

Erie County Ag News

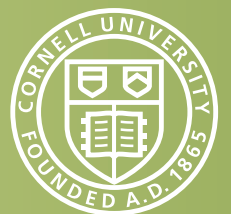
Cornell Cooperative Extension of Erie County

SUMMER 2021



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- COVID -19 Vaccine Hesitancy on Farms
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- State Farmland Protection Program: Should You Apply?



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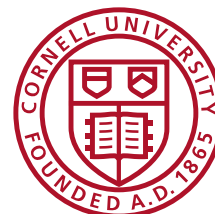


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Follow CCE Erie on social media to receive up to date news and announcements!

Cover photo Lindsay France (UREL)

UPCOMING AGRICULTURAL EVENTS

Master Food Preserver Classes

June - October 2021

via Zoom

Register for one or all of these FREE classes taught by Diane Whitten, CCENutrition Educator and Cornell Certified Master Food Preserver.

For additional information contact Diane at

dwhitten@cornell.edu

View list of classes and registration links at:

<http://erie.cce.cornell.edu/resources/food-preservation-classes-2021>

2021 Oswego County Onion Growers Twilight Meeting

June 24, 2021 :: 6pm - 8:30pm

Hannibal, NY

It's going to be a Weed Control Extravaganza at this year's Oswego County Onion Growers Twilight Meeting! Bring weed samples for identification. 2.25 DEC recertification credits will be available (categories 1A, 10 and 23). CCA credits will also be available. This meeting is being organized by Oswego County Vegetable Growers and Improvement Association and CCE Cornell Vegetable Program.

Register at: <https://cvp.cce.cornell.edu/event.php?id=1540>



For those who pass through East Aurora, you probably have seen that a new ice cream place opened on the Roycroft campus earlier this spring. This is a picture of Upstate Farms making a delivery on one of the shop's first days open. *Photo by Sharon Bachman*

Erie CCE Joins Statewide Ag Energy Initiative

by John Whitney, Agriculture Educator, CCE Erie



AG ENERGY NY

A Project of Cornell Cooperative Extension

NYSERDA, the New York State Energy Research and Development Authority, is funding state-wide efforts to promote energy conservation, efficiency and cost-savings on farms throughout New York State. Cornell Cooperative Extension of Erie County (CCE Erie) recently joined the initiative being led by Cornell Cooperative Extension of Tompkins County. Over the coming months, we will be reaching out to farms in seven different agricultural sectors to invite and encourage participation in the initiative.

Those sectors are:

- Cattle & Beef
- Crops & Vegetables
- Cross-Farm Sector
- Grain Processing
- Maple Sugaring
- Orchard & Vineyards
- Poultry & Eggs
- Swine Management

NYSERDA has divided this initiative between two lead organizations. Dairy & Greenhouse sectors are being covered under a separate NYSERDA contract with [EnSave](#), although farms with multiple enterprises may still be addressed in part through the Ag Energy NY CCE process.

This is largely an outreach, awareness, and referral effort which NYSERDA and other participants hope will lead to on-farm improvements including the possibility of financial assistance through various sources. Over the coming months, you can look forward to being contacted to get the process under way. Resources and referrals will be provided through [a mobile-device friendly web page, www.agenergyny.org](#) (currently under development).

If you'd like to get an early start, please feel free to contact John Whitney by phone or text at 716-796-3204 or e-mail, jrw44@cornell.edu. ■

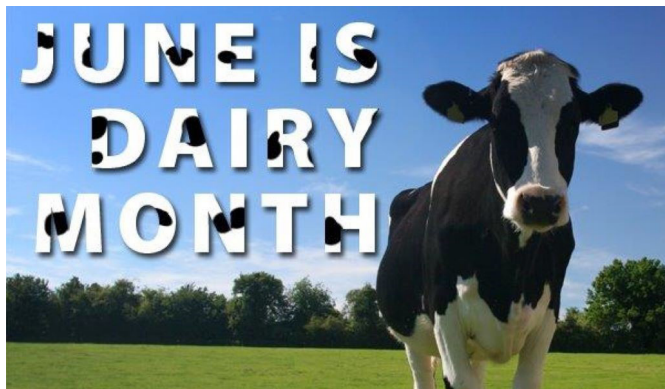


QR Code for www.agenergyny.org

June is Dairy Month

by Holly Niefergold

Erie County Dairy Princess, NYS 1st Alternate Dairy Princess



June is Dairy Month! What a great way to start off the month by selecting the 2021-2022 Erie County Dairy Princess and court!

This year Erie County has two young ladies competing for the title of Erie County Dairy Princess. Each lady will present a speech and be interviewed, with the princess selected by a panel of judges. At the Erie County Dairy Princess Coronation, June 4, 2021, the outgoing Dairy Princess, Holly Niefergold, will reflect on her past year as the Erie County Dairy Princess and about being selected as the 2021-2022 NYS 1st Alternate Dairy Princess. Holly will also give an American Dairy Association NorthEast update, the sponsors of the NYS Dairy Princess Program. The new 2021-2022 Erie County Dairy Princess and alternate will be announced and will be joined by the dairy princess ambassadors at the coronation ceremony, held in Eden, NY.

Did you know that World Milk Day is June 1st? So be sure you have a glass of cold, refreshing, nutritious milk to fuel up your body with milk's nine essential nutrients. The nine essential nutrients include: Vitamin A, D, B12, Pantothenic Acid, Protein, Phosphorus, Riboflavin, Niacin and Calcium. All of these nutrients are essential to your body and it is recommended that

you consume at least 3 servings per day of dairy. Great ways to consume your 3 servings might include: milk, cheese, yogurt and ice cream.

Dairy farmers work 24/7, 365 days a year caring for their animals and the land. They take great pride in producing quality, wholesome milk for us to enjoy. They care for their land by being good stewards of the land so the cows can be fed high quality forages. Cow comfort is important to dairy farmers and in return the happy cows are productive cows, providing us with nature's most perfect food, Milk.

June is Dairy Month! So, remember to consume at least 3 servings of dairy every day. Maybe try a new recipe with dairy and thank a dairy farmer for their dedication to their animals, land and by producing milk that contains 9 essential nutrients. Don't be shy and give dairy a try!

Creamy 3 Cheese Pasta

1 can condensed cream of mushroom soup

1 cup shredded Sharp Cheddar cheese

1 cup shredded White Cheddar cheese

1/3 grated Parmesan cheese

1 cup milk

¼ tsp ground black pepper

3 cups of your favorite shaped pasta, cooked and drained

Stir the soup, cheeses, milk and black pepper in a 1 ½ quart casserole dish. Stir in pasta. Bake at 400 degrees Fahrenheit for 20 minutes or until pasta mixture is hot and bubbling. Makes 4 servings.

If you would like to communicate with the dairy princess and her court regarding an event or to receive information, please contact Anita Richmond, Erie County Dairy Promotion Committee Chair at 716-725-9919. ■



Bio-control release cage. Photo by Sharon Bachman

Swallow-wort Project Update

The project releasing a bio-control (*Hypena opulenta*) for pale and black swallow-wort continues this summer. Sharon Bachman is working with Carrie Brown-Lima from NY Invasive Research Institute and her team to monitor release sites in western NY. Bio-control release cages were set-up at Clarence and Holley sites in late May. Adult moths were released on June 1st with the hope that larva produced from the released moths will feed on swallow-wort within the cage and then move out to the surrounding area and establish to feed on swallow-wort in future years.

For more information, visit: <http://www.nyis-ri.org/research/swallow-wort-biocontrol/> ■



Sharon Bachman checks Bio-control release cages Photo by Audrey Bowe, Cornell University

Gypsy Moths - What We Are Seeing in 2021

by Sharon Bachman, Agriculture and Natural Resources Educator,
CCE Erie



Photo: Lynn Khadiagala

To help to prepare for what we might see with gypsy moth populations this year, Sharon Bachman worked with a team of other CCE educators and campus staff as well as other agencies such as NYS DEC to host a webinar in early May to cover key things to know and where to look for more information. Peter Smallidge, Cornell University – NYS Extension Forester, recommended the following resources:

Two in-depth resources on gypsy moth:

- https://portal.ct.gov/-/media/CAES/DOCUMENTS/Gypsy_Moth/Gypsy-Moth-Fact-Sheet-Update-2019.pdf?la=en
- https://extension.unh.edu/resources/files/Resource002833_Rep4188.pdf

A good one from Pennsylvania geared toward homeowners and woodlot owners:

- <https://www.dcnr.pa.gov/Conservation/ForestsAndTrees/InsectsAndDiseases/Gypsy-Moth/Pages/default.aspx>

A couple video resources:

- **History, Ecology and Management of Gypsy Moth (A. Liebold, 2009)**

<https://www.youtube.com/watch?v=7eVC-blMAk0>

- **Gypsy Moth: a persistent invasive pest (A. Liebold, 2017)**

https://www.youtube.com/watch?v=Wk2M_koHDzA

One way to stay up-to-date on what is happening in NYS with gypsy moth populations is to follow the Forest Connect blog: <http://CornellForestConnect.ning.com>. To view the recorded webinar from early May, follow this link - [Gypsy Moth Webinar](#) ■

Spotlight on Thompson & Son Farm, Inc.

John Whitney, Agriculture Educator, CCE Erie County

This article is the eighth in a series focusing on vendors who are selling their wares at the Western New York Welcome Center's Taste NY Market. Thank you to Tom and Wendy Thompson and Wendy's sister, Shirley Howard, for meeting with me to share the farm's story along with some marketing tips and strategies.



Photo by John Whitney

Two and one-half year old Henry Thompson likes nothing better than helping out at his grandparents' farm on Long Road on Grand Island. At 2 1/2, Henry's help is largely limited to picking up stray sticks and rocks, or feeding the chickens grain or the occasional blemished, unmarketable, or overly ripe vegetables which he confidently and competently hauls in the dump bed of his Peg Perego mini John Deere XUV550. Henry's younger twin siblings, James and Molly are not yet helping around the farm much but they keep a close eye on the customers, cats, chickens, and especially their brother, as they observe all the activity at the busy farm and market.

Henry, James, and Molly are grandchildren of Tom and

Wendy Thompson (and Colin aka 'Bubba' and Alison Thompson's children). Tom and Wendy have been operating the farm at 2487 Long Road on Grand Island since 1998 raising chickens for eggs and meat along with seasonal produce grown on the farm or brought in from other areas farms. They are not currently raising hogs or growing sweetcorn, Tom explained, although pork products and sweet corn (in season) from other producers remain available at the market. Tom said he can't compete with the deer, raccoons and other crop predators to be able to produce an economical and marketable crop of sweetcorn. He is focusing more on poultry and the vegetable crops he is able to grow in his market gardens and in the new seasonal high tunnel which was funded in part through the USDA Natural Resources Conservation Service's Environmental Quality Incentives Program (EQIP).

Tom and Wendy make good use of their Facebook page, [Thompson Farms Grand Island](#), to update customers and potential customers about what crops are in season and about what vendors will be participating in the weekly farmers markets. A loyal customer posted recently, "As always, one of my happy places and thank you for being part of my life."

Thompson and Son Farm, Inc. is part of a resurgence in farming on Grand Island. As Tom explained the history of Grand Island, after European colonists and settlers began living there following the war of 1812, the early economy was based on lumbering of the great oaks that covered the Island. Some were used to build log cabins, plank houses, and barns for the early settlers. Cordwood was used regionally and shipped throughout New York State including to New York City. Much of the lumber was used for barrel staves. Many massive oaks were hewn into masts and cut into



Photo: Tom Thompson, by John Whitney

lumber for the building of the Great Lakes sailing ships fleet. Farming began around 1849 with more clearing and burning of stumps and slash in preparation for planting of hay, wheat, and other grains. Fruit trees were also popular on the Island. Beef cattle and poultry were part of the early subsistence farming and marketing. Grand Island oaks and other hardwoods provided the beams and lumber in the historic circa 1869, 40x120 Kaegebein Chicken Farm barn at Thompson and Sons Farm. Of course, transportation beyond the island was always an issue until regular ferry service began and eventually, the bridge system was completed. Much of this rich history, including discussion of the Native American history and the “Farmers Alliance” movement on Grand Island, is included in [“The History of Grand Island”](#).

The decline in agriculture on Grand Island through the early 1900s and until quite recently had many causes. While a few families continued to farm on Grand Island, including the DeGlopper family (the largest remaining farm on the Island), much of the land was converted to residential, recreational, and commercial uses or slowly reverted to woodland and wetlands. The reemerging farming pattern included many small horse farms, market gardens, and vegetable and livestock farms. These were largely welcomed by the community. That’s not to say there wasn’t some controversy and conflict with local regulations and policy interpretations, especially with respect to livestock, including poultry. Grand Island’s “Right to Farm” Ordinance,” promoted in particular by Hans Mobius of the Erie County Farm Bureau, helped to lay the groundwork for the resurgence. Tom also played a major role, not only by his commitment to the

farm enterprise, but also through his ongoing efforts to help update Grand Island’s ordinances and to get Grand Island farms brought into the Erie County and New York State Agricultural Districts Program.

While Tom is no longer raising sweet corn, he still plants field corn for harvest of decorative stalks and for some of the feed for his chickens and turkeys. Tom also plans to expand chicken and egg production in the near future since poultry has become the foundation of his business and marketing plans. He noted an increase in farm market sale of eggs during the COVID-19 pause, in part because many people were feeling more comfortable buying from the farm market than going to the chain supermarkets, or were finding the eggs shelves empty in some stores. Tom said a part of the problem was the supply chain issue of poultry farms not being able to get the printed egg cartons required for sale of eggs in grocery stores. “It’s not that chickens weren’t laying their eggs daily like they always do,” said Tom. “It’s that for a time, the packaging supply chain broke down and poultry farms couldn’t get cartons for their eggs.” He added that unlike grocery stores, he can allow customers to bring back egg cartons for refilling (with COVID-19 related precautions). Tom said he was even able to supply cartons to other small chicken farms on the Island.

Henry, James, and Molly’s father is Tom and Wendy’s son, ‘Bubba’ Thompson, the owner/operator of “Bubba’s BBQ.” Most Saturday’s during the market season, Bubba begins serving breakfast sandwiches at 8:00 AM at the Farmers Market. Around 11:00 AM,

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he switches over to smoked wings, chicken quarters, pulled pork sandwiches, smoked ribs or chops, chili or other Island BBQ favorites using fresh, local ingredients. Particularly during this on-going COVID-19 social distancing period, Bubba says “pre-orders are welcomed and encouraged.” Contact information is posted on [Bubba’s BBQ Facebook page](#). “Bubba’s bundles” of dried firewood are also available at the Thompson and Son Farm Market.

Farm processed “super compost” is another product available at Thompson and Son Farm. “What doesn’t get sold also helps condition our soil and fertilize crops on the farm,” said Tom. Another reason Tom has shifted from growing sweet corn and other high water demanding crops is the cost of irrigation. According to Tom, municipal water in Niagara County is currently priced at \$1 per thousand gallons. Grand Island’s municipal water costs \$8 per thousand gallons. Tom said “It’s much cheaper for me to buy produce than grow it, especially with all the deer damage.” The farm’s cistern, a common amenity on many of the old Grand Island farms, supplies enough water for their outside vegetable irrigation. The high tunnel crops are irrigated with municipal water.

Tom worked as a chemist at Occidental Chemical Corporation (OxyChem) until 2001. When that business was sold, he moved over to Praxair where he worked for another 10 years before retiring following a health scare. The farm life has been a welcome change and the various enterprises associated with the farm keep things interesting. Tom and Wendy originally bought the 3 ½ acre farm homestead, later adding additional woods and fields that were then owned by a developer. Tom’s involvement with bringing Grand Island farms into the Agricultural District Program led to increased involvement with the Erie County Farm Bureau. He currently serves as Vice President. By Tom’s count, 50 to 60 small farms and family and market gardens are now operating on Grand Island. He said, “It’s only common sense that people should be allowed to grow their own food.”

Maintaining farm buildings and equipment is a never-ending proposition. The new metal roof was installed by an Amish crew last year. The Kaegebein barn was re-sided with lumber cut from Tom and Wendy’s property



Photo by John Whitney

in Belfast in Allegany County. The re-siding project also eliminated the little chicken barn windows to reduce weather damage, eliminate constant window care, and further extend the life of the barn. Metal siding was installed on the weather-impacted west end of the barn before the new wooden siding was added. The barn also sports a fresh coat barn-red paint. Tom and Wendy’s son, Justin, uses part of the old chicken barn as a shop for storage and equipment restoration and maintenance. The barn still houses some of the original, Kaegebein-designed and patented egg handling and conveyance equipment that served the 10,000 bird laying facility. Tom’s scale is much different but works for this stage of his life and for the local markets.

Another associated enterprise is the Coop Bakery, which Tom’s wife Wendy operates with Wendy’s sister, Shirley, and Shirley’s daughter, Kelly Roulley. Thompson and Son Farm, Inc. is a vendor at the Western New York Welcome Center’s Taste NY Thursday Farmers Market. The Coop Bakery supplies baked goods for the Taste NY Market in the Welcome Center. Shirley Howard explained that the Coop Bakery could have gotten much bigger, but she and Wendy wanted to keep it small and focused as an enterprise associated with the farm rather than a much larger, stand-alone operation with more staff, commercial scale equipment, and all that goes along with getting bigger. We want it to be considered “a little farm bakery,” she said. This is reinforced by “The Farmers Wife” line of baked goods and the “Jammin’ on the Farm” jams, jellies and preserves.



Photo: Wendy Thompson, by John Whitney

The Thompson and Son Farm Stand and Farmers Market products include many that aren't actually grown, raised, or made on the farm. Tom said he likes to provide market customers with plenty of options and he likes making the space available to others who have things to sell. That includes slab bacon from Hartland Abattoir, Jim's Metal Kettle popcorn, Pedlow Farms products, Pickle Annie's refrigerator pickles, Chris Beyer's high tunnel and market garden crops, seasonal fruits from Coulter Farms and other area producers, locally distilled offerings including hand sanitizer from Uncle Jumbo's Vodka, unique, decorative birdhouses crafted by Norm Cerrillo (aka 'Santa'), pure, local maple syrup, honey and honey syrups, among others. Recently, the Thompson Farm Farmers Market hosted the American Legion Post 1346 annual flower sale fundraiser. Children visiting the farm and market are often given small cups of chicken scratch to feed the chickens. "We also pass out Farm Bureau's agricultural coloring books," said Tom. COVID-19 social distancing and other protocols are all part of what the farm is dealing with these days.

Farm-raised turkeys are available for Thanksgiving. The Thompson and Son Farm Holiday and Christmas Market is also very popular. The Coop bakery switches over to seasonal baked goods and confections. Freshly cut Christmas trees sell out quickly. "We also expect the new high tunnel will allow us to produce tomatoes well into the fall, along with winter greens, kale, peas and other cool season crops throughout the winter and early spring," Tom said, "so we'll continue to have

locally grown produce available year 'round."

Tom said the farm used to participate in other area farmers markets including the Roswell Park and Tonawanda markets. Scaling back to the farm's own Farmers Market and the Welcome Center Farmers Market has given the Thompsons more time to focus on local customers. While the weekday farm stand is technically a self-serve, honor system market, Wendy says Tom visits with most of the customers. Produce is often sold out by mid-morning. But, "If we're home, we're open," said Wendy. From "How can I help you?" to "Do you need anything?" to advice on raising chickens or sweet corn, to explaining how chickens produce eggs, Wendy said Thompson and Son Farm customers can expect a visit with Tom if he's around. Wendy explained that is what Tom loves, but it is difficult to do that when you are spread too thinly trying to cover too many area markets. "And some of the markets just weren't profitable due to too much competition, not enough customers and market promotion, or too few vendors without enough diversity," Tom added.

Thompson and Son Farm maintains a membership in the Farmers' Market Federation of New York State, attending annual conferences and relying on guidance and resources compiled by the federation for its members and others visiting the [web page](#). Recently, this includes free, downloadable "Open Together" signage and communication kits which are particularly important as markets strive to keep visitors and vendors safe during the COVID-19 pandemic.

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While 2 ½ year old Henry has his own small John Deere vehicle, he is especially fond of the farm’s full-size tractors. It won’t be long before he and his siblings are likely to be joining in with more farm chores including helping with field work using their grandfather’s tractors. That’s a hope and a dream at this time but it is perfectly consistent with Tom’s assertion that everyone should be able grow their own food. For Thompson and Son Farm, Inc., that includes being able to sell food and other products to neighbors, community members and Grand Island visitors, working to promote and protect agriculture on Grand Island and throughout the region, and supporting other farms and small businesses through marketing collaborations and sharing of resources and marketing space.

Thank you to Tom, Wendy and Shirley for taking the time to discuss Thompson and Son Farm and the farm’s evolving marketing strategies along with the associated enterprises, The Coop Bakery and Bubba’s BBQ. Next time you are visiting Grand Island, I hope you’ll have a chance to sample some baked goods available at the Taste NY Market, visit Tom, Wendy and Shirley at one of the Farmers Markets at the Western New York Welcome Center, stop by the Long Road Farm Stand, or spend some time at the Saturday morning Farmer’s Market held weekly at the Thompson and Son Farm. Thompson and Son Farm, Inc. is another example of the many area farms tirelessly working to make fresh, tasty and nutritious, locally grown and raised agricultural products available to consumers in the region. ■



Photo: Tom and Wendy Thompson, by John Whitney



Photo by John Whitney



Grand Island Welcome Center
1999 Alvin Road
Grand Island, NY 14072



Calling All Farmers

Please share your thoughts!

Below is a link to a survey developed by SCALE, Inc, the consultant on a farm and food system assessment and plan for the nine counties of WNY, stretching from the Southern Tier West through Monroe County and Rochester. You may wish to visit the project website here. The survey is intended to help gather detailed information about WNY farms and farm and food-related businesses, including their strengths and challenges, obstacles and opportunities. This information will enable SCALE to understand the food system from the perspective of farmers, and to provide more informed and useful recommendations for action. It should take between 12 and 15 minutes to complete. We greatly appreciate you taking the time to share your experience with us! Please know that all of your data will be kept confidential.

Farmers and Food Entrepreneurs:

<https://www.surveymonkey.com/r/FRQM2BH>

What Are You Culturing?

Timothy X. Terry, Farm Strategic Planning Specialist – Pro-Dairy

If I were to ask you “What are you culturing?” what would be your response? Would it be a scientific answer like, “Staph and Strep species”? If you had a value added enterprise would it be, *Lactobacillus acidophilus* (yogurt) or *Propionibacterium freudenrichii* (Swiss cheese)? “Snap Test.” Or would it be just plain, “Huh?”

However, the culture I’m talking about has little to do with microbiology but more with the day-to-day work environment your employees and/or other family members are experiencing. Culture is determined by the thoughts and behaviors that are encouraged or discouraged on a daily basis.

Heads-up: Reality Check ahead!

If you want to get a real sense of your operation’s culture be prepared to ask yourself, your management team, and the rank-and-file some detailed questions. Be honest with yourself and be prepared for some honest answers from your staff, as well. Even if you struggle to answer the questions that in itself may be an answer -- granted, likely more in the negative than the affirmative.

The Questions:

When was the last time a team member changed your mind? In other words, do you fancy yourself as the “Great and Powerful Oz” or are you open to other ideas and opinions? Yes, sometimes it’s hard to listen to other ideas, but this is also a chance to convey how you’d prefer to receive information and what you value.

Can you name someone you’re proud of? What’s your attitude regarding developing people and celebrating their successes? This communicates and

reinforces the behaviors and skills you value.

Do you routinely call people during holidays and vacations? This is not the odd emergency fill-in call because someone is ill or has a family emergency, but do you believe in boundaries and protecting that time and space so they can enjoy a vacation, wedding, family reunion, etc?

Can you describe a recent success or win? If not, it could mean you’re not great about celebrating progress or personal achievements. This doesn’t have to be a huge win, but it should be something within the last month or so. If you can’t come up with an answer don’t beat yourself up too much

about it, but try to do better going forward. This may mean delegating the task to someone more in tune with these activities.

How did you handle the last disagreement or conflict on the team? Good teams

will have conflict. Conflict is the crucible from which ideas are generated and paradigms are shifted. The key is to have the right tools to constructively navigate the conflict. If your answer is, “We don’t have conflict,” you’re either living in denial, “Mr. Roger’s Neighborhood”, or prior opinions have been met with such disdain that your team now sits in silence. You need to be able to have those difficult conversations in a professional and productive manner.

How do you typically start meetings? (This might include one-on-one conversations, as well.) Do you jump right into the agenda or do you allow time for everyone to catch up with one another? This is how you build esprit de corps among the troops.

Who have you last promoted and why? Now I

Culture is determined by the thoughts and behaviors that are encouraged or discouraged on a daily basis.

realize there are some 50-somethings out there who still occupy the same position on the family farm that they've had since high school. It's not unusual to have one senior family member calling all the shots (see the first question). Like a championship sports club you need to build depth in your team. Ideally, you should be growing and developing personnel such that you work yourself out of a job (aka – retirement). Unfortunately, I have seen several otherwise good farms go under because the senior generation failed to coach and systematically convey responsibility and authority to the succeeding generation. When it came time to assume the mantle of leadership it fell on them like a ton of bricks.

Who was the last person you recognized and how?

This can be as simple as an “atta boy”, positive email, award, or all out recognition in front of their peers. Your job as coach is to help people see the value of the contributions they are making. Indirectly, this may inspire others to greater performance when they see praise bestowed on their coworkers. Remember the Pygmalion and Galatea effects I wrote about a couple of years ago?

How do you focus on your own growth and development? Do you keep up with the latest trade journals? Do you attend webinars, listen to podcasts, or download training materials? If you don't develop yourself how can you develop your team?

In The 7 Habits of Highly Effective People, Steven Covey lists #7 as “Sharpen the Saw” which means, “preserving and enhancing the greatest asset you have. It means having a balanced program for self-renewal in the four areas of your life: physical, social/emotional, mental, and spiritual.”

The Last Word

Culture is experienced at the individual and team levels. Don't shy away from these questions, but be brutally honest with yourself. You may want to ask them of any advisory committees or profit teams that work with you. Their answers may provide you with some unique and very useful insight. ■

Like a championship sports club you need to build depth in your team. Ideally, you should be growing and developing personnel such that you work yourself out of a job (aka – retirement).



COVID-19 Vaccine Hesitancy on Farms and in Rural Communities / Encouraging Vaccination

John Whitney, Agriculture Educator, CCE Erie County

By early May of 2021, nearly 45% of the total U.S. population has received at least one dose of vaccine. However, current estimates are that one in four Americans do not plan to take the COVID-19 vaccine.

Health researchers estimated 70%-85% of the population needs to be at least temporarily immune through vaccination and/or prior infection for COVID-19 to stop spreading (and mutating). But daily vaccination rates have been generally declining in recent weeks. The CDC predicts that New York State's population will be 70% fully vaccinated by July 2nd, and 85% vaccinated by July 29th. Overall, that is much better than rates in many other parts of the U.S. and around much of the world. Still, the distribution is not uniform with much lower rates in many rural communities and in some historically underserved areas.

People have lots of reasons both for choosing to get vaccinated against COVID-19 and other diseases as well as for declining or delaying vaccination. It is important for all of us to recognize that there are many reasons people choose not to be vaccinated. For medical or access reasons, it may not even be a choice. We also recognize that vaccine hesitancy (or refusal) is not a new phenomenon. In many respects, it a classic marketing and communication challenge.

Neil Lewis, Jr., PhD, is an assistant professor of communications and social behavior at Cornell University with in Communication and Psychology. He also holds a joint appointment in the Weill Cornell Medical College Division of General Internal Medicine as an assistant professor of communication

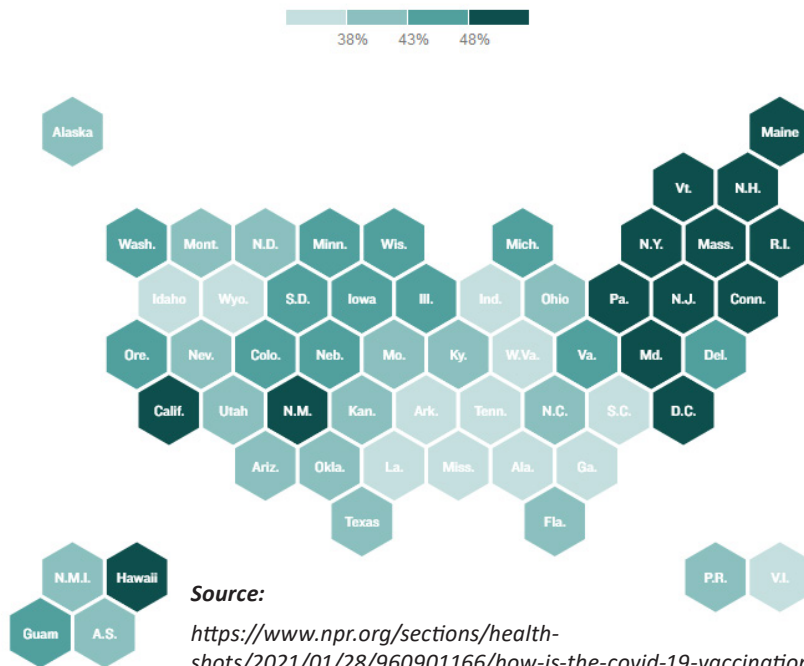
research in medicine. Professor Lewis directs Cornell's Motivation and Goal Pursuit Lab which studies how and why people's identities and social contexts interact to influence their motivation to pursue goals and their success in achieving them, particularly in areas of education, health and social disparities. Professor Lewis' teaching focuses on using the principles of social and behavioral sciences to help students better understand their social world and to use that knowledge to better the world around them. He currently teaches undergraduate courses on persuasion and social influence as well as stereotyping and implicit bias. At the graduate level, Professor Lewis teaches courses on research methodology in social and behavior sciences. <https://communication.cals.cornell.edu/people/neil-lewis/>

As the COVID-19 pandemic began to unfold, Dr. Lewis and many others at Cornell directed their attention to helping to understand and explain the science behind health policies and managing the pandemic. Professor Lewis spoke as an invited speaker and panelist at the April 27, 2021 Cornell's Institute for Food Safety "Food Industry Office Hours." Recordings of these sessions are available along with many other references and resources at <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/virtual-office-hours/>

At the April 27th session, Dr. Lewis reminded participants that "hesitancy is not just one thing" and that there is no "one size fits all" solution. He said in responding to the ever-changing situation, we need to:

- **Remove as many barriers as possible (make it easy!)**

Percentage of state's population as of May 2



Source:

[https://www.npr.org/sections/health-shots/2021/01/28/960901166/how-is-the-covid-19-vaccination-campaign-going-in-your-state-based-on-Centers-for-Disease-Control-and-Prevention-\(CDC\)-Data](https://www.npr.org/sections/health-shots/2021/01/28/960901166/how-is-the-covid-19-vaccination-campaign-going-in-your-state-based-on-Centers-for-Disease-Control-and-Prevention-(CDC)-Data)

- Promotion (consistency of messaging, accuracy, trustworthiness, source, social media, etc.)
- People (personal preferences, opinions, biases, trustworthiness of the messengers, scientists, doctors, public officials, government representatives, etc.)
- Process (or Positioning) (scheduling appointments, getting to and from vaccination sites, etc.)
- Physical Evidence (or Packaging) (does it work? do I need both doses (yes!)? side-effects, risks and benefits, etc.)

- **Facilitate access to vaccination sites**
- **Provide accurate and relevant information (to combat mistrust and misinformation)**

Building on Dr. Lewis' discussion and suggestions for building acceptance and reducing hesitancy, it's possible to apply marketing principles to the campaign. We can think about how each of these factors apply to COVID-19 vaccination efforts.

The widely accepted list of marketing principles and some suggestions for how they relate to COVID-19 vaccination include:

- Product (which vaccine? testing and safety, efficacy data, news vaccines in the pipeline, boosters, etc.)
- Price (free for now, covered by insurance or fee-based in the future?)
- Place (various clinics, large and small, pop-ups, pharmacies, doctors' offices)

Marketing plans and strategies that address these principles have a much higher likelihood of successful outcomes. That's true whether we are marketing peppers or COVID-19 vaccines. Particularly with the advent of the internet and social media, the communication components of marketing are more critical. At least in part to address these communication and collaboration opportunities and challenges, marketing researchers and practitioners have added "Productivity and Quality" and "Partners" to the marketing matrix. With respect to COVID-19 vaccination efforts, considering health and safety impacts on productivity and quality and looking to partners to help promote and provide vaccination services are clearly important parts of the marketing mix.

Recognizing farmers and farm workers as "essential workers" at the foundation of the food system, means vaccine hesitancy has potential to have disruptive influences on food supplies and prices,

Continued on page 17 >>

even as the percentage of the vaccinated population increases. As the country approaches the goal of herd immunity, outbreaks are still possible and with outbreaks come the risk of the rise of more virulent and more easily spread variants (like the “U.K.,” “South African,” and “Indian” variants) or strains that are less well controlled by vaccines. That is one big fear associated with vaccine refusal or slowing the pace of vaccinations. Farmers have plenty of experience with the resistance to pesticides and antibiotics. The phenomenon is just as true for human pathogens.

The U.S. Department of Health and Human Services (HHS) has launched a COVID-19 public education campaign called “We Can Do This.” The HHS campaign has the goal of increasing “public confidence in, and uptake of, COVID-19 vaccines while reinforcing basic prevention measures such as mask wearing and social distancing (<https://wecandothis.hhs.gov>). With consistent, apolitical, fact and science-based messaging, the “We Can Do This” campaign’s public education is organized around three themes:

- **Slowing the Spread**
- **Building Vaccine Confidence**
- **Preparing the Nation**

HHS has been tracking vaccine hesitancy rates across the country. While rates are generally lower in New York State and Erie County than many parts of the country, they are still high enough to be of concern. For example, in the health care sector, Lou Michel reported in The Buffalo News on Thursday, April 29, 2021, that 39% of the state’s nursing home workers had not yet been vaccinated. This is in spite of the fact that approximately 15,000 long-term care facility residents in New York State have died due to COVID-19. Vaccine hesitancy and refusal rates are high even in some local facilities that had especially serious outbreaks. Of course, this hesitancy is not unique to health care workers but it is of particular concern in the long-term care setting. https://buffalonews.com/good-morning-buffalo-39-of-states-nursing-home-workers-declined-covid-19-shots/article_af95912c-a87b-11eb-80b4-67e26cbd33e4.html

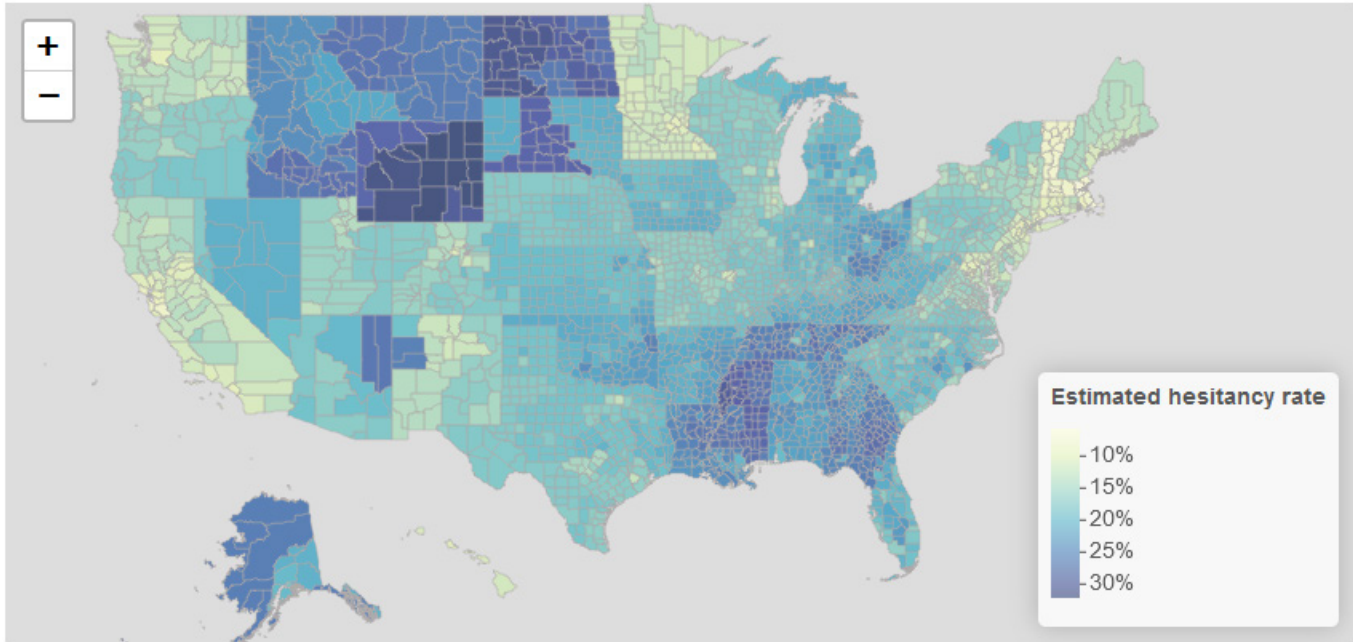
Hesitancy can be based on:

- Lack of confidence or mistrust of vaccines or health care providers or public officials
- Complacency and not seeing the need, benefit or value
- Convenience or poor access
- Disability or medical circumstances
- Sincerely held religious beliefs (Note that sincerely held religious beliefs is legal grounds for vaccine refusal in many, but necessarily all settings. That would be a question for attorneys and the courts.)
- Concerns about privacy or exposing oneself to law enforcement or immigration authorities.

Incentives can also be important. That’s not just in the form of “swag,” or food and beverages (i.e. Erie County’s “Shot and a Chaser” initiative). The biggest “incentives” can be about personal and family health and safety, the ability to more freely interact with family, friends and colleagues, and generally getting back to “more normal” conditions including the ability to work, recreate, and travel more freely. The new option, according to Centers for Disease Control and Prevention (CDC) guidance, for fully vaccinated people not having to wear face coverings when outdoors except in crowded or poorly ventilated situations may be a significant incentive for many of us.

For farms, and especially those with more than a couple of additional farm workers whether part-time, full-time, seasonal and/or migrant labor, as planning for vaccination and the likely eventual vaccine booster efforts continue, some considerations include:

- Leading by example and letting employees know you’ve been vaccinated, as well as how it went for you
- Inviting vaccinated employees to share their experiences with other employees
- Adapting and sharing the key messages in ways that will resonate with employees about what we know now and that we’re still learning <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/keythingstoknow.html>



Vaccine hesitancy map from: <https://wecandothis.hhs.gov/vaccine-hesitancy-your-community>

- Prominently displaying posters, flyers and factsheets in both English and Spanish to reinforce the safety and benefits of COVID-19 vaccines (combined with safety protocols)
- Helping with scheduling (or designating someone in the operation to help)
- Providing time off for vaccination and recovery if side-effects are experienced
- Taking advantage of the pop-up clinics, including those offered specifically for farm labor, as has been a recent option in Erie County
- Providing transportation or reimbursement for transportation expenses
- Incentivizing the effort (time off, bonus, gift certificate to a local restaurant, celebration luncheon, etc.)
- Reminding everyone that, at least for this round, vaccinations are provided at no cost to individuals
- Ensuring confidentiality where appropriate or required, including recognizing disclosure restrictions related to the Health Insurance

Portability and Accountability Act (HIPAA), Privacy Act and other privacy rules and policies

- Inviting a trusted local doctor or other public health expert to speak with staff and workers about vaccines

The United States is extremely fortunate to have been able to support the unprecedented rapid development of highly effective vaccines and to secure enough doses to allow for quick and widespread deployment of vaccines once the early logistics glitches were largely resolved. It is becoming even easier with many vaccination clinics no longer requiring appointments (although appointments are still recommended) and with the eligibility age now 16 and older across the country.

The “We Can Do This” campaign mentioned earlier provides resources & toolkits with options to search by different target audiences, formats, languages and topics. The main web link is listed at the end of this article. Essential Workers in Agriculture Toolkits are available at:

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>> Continued from page 18

<https://wecandothis.hhs.gov/essential-workers-agriculture-toolkit> (English language version)

<https://wecandothis.hhs.gov/essential-workers-agriculture-toolkit-spanish> (Spanish language version)

Katelyn Walley-Stoll, Business Management Specialist and Team Leader for the CCE Southwest New York Dairy, Livestock and Field Crops Team, recently wrote, “As a farm manager, you have the potential to influence employee attitudes about the vaccine.” She emphasized these Key Messages:

- COVID-19 vaccines are safe and effective. Available COVID-19 vaccines have met the U.S. Food and Drug Administration’s rigorous scientific standards and are safe and effective. <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/safety/safety-of-vaccines.html>
- Get vaccinated at your earliest opportunity. Visit your state’s COVID-19 land page to determine eligibility status. <https://www.nmpf.org/a-dairy-farmers-guide-to-the-covid-19-vaccine-rollout/> (at this point, in New York State everyone 12 and older is eligible provided they do not have complicating medical conditions)
- It is okay to have questions. Share trusted information with employees so they can make informed decisions about vaccines. If you have questions, talk to a doctor or healthcare provider.” <https://www.cdc.gov/coronavirus/2019-ncov/vaccines/index.html>

Katelyn also suggests you watch and share the video, “The Science Behind COVID-19 Vaccines: A Conversation with Cornell’s immunology experts.” <https://www.cornell.edu/video/science-behind-covid-19-vaccines>

Getting vaccinated and following CDC guidance will be the best protection from COVID-19 for you, your family, your community, and your farm employees. While this is a highly personal decision that you may want to discuss with your medical advisor, the more people

on your farm that are fully vaccinated, the lower your risk of experiencing a COVID outbreak – and yes, they have happened! Most of the region’s farms are family run, with workers often in close proximity. A COVID-19 outbreak can be widespread on a farmstead very quickly, leaving you and your workforce vulnerable to time on the couch or in bed and away from the cows and fields. Hospital stays will clearly complicate farm operations. Serious illness, death, or COVID-19 “long haulers” syndrome will obviously have catastrophic consequences for your family, friends and life’s work. Farmers know the important role that vaccines can play in protecting animal health and wellbeing. That’s true for humans, too.

Stay safe and be well. If you and your family and staff are not already vaccinated, we hope you give it immediate consideration and plan for supporting vaccination of everyone who works on your farm. It’s free and easier than ever. If you have already been vaccinated, you may be able to encourage others based on your own experience. ■



Essential Information on COVID-19 Vaccines



- The [COVID-19 vaccines](#) protect you against the illness.
- The vaccines are safe and were developed with the newest technology available.
- After getting vaccinated, it's possible you might have pain and swelling in the arm where you received the shot. Other side effects include headache, fever, feeling tired, and muscle pain. These are usually mild and should last at most a few days.
- After you've been fully vaccinated, you should [continue to wear a mask and stay at least 6 feet apart](#) from others.
- The COVID-19 vaccine is free of charge to all people living in the United States, regardless of your [immigration](#) or health insurance status.
- Agriculture workers [may have priority](#) to receive the COVID-19 vaccine because you're considered an essential worker. Consult your local health department.

Content last reviewed: April 15, 2021

For more information, visit cdc.gov/coronavirus

COVID-19 and the Dairy Workforce – <https://www.nmpf.org/covid-19-vaccination-the-dairy-workforce/>

How to Talk About Vaccination with Your Employees – <https://blogs.cornell.edu/scnydairyandfieldcrops/2021/04/20/how-to-talk-about-covid-19-vaccination-with-your-employees/>

Centers for Disease Control and Prevention – <https://www.cdc.gov/coronavirus/2019-ncov>

New York State Department of Health – <https://coronavirus.health.ny.gov>

Erie County Department of Health – <https://www2.erie.gov/health/index.php?q=coronavirus>

New York Extension Disaster Education Network – <https://eden.cce.cornell.edu/>

Cornell Institute for Food Safety – <https://instituteforfoodsafety.cornell.edu/coronavirus-covid-19/>

Cornell Agricultural Workforce Development / Corona Virus – <http://agworkforce.cals.cornell.edu/novel-coronavirus-covid-19/>

Cornell Small Farms Resiliency Resources – <https://smallfarms.cornell.edu/resources/farm-resilience/>

Financial & Mental Health Resources for Farmers – <https://www.nyfarmnet.org/>

2 Minute Spanish Language Educational Video on COVID-19 – <https://www.trabajadores.cornell.edu/>

U.S. Dept. of Agriculture Coronavirus Disease (topics under FAQs) – <https://www.usda.gov/coronavirus>

U.S. Dept. of Health & Human Services / We Can Do This – <https://wecandothis.hhs.gov>

U.S. Dept. of Health & Human Services / We Can Do This “Resources and Toolkits” – <https://wecandothis.hhs.gov/resources>

Cornell Ag Workforce Development – Questions, Requirements Policies - <https://agworkforce.cals.cornell.edu/2021/05/07/vaccination-questions-requirements-and-policies-for-employees/>

Crop Rotation Recommendations for Swede Midge

Christy Hoepting, CCE Cornell Vegetable Program

Winter is time to plan crop rotations

We all know that the best-laid plans can easily go awry in a cold wet spring, but it is still always a good idea to start with the best-laid plan. Swede midge can be a persistent pest of brassicas whose feeding damage can reduce marketable yield dramatically, especially in organic broccoli production (Fig. 1). Several organic growers have had to abandon growing broccoli, because of swede midge. If you have a pesky swede midge problem on your farm that seems to be progressively getting worse, you may want to consider implementing a crop rotation plan that will prevent swede midge from ever reaching economically damaging levels.

Swede midge is difficult to control on small (especially organic) farms

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

FAR AND LONG CROP ROTATION OPTIONS

Preliminary crop rotation recommendations

Preliminary crop rotation recommendations advised growers to rotate away from brassica crops by at least 3,000 feet for a minimum of 3 years. This was a conservative recommendation based on the knowledge that swede midge are weak fliers and can persist in soil for at least 2 years. Implementing such far and long spatiotemporal rotations is impractical for most small

farms. To examine whether a reduced spatiotemporal rotation scheme could effectively mitigate swede midge damage, Cornell Vegetable Program researchers conducted an extensive project, which monitored swede midge populations and crop damage on seven small-scale organic farms in New York from 2015 to 2017. This work resulted in new, less restrictive crop rotation recommendations that center on reducing economic damage by depriving adult swede midge of susceptible host plants during peak periods of activity.

New spatial (far) crop rotation recommendations

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

New temporal (long) crop rotation recommendations

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

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

The new crop rotation recommendations will not eliminate swede midge from your farm, but can prevent swede midge populations from building up to economically damaging levels.

Conditions for new crop rotation recommendations

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

WHEN CROP ROTATION IS NOT AN OPTION

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

After three years of monitoring swede midge populations

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

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

Cornell Cooperative Extension

VEGETABLE FACT SHEET

May 2020

NEW Crop Rotation Recommendations for Swede Midge
Christy Hoeping and Sarah Vande Brake, CCE Cornell Vegetable Program

A spatiotemporal rotation of 300 feet for 2.5 to 3 months can be highly effective for managing swede midge

INTRODUCTION

Swede midge is difficult to control on small farms

Swede midge (*Contarinia nasturtii*) is an invasive insect that can seriously damage plants in the family Brassicaceae, which includes broccoli, cauliflower, cabbage, kohlrabi, and kale. Larval feeding on brassica crops results in distorted plant growth, early scarring, and/or blind heads, which can reduce marketable yield and quality (Fig. 1). Swede midge control is challenging on small-scale and organic farms, where season-long production of brassica crops in close proximity is common. The continuous supply of host plants allows swede midge populations to explode. Research shows that economic damage to crops can be avoided by “crushing” the swede midge population. New crop rotation recommendations provide a feasible population management strategy for some small farms.

Life cycle

In New York, swede midge has 2-5 overlapping generations that are active from mid-May to late-October. Each spring, the tiny (2 mm) grub-like adult flies emerge from overwintered pupae in the soil. Females have 3 days to find a mate and then a suitable host on which to lay their microscopic eggs. Eggs hatch within 2-8 days and then the larvae (2-3 mm) feed deep within the growing tips of brassica plants for 7-26 days before dropping to the soil, where they pupate for 2-6 days or overwinter. About 2% of overwintering pupae remain in the soil for at least 3 years.



FAR AND LONG CROP ROTATION OPTIONS

Preliminary crop rotation recommendations

Preliminary crop rotation recommendations advised growers to rotate away from brassica crops by at least 300 feet for a minimum of 3 years. This was a conservative recommendation based on the knowledge that swede midge are weak fliers and can persist in soil for at least 2 years. Implementing such far and long spatiotemporal rotation is impractical for most small farms.

To examine whether a reduced spatiotemporal rotation scheme could effectively mitigate swede midge damage, Cornell Vegetable Program researchers conducted an extensive project, which monitored swede midge populations and crop damage on seven small-scale organic farms in New York from 2015 to 2019. This work resulted in new, less restrictive crop rotation recommendations that center on reducing economic damage by depriving adult swede midge of susceptible host plants during peak periods of activity.

NEW Crop Rotation Recommendations for Swede Midge | 1

Available Now! New Fact Sheet on New Crop Rotation Recommendations for Swede Midge
<https://ecommons.cornell.edu/handle/1813/70145>

Climate Change and Agriculture

John Whitney, Agriculture Educator, CCE Erie County


If you have been following the issues of climate change and associated extreme events, regardless of your position on the cause or magnitude of changes in weather and climate variations from historical trends and norms, you know that agriculture is considered both to have a role in accelerating climate change and potentially to be a major part of the solution.

It is generally accepted that modern agriculture, food processing, and distribution are all contributors to the greenhouse gases that are understood to be contributing to accelerating climate change. The World Future Council, one of many organizations working to address the issue, suggests that agriculture is directly responsible for 14% of total greenhouse gas emissions. Importantly, rural land use decisions and changes “have an even larger impact.” Globally, deforestation both for harvest and often for clearing for agriculture and development accounts for an additional 18% of carbon emissions. www.worldfuturecouncil.org/how-does-agriculture-contribute-to-climate-change/

State and Federal environmental and regulatory agencies are working to balance agricultural production and food supply goals with environmental protection and real threats to agricultural production, forest resources and rural economies with regional, state and national and global greenhouse gas reduction goals. These are overlapping goals since the risks of climate change include:

- More frequent and severe storms
- Rising average temperatures
- Extremes and shifts in precipitation patterns
- More floods and forest fires.

Cornell Cooperative Extension has responded to the need for better information and subject matter guidance both by supporting research on the topic and, with respect to agriculture, by organizing the “Cornell Climate Smart Farming” program. This voluntary



Erie County CLIMATE ACTION

July 9, 2020 was the 2nd hottest of any day in Buffalo

How can you help Erie County be more resilient to climate change? #ErieCountyClimateAction

erie.gov/climateaction/participate

initiative is intended to help farmers in New York and the Northeastern U.S. to:

- Increase agricultural productivity and farming incomes sustainably
- Reduce greenhouse gas emissions from agricultural production through adoption of best management practices, and increased energy efficiency and use of renewable energy
- Increased farm resiliency to extreme weather and climate variability through adoption of best management practices for climate change adaptation.

The program’s web page is: www.climatesmartfarming.org. The Extension team includes Elizabeth Buck, Vegetable Specialist with the Cornell Vegetable Program. While this is a regional team, Elizabeth is based out of the CCE Erie office. General questions to the team can be addressed to: climatesmartsolutions@gmail.com or directly to Elizabeth at: emb273@cornell.edu.

Locally, Erie County’s Department of Environment and Planning is leading the “Erie County Community Climate Change Task Force” as Erie County’s green initiative to develop an equity-centered Community Climate Action Plan to identify and promote actions to reduce greenhouse gas emissions and to help communities

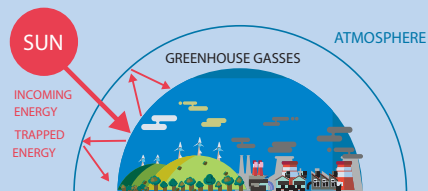
CLIMATE CHANGE

It's happening. It's local.

What is Erie County doing about it? www.erie.gov/climateaction

What's the problem?

Increased greenhouse gases are warming our planet. This is significantly changing our climate here in Western New York, and individuals and communities experience climate change impacts differently.



How does a changing climate affect our region?

Although not always visible, the effects of climate change can be felt right here in Western New York. Changes in our climate are already bringing bigger storms to our area, dangerous heat waves, increased flooding, wind events, insect population and disease. These changes impact our jobs, our health and our beautiful environment.



Flooding

Increase in rainfall, snowmelt and average precipitation. Severe storms will intensify.



Increased Heat

Average temperature will increase 3-5 degrees Fahrenheit by the middle of the century. Warmer temperatures mean less ice coverage, resulting in more lake effect snow. Additionally, more frequent heat waves are expected.



Invasive Species & Vector Borne Disease

Mosquitos, ticks, lyme disease, and algal blooms will become worse as the climate warms.



adapt to the changing climate. See: <https://www.erie.gov/climateaction/>. In addition to developing the Climate Action Plan, the Task Force is developing resources to help build awareness and participation with the goal of achieving “equitable climate action for a healthy and resilient Erie County.”

The plan will directly address agriculture by identifying local contributions and impacts and in looking to the agricultural sector and associated land uses as part of practical solutions. CCE-Erie is participating in the Task Force and planning activities, both to help ensure that agriculture issues are considered and incorporated and to help promote the public outreach efforts.

Over the coming months and years, farms will be hearing much more about this topic including the likelihood of financial incentives and payments

associated with climate smart farming practices both to reduce emissions and for soil conservation efforts to continue erosion reduction and carbon sequestration efforts. ■

References:

- US Environmental Protection Agency, Agriculture and Climate: www.epa.gov/agriculture/agriculture-and-climate
- United States Department of Agriculture, Climate Solutions: www.usda.gov/topics/climate-solutions
- New York State Department of Environmental Conservation, Climate Change: www.dec.ny.gov/energy/44992.html
- Cornell Climate Smart Farming: www.climatesmartfarming.org
- Erie County Climate Action: www.erie.gov/climateaction
- World Future Council, Agriculture and Climate Change: www.worldfuturecouncil.org/how-does-agriculture-contribute-to-climate-change/

Control Alt Delete: Multi-Million Dollar Grant to Mitigate Alternaria Leaf Spot and Head Rot in Broccolis

Christy Hoepting, CCE Cornell Vegetable Program

After witnessing many of our New York vegetable growers suffer severe losses from Alternaria leaf blight and head rot (ABHR) in broccoli and other brassica crops in 2018, it is our pleasure to be a part of a new multi-state project to address this potentially devastating disease. Cornell Plant Pathologist, Chris Smart and Cornell Cooperative Extension Vegetable Specialist, Christy Hoepting are principle investigator and collaborator on a new grant that seeks to mitigate ABHR in broccoli. They are part of a multi-disciplinary team of scientists and extension specialists from University of Georgia (including Project Director Bhabesh Dutta), Virginia Polytechnic Institute and State University, and University of Nebraska on a \$2.7 million 4-year USDA Specialty Crop Research Initiative (SCRI) grant. Although the project focuses on broccoli, new discoveries will be relevant to all brassica crops. Disease surveys and research trials will begin during this 2021 growing season – see “Call to Action” on page 26.

New Aggressive Alternaria Pathogen Resistant to Quadris Fungicide

Alternaria leaf spot causes dark sooty spots and target-spot lesions on brassica plant leaves and heads that can deem marketable portions unmarketable. In 2018, in an on-farm fungicide trial in New York, Quadris failed to control ABHR. That same year in GA, preliminary DNA sequencing of ABHR isolates collected from severe outbreaks in broccoli revealed that they were different from the Alternaria brassicicola pathogen that has typically been associated with ABHR. Furthermore, these isolates were found to be either moderately or highly aggressive on several other brassica crops (kale, cabbage and collard). Most importantly, GA plant pathologists observed that these ABHR isolates were highly resistant to azoxystrobin (the active ingredient in Quadris) using in-vitro fungicide sensitivity assays. These results were consistent with the field observations

made by broccoli growers from NY, VA and GA, where they reported reduced or no efficacy with azoxystrobin applications. A major effort of the Control Alt Delete project will utilize genomics, population genetics and fungicide resistance profiling to understand the Alternaria pathogen(s) that attack brassica – “get to know the enemy” so-to-speak.

Control Alt Delete project seeks to design practical and economically sound strategies to limit losses to ABHR:

- Coordinated effort of multi-state (NY, VA, GA and NE) research and extension team.
- Sampling of broccoli fields and transplants, commercial seed and weeds to determine the sources of inoculum, pathogen species, genetic diversity, and fungicide sensitivity distribution of the pathogen(s).
- Develop fungicide resistance detection assays to monitor fungicide resistance of ABHR to several FRAC groups.
- Develop rapid molecular diagnostic tools to identify ABHR species and fungicide resistance.
- Evaluation of the relative performance of conventional and organic fungicides for control of ABHR.
- Screen broccoli varieties for relative susceptibility or tolerance to ABHR.
- Determine effect of nitrogen levels on development and severity of ABHR.
- Study irrigation amount, type and frequency on development and severity of ABHR.
- Conduct economic analysis of disease management tactics.
- Regular interaction with Stakeholder Advisory Panel made up of growers and other relevant industry members to provide grass roots advice.

Also from New York, Dan Henry, Grower, W.D. Henry & Sons, and Thomas Bjorkman, Project Director of Eastern Broccoli Project and Professor in Department of Horticulture, Cornell University both serve on the Control Alt Delete project Stakeholder Advisory Panel.

Call to Action - New York Brassica Growers

1. Let us know if you have Alternaria Leaf Spot in brassica transplants (not limited to broccoli). Alternaria infection in brassica transplants looks like non-descript black spots (Fig. 1), which can be indistinguishable from spots caused by bacterial pathogens. Nonetheless, if you see black spots that might be caused by Alternaria (can be on any brassica transplant, not limited to broccoli), please alert Smart or Hoepting.
2. Let us know if you have an unusually aggressive outbreak of Alternaria leaf spot or head rot in any brassica crop. We will remind you of this as the season progresses.
3. Fill out 10 min Broccoli Grower Survey. This is a 10-minute survey for anyone who grows broccoli (on any scale) that collects baseline information on the severity of Alternaria leaf spot and head rot and on the perceptions of management strategies. It is completely anonymous. Your participation would be greatly appreciated. ■



Close-up of a 1-inch x 1.5-inch section of green leaf from a brassica transplant seedling that has two tiny black spots about 2-3 millimeter in size. The centers of each spot appear to be slightly cracked.

For more information

- On Control Alt Delete Broccoli Alternaria Project, please visit <https://alternariabroccoliproject.uga.edu/welcome/>
- Chris Smart: [cgs14@cornell.edu](mailto:cds14@cornell.edu); 315-787-2441
- Christy Hoepting: cah59@cornell.edu; 585-721-

Announcements

Eastern Broccoli Market Opportunity Assessment

Is there an opportunity for New York growers and marketers to invest in broccoli production and distribution as a way to diversify and strengthen their businesses, while adding jobs, dollars, and resilience to the economy and rural communities?

[The Eastern Broccoli Market Opportunity Assessment for New York State](#) sought to answer this very question. The study was made possible by the initiative of three partner organizations: Hudson Valley AgriBusiness Development Corporation, Red Tomato, and the Eastern Broccoli Project, with funding provided by Empire State Development.

BROCCOLI GROWER SURVEY



[http://bit.ly/
BroccoliGrowerSurvey](http://bit.ly/BroccoliGrowerSurvey)

New Eligibility Criteria For State Farmland Protection Program: Should You Apply?

Kathleen McCormick, Agriculture Educator, CCE Erie

This spring, New York State (NYS) announced a record \$52.5 million in grants for farmland protection in counties and towns with approved farmland protection plans. These grants will be divided among New York's ten economic development regions. Western New York has been allocated \$5 million. Awards will be made on a first-come, first-serve basis until the money runs out.

To apply, landowners must work with a county, a municipality, a land trust or the soil and water conservation district. The organization will submit the application. Neither Erie County nor the Erie County Soil and Water Conservation District offer this service. Interested landowners should contact their town office or the [Western New York Land Conservancy](#).

Eligibility Criteria and Incentive Payments

In an effort to help more farms qualify for funding, the state created eligibility criteria for eight categories. Within each category, there are minimum criteria for total acres, percentage of acres in production, and percentage of soils classified as prime or statewide important. As an extra bonus, landowners of farms that meet the criteria for climate resiliency or drinking water quality will receive an incentive payment. The minimum eligibility criteria vary based on region. The criteria for Western New York are shown in Table 1. Further details about the categories and eligibility criteria can be found in the [Request for Applications](#).

The Match

Farmland protection grants will pay landowners for their development rights and the applicant organization for costs associated with placing a conservation easement on the land. These are matching grants with a maximum award of \$2 million per project (\$500,000 for projects that also receive a federal farmland protection grant). The

state offers three levels of match. The highest match level is 87.5% of project costs. The remaining costs must be paid by the landowner. At the next match level, NYS pays up to 75% of project costs. The remainder can be paid by the landowner, local government or the land trust. The third match level is for projects that also receive a federal farmland protection grant. NYS will pay 25% of project costs.

Landowners have the option of donating all or part of their development rights to cover their part of the required match. Donating development rights is called a "bargain sale" and may be a good option for those with limited cash reserves.

Conservation Easements: Separating Fact From Fiction

Separating fact from fiction will help you make a more informed decision about whether to apply for funding. The first thing to know is that an agricultural conservation easement is a permanent deed restriction that facilitates active agricultural use of a property by limiting non-agricultural uses. The landowner voluntarily enters into a legal agreement with an organization to ensure that the property can sustain a viable farm business far into the future. The organization can be a land trust or a public body such as the state, a county or a town. The easement document outlines specifics about how the property can and can't be used. The document is recorded with the county clerk so that it becomes permanently attached to the property's deed. An agricultural conservation easement locks the land into agricultural use forever, regardless of who it. Agricultural easements are flexible in that each one is tailored to the specific property and agricultural operation. NYS provides a template to use as a starting point. Many, but not all, of the terms in the template can be negotiated. If you decide to participate

Table 1. Minimum Eligibility Criteria for Farmland Protection Projects in WNY¹

Category	Conservation Easement Acres	% Acres in Production	% Productive Soils ²
Agroforestry	43	60	10
Climate Resiliency	43	60	60
Equine	43	50	10
Food Security	21	60	60
Horticultural Specialities	21	60	10
Source Water Protection	43	60	50
Other Viable Agricultural Land	85	68	27
Vineyard	21	60	25

¹NYS Department of Agriculture and Markets Request for Applications (RFA0238)

² Soils classified as prime or of statewide importance

in the program, plan to sit down with your attorney and a representative from the grantee organization to make sure you understand all the terms of the easement you'll be signing. The following are some common misconceptions about conservation easements:

FICTION 1: "The land trust is your landlord and controls what you do on your own land."

FACT: The land trust is not your landlord because you retain title to the land. As the landowner, you have the right to manage, sell, lease, borrow against and bequeath your land. The same holds true for future owners. A conservation easement will limit your rights to subdivide and develop your land for non-agricultural uses. The NYS program also requires landowners to develop a conservation plan in cooperation with Soil and Water District staff or another conservation professional. This requirement helps ensure that the land can continue to sustain a viable agricultural operation for future generations.

FICTION 2: "A conservation easement means the DEC is going to be nosing around my property."

FACT: The Department of Environmental Conservation does not hold agricultural easements and has no role in ensuring that the terms of the easement are followed. The easement will allow representatives of organization that holds the easement to enter the property on limited occasions to inspect it. Most land trusts schedule an inspection visit on a yearly basis, and always with permission from the landowner. Most land trusts schedule an inspection visit on a yearly basis, and always with permission from the landowner.

FICTION 3: "The public will have access to your farm."

FACT: Conservation easements do not give the public access to your land unless it's what you want.

FICTION 4: "It is impossible to sell property with a conservation easement on it."

FACT: Conservation easements do not prohibit you from selling your property. An easement may extend the time it takes to market and sell a property because you will have to find a buyer who is willing to abide by the terms of the easement.

Continued on page 29 >>

FICTION 5: “Your farm won’t increase in value with a conservation easement on it.”

FACT: Land under easement continues to appreciate, but based on a reduced value. A conservation easement can reduce a property’s value by 35-65% depending on how restrictive the easement is and the intensity of local development pressure.

FICTION 6: “The land trust can transfer the conservation easement to another organization at any time.”

FACT: An easement can be transferred to another party, but it is a very rare event and you must receive advance notice. In addition, NYS Agriculture and Markets must approve the transfer and a court will oversee the transfer.

FICTION 7: “Conservation easements prohibit renewable energy development.”

FACT: NYS’s model easement allows renewable energy projects under certain circumstances. The project must be compatible with agricultural use, and located to minimize impact on soils classified as prime or of statewide importance, and it can’t be located in a “natural resource” protection area.

FICTION 8: “Banks won’t give you a loan for land with an conservation easement on it.”

FACT: Because conservation easements reduce the value of the property, the size of the loan may be reduced, but banks do offer mortgages for property protected with a conservation easement. Banks also accept protected property as collateral for other types of loans.

FICTION 9: “A conservation easements will prevent the government from taking your land by eminent domain.”

FACT: Unfortunately, a conservation easements does not prevent the government from exercising its eminent domain power. An easement MAY make an eminent domain action less likely because the government will

have to consider the interests of the landowner and the organization that holds the easement.

FICTION 10: “The IRS is going to audit me if I put an easement on my farm.”

FACT: Although there is no way to predict Internal Revenue Service actions, the vast majority of conservation easement transactions completed have not received undue scrutiny. As with any charitable donation, following the IRS regulations will minimize the risk of an audit.

Is Permanent Protection Right for Your Farm and Family?

It depends on what’s in your heart and your wallet. The most cited reason for protecting a farm is the heartfelt desire to see the land used for farming far into the future. Those who voluntarily choose to protect their farms have a deep love of the land, a strong desire to see it stay in agriculture, and a firm commitment to leaving a legacy for future generations. They see benefits that far outweigh any drawbacks.

Benefits:

- Help another farmer – Placing an easement on the land reduces its economic value, making it more affordable to the next farmer.
- Cash Infusion – Selling development rights is a way to generate substantial income without selling the land. This income can be a cash infusion for the operation or into a retirement account.
- Potential federal income tax deduction – The easement represents value given up by the landowner. Those who donate all or part of this value may receive a federal income tax deduction if certain conditions are met. Qualifying farmers are allowed to deduct up to 100% of their income with a 15-year carry-forward period.
- Potential NYS income tax credit – NYS offers an income tax credit for individual and business taxpayers who own land protected by a conservation easement. They may be able to claim a credit equal to



Photo by John Whitney

25% of the property taxes paid on the land, up to an annual maximum of \$5,000. Combined with having the land assessed at agricultural value, landowners may be able to realize significant savings on their state taxes.

- Potential reductions in gift and estate taxes – Granting a conservation easement lowers the value of the land for gift and estate tax purposes. Although recent changes to the federal tax code mean that many landowners won’t need to pay estate taxes, those with large estates may benefit from granting a conservation easement. The 2017 Tax Cut and Jobs Act made estates greater than \$10 million (indexed for inflation) subject to estate taxes. This rule will revert back to an earlier exemption level of \$5 million per person in 2026.

Drawbacks:

- Expense – Granting an easement can be an expensive process in terms of time and money. It involves appraisals, attorneys, and lots of due diligence. Expect the process to take at least a year from start to finish. It is essential to have sound legal and

financial advice during the process. NYS farmland protection grants will not pay for the landowner’s attorney or financial advisor. Landowners also will need their own appraisal if they are donating all or part of the easement.

- Forever is a long time – Conservation easements are perpetual agreements that are difficult to change, and they do limit opportunities for future owners to develop, divide, or subdivide the land. For many landowners, this is seen as a major benefit. If you see it as a drawback and are not willing to place some limits on non-agricultural development, a conservation easement is probably not for you.

Plan to consult with independent, qualified tax and financial advisors to understand the specific implications of farmland protection for your operation and family. Then ask yourself two questions: 1) does your heart tell you that protecting farmland is the right thing to do? and 2) does it make sense financially? If the answer to both is yes, it’s time to call your town office or the local land trust. ■

Cornell Cooperative Extension Erie County

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Erie County Ag News

Cornell Cooperative Extension of Erie County



Photo Nancy J. Parisi for American Farmland Trust

Check out the CCE Farm to School Program Work Team's new [Farm to School](#) webpage!

The page is a one-stop-shop for Farm to School resources for schools, educators, growers, producers, distributors, and other partners.

The [Farm to School Coordinator Map](#) connects schools looking for support, farmers interested in selling to districts, and anyone who wants more information about Farm to School with a Coordinator in their region.

Bookmark farmtoschoolny.com for easy access.

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