- Types of Pesticides, The Label, Formulations, Filling & Mixing
- Calculations for Mixing Pesticides, Equipment, Calibration, Weather-Wise Application
- Disposal, Storage, Record Keeping, Liability
- IPM & Pests; Toxicity of Pesticides
- Residue, Tolerance and Registration
- Ecology & Environment Considerations
- Safety Precautions, Personal Protection for the Applicator & Worker
- Pesticide Poisoning - Symptoms, First Aid

## Checklist

- ☐ **Taking the Exam or have any questions?** Contact NYSDEC Pesticide Division at (716) 851-7220.

**NYSDEC requires advance registration** to be eligible to take the CORE certification exam. Once determined eligible, DEC will send you a sign-up packet, which you must fill out and return to them with your \$100 examination fee. You must be pre-registered with DEC to take the exam. No walk-ins will be allowed into the exam. If you have any questions regarding your certification, please contact DEC.

- ☐ **Buy Your Required Manual.** CORE manuals, commercial sub-category manuals, and private category manual prices are listed on the reverse order form. We have most manuals in the office and will place new orders on a weekly basis.

Contact the Ag Office at CCE, Erie to purchase any manuals you may need. It's best to get your manuals early. **An order form is located on the right. Manuals can be picked up 8:30-4:30 Mon-Fri.**

- ☐ **Register For The Training.** Pre-register with the Ag Office using the form to the right for the training session. The cost is \$20 for Ag Enrollees and \$25 for non-enrollees. The registration deadline is Tuesday, March 17<sup>th</sup>.

## Registration Form Pesticide Certification Training

Friday, March 10, 2017  
Participant Names: \_\_\_\_\_

Mailing Address: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

E-mail Address: \_\_\_\_\_

# Ag Enrollees \_\_\_\_\_ x \$20 = \$ \_\_\_\_\_

# Non-Enrollees \_\_\_\_\_ x \$25 = \$ \_\_\_\_\_

Manual Order Total (below): \$ \_\_\_\_\_

**Total Enclosed: \$ \_\_\_\_\_**

**Checks payable to:  
CCE— Erie County**

Send to:  
Cornell Cooperative Extension  
Agriculture Program  
21 So. Grove Street  
East Aurora NY 14052

**Return by Monday March 6th**

## —Training Manual— Order Form

- ☐ **CORE Manuals (Binders)**  
**\$45 enrolled/ \$50 not-enrolled\***

- ☐ **Commercial Category  
Manuals \$45**

Check Off All Required:

- ☐ Category 1A: Agricultural Pest Control—Plant
- ☐ Category 3: Ornamental & Turf
- ☐ Category 6: Right-of-Way Vegetation Management

Other commercial category manuals available for same price.

- ☐ **Private Category Manuals**  
**\$38 enrolled / \$40 not-enrolled\***

Check Off All Required:

- ☐ Category 21 Field & Forage
- ☐ Category 22 Fruit
- ☐ Category 23 Vegetable

Other private categories available for same price.

\* Call 716-652-5400 to check current enrollment status.

**ADD \$8.00/book shipping:  
Manual Order Total, \$ \_\_\_\_\_**

Include payment with course registration fee. Please contact the DEC if you need assistance determining the correct manual for your needs. **716-851-7220.**

Order Manuals online at: <https://store.cornell.edu/c-876-pmep-manuals.aspx>

# Governor Cuomo Announces Funding To Help Farms Join New York State Grown & Certified Program



\$1.5 Million Available to Help Farms Implement Environmental Plans  
\$1,000 Reimbursement Offered for Required Audit of Food Handling Practices

by Andrew M. Cuomo | Governor, State of New York | Executive Chamber

Governor Andrew M. Cuomo today announced funding to help New York fruit and vegetable farmers join the New York State Grown & Certified program. \$1.5 million is available through the Environmental Protection Fund to help farms implement an Agricultural Environmental Management plan, and a reimbursement of up to \$1,000 is available for growers who participate in a third party audit of safe food handling practices. Farmers must participate in programs supporting good agricultural practices and environmental management to be eligible for New York State Grown & Certified, and this funding will help more farms join the certification program.

"New York farms produce world-renowned, high-quality food, and the New York State Grown & Certified program strengthens the link between producers and consumers and promotes environmentally sustainable and safe practices," Governor Cuomo said. "This funding will help more

farmers certify their products to these higher standards and access the many opportunities offered by New York State Grown & Certified."

Launched in August, the New York State Grown & Certified program assures consumers that the food they are buying is local and produced to a higher standard by requiring participating producers to adopt good agricultural practices and enroll in an environmental management program.

## Reimbursement for Good Agricultural Practices Audits

Administered through the United States Department of Agriculture, the New York State Department of Agriculture and Markets Good Agricultural Practices program verifies that safe food handling practices are being used on farms, from growing and harvesting to packaging and handling. The Good Agricultural Practices program certifies the fresh fruit and vegetable farms that have implemented the necessary steps in their operations to minimize the possibility of product contamination and food-borne illness in accordance with USDA regulations.

The New York State Department of Agriculture and Markets, through a USDA Specialty Crop Block Grant, is providing up to \$1,000 to reimburse farms for Good Agricultural Practices audits. More information about the Good Agricultural Practices certification process and how to

apply for the grant is available on the new website, [www.agriculture.ny.gov/gap/](http://www.agriculture.ny.gov/gap/). The Department has conducted 234 audits in 2016 so far, already exceeding last year's total number of audits.

Cornell University is a key partner in training and education for farmers as part of the program. The university holds online courses and in-person training throughout the year to help producers learn about the program and write their own safe food handling farm plan prior to the third-party audit. More information on Cornell University's training opportunities and how to sign up is available ([gaps.cornell.edu/](http://gaps.cornell.edu/)) here.

## Funding for Agricultural Environmental Management Plans

The Governor today also announced \$1.5 million is available for the implementation of an Agricultural Environmental Management plan to assist fruit, vegetable and other specialty crop growers in producing their products in an environmentally responsible manner.

Funding for the implementation of the Agricultural Environmental Management plan is provided through the Environmental Protection Fund. Assisting specialty crop farms to produce foods with the highest environmental standards will protect and improve New York's natural resources, including water and soil quality.



New York's County Soil and Water Conservation Districts are eligible to apply for the program on behalf of farmers. Maximum award amounts for projects are \$50,000. Project eligibility information and the Request for Proposals are available here ([www.agriculture.ny.gov/RFPS.html](http://www.agriculture.ny.gov/RFPS.html)). Applications are due January 20, 2017.

## Benefits for Growers, Buyers and Consumers

For growers, participation in Agricultural Environmental Management and Good Agricultural Practices certification allows for greater access to programs, especially New York State Grown & Certified, which includes a major marketing campaign to promote New York producers who meet the program standards. This includes on-product labels and promotional materials, such as a website, video and sales materials, to encourage program participation among producers and to educate retail, wholesale and institutional buyers on the value of the program. Consumer advertising and retail promotion will begin this fall.

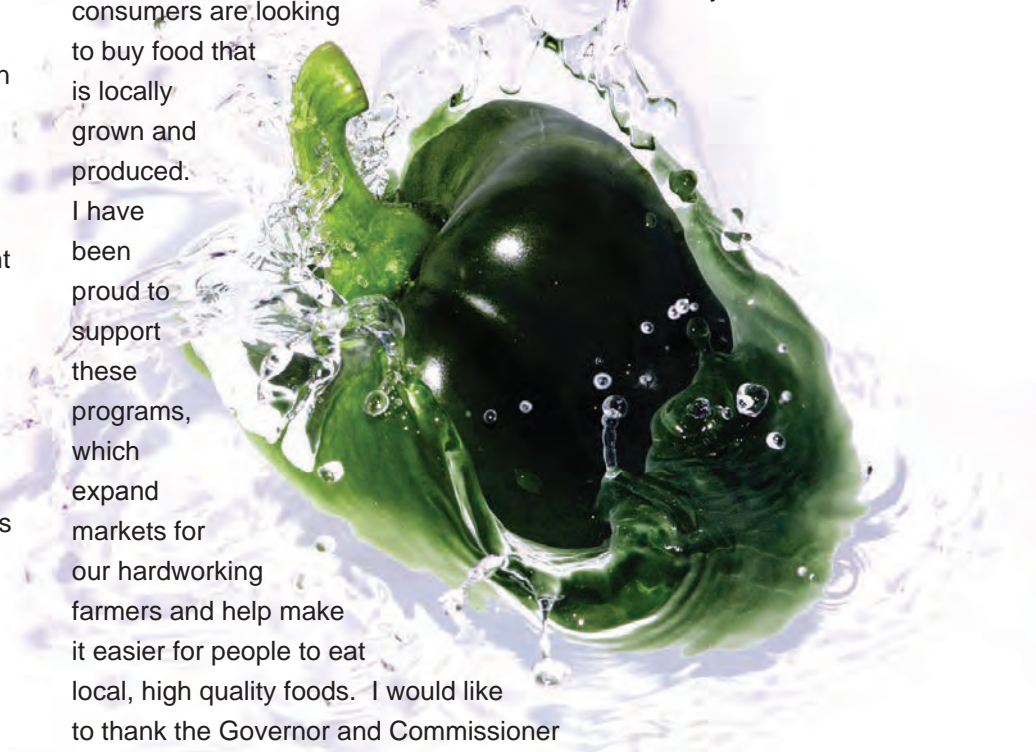
The Good Agricultural Practices certification also provides producers access to the Farm to School procurement pilot program, which requires growers selling to school districts to be certified. The program also helps farms prepare for potential regulation from the Food Safety Modernization Act.

In addition, the Good Agricultural Practices program is significant for buyers. By purchasing products from a farm that is certified, there is a reduction in the potential for future food safety recalls, which can be costly to buyers and also impact consumer confidence and loyalty. Many consumers are looking for reassurance that the items they purchase in the supermarket have been properly handled on the farm.

State Agriculture Commissioner Ball said, "The GAP program ensures that our growers are focused on standardized safe food handling practices in their daily operations. These standards will be recognizable at every point in the food supply chain and ultimately to the consumer. What's more, the AEM program helps our growers produce products in a manner that reduces risk to our State's precious natural resources. Being GAP certified and an AEM participant, our growers are eligible for the New York State Grown & Certified program as well. Thanks to Governor Cuomo, this program will help market our producers who are meeting the growing consumer demand for food that is safely handled and grown in an environmentally sustainable way."

Senate Agriculture Committee Chair Senator Patty Ritchie said, "More and more frequently, consumers are looking to buy food that is locally grown and produced. I have been proud to support these programs, which expand markets for our hardworking farmers and help make it easier for people to eat local, high quality foods. I would like to thank the Governor and Commissioner for recognizing the importance of investing in this important effort, which will help to further bolster New York's leading industry."

Assembly Agriculture Committee Chair Assemblyman Bill Magee said, "Training in AEM concepts and GAP certification will help New York farms produce quality products using good agricultural and environmental practices. The New York State Grown & Certified label will help to increase consumer confidence in New York grown products, and I encourage our farmers to make their applications through their County Soil and Water Conservation Districts for the enrichment of their farms, and to encourage and promote the NY buy local movement."



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Kathryn J. Boor, the Ronald P. Lynch Dean of the College of Agriculture and Life Sciences at Cornell University, said, "As home to the National Good Agricultural Practices (GAP) Program and the School of Integrative Plant Science, which develops 'better plants, sustainably grown,' I applaud Governor Cuomo's allocation of resources to fruit and vegetable growers currently participating in the New York State Grown & Certified program and to

those who wish to be certified. Training is a critically important part of a GAP program, and the college is pleased to offer an online produce safety course as well as in-person trainings to help Empire State farmers meet their goals."

Dean Norton, New York Farm Bureau President, said, "New York's farmers value the quality and safety that goes into everything they produce. This includes taking part in AEM and GAP programs that work with farmers to be good stewards of the environment and have additional safe food handling protocols in place. The additional steps the state is taking to increase access to these valuable programs will not only benefit farmers but consumers as well who are looking to New York's family farms for fresh, local food."

Chairman of the New York State Soil and Water Conservation Committee Dale Stein said, "The AEM program is the base program for all farms in New York State to identify environmental concerns on their farms and to develop a plan to address those concerns. With \$1.5 million available to create AEM plans for their farms, hundreds of farms will become more environmentally sustainable. Along with the GAP program, consumers will know that the food they are buying is not only from New York State but also grown by farmers interested in managing their farms in an environmentally sound manner."

Additional news available at  
[www.governor.ny.gov](http://www.governor.ny.gov)

[press.office@exec.ny.gov](mailto:press.office@exec.ny.gov) | 518.474.8418 ■



350 Warren Hall, Ithaca NY 14853  
1-800-547-3276 [nyfarmnet.org](http://nyfarmnet.org)

## Farm Transfer & Management Conference: Risk Management in New York Agriculture in an Age of Uncertainty

**FREE! Register now at: <http://bit.ly/farmtransfer>**



### Farm Transfer & Management Conference Risk Management for New York Agriculture in an Age of Uncertainty

**Location:** DoubleTree Syracuse, 6301 NY-298, East Syracuse, NY 13057

**February 15-16, 2017**



**Keynote Speaker:** Dr. Gary Schnitzler is a professor and farm management specialist in the Department of Agricultural and Consumer Economics, University of Illinois. His activities focus on farm and risk management, specifically crop insurance evaluation, and aiding farmers in understanding the risk and return tradeoffs of different crop insurance policies. Dr. Schnitzler grew up on a grain and hog farm in northwest Ohio. He received a Bachelor of Science degree from The Ohio State University and a Masters and Ph.D. from the University of Illinois.

**Free Registration:** <http://bit.ly/farmtransfer>

\*Hotel reservations are not included in the registration.\*\*



# The Sixth Element

by Timothy X. Terry, Regional Farm Strategic Planning Specialist, CCE - Harvest NY Team

Proteins, lipids (fats), carbohydrates, vitamins, and minerals can you guess the missing element (nutrient)? If you said, “water”, you’d be right.

Water makes up roughly 70% of every living thing – plants and animals. Lactating cows require 4-5 lbs. of water for every 1 lb. of milk produced. For a high producing dairy cow this equates to 400 – 500 lbs. of water or approximately 50-60 gallons per day. Some of this is supplied through the wet forages in the diet, but upwards of 90% comes from the drinking water. Obviously, we need to be providing our livestock with a quality source and lots of it.

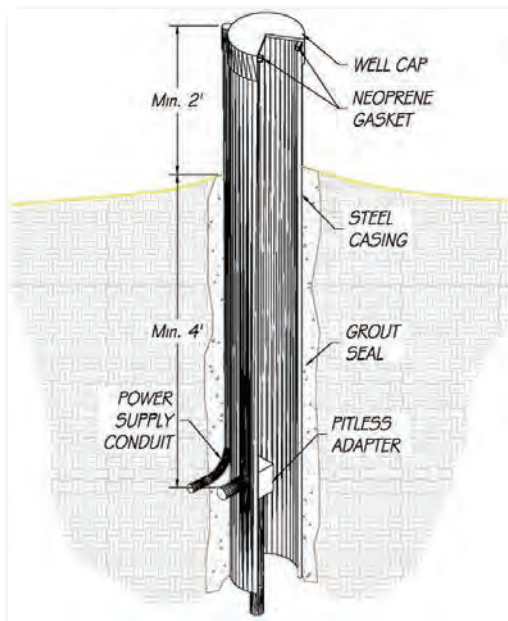


Figure 1- Sanitary Wellhead

## Source Protection

Quality water starts with a properly protected source. Vermin, insects, surface runoff, etc. must be excluded. For a drilled well this means a 6” or 8” diameter steel casing down and into the bedrock. This casing should extend at least 2’

above the surrounding ground, and the ground graded so that surface water will drain away from it (see Fig. 1). A grout seal should have been established around the casing at the time of construction. This keeps any surface runoff or leached contaminants from entering the well.

The cap should fit snugly, be bolted or clamped on, and have a neoprene gasket between the casing and the cap (Fig. 1). This cap should never be welded – serviceability is important. It should also be water-tight. Therefore a piece of diamond plate with a concrete block or large rock on top doesn’t really cut it.

Spring developments need to be constructed in a similar manner -- covers that shed rain water and prevent unauthorized entry, grading that diverts surface runoff, and properly screened vents that exclude vermin and insects.

If either of these sources is located in a livestock or cropped area then a minimum 100’ buffer should be fenced off and maintained around the source point. Maintained means that this area is trimmed up once or twice per year. Trimming builds a tighter sod (better filtering of surface water), controls weeds, and eliminates woody growth. Failure to do so usually means someday you’ll have to pull a well pump in weeds 4’-6’ high through the branches of a Honey locust or thorn apple, or worse – multiflora rose!

Ponds, unfortunately, are much more difficult to protect. Yes, you can fence out the livestock, but you have little control of vermin, deer, and wild fowl. However, the surrounding areas should still be trimmed up each year because the roots of trees and shrubs can actually compromise the structural integrity of the pond embankments. Likewise, burrowing critters should be dealt with quickly and with extreme prejudice, but I digress...

The supply lines from the sources should be buried a minimum of 4’ below finished grade with a layer of screened sand around it. At this depth it is not likely to freeze or be disrupted by a piece of tillage equipment. The sand keeps large, sharp rocks from cutting the plastic piping during backfilling or over time from freezing and thawing of the ground above. Moreover, the sand also serves as a warning device during future excavations – when the sand shows up in the trench you know you are close to the pipes and then to expose the pipes by hand is much easier. Alternatively, they could be threaded (sleeved) through light weight PVC pipes. Should the supply piping fail, or a larger diameter pipe be required in the future, a new one is easily inserted by connecting to and removing the existing pipe. Smooth interior walled pipe should be used for the sleeve. Even though it is functional and relatively inexpensive, the corrugations in a standard drain tile make it very difficult to slide a new piece of pipe through it.

## In the Barn

While the waterer is the most prominent part it is just that – part of a system. There is the well or spring and well pump, of course, but there is also the piping

*Continued next page.*

to get it there, the pressure tanks, and usually a reservoir for times of peak demand like right after feeding or milking.

When planning watering systems, whether it is in the barn or out in the pasture, it is usually easiest to plan, or size it, from the furthest point and then work backwards toward the point of origin. So first let's think about the waterer or waterers. Ideally, you'd like to have 3"-3½" of waterer access per cow in that particular pen or paddock. That's 3"-3½" that the cow can actually get to. Don't count the part that sits against a concrete barrier or a fence line. You also want at least two waterers per group. That way a boss cow can't prevent a new heifer from getting a drink.

In the barn, place waterers 60' to 80' apart, in a raised cross alley, if you can, and on a raised curb so that the rim is 24"- 32" high. You can achieve a similar result in the pasture by strapping the water tub to a pallet. This will minimize the wet spot and allow you to easily move a partially filled tub to a new paddock using a set of pallet forks.

At the ends of the row of freestalls position the waterer on the side away from the stalls. Within the row of stalls place it on one side or the other but with a

solid barrier behind it so the stalls remain dry. Alternatively, widen the cross alley from 16' to 26' and place the waterer in the middle. This keeps it away from the stalls and allows another cow to pass behind the one that is drinking. Just beyond the end of the parlor return alley is another good spot especially if it is filled with water off the pre cooler or chiller. This water is somewhat tempered from the heat exchange with the milk, and the cows seem to drink more of this than the untempered water in the freestall.

Placing a barrier above the waterer keeps animals from standing in it. However, place this barrier 20"- 24" above the rim and suspend it from above – you don't want to limit the access for drinking.

Never place a waterer in the feed alley (not possible in a tie stall). You end up with soggy feed no one eats and it only attracts flies. Similarly, in a bedded pack barn place the waterers on the back side of the feed alley with a barrier on the pack side to prevent them from drinking while standing on the pack. This will keep the pack area around the waterer from becoming a swill hole.

## The Supply

You have several choices for the types of piping to get water out to the waterer: Copper, galvanized, PVC, HDPE, and PEX. Copper is great in the milkhouse and utility room but may not be the most cost effective for a barn watering system. Galvanized pipe is strong, but requires threading dies and fittings, is prone to rust at the fittings, and susceptible to hard water deposits.

PVC is rigid, although long radius curves with smaller diameters are possible, preformed fittings are required in order to make directional changes.

HDPE (High Density Polyethylene) is the black pipe that usually comes in 250'

rolls. Specify minimum 160 psi. Bends to a tighter radius than PVC. Uses barbed fittings and band clamps. Easily replaced in a sleeved pipeline.

PEX (cross linked polyethylene).

Relatively new, but functionally similar to HDPE. It can tolerate stresses (i.e.-freezing) without bursting like HDPE. Kinks and freeze blisters are easily corrected with a blow dryer or heat gun. Requires specialized tools in order to make connections. May not be as readily available as HDPE.

Waterers typically require a supply volume of 3 – 5 gallons per minute. That roughly translates into a ¾" diameter pipe to each waterer. So now you see why a single ¾" or 1" pipe supplying all the waterers on one side of the barn (Daisy Chaining) can't possibly work.

So how big of a supply line do you need? It's simple to figure out if you keep in mind these rules of thumb: #1. If you increase the diameter of the pipe 50% you double the capacity; #2. If you double the diameter you quadruple (4X) the capacity (all other things being equal). For example, starting at the waterer furthest from the source (#4 Fig. 2) you know you need at least a ¾" pipe (blue lines). Working back towards the source there is a second waterer (#3), so using rule of thumb #1: ¾" + (50% of ¾") = 11/8" diameter needed. However, 11/8" is an odd size and generally you move up to the next size pipe, but, in this case, a 1" diameter pipe should be sufficient. Continuing back you have two more waterers (1 & 2) so using rule #1: 1" + (50% of 1") = 1½" diameter – a standard pipe size, or using rule #2 (4 waterers total): ¾" x 2 = 1½". Funny how that works out, huh? So to supply the entire side of the barn you would need at least a 1½" pipe coming from the source. Optionally, you could step down the pipe

*Continued next page.*



size to 1" between the first and third waterers. However, if you were to maintain the 1½" pipe all the way around the barn it would provide additional flexibility and a factor of safety. Should one of the mains fail, you could still supply water from the other direction you would just need to have strategically placed valves during installation. One more important design feature – each waterer must have its own shut-off valve. That way if something happens to an individual waterer you don't have to shut down the entire system while you make repairs.

Similarly, in stall barns, you ALWAYS want to loop the water system. You may also want to consider installing several valves and unions in the loop to make isolating and servicing small sections easier.

In an intensive grazing situation consider how many waterers you're likely to have on any one line and size accordingly. Long runs (>1000') and/or changes in elevation (>33') may require some engineering due to friction and head losses in those situations.

As an alternative in the freestall, you could install a single 3" main (red lines, Fig.2) and then tee off of the main with individual valves and ¾" pipes to each waterer. The service manholes provide easy access to the valves and a shorter section of pipe to replace should the need arise. The 3" diameter pipe is oversized for its present installation, however, in this configuration it would be very easy to extend the supply pipe to service the next expansion. A 3" pipe should supply 16 waterers so potentially you could double the size of this facility without any retrofitting of the water supply system.

As a further alternative you could use the 3" line to build a system with virtually no moving parts using Archimedes' principles of hydrostatics. In order to work there must be a reservoir (large tank) set up at a specified elevation. The 3" pipe is plumbed into the bottom of the reservoir

and then branches out to each of the waterers. (These waterers are usually cast-in-place concrete vats.) A riser from the main line feeds up into the bottom of the waterers, and the water level is determined by the elevation of the water in the reservoir. Since water always seeks its own level, if cows begin drinking heavily from one waterer (i.e.- parlor exit, barnyard entrance) more water can be supplied very quickly from the reservoir or a nearby waterer. Unfortunately, this system requires a laser level and can be tricky to set up. ■

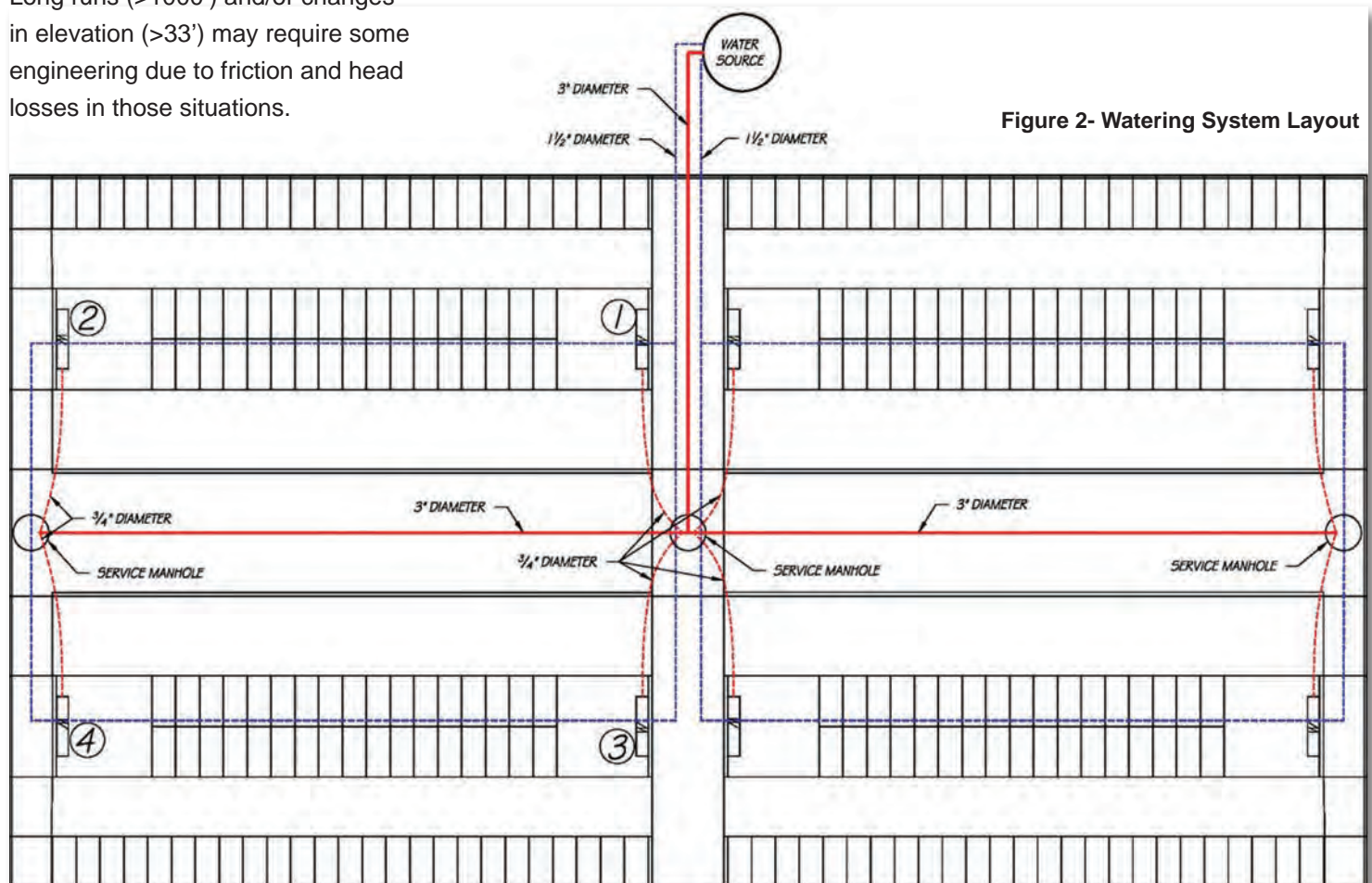


Figure 2- Watering System Layout



# Got Woods? Learn How to Improve their Value and Health!

by Emily Staychock, Cornell Cooperative Extension,  
Master Forest Owner Regional Director, Northwest Region

Western New York is fortunate to have productive farmland, vineyards, and forests that support local economies and rural character in much of the region. Many residents take great pride in their forests and gain benefit from them through activities such as nature watching, hiking, hunting, maple syrup production, firewood, and logging. Our forests hold many values and we need to manage them sustainably in order to guarantee their benefits into the future. A common misconception is that forests are best left to their own processes and that if we let nature take its course our forests will benefit. However humans have impacted NYS landscapes for centuries and the natural disturbances (such as wildfire) that historically kept forest ecosystems in balance are no longer present. Unfortunately our forests face many challenges today and a lack of active human management can enhance these problems. Invasive insects such as emerald ash borer kill trees and invasive plants such as buckthorn outcompete native trees. Overbrowsing by deer is a problem throughout New York State that is restricting our forests' abilities to regenerate. In the absence of natural disturbances, prolific species such as beech are able to take over and outcompete other native diversity. Unlike the American West where the majority of forest lands are federally managed, the majority of forest lands in NYS are privately owned. Over  $\frac{3}{4}$  of New York State's forested land is privately owned and it's estimated that less than  $\frac{1}{4}$  of private forests are purposefully managed. In Erie County 94% of forested land is privately owned (196,400 acres). Our forests need our attention to address the challenges facing them, and the Cornell Cooperative Extension Master Forest Owner program can help private landowners care for their forests.

The Cornell Cooperative Extension Master Forest Owner (MFO) Program was created in 1991 to assist private woodland owners in managing their forests. The MFO Program provides trained volunteers who work with county Cornell Cooperative Extension offices to provide one-on-one assistance to private woodland owners. MFO volunteers have a passion for managing forests and sharing their experience with others, and they

attend a rigorous four-day training provided by Cornell University as well as annual refresher trainings. These highly-trained MFO volunteers provide free visits to private woodlands and share management information with landowners. MFO volunteers walk the property with the landowner and discuss the landowner's values and goals for their forest, and provide information to the landowner to help them meet their goals and objectives. A common suggestion is for the forest owner to set up a visit with a NYS Department of Environmental Conservation (DEC) forester to create a forest stewardship plan. This is a free service offered by the DEC that helps private forest owners identify and prioritize their goals and the management steps needed to achieve their goals. A forest stewardship plan qualifies the landowner to compete for government funds for forest management-related projects offered through programs such as the USDA Natural Resources Conservation Service (NRCS).

If you own forest property and would like assistance in developing goals and strategies to enhance its health and value, give us a call! Emily Staychock coordinates the MFO program for 11 counties in northwestern NY including Erie, Niagara, Wyoming, Orleans and Genesee. Contact her at [ecs268@cornell.edu](mailto:ecs268@cornell.edu) or 315-536-5123 x4127 to learn more. Cornell Cooperative Extension (CCE) of Erie County worked with the Master Forest Owner Program, the Erie County Department of Parks, Recreation and Forestry, the Erie County Soil and Water Conservation District, and the Western NY PRISM (Partnership for Regional Invasive Species Management) to host a forest management workshop in December 2016 at the Erie County Bureau of Forestry Visitor Center that focused on forest invasive species management.

*Continued next page.*



Participants learned about invasive forest pests, how to manage invasive forest plants, and about financial resources and programs available to forest owners. The workshop concluded with a beautiful hike on Erie County Bureau of Forestry trails that was guided by Erie County Forester Shane Daley. Stay tuned for workshops offered by CCE Erie in 2017!

Common goals for private forest land management include agroforestry practices such as maple production and forest mushroom cultivation. New York State is home to the largest resource of tappable maple trees in the US and has over 2,000 maple sugar makers ([www.nysmaple.com](http://www.nysmaple.com)). Cornell University has great resources for maple production: <http://blogs.cornell.edu/cornellmaple/>. Cornell also has great resources for forest mushroom production offered through the Small Farms Program: <http://blogs.cornell.edu/mushrooms>. The Western NY PRISM (Partnership for Regional Invasive Species

Management: <http://www.wnyprism.org/>) provides information about invasive species and their management. The MFO program can help landowners learn more about topics such as silvopasturing, creating wildlife habitat, and promoting biodiversity.

In some cases a forest will benefit from removing trees. A timber stand improvement is a management technique in which trees are strategically thinned out to promote the growth of healthy and desirable trees. This can benefit both biodiversity and economic goals. A DEC forester can provide advice about a timber stand improvement. If a forest has mature trees with economic value, such as oak or black cherry, the landowner may desire to do a timber harvest. Timber harvesting promotes the return of early successional-stage plant and animal species and allows for forest regeneration. Forest land owners who are interested in doing a timber harvest should hire a professional forestry consultant before hiring a logger. Forestry consultants will mark strategic trees to be removed in order to promote the sustainability of the

forest and enhance the forest's value and health. The DEC's website has a listing of reputable forestry consultants in NYS: <http://www.dec.ny.gov/lands/5230.html>.

Our forests are valuable for many reasons and we need to help them sustain their health and value into the future. Cornell Cooperative Extension and the Master Forest Owner Program can help you achieve your goals. Contact us to take advantage of these free resources! ■

## On-the-Job Training for Military Veterans

Kreher's Egg Farm, in Clarence, is the first farm in NYS to be approved to provide on-the-job training to military veterans. The position is posted online here:

<https://krehers.workable.com/jobs/399453>

If you are a veteran and have available funding through the GI Bill, you could learn the business at Kreher's while earning a wage and receive your Military Housing Allowance during the training period. ■



## BF 152: Introduction to Maple Syrup Production

An online course from the Cornell Small Farms Program

**Jan 17 – Feb 21**, with webinars each Tuesday evening from 6:00 – 7:30pm EST.

Webinars are recorded for subsequent viewing or if you miss a webinar.

Maple syrup production is rapidly growing around the Northeast and offers a sound financial opportunity to utilize woodlots. This course explores the range possibilities of maple sugaring on your land – be it for supplemental income or for your livelihood. Also discussed are “alternative” trees for production, including Birch and Black Walnut.

The course instructor, Mike Farrell, serves as the Director of Cornell University's Uihlein Forest, a maple syrup research and extension field station in Lake Placid, New York. There he taps approximately 6,000 maples, 700 birch trees, and several dozen black walnut and butternut trees every year, focusing his efforts on the economics of maple sugaring and sustainable development of the maple industry.

LEARN MORE & REGISTER:

[www.nebeginningfarmers.org/online-courses/all-courses/maplebf152/](http://www.nebeginningfarmers.org/online-courses/all-courses/maplebf152/) ■

# Is Your Business Wasting Money?

## Take Control of Costs by Reducing Your Energy Waste



**Get connected to professionals that can help you reduce your business' energy costs and recuperate building repair costs.**

**February 15, 2017 6-8 pm**

SUNY Buffalo State; 1300 Elmwood Ave  
Buffalo 14222  
Cleveland Hall 418

***Free Parking permit when you register***

The workshop is free and open to the public.  
To register contact Andrew Delmonte at  
(716) 878-4030

- or -

[delmonas@buffalostate.edu](mailto:delmonas@buffalostate.edu)

Funded in part through a cooperative agreement with the U.S. Small Business Administration. All opinions, conclusions or recommendations expressed are those of the author(s) and do not necessarily reflect the views of the SBA. Reasonable accommodations for persons with disabilities will be made if requested at least two weeks in advance. Contact [\(716\) 878-4030](tel:7168784030).

**Go GREEN**

**Meet your energy saving goals in 2017!**

**Address Building Repairs Issues Grant Money available**

**Sign-up for One-on-One's with Building Professionals**

**Your Environmental Impact MATTERS!!!**

**Space is Limited  
RSVP Today!**







# Farmers Market Federation Of NY

## Winter 2017 Webinar Schedule

### SNAP for Farmers and Farmers Market

#### Webinar

#### Date

#### Enrolling in SNAP: is it the right move for you?

The SNAP program (formerly known as the Food Stamp Program) holds potential for farmers to increase their customer base and their farm revenues. This workshop will focus on enrolling SNAP for farmers and farmers markets: why you should participate, what USDA is offering to encourage participation, and how you can apply to be a farmer SNAP retailer.

To Register: <http://www.nyfarmersmarket.com/enrolling-in-snap/>

Wed, Feb 1	Noon – 1:00pm
Tues, Feb 7	Noon – 1:00pm
Thurs, Feb 16	Noon – 1:00pm
Wed, Mar 1	6:00pm – 7:00pm
Tues, Mar 14	6:00pm – 7:00pm
Thurs, Mar 23	Noon – 1:00pm

#### Operating SNAP at a NY Farmers Market

Farmers Markets all across NYS have stepped up to operate a SNAP program in the markets, bringing new customers to the market and adding revenue to their farmers. This system operates on a central terminal system with one terminal in the market and tokens used as SNAP currency. This workshop will provide key information on operating the central terminal system and tokens in the marketplace. Learn what your rights and responsibilities are, what NYS can provide to help you with your program and some basic promotions for your SNAP program.

To Register: <http://nyfarmersmarket.com/snap-for-farmers-markets>

Tues, April 4	Noon – 1:30pm
Thurs, April 20	Noon – 1:30pm
Wed, May 3	Noon – 1:30pm
Mon, May 15	Noon – 1:30pm



**Agriculture  
& Markets**



## Conservation Tree & Shrub Seedlings Available

Order forms for the 2017 Conservation Tree and Shrub Seedling Sale are now available from Erie County Soil and Water Conservation District. Thirty-seven species of trees and shrubs are available this year. The one to three-year-old bare root seedlings, which range in size from

6 to 24 inches, are available in lots of 10 to 500. The District is also offering a selection of bare root four-year-old evergreen transplants which are more mature trees with thicker stems, more branching and more developed roots. The District also stocks marking flags, fertilizer tablets, and tree shelters to help promote the success of your plantings.

Order forms may be obtained by stopping at the District Office at 50 Commerce Way in East Aurora (behind Post Office), by calling (716) 652-8480 ext. 5, or by printing the order form from the District website at [www.ecswcd.org](http://www.ecswcd.org). Orders are due by March 17, 2017 and pick-up will be on Saturday April 22, 2017 at The Fairgrounds in Hamburg, NY. ■



### ... SAVE THE DATES in 2017 ...

➡ February **SOYBEAN/SMALL GRAINS CONGRESS** ⬅

8<sup>th</sup> • Batavia, Quality Inn & Suites (Formerly Clarion Hotel) — AND — 9<sup>th</sup> • Waterloo, Holiday Inn

➡ **NEW PROGRAM FORAGE CONGRESS NEW PROGRAM** ⬅

28<sup>th</sup> • Genesee River Restaurant & Reception Center, Mount Morris



# 2017 AG ENROLLMENT

Checks payable to: CCE-Erie County  
Mail this completed form and check to:

CCE-Erie County  
21 South Grove Street  
East Aurora, NY 14052

Phone: 716-652-5400



Online Enrollment is available at  
[erie.cce.cornell.edu](http://erie.cce.cornell.edu)  
or scan this QR Code with your  
smartphone to take you right to  
the Online AG Enrollment page.

Please return by  
March 10<sup>th</sup>, 2017



**Cornell University**  
Cooperative Extension  
Erie County

## Agriculture

Optional  
Enrollments  
available to  
you when you  
enroll in  
CCE-Erie  
County AG!



Cornell Cooperative Extension of Erie  
County (CCE-Erie County) works with  
all farms and farmers existing and  
beginning. We are your local connection  
to Cornell University.

Cost of Agriculture Enrollment: \$25.00

### Benefits of Enrolling with CCE-Erie County:



AG NEWS

- Receive Erie County Ag News, Quarterly Newsletter
- Reduced Registration Fees for CCE-Erie County Educational Meetings and Workshops
- Email Blasts with Current Agriculture Information
- Connection to Current Research-Based Information



### Why Enroll in the Lake Erie Regional Grape Team (LERGP)?

The Lake Erie Regional Grape Program (LERGP) team of Grape Specialists provides education in four program areas: Business Management, Cultural Practices, IPM, Vine Nutrition and Soils.

### Benefits of Enrolling in the Lake Erie Regional Grape Program:

- Vineyard Notes Newsletter, 6 issues (complimentary electronic subscription, paper copies are available for an additional annual fee)
- Weekly Electronic Crop Update
- Telephone/Email Consultations
- Reduced Registration Fees for LERGP Educational Meetings
- On-Farm Educational Opportunities
- Ability to Participate in Applied Research Projects

Cost of LERGP Enrollment: Receive Vineyard  
Notes Newsletter Electronically: \$55.00.  
Receive Vineyard Notes via US Mail: \$80.00

### Why Enroll in the Cornell Vegetable Program (CVP)?

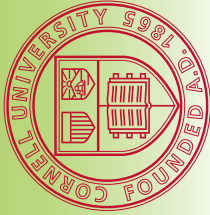
The Cornell Vegetable Program (CVP) team of Vegetable Specialists provides education in six program areas: Food Safety, Variety Evaluation, Market Development, Pest Management, Soil Health, and Cultural Practices.

### Benefits of Enrolling in the Cornell Vegetable Program:

- VegEdge Newsletter (complimentary electronic subscription, paper copies are available for an additional annual fee)
- Telephone/Email Consultations
- Educational Meetings and Conferences (reduced registration fees for CVP enrollees)
- Direct Mailings
- In-Field Educational Opportunities
- Conduct/Coordinate On-Farm Research Trials in the Region

Cost of Cornell Vegetable Program Enrollment:  
Receive VegEdge Newsletter Electronically: \$55.00.  
Receive VegEdge Newsletter via US Mail: \$90.00





# Agriculture

Name: \_\_\_\_\_

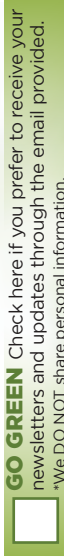
Business: \_\_\_\_\_ Owner ☐ Employee ☐

Address: \_\_\_\_\_ Business ☐ Home Address ☐

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

Phone: \_\_\_\_\_ Cell: \_\_\_\_\_

Email: \_\_\_\_\_



GO GREEN Check here if you prefer to receive your newsletters and updates through the email provided. \*We DO NOT share personal information.

**Interests for Agriculture Enrollment:**  
Receive announcements about upcoming classes & current developments of interest to you by checking the topics below.

## Crops / Homestead

- ☐ Field Crops
- ☐ Flowers
- ☐ Forestry
- ☐ Grapes
- ☐ Hops
- ☐ Maple
- ☐ Small Fruit & Berries
- ☐ Tree Fruits
- ☐ Vegetables

## Livestock

- ☐ Beef
- ☐ Bees / Honey
- ☐ Dairy
- ☐ Goats
- ☐ Horses
- ☐ Poultry / Eggs
- ☐ Sheep
- ☐ Swine

## Management and Marketing

- ☐ Beginning Farmer
- ☐ Farm Business Management
- ☐ Greenhouse Production
- ☐ High Tunnel Production
- ☐ Master Gardening
- ☐ Organic Production
- ☐ Pesticide Certification
- ☐ Roadside Marketing

## Cornell Vegetable Program Enrollment

- ☐ Cornell Vegetable Program Enrollment (CVP) (Receive VegEdge Newsletter via Email) \$55.00
- ☐ Cornell Vegetable Program Enrollment (CVP) (Receive VegEdge Newsletter via US Mail) \$90.00

(Enter Below) Subtotal \$ \_\_\_\_\_

Current Acres in Vegetable Production: \_\_\_\_\_

**Interests for Vegetable Program Enrollees**  
Please check each of the crops/interests that apply to you. This information is used for direct mailings of meeting notices and pest alerts.

- |                                               |                                                 |
|-----------------------------------------------|-------------------------------------------------|
| <input type="checkbox"/> Asparagus            | <input type="checkbox"/> Pumpkins/Gourds        |
| <input type="checkbox"/> Beans, Dry           | <input type="checkbox"/> Squash, Summer         |
| <input type="checkbox"/> Beans, Snap          | <input type="checkbox"/> Squash, Winter         |
| <input type="checkbox"/> Beets                | <input type="checkbox"/> Sweet Corn, Fresh      |
| <input type="checkbox"/> Broccoli             | <input type="checkbox"/> Sweet Corn, Processing |
| <input type="checkbox"/> Cabbage              | <input type="checkbox"/> Tomatoes               |
| <input type="checkbox"/> Carrots              | <input type="checkbox"/> Other Vine Crops       |
| <input type="checkbox"/> Cauliflower          | <input type="checkbox"/> Other Vegetables       |
| <input type="checkbox"/> Cole Crops, Other    | <input type="checkbox"/> Agribusiness           |
| <input type="checkbox"/> Cucumbers            | <input type="checkbox"/> Direct Market          |
| <input type="checkbox"/> Garlic               | <input type="checkbox"/> Fresh market           |
| <input type="checkbox"/> Leafy Greens/Lettuce | <input type="checkbox"/> Greenhouse, Edible     |
| <input type="checkbox"/> Melons/Cantaloupe    | <input type="checkbox"/> Greenhouse, Ornamental |
| <input type="checkbox"/> Onions               | <input type="checkbox"/> High Tunnels           |
| <input type="checkbox"/> Peas                 | <input type="checkbox"/> Organic                |
| <input type="checkbox"/> Peppers/Eggplant     | <input type="checkbox"/> Processing             |
| <input type="checkbox"/> Potatoes             |                                                 |

LERGP

(Optional)

Lake Erie Regional Grape Team Enrollment

☐ Lake Erie Regional Grape Team Enrollment (LERGP) (Receive Vineyard Notes Newsletter Electronically) \$55.00

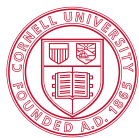
☐ Lake Erie Regional Grape Team Enrollment (LERGP) (Receive Vineyard Notes Newsletter via US Mail) \$80.00

(Enter Below) Subtotal \$ \_\_\_\_\_

## Enrollment Totals

- ☒ CCE-Erie County Agriculture Enrollment \$25.00
- ☐ Optional Cornell Vegetable Program Enrollment \$ \_\_\_\_\_
- ☐ Optional Lake Erie Regional Grape Team Enrollment \$ \_\_\_\_\_
- ☐ Optional Berry News (Quarterly Subscription, via US Mail) \$10.00 \$ \_\_\_\_\_
- ☐ Special Contribution to CCE of Erie County Ag Program \$ \_\_\_\_\_
- ☐ Special Contribution to Cornell Vegetable Program \$ \_\_\_\_\_
- Total Enrollments & Contributions \_\_\_\_\_

Checks payable to: CCE-Erie County  
Mail this completed form and check to:  
CCE-Erie County, 21 South Grove Street  
East Aurora, NY 14052



**Cornell University**  
Cooperative Extension  
Erie County  
21 South Grove Street  
East Aurora, NY 14052  
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# Erie County Ag News

Cornell Cooperative Extension of Erie County Publication

WINTER 2017

☐

If this Box is checked,  
this is your last issue of  
Erie County Ag News.

See pages 26-27 to re-enroll!

*Helping You Put Knowledge to Work*

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