

In Memory of Frank Skartados



This April we lost a dedicated public servant. Assemblyman Frank Skartados passed away after a battle with cancer, leaving behind a legacy of service, dedication, and commitment.

Frank Skartados was born on the island of Astypalaia in Greece as the seventh of eight children, and eventually immigrated to New York City when he was 14 years old. He attended George Washington High School in Manhattan, then SUNY New Paltz for Political Science, and received a master's degree in International Relations from the University of California at Sacramento.

Frank was no stranger to hard work. He supported himself throughout college, working in the restaurant industry and eventually owning his own restaurant, and working in the Commandant's Office of the New York Military Academy in Cornwall while attending SUNY New Paltz.

After he earned his master's degree, the late Assemblyman returned to the New York Military Academy and

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Spring 2018 Rural Futures

NEWS OF INTEREST ABOUT RURAL NEW YORK STATE

A Publication of the NYS Legislative Commission on Rural Resources

The NYS Legislative Commission on Rural Resources is a joint bipartisan office of the State Legislature.



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served as Chairman of the Health Department, while also teaching Environmental Studies and American History.

At the time, Assemblyman Skartados still had little interest in politics. He left the New York Military Academy in 2000, and began renovating properties in downtown Poughkeepsie. Finally, in 2008, he ran for the

104th Assembly District seat. He defeated the fourteen-year incumbent, Tom Kirwan, to take the seat. The 104th Assembly District includes Newburgh, Beacon, Marlborough, and Lloyd.

Tom Kirwan retook the seat in 2010 by a narrow margin of less than 20 votes, but in 2011, Frank won the seat in a special election, where he served his community since.

While in office, the late Assemblyman served as Assembly Chair for the Legislative Commission on Rural Resources. He had an acute interest in agriculture, as he raised goats, sheep, and chickens on his farm throughout his career. In addition, the entire 104th district borders the Hudson River, and Frank focused on environmental protection and water quality, helping to fund the creation of several riverside parks and trails.

New York State and the 104th district lost a truly selfless public servant. The Commission and Senator Helming dedicate this edition of Rural Futures to his memory.



Important Rural Resources in the State Budget

The rural communities that make up New York State are unique, vibrant, and the number one priority of the Legislative Commission on Rural Resources. This year, under the leadership and strong advocacy of Senator Pam Helming, Senate Chair of the Commission, there were a number of important initiatives that were funded through the State budget.

Agriculture

Agricultural research is vital to the continued success and economic viability of farms. This year, Senator Helming fought to ensure that the budget restored all of the important agricultural research programs at Cornell University, the state's land grant university. On top of the restorations, honeybee, hops and barley research received increases of \$100,000, and a new line for hard cider research was created at \$200,000.

"Cornell AgriTech is committed to bringing agricultural and food system innovation to farmers and residents in the Finger Lakes and throughout New York. By doing so we support economic growth and a healthy environment. This innovation is driven by research made possible through the support of our partners within New York State government. I thank Senator Helming for her leadership at the Rural Resources Commission, which has ensured that researchers at Cornell AgriTech in Geneva can continue vital work on hops and barley, control of vegetable diseases, and growing and utilizing various fruit crops including apples, berries, and



Senator Helming hosted a Farm Brewery Roundtable in February. From left to right: Cheryl Thayer, Harvest NY; Kevin King, NYSDAM; Julie Suarez, Cornell CALS; Senator Pam Helming; Paul Leone, NYS Brewers Association; Jeff Williams, NYFB; Assemblywoman Carrie Woerner.

grapes. This research benefits our local farm families and consumers who can enjoy and benefit from locally grown fruits, vegetables, and grains," said Dr. Jan P. Nyrop, Associate Dean and Director of Cornell AgriTech at the NYS Agricultural Experiment Station.

Other important agricultural programs, like the New York Farm Viability Institute, Future Farmers of America, and Harvest NY were restored at their funding levels of last year.

"Investing in agriculture is investing in our communities and in our health. Agriculture is truly the backbone of our vibrant rural communities. I am proud to have successfully advocated for a strong agricultural budget this year, and will continue to work towards strengthening our farms here in New York," said Senator Helming.

"New York Farm Bureau is appreciative of the overall budget funding for agriculture. This includes support for dozens of essential programs that focus on research, promotion and marketing that work with farmers to adjust to new challenges and expand market opportunities. In addition, the budget for the Environmental Protection Fund has a real impact on advancing conservation programs and a strong stewardship record on farms across New York. We are also supportive of the increased lunch reimbursement rate for the "Farm to School Program" that will encourage more fresh, local food on student lunch menus across New York. Agricultural funding is an investment not only in our state's family farms but also their rural communities that rely on the economic activity they provide," said David Fisher, New York Farm Bureau President.

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Senator Helming also successfully advocated for increased support and funding for New York FarmNet, for the second year in a row. FarmNet provides important services to farm families, including business planning, estate transfer, as well as personal consulting. Their consulting services go beyond fiscal stressors and conflicts, and delve into personal stress and mental health concerns, which can be closely linked, at times, to the isolating nature of operating a farm. FarmNet receives around 2,500 phone calls on their 800 number each year, and takes on between 350 and 400 new cases every year. At any given time, FarmNet is helping 700 farms with their 47 consultants throughout the state.

This year, funding for FarmNet was increased from \$800,000 last year to \$872,000 this year in the Agriculture and Markets portion of the budget. The increased funding is coupled with a restore of last year's funding of \$400,000 in the mental health portion of the budget. The increased funding will allow FarmNet to hire more staff to provide even more of its vital support to farmers and farm families.

Two new agriculture programs that made it into this year's budget were also Commission priorities. The new Farmland for a New Generation Program received funds for a Regional Navigator program, and a Resource Center, both of which will connect aspiring farmers to available land throughout New York State. Also included was the establishment of Cornell's Center of Excellence in Food and Agriculture. This \$1 Million center will be located at Cornell AgriTech at the New York State Agricultural Experiment Station, in Geneva. The Center of Excellence will connect Cornell research scientists with food and farm businesses, and foster collaboration on new technologies and practices.

"We greatly appreciate the strong leadership of Senator Pamela Helming, Agriculture Committee Chairs Senator Patty Ritchie and Assemblymember Bill Magee, and





Assemblymember Carrie Woerner for securing critical funding for the Farmland for a New Generation Program to help aspiring farmers overcome one of the greatest barriers they face in New York – finding land," said David Haight, New York State Director at American Farmland Trust. "There are fewer young farmers in New York than there were a decade ago, and nearly a third of our state's farmers are nearing retirement age. This innovative program will offer new tools for farmers looking for land and ensure a stronger future for farming and growing food in New York."

"New York's food manufacturing sector is the nation's second largest, behind only California in terms of the number of food-based businesses, according to the U.S. Department of Agriculture. The strength of our farming community and the entrepreneurial energy of our people has led to this remarkable success," said Kathryn J. Boor, the Ronald P. Lynch Dean of the College of Agriculture and Life Sciences at Cornell University. "I'm very pleased that New York is investing to create the state's first-ever incubator for foodrelated enterprises, and congratulate Senator Helming for her vision and leadership in recognizing the importance of this sector to the Finger Lakes and beyond. Thanks to Senator Helming, the Center of Excellence will leverage the strengths of our local food and farm communities and help create new businesses that will push growth even farther. We can't wait to get to work with our partners."

Environmental Conservation

One important environmental conservation initiative in the New York State budget changes the language for the Soil and Water Conservation Districts Part C funding. The distribution of Part C funding is critical to the success of soil and water conservation districts statewide, and the changes will help ensure that all districts that meet performance standards will be able to obtain Part C funds. Previously, because of the way the law was written, a clerical error on an application could disqualify an otherwise eligible district. These resources allow districts to fund important projects, such as water quality improvements and conservation measures. The Soil and Water Conservation Districts also received an increase of \$1 million in their overall funding this year.

"The distribution of Part C funding is vitality important to the soil and water conservation districts throughout New York. With the



The Legislative Commission on Rural Resources met in January, hosting Soil and Water Conservation Districts and the NY Association of Conservation Districts; Left to right: Senator Tom O'Mara, Velynda Parker, Steuben County SWCD; Jeff Parker, Steuben County SWCD; Senator Pam Helming; Assemblywoman Barbara Lifton; Assemblywoman Carrie Woerner; Blanche Hurlbutt, NYACD; Scott Ryan, Montgomery County SWCD.

changes to the wording of Part C funding, all districts meeting performance standards will have every opportunity to obtain their equal share of this financial resource. The increase of dollars designated to soil and water conservation districts will allow districts to provide additional projects within their districts to continue to improve their soil and water. We are grateful for our Legislators, their efforts, and their ability to have a better understanding of soil and water conservation districts to provide districts with additional funding," said Blanche Hurlbutt, Executive Director of New York Association of Conservation Districts.

Health

Also achieved in this year's budget are several rural health initiatives. Iroquois Healthcare's Take a Look tours received a \$50,000 increase this year. IHA's "Take A Look Tours" were recently featured in the Rural Futures Winter 2018 edition. This important program provides an opportunity for healthcare professionals training in New York to consider practicing in upstate communities. On "Take a Look Tours," medical residents, physician assistants, and nurse practitioners embark on three-day tours, to get to know a specific community in upstate New York and to get an idea of what it would be like to live and work there.

The "Take a Look Tours" have received extremely positive reviews from participants, many of which are now considering careers in upstate communities as a result of their participation in the program.

In addition, Rural Health Networks, received an increase in funding over last year. Rural Health Networks (RHNs) represent partnerships among numerous rural health providers and stakeholders, including hospitals, municipalities, public health agencies, consumers, professionals serving the mental health, and many more. RHNs work together to identify community health needs in order to support the improvement of local health care, by promoting wellness, as well as facilitating compliance with statewide healthcare initiatives. There are 32 RHNs throughout New York State, and they are essential in maintaining the stability and viability of rural communities. This year's budget also includes critical access hospitals and sole community hospitals in the definition of enhanced safety net hospitals, and included a total of \$25 million for both. This funding will help support these institutions that provide vital services to low-volume, rural communities.

Busy Bees: Northeast Pollinator Partnership and Citizen Science

Apples are abundant in New York, and as it turns out, so are wild bees. Many orchard owners traditionally rely on rented honeybees to pollinate their annual crops, but recent studies have shown that these practices are not necessary on some orchards. Bryan Danforth at Cornell University has been collecting bee samples on New York orchards since 2008, to analyze bee diversity and abundance. There are about 420 different bee species in New York State, and throughout Danforth's research, his team has been able to collect 120 of them.

Orchards, like most agricultural businesses, are extremely reliant on the weather. There is a variably small window of time where farmers are able to do certain things, and the same can be said for Bryan and his team. Over the years, they were only able to sample about twenty orchards in each season. There are a lot more than twenty orchards across the State, so Bryan and his team decided they needed to develop another way to collect their data.



http://www.northeastpollinatorpartnership.org/count-bees/

Photo Courtesy of the Northeast Pollinator Partnership and Kent Loeffler.

Thus the Northeast Pollinator Partnership (NEPP) was born. NEPP allows farmers and farm workers to collect data on bee abundance on their own orchard, by using an application on their smart phone. Farmers survey one square meter for bee activity over the course of five minutes. Bryan asks that each orchard collect this data from three different locations within the orchard, during peak bloom, on days that are relatively sunny, at least 60 degrees Fahrenheit, and fairly calm. This fifteen minute process helps Bryan and his team determine the bee abundance on an orchard, and record the data for comparisons and analysis.



Andrena miserablis is a common medium sized bee, just barely smaller than the size of honey bee.

Photo courtesy of Kent Loeffler.

By participating in this citizen science, apple growers are helping to identify whether or not renting honey bees is necessary, and also providing Bryan and his team with important information regarding biodiversity in different areas. While collecting data, surveyors are asked to identify how many native or wild bees there are, versus how many honeybees they see. Unfortunately, this process cannot specifically identify the bee species as closely as Bryan's collections can. Many of the wild bee species are very closely related, and not identifiable with the naked eye. Nonetheless, these contributions are extremely valuable, and Bryan hopes that more apple growers will become involved.

"I simultaneously collect scientific data and educate people on bee diversity," said Bryan. "The only pollinator that's really monitored is the honeybee through beekeepers. Nobody is really looking out for wild bee populations."

Bryan's research is important for evaluating the biodiversity in different habitats. Recording this data can be crucial in understanding the different forces behind changing bee populations and their habitats. For example, if there is historical data on wild bee abundance across New York State and a new pesticide starts being used on farms, it is much easier to evaluate the impact this pesticide has on the wild bee population. If through continued data collection, Bryan and his team notice that the bee abundance is dropping, the NEPP system could be an early detection system for issues related to new pesticides or bee health.

"I have found it to be a great way to make connections with growers, extension agents and consultants and start conversations around IPM management. We find the highest bee abundance and diversity in orchard that follow good IPM practices," said Maria Van Dyke, research and outreach support staff for the Native Bee Systematics and Ecology Lab at Cornell University.

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very abundant where both apples and strawberries are grown.

Photo Courtesy of Kent Loeffler.

There are other benefits to this data collection, too.

"Abundance can measure effectiveness for apple pollination and species richness," said Bryan.

Bryan and his team still do field visits to orchards each season, as physical samples can have other useful properties. Beyond identifying specific species, physical specimens allow Bryan and his team to determine which, if any, pathogens are present, and what types of pollen the bees interacted with.

"Some growers are motivated by environmental stewardship, and resonate with our biodiversity argument," said Bryan. "Honeybees bring in pathogens and compete with native bees. There are lots of reasons not to bring in honeybees. Some of these are value judgements while others are monetary. If they want to reduce the cost of honeybee rentals, then we offer the tools for them to do that. We can analyze their data and tell them if they are above or below the threshold for reasonable pollination from the native bee population on their orchard."

"There are some growers that really need honeybees, when there is hardly a wild bee to be found. We wouldn't recommend everyone to stop renting honeybees," said Bryan.

Honeybees are traditionally an important part of apple growing. Growers can spend about \$70 per hive, and get about 1-2 hives per acre. On an orchard of 100 acres, growers can face costs of \$7,500 for honeybee rental. Not all orchards pay for their honeybees, but those that do have the opportunity, through this program, to evaluate their orchard's wild bee population to determine if the honeybee rentals are truly necessary to the success of their crop.

"It's hard for growers to change their practices, especially if they've been working for 20 years," said Maria. This will be the program's third year. In their inaugural year, there were 34 growers in the program and last year that number dropped to 20. Bryan and Maria blame the rainy spring for the decline in numbers, since the program requires good weather for collection days.

"We've been a little disappointed by the level of participation by apple growers. We really need them to be excited about this project. We tried to explain how the data is useful to us and to them, but sometimes they may not feel the huge need to go out and collect this kind of data," said Bryan.

The Northeast Pollinator Program website has a lot of training tools designed to get the growers' eyes acclimated to noticing the difference between honeybees and wild bees. There are also step-by-step instructions on how to use the app and record the data from each orchard.

"We're hoping that this project will expand the geographic range of our data collection. I envision a project from Michigan to Canada, where we can study the native bee populations and have hard data," said Bryan. The most orchard dense regions of New York are just south of Lake Ontario, the Hudson Valley, and the Lake Champlain area, Bryan noted.

New York Farm Viability Institute (NYFVI) originally funded the Northeast Pollinator Program, as well as USDA and the Atkinson Center for a Sustainable Future at Cornell University.



Photo Courtesy of the Northeast Pollinator Partnership and Kent Loeffler

FINYS: Bringing More Local Food to More Local Schools



Photo courtesy of Rock On Café, Broome Tioga BOCES.

Fresh food promotes health and healthy living, and provides connections between farmer and consumer. To help encourage institutions like schools to pursue healthy and fresh food options, American Farmland Trust established the Farm to Institution New York State (FINYS), a collaborative initiative dedicated to providing tools and support to institutions looking to get fresh food from New York farms on their menus.

This program was started in 2013 as an effort to strengthen New York's farm and food economy and improve the health of all New Yorkers by bringing more local food into schools, colleges, emergency feeding programs, and other institutions. Institutions provide meals for millions of New Yorkers annually, including 1.2 million children in K-12 schools. Increasing the

purchase of New York grown foods has the potential to impact public health while strengthening local economies across the state.

FINYS recently announced the launch of a new online platform, the Local Food Buyer Learning Center. The online center offers food service professionals, administrators, and other institutional partners access to resources and training opportunities to bring more local food to their eaters.

The Local Food Buyer Learning Center launched its first module, 'Getting Started: Building a Solid Foundation for Farm to School," with tools for recruiting a Farm to School team and cultivating buy-in within your school district and the community. Throughout the module are worksheets and checklists for users to download and fill out with their teams.

While focused on K-12 schools, the concepts can be applied to a broad range of institutional settings. New modules and educational opportunities will be added in the future on topics such as menu planning with New York fresh and minimally processed foods, finding and connecting with farmers, and navigating state and federal guidelines.

In order to promote and incentivize bringing more New York grown foods into our schools, this year's New York State enacted budget has incentivized K-12 schools to ensure local ingredients in school lunches, by quadrupling school lunch reimbursement to \$0.25 per meal to those schools that purchase 30% of their lunch ingredients from farms in New York. The enacted budget also doubled state funding for Farm to School grants to \$1.5 million.



"The FINYS Local Food Buyer Learning Center offers resources for anyone interested in bringing more food grown in New York into a school, college, or other community institution. Ultimately, we hope that the Learning Center will support every institution in New York in spending at least 25 percent of their food dollars on New York grown foods. With state-supported institutions spending over \$1 billion each year on buying food and offering meals to more than six million people in New York, achieving this goal will have a real impact on the health of New Yorkers and our state's economy," said David Haight, New York State Director of American Farmland Trust.

Hartwick College's Malting Barley Services

The craft beer industry has grown exponentially in the last five years throughout New York State. New York now boasts 400 licensed farm and microbreweries, all of which are required to use New York grown products as a main ingredient in their beer. All breweries licensed under the Farm Brewery licensing that began in 2013 receive incentives for following guidelines that require a certain percentage of their ingredients be grown in New York. Right now, the licensed breweries must have at least 20% of their ingredients grown in New York. By 2019, that number rises to 60% and in 2024, 90% of the license holder's ingredients must be grown in New York.

Growing hops and malting barley in NewYork State is no easy task. Luckily, there are resources available to help farmers throughout the process. Hartwick College's Center for Craft Food and Beverage, launched in 2014, offers support to the craft beverage industry. The Center is a resource that offers services like testing, business development, and education for small and mid-sized breweries, wineries, distilleries, farms, and other producers.

"The private colleges struggle to get outside of their campus. Hartwick wanted to engage their local community and impact economic development," said Aaron MacLeod, the director of the Center.

Aaron MacLeod previously worked as a chemist for the Canadian Grain Commission's Grain Research Laboratory. There, he developed his specialty—providing quality assurance for malting barley. Now, under Aaron's leadership, the Center has served over 260 clients all over the country in more than 30 states. They have already had to relocate, as they outgrew their original facility. Aaron works with two full time technicians, as well as students that have the opportunity to do both internships and work-study programs with the Center.



Grain samples from New York farmers submitted for testing.

Photo Courtesy of Gerry Raymonda Photography.



Laboratory Technician Rachel Truland testing the germination of malting barley. Photo Courtesy of Gerry Raymonda Photography.

"Public service is really important. I was very proud of my public service in Canada, but being here and helping an academic institution serve their community is a very good stint for me," said Aaron.

The services provided by the Center are affordable too. The Center was originally funded by grants from NYS Empire State Development, USDA Rural Business Development, as well as the Appalachian Regional Commission. Now, the Center operates entirely on service fees. Anyone can submit samples after downloading the submission form and following the shipping and payment instructions. The lab will test barley quality, beer quality, food safety, and malt quality.

"We make sure that we are operationally sustainable through fees," said Aaron. "We try to be very affordable because we are a not for profit. Commercial laboratories can be really cost prohibitive."

Hartwick's Center is the first testing center in New York, and one of only a handful throughout the country. Commercial testing is available, but the convenience of Hartwick's services, and the nature of its not for profit organization, have led over 260 businesses to use their services, most of which are outside of New York.

Hartwick's services are immensely valuable. The feedback producers receive from the Center can be used as marketing tools. Brewers require certain quality standards for the malting barley used in their beer. Before the existence of the Center, farmers and brewers did not have a way to determine the quality of their product until after brewing. Now that these tests are available, farmers are able to perfect their crop and brewers know exactly what they are putting into their beer.

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"Every time someone adds a value, then they generally want to do testing. The farmers can go to our website, download a submission form and they can request the test and send it in. This helps to characterize and evaluate their product. The maltsters need to know certain quality specifications like protein content, and germination, before purchasing grain," said Aaron.

To Aaron, it is really important that the Center continue to serve the school, surrounding community, and industry at large. He values engaging students at the Center, from business majors to chemistry majors. Business majors have opportunities to work at local brewing businesses in social media and marketing capacities, while chemistry students have opportunities to get real handson experience in the lab. The interns practice their skills on real submitted samples, giving them great resume building experience right on campus.

"The skills that they're learning here are completely transferable because the chemistry techniques that we use for analyzing beer are very similar to water, pharmaceuticals, or any other type of chemistry that you might do. The skills can transfer to almost any industry," said Aaron.

The Center also has continuing education programs for professionals. They offer a five day class on malting and have had two weekend brewing symposiums.

To learn more about the Hartwick Center for Craft Food and Beverage and their services, please visit:

https://www.hartwick.edu/about-us/centers-institutes/center-for-craft-food-and-beverage/



Hartwick chemistry graduate, Megan Douglass, using an instrument to measure alcohol content of beer.

Photo Courtesy of Gerry Raymonda Photography.



Agriculture in Long Island

Article Courtesy of Long Island Farm Bureau

It may surprise many people in New York to know that Suffolk County on Long Island remains one of the largest agricultural counties in New York State in terms of annual sales of products. Considering its proximity to New York City, Suffolk County still has almost 40,000 acres of land and water in agricultural production. Despite the image people have of Long Island, the eastern third remains rural with vast amounts of open space, agriculture, tourist destinations, beaches, and rural communities. Long Island's agricultural industry dates back to the settlers in the mid 1600s. Some of the land in farming today has remained in the same family's hands for over a dozen generations and dates back to land grants from the original towns here.

Our agricultural industry is broad and varied. According to the 2012 Agricultural Census, Long Island's ag industry employs over 7,500 people and generates over \$240 million dollars in annual sales. Some of our crops include, but are not limited to, fruits and vegetables, nursery, greenhouse, sod, wine and grape, equine and small animal production, and seafood, including wild harvest oysters and shellfish, as well as the newly revitalized industry of cultured oysters and shellfish. Value-added processing also plays a large role in today's farm community, with products including cheese, wine, craft beverage, relishes, mixes, and salads, etc., and supporting sales to local restaurants and stores direct from the farmer.

All of these great things also come with a myriad of issues and concerns. First, there is tremendous pressure on our remaining farmland. Starting in the 1940s, as soldiers returned from World War II, suburban sprawl became a major component of Long Island history. It was easy for builders to buy already cleared, prime farmland to build their housing developments such as Levittown. Second, as residents moved out from New York City, the pressure of development on farmland also increased. It was not long ago-perhaps 75 to 100 years ago-that there were active farms in Queens. As residents moved further east from the



A sod farm in Long Island. Photo Courtesy of Long Island Farm Bureau.

city, the farm community moved further east as well. Today there is no place for farmers to move as we are at the end of the island. Despite the current 40,000 acres of farmland in production, prices remain high due to the scarcity of land. On the North Fork of Long Island, an acre of land costs between \$80-100,000. It is double or triple that amount on the South Fork.



Photo Courtesy of Long Island Farm Bureau.

With the rapid and increasing loss of land, in the mid-1970s, then County Executive John Klein, along with a number of farmers, developed an innovative program called The Farmland Preservation Program. The idea was a way to preserve our prime soils and farmland as working lands to ensure that farming would survive here. The concept was fairly simple. A municipality would agree to buy the development right (the right to build houses) in exchange for a cash consideration, and the farmer would retain the right to own and work the residual land for farming. An easement or restriction was formally placed on that land in perpetuity. That program is still in place today and has spawned similar programs in other Long Island towns, in other regions of New York, and throughout the United States. Over 10,000 acres have been preserved so far through Suffolk County's plan, and an additional 10,000 acres through individual town plans.

Due to high costs of living and production costs, and considering that many farmers are price takers, Long Island farmers had to find a way to transition from wholesale commodity crops to specialty crops and value-added products to survive. In the 1970s and 80s, we saw the transition from wholesale vegetables to nursery and greenhouse production and the wine industry. Today we are seeing another transition to ever higher value crops. Oyster farmers have grown since the county has instituted a leasing program of underwater plots. We now have over 50 oyster farmers growing product in cages on the bay bottoms. Specialty vegetables and food production in greenhouses are other new and exciting trends we are seeing, as is the return to small animal production serving consumers who want to know where and how their food is grown. Retailing has also become a fact of life in today's Long Island farming, as have farmers markets, processing, agritourism, and ag education.

Senator Ken LaValle said, "I am proud to represent one of the largest agricultural districts in New York State. While the local farming community has faced many difficult challenges over the years, they have been able to overcome the obstacles and carry on their traditions. It's critically important that we continue to provide the necessary support to enable Long Island's agricultural industry to continue to thrive and to protect this vital element of the East End's economy."

Even though our growers have both the good and bad when it comes to farming, one thing they do not lack is optimism. With a new generation of farmers in the wings, agriculture on Long Island looks poised to head into the 21st century.

Scott Jordan: Rural Educator of the Year

In our schools, students from all walks of life enter the same building for six hours a day. While there are many different ideas and cultures within the walls of a school, most students will agree on one thing: nothing is better than class outside.

No one knows this better than Scott Jordan, teacher at Cuba-Rushford Central School District in Cuba, New York. Scott has devoted the last 25 years to educating high school students on the world beyond the classroom. He has just been awarded the honor of National Rural Teacher of the Year by the National Rural Education Association for his hard work and dedication to his students at Cuba-Rushford.

Scott teaches a fishery and wildlife technology class that allows driven students to get hands on experience managing an on campus fishery, where the students are able to witness the processes involved in raising fish sustainably. Scott's students also manage an on-campus deer



Photo Courtesy of Scott Jordan.

management park named "Deerasic Park" where students are responsible for its upkeep. In "Deerasic Park," students track gestation periods of the deer within the park, and compare these numbers to other statistics from agencies like the New York State Department of Environmental Conservation. In addition, students are responsible for tracking deer during the "rut", or mating season in the fall to learn and gather more information on deer movement and general health.



see the world through their annual hunting trip. Photo Courtesy of Scott Jordan.

Students carry out these activities almost entirely on their own, and each step of the process is geared toward students' interest areas. This focus on the students has been an integral part of the program from the beginning. When Scott was applying for permits to build a fish hatchery on campus, he worked with students interested in law on permit acquisition. Even students interested in film and production have a niche within Scott's program, as Cuba-Rushford students film over two dozen episodes of a wildlife show within their deer management park and beyond that airs on the Pursuit Channel called CRCS (Cuba-Rushford Central Schools) Outdoors. The show will be entering its seventh season this year.

When the students are nearing graduation, Scott organizes an exotic hunting trip for students. Students fundraise for this trip within their community to embark on a once-in-a-lifetime adventure. Last year, Scott and his students went to New Zealand to hunt stag. CRCS Outdoors has traveled to South Africa to hunt, as well as annual trips to Alaska, New Zealand, Texas, and locally around New York State and Pennsylvania.

"There is no one more deserving of the National Rural Teacher of the Year award than Scott Jordan," Senator Catharine Young, 57th Senate District said. "With creativity, passion and excellence, he has developed an extraordinary wildlife and environmental program at Cuba-Rushford that brings science and the natural world alive for students and encourages critical 21st century skills like inquiry, exploration and leadership. Our community is proud to call him our own and grateful for his unparalleled dedication to the education of our young people."

Currently, there are 57 students in the program, and they conduct much of the research on their own in small groups. This involves students going out into the field to collect samples, set up trail cameras, and manage the lands. Students stay in this program for the entirety of their high school careers if they so choose.

Scott spends his mornings teaching in the classroom, and then dedicates his afternoons and more to managing the program.

"This is no nine-to-five job, but I love every minute of it," said Scott. "Seeing my students go on to receive scholarships in college and go into the workforce with a strong resume is very rewarding."

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Through this program, students receive their required credits for sciences through an integrated curriculum. Scott's students excel beyond the state averages for testing, and upper classmen even earn college credits through the program by leading their own project and composing a thesis paper. Scott has led his students through competitions like "Envirothon" where students are tested on a variety of environmental issues, and Scott and his students have won the regional competition over ten times.

"My students do very well in competitions like "Envirothon" because they have real experience in the field," said Scott.

This program that Scott has dedicated his life to has made a remarkable impact on many young adults entering college or the professional world.

"I have had students go on to pursue careers related to what they learned here," said Scott. "I'm glad that I can help them do what they love."



Cloudy Waters: Harmful Algal Blooms

Blue-green algae, or cyanobacteria, have found sanctuary in the calm lakes and ponds of New York and wreak havoc on native flora and fauna. These concentrations of bacteria, or blooms, often appear in warm, nutrient-rich waters that have high concentrations of phosphorus and nitrogen.

Blue-green algae can be identified by its slimy texture, appearing in floating mats of green, blue-green, yellow, brown, or red. The bacteria is often found in dense colonies at the surface of waterways, giving off the appearance of spilled paint.

Large colonies of blue-green algae can block sunlight from permeating the surface, impeding plant growth, and causing stagnation. This algae is can also be harmful to fish and other aquatic species, potentially leading to fish deaths if cyanobacteria populations are high.

Blue-green algae not only comes with an unpleasant presence, but can also cause serious health issues. Humans, pets, and livestock should avoid contact with water containing these algal blooms, as they may contain harmful toxins that can cause a variety of skin irritations, as well as nausea and vomiting.

Jesse Lepak, Fisheries and Ecosystem Health Specialist at New York Sea Grant, encourages people to be vigilant when participating in recreational activities to prevent exposure to HAB's, and report these sightings.

"The two things that people should do when they suspect a HAB is avoid any contact with the water, and report the bloom to the proper authority," said Jesse.

In order to limit your own exposure to blue-green algae, avoid swimming in waters that you suspect are experiencing HABs and keep your pets away from those waters as well, as consumption of the water or exposure can be harmful.



Harmful Algal Blooms change the appearance of water, often resulting in green coloration and limited water clarity.

Photo courtesy of Gregory L. Boyer.

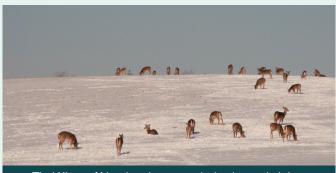
"Dogs can be attracted to the odors that the HAB's emit, and exposure can be high when they clean their fur or drink contaminated water, so they can be particularly at risk," Jesse said.

"It is best for people and pets to avoid water contaminated with HAB's until the water is properly tested," said Jesse. "These measures are necessary when trying to prevent exposure."

Suspect algal blooms can be reported to the New York State Department of Environmental Conservation: at: https://www.dec.ny.gov/docs/water_pdf/suspalgformedit.pdf. Email the completed form and, if possible, attach digital photos (close-up and landscape to show extent and location) of the suspected bloom to HABsInfo@dec.ny.gov.

For more information about HAB's, and what you can do to help prevent their spread, please visit www.nyseagrant.org/habs.

The White-tailed Deer and the Environment



The Village of Hamilton has a very high white-tailed deer population. Photo courtesy of Ian Helfant.

To most New Yorkers, seeing a white-tailed deer is commonplace. Many upstate, rural New York communities provide perfect conditions for deer to thrive. It is important, however, to be familiar with the ways that high white-tailed deer populations can have serious negative impacts on these communities.

In rural New York, high deer populations can correlate with an increase in occurrences of Lyme disease. The black-legged tick is the primary vector that carries Lyme disease; it has been nicknamed the "deer tick" because of its unique relationship with deer. While deer themselves do not play a biological role in the transmission of the disease, they are important hosts to black-legged ticks. The ticks will attach to deer and feed on them, while being transported along with the host deer. As an example, deer residing in villages, or feeding directly in a backyard, pose a potentially increased risk for black-legged tick exposure, increasing also the risk for Lyme disease transmission in people or companion animals. Lyme and other tick-borne diseases can be debilitating if not treated correctly.

While most residents generally dislike seeing deer foraging among their gardens, it is important to know that high deer populations can significantly reduce biodiversity. A deer's feeding habits affect the growth and survival of many different species, including plants, birds, insects and other mammals. As an example, an increase in deer population can be followed by an eventual decrease in songbird population—particularly those nesting and foraging on the forest floor. In this instance, deer are known to eat low plants along the ground, which results in loss of natural habit for the birds and their prey, resulting in reduction in ground cover and even lack of food for their young.

Likewise, as flowering plants are eliminated by foraging deer, pollinator abundance is greatly reduced. A high deer population will also deplete a forest's germinating and young trees, until the forest has no young trees established. A long walk through

the forest will, no doubt, eventually bring you upon a stand of tall, well-spaced trees, with no low-growth other than ferns, which deer do not eat. This overgrazing can result in a loss of diversity in tree species—which is considered very rich in New York—and drastic changes in ecosystems, canopy cover, soil development, and soil nutrients, as well as loss in root establishment, which guards against erosion and flooding.

Perhaps the most well-known risk of a high deer population is the increased occurrence of vehicular impacts with errant deer. According to the National Highway Safety Administration (NHSA), there are approximately 1.5 million deer-related car accidents annually. New York State's Department of Transportation reports that roughly 65,000 deer-vehicle collisions occur in New York State alone. These collisions not only result in property damage but also deer and occasional human injuries and fatalities.

In 2013, the town of Hamilton in Madison County, with help from Colgate University students and professors, explored how the deer population was affecting the local community. They discovered a strain on Hamilton's culture and ecosystems. They also found that the high deer population in the small village was made possible by several conditions: no hunting; lots of edge habitat, where backyards open up into larger fields; cleared forest; plenty of food during the winter months; and no natural predators. Coyotes and other predators do not typically enter the village itself. In addition, as in most villages, there are discharge ordinances that limit the ability to discharge a firearm, or a bow, within certain distances of a house, unintentionally creating a safe haven for deer in more densely populated areas.

The high deer population in Hamilton led the village to implement a cull, utilizing local hunters in the process. The first cull in the village began in December 2015 and ended in March 2016, and was followed by a second, two-week cull in September, 2016. In the first year, there were 49 deer culled, 41 in the second, and 25 in the third. Hamilton continues to use culling as a deer population management technique.

Hamilton is not the first municipality in New York State to implement deer population management techniques, to be sure. In fact, communities throughout the US have struggled to find appropriate and acceptable deer management methods. Cayuga Heights, in Tompkins County, began exploring the notion in 1998. After years of deliberation, in 2012, Cayuga Heights surgically sterilized 137 does using Wild Buffalo, an environmental conservation company that specializes in deer population management. At this point, camera surveys estimated that there were about 125 deer per square mile

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Sterilization surgery on a female white-tailed deer at Cornell University's Hospital for Animals. Photo Courtesy of Jason Boulanger.

within the 2 square mile village. Twelve does were then sterilized in 2013, and camera surveys indicated that the population had declined by 30%.

This decline was not permanent, as immigration from the surrounding communities that did not have a deer management program replenished the local deer herd. There was a similar outcome in the Cornell University sterilization program that, despite a greater than 90% doe sterilization rate, did not see a decline in the campus deer population. Cayuga Heights determined that their village could only healthily sustain about 20 deer per square mile, or 35 total for the village, and that surgical sterilization would be ineffective. Similar to Cornell, and many other communities that tried surgical sterilization first, Cayuga Heights decided to implement lethal control, in the form of an archery cull. They culled 48 does in the first year, then 24 the next, resulting in a 70% decrease in the population.

These methods, however effective, cannot account for deer immigration from other areas. Although Cayuga Heights was able to decrease the population to about 50 deer, the next year there were almost 80 in the village. This is mostly due to deer coming in from surrounding areas, suggesting that the best approach may be a regional strategy with all municipalities working together.

"You can't avoid immigration," said Paul Curtis, Cornell University Professor and Extension Specialist. "That's always going to be an issue. The communities that I have found to be successful are ones that have written a deer line into their annual budget. You have to plan for ongoing maintenance."

Cayuga Heights was able to hire an outside company to manage their program. The sterilization, on average, cost about \$1,000 a deer while the cull averaged to around \$400 per deer. This cost is not an option for many rural communities.

"In a town like Hamilton, we don't have the budget to bring in trained sharp shooters. It's a very expensive process," said lan Helfant. "To me personally, it's really important that we work with the local community and the local hunters. They're the obvious partners here."

Several other villages throughout the state have also used local hunters for culls, including Trumansburg and the Village of Lansing in Tompkins County, and Irondequoit in Monroe County. Regardless of the methodology, culled deer are processed and the venison never discarded. The local hunters are able to keep the deer for themselves or donate the meat to a local food pantry or processor.

"There's also a statewide program, where you can give your deer to a processor who is enrolled in this program, and they're paid by the state to process the deer, then it goes into the statewide venison distribution program," said lan.

lan also stressed the importance of the code of ethics the village of Hamilton used during their culls. Their code of ethics was directly derived from the code created by Bernd Blossey, chair of Cornell's Deer Management Committee and Associate Professor in the Department of Natural Resources at Cornell University. Bernd and Cornell University have played an important role in testing and fine-tuning various deer management options. Their materials and approaches are now being used in many municipal management programs throughout the state.

The code of ethics developed by Bernd, includes provisions that ensure the safety of participants and residents, as well as appropriate ethical hunting measures. The code includes requirements that address proper attire, safety guidelines, maximized hunting efficiency tactics, appropriate hunting hours, and tracking guidelines, among other topics. The code was designed to maximize participation and safety while also reducing potential public conflict. All participants of the cull are required to follow all of the detailed instructions in the document.

"Bernd Blossey is the best expert around," said lan. "He has been central to Cornell's efforts to control the deer population, and gave us an example of a successful cull that really jump started us."

For more information on Bernd and his colleagues' techniques, findings, and recommendations, Cornell's deer management brochure can be found here:

https://deeradvisor.dnr.cornell.edu/sites/default/files/resources/IntegratedApproachForManagingWTDeerInSuburbanEnvironments-28ax086.pdf

NYS DEC Using Public Input to Inform Deer Management

Courtesy of NYS Department of Environmental Conservation

The New York State Department of Environmental Conservation (DEC) is responsible for managing wildlife for the benefit of all citizens of the state, now and in the future. How citizens are benefiting from or being harmed by deer and what their values and priorities are with respect to deer management is important information for DEC deer managers to fulfill that responsibility.

DEC recently has changed the way it gathers public input about desired deer population sizes. Last year, researchers at Cornell University's Human Dimensions Research Unit worked with DEC biologists to develop a survey that asks residents questions about their interests and concerns related to deer, how they would like to see the deer population in their area change over the next several years, and how important deer management issues are to them. The survey was mailed out to a sample of residents in parts of the state



earlier this year and will be mailed to a sample of residents in the remainder of the state early next year. Results of the survey will be used, in combination with data on deer impacts on forest condition, to guide DEC's deer population management decisions around the state.



cull. Photo Courtesy of Astrid Helftant.

Keeping the ecological impacts of deer at a sustainable level is also a top priority for DEC. Heavy browsing by deer can have profound and long-lasting negative impacts on forest ecosystems (http://www.dec.ny.gov/docs/wildlife_pdf/forestimpactshandout.pdf). DEC has been working with forest ecologists at Cornell and the State University of New York College of Environmental Science and Forestry to compile and analyze statewide data on forest regeneration, the ability of tree seedlings to replace mature trees that die. Deer browsing on seedlings can lead to regeneration failure, so these data will be an important component of the deer management decision-making process. An easy-to-use method for monitoring forest impacts has been developed concurrently, and any forest landowner who is interested in finding out about deer impacts on his/her forest can go to aviddeer.com to learn more.

DEC biologists are also available to help rural landowners who are experiencing deer damage to crops, orchards or forestland. They can offer advice on methods to prevent or reduce damage and provide Deer Management Assistance Program (http://www.dec.ny.gov/animals/33973.html) permits or Deer Damage Permits (http://www.dec.ny.gov/animals/104956.html) when additional avenues for reducing local deer numbers are needed.

Prior to this year, DEC used Citizen Task Forces (CTFs) to involve state residents in the process of determining appropriate deer population sizes. Each CTF was a small group of citizens chosen to represent a range of interests (farmers, hunters, landowners, motorists, etc.) concerned with deer population size. Over time, many shortcomings of this method became apparent. In 2015, DEC began collaborating with Cornell to design an improved system for gathering public input. A pilot project that combined a mail survey of the public with a group of citizens similar to a CTF

highlighted the difficulty of adequately representing the spectrum of public interests and values in a small group. Accordingly, the decision was made to adopt a survey-based process. More information is available at http://www.dec.ny.gov/animals/7207.html.

DEC's new survey will reveal the priorities of the people who reside in each of the surveyed areas. These priorities, in combination with local forest conditions, will determine the desired direction of deer population change (up, down, or no change) for the unit for the subsequent five years. The number of antlerless-deer permits for that unit that DEC issues to hunters will be set to achieve the desired change. Periodic re-surveying will allow management directions to be adapted as appropriate. This new system should result in deer populations that are in better balance with both their habitat and the needs of local communities.



Kinship Cares

The Kinship Guardian Assistance Program (KinGAP) is an initiative to help foster parents that are relatives or close family friends of the child to receive assistance.

The Kinship Guardian Assistance Program (KinGAP) is designed for foster children to achieve permanent placement with a relative or close friend who has been the child's foster parent for at least six months. This program provides financial support and in most cases, medical coverage for the child, beginning with the child's discharge from foster care to the guardian. The level of financial support is similar to the maintenance payments received while the child was in foster care. Because the child's parental rights do not need to change to achieve Kinship Guardianship Assistance, the legal process from application to finalization can be much shorter than legalizing an adoption.

In addition to being the child's foster parent for at least six months, the prospective guardian must be related to the child by blood, adoption, or marriage, and the relationship can be to any degree of affinity. The family can have a single parent or two parents. The family may have birth children, adoptive children, or no other children. Families can vary by age, income, lifestyle, and marital status. A KinGAP family must have a strong commitment to caring for the child on a permanent basis.

The KinGap program works through New York State's Office of Children and Family Services, and was recently expanded. In 2017, the program was altered by expanding the definition of "prospective relative guardian" in an effort to expedite permanency for children that could potentially benefit from this program. is an available resource for the estimated 218,000 non-parent caregivers in New York State. KinGAP can help with any issue, ranging from questions on how to receive financial assistance for a foster child, to general information on maintaining the well-being of a youth.

Rachel Glaser, a NYS Kinship Navigator, said that KinGAP has helped over 13,000 caregivers since 2007, and that they are focused on "family helping family" with minimal government intervention. In order to achieve this, KinGAP assumes the role of facilitator, answering questions, and providing necessary guidance. For example, if a caregiver needs guidance on how to apply for health insurance for the child they are caring for, Rachel can connect them with the proper resources.

Since 2006, the Kinship Navigators have been assisting caregivers, and Rachel helps guide those in the program through providing resources that are helpful in the application process and beyond. Rachel helps with anything from breaking down a permission of contact form to helping new guardians use their teens' cellphone.

"Our goal is to make sure caregivers are in a secure spot financially, legally, and emotionally," said Rachel. Rachel, and other Kinship Navigators, are available to contact from 10am-4pm, Monday through Friday. "We want to ensure that people have all the tools they need for self-advocacy," said Rachel.

Since the services KinGAP provides are indirect, Rachel cannot go to an institution to help an individual directly, but she can educate people on legal rights and other helpful resources available to them. KinGAP settles issues through non-custodial means, and allows for caregivers and children to avoid the strenuous situations of court. This allows children to have smoother transitions from foster care to permanent residence.

"Some people just want someone to help them with this process," said Rachel. "It's difficult to navigate and we're here to help them with anything we can."

For more information on KinGAP, and whether or not you can qualify, please visit https://ocfs.ny.gov/kinship/kingap.asp

Identifying Signs of Stress in Farm Families

By Extension Associate Daniel Welch and Extension Support Specialist Kate Downes

New York State farm families are experiencing higher levels of financial and emotional stress due in part to several years of low commodity prices. This is an especially difficult time for dairy farmers because regional conditions in dairy markets have further reduced farm revenues. Farm families can also experience stress as the result of a sudden event—such as crop loss, an accident, a personnel change, or family death. In other instances, it may be a gradual change from a prolonged physical illness, excessive working hours, or relationship difficulties.

Selected New York Resources to Support Stressed Farm Families

NY FarmNet

NY FarmNet provides completely free and confidential on-farm services for farmers and farm families in New York. Specializing in personal wellbeing, stress management, family communication, financial analysis, business planning, transition planning, and estate planning, FarmNet financial and personal consultants guide farm families through periods of transition, opportunity or challenge. I-800-547-3276, www.nyfarmnet.org

National Suicide Prevention Lifeline

I-800-273-8255 (TALK), www.suicidepreventionlifeline.org

Crisis Text Line

Text "START" to 741-741, www.crisistextline.org

New York State County Mental Health Directory

http://www.clmhd.org/contact local mental hygiene departments/

Adapted with permission from Associate Extension Professor Leslie Forstadt and Associate Extension ProfessorTori Jackson, University of Maine, "The University of Maine Cooperative Extension Bulletin #4805, Recognizing Signs of Farm Family Stress." www.extension. umaine.edu/publications/4805e/



Broadband Update



The New NY Broadband program under the New York State Broadband Program Office has completed Phase III of the grant program, the final installment of contracts for broadband buildout. Accordingly, the New York State Broadband office has launched its online search tool for residents to check their addresses for available broadband options.

The Broadband Availability Map is here: https://map.nysbroadband.ny.gov/html5viewer/?viewer=broadband

The Broadband Address Search is here:

https://nysbroadband.ny.gov/resources/residential-broadband

The Broadband Program Office also offers a "Speed Test" where you can test the internet you do have for quality and speed: https://nysbroadband.ny.gov/speed-test

Consolidated Funding Application

The Consolidated Funding Application, or CFA, is an online application for accessing state resources currently available from multiple New York State agencies and authorities. The CFA allows applicants to access multiple State funding sources through one application. These grants are meant for businesses and other eligible organizations to apply for funding for projects that will promote economic development within a community. Eligible applicants for these grants include the following: for-profit businesses, not for profit corporations, business improvement districts, local development corporations, public benefit corporations, economic development organizations, research and academic institutions, incubators, technology parks, municipalities, counties, regional planning, councils, tourist attractions, and community facilities.

For more information on CFA applications and to learn if you qualify, visit https://regionalcouncils.ny.gov/cfa

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New York Soil Health Summit July 18, 2018

Join farmers, researchers, agriculture service providers, government agencies, non-profits and policy-makers interested in advancing soil health efforts across the state. Empire State Plaza, Downtown Albany, NY. More information: blogs.cornell.edu/soilhealthinitiative/summit/#.WxAd_XovyUk?utm_source=June+1st%2C+2018+Update&utm_campaign=Enews+Marketing&utm_medium=email

Empire Farm Days
August 7, 8, and 9, 2018

Rodman Lott and Son Farms 2973 State Route 414 Seneca Falls, NY 13148 Info: www.empirefarmdays.com

New York State Fair
August 22 through September 3, 2018

NYS Fairgrounds 581 State Fair Blvd. Syracuse, NY 13209

Don't forget to check out your local Farmers Markets for local, fresh food! To find a Farmers Market near you, visit: www.agriculture.ny.gov/ AP/farmers_markets.html

If you have any suggestions for upcoming editions, Please email the Commission at RURALRES@NYSENATE.GOV