Cornell Cooperative Extension

North Country Regional Ag Team

2018 Annual Report

Cornell Cooperative Extension

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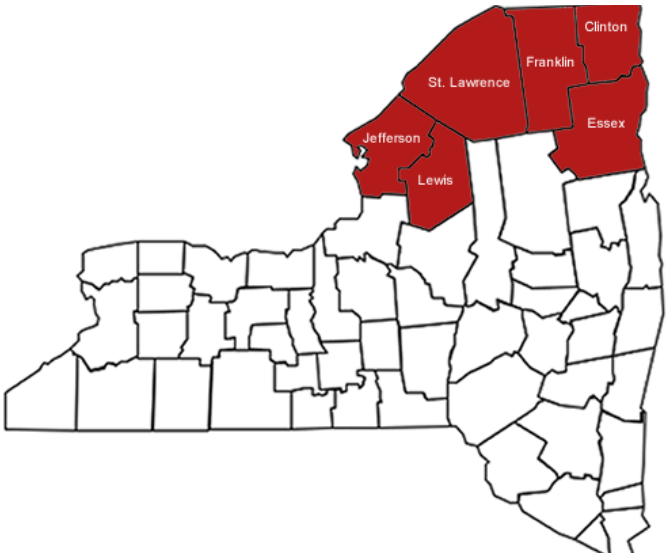
Our Mission

"The North Country Regional Ag Team aims to improve the productivity and viability of agricultural industries, people, and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex Counties by promoting productive, safe, economically and environmentally sustainable management practices, and by providing assistance to industry, government, and other agencies in evaluating the impact of public policies affecting the industry."



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Dear North Country farmers, agribusinesses, communities, partners, and stakeholders,

2018 has been another challenging year for our North Country farms and agribusinesses. Our Regional Ag Team has a simple mission - to improve the productivity and viability of agricultural industries, people, and communities in Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex Counties. We understand that to remain viable in this challenging environment, farms must seize every advantage to become more efficient, to keep costs down and productivity up. We work each day to provide technical support for productive, safe, economically and environmentally sustainable ag management practices, and we also assist industry, government, and other agencies to do the same. We build our research and outreach plans around 4 primary goals: cultivate community support for agriculture, enhance yield and efficiency of agricultural production, expand sustainable production practices, and improve business practices, risk reduction, and profitability. Our team of Ag Specialists works closely with county-based extension educators and ag businesses, with Cornell faculty, and with Extension educators statewide to provide accurate and relevant education, research, and consultation on the important current issues for NNY farms. This year, we worked to help large and small farms of all types to make good business decisions, advised dairy farms on strategies to enhance animal health and accommodate new regulations, responded to field crop pest problems, and even had our research results shared with national and international audiences. Our NNY team also works together with two Harvest NY Team specialists with 'post-harvest' expertise in dairy processing and agricultural marketing and business development to more fully support agricultural prosperity across the region.

In 2018, our North Country Regional Ag Team…

- brought 15 research projects to the NNY region with external grant funding from NNYADP, NYFVI, USDA, Cornell CALS, NYS IPM, and private industry. Additional research proposals are being submitted for 2019.
- reached thousands of program participants through dozens of single- and multi-session educational and community events. A full slate of educational programs is planned beginning in fall and winter 2018-19 with Neonatal Calf Care Training, Academy of Dairy Executives, Crop Congress, the Hay School/Pasture Workshop series and many others.
- shared important NNY research findings with audiences all across NNY and beyond, including the National Mastitis Council meeting in Arizona, American Dairy Science Association meeting in Tennessee, the Farm Foundation meeting in Washington, DC, and even at the International Dairy Federation World Dairy Summit.

Please read about some of our accomplishments and impacts in the following stories in this 2018 annual report. The North Country Regional Ag Team is supported with funds from our six counties and the New York State and federal government. Please contact any of our specialists for more information on our program, events, and research projects.

— Kitty O'Neil, Team Leader

The North Country Regional Ag Team hosted a regional Collaboration Day with County-based educators, Harvest NY, and campus staff. L to R: Flip Filippi, Sara Bull, Jessica Prosper, Kimberley Morrill, Lindsey Pashow, Kitty O'Neil, Betsy Hodge, Tatum Langworthy, Mike Hunter, Kelsey O'Shea, Carly Summers, Alyssa Couse, Mellissa Spence, and Paul O'Connor. Not pictured at event: Danielle Hautenemi and RJ Anderson.

NNY Crop Educators Confirming High Populations of Field Crop Pest

Northern NY has been a hotspot for Western Bean Cutworm (WBC), a destructive pest of field corn, sweet corn, and dry beans across the US. WBC originated in the North Central US and has been moving eastward for a couple decades. Western Bean Cutworm was first detected in NYS in 2009. In 2010, NYSIPM developed a WBC pheromone trap network to monitor its population and dynamics. This network of Cornell Cooperative Extension Educators, crop consultants, and agricultural professionals has since deployed bucket pheromone traps to capture moths during July and August each year. Each week the number of moths are counted and reported to NYSIPM staff. Trap data is used to understand moth presence and the timing of peak flight. Traps help identify fields at risk and when scouting should begin, and scouting determines when insecticide is appropriate.

CCE educators and specialists in the western counties of NNY quickly became accustomed to seeing extremely high numbers of WBC moths and ear damage resulting from their larvae. Clinton and Essex Counties, with just 2 or 3 traps, typically trapped just a few moths, so corn growers and consultants did not consider WBC to be an important concern. However, Mike Hunter, Kitty O'Neil, Harry Fefee, and Joe Lawrence made the observation after a few years of trap monitoring in the western NNY counties that trap catches can vary widely over just a few miles. For example, in 2017, Mike Hunter's Calcium, NY, trap caught a total of 470 moths for the season. Not a small number, but nearby in Rutland, NY, a trap caught a total of almost 2500 moths, the highest in all of NYS in 2017. Put another way, one trap really doesn't represent the full picture for a large area. We realized that data from just 1 or 2 traps for all of Clinton County and 1 in Essex County could be missing some important variation and population size. With that idea in mind, we submitted a research proposal to the Northern NY Ag Development Program for 2018 to expand the WBC moth trap network in Clinton and Essex Counties.

Figure 1. Checking the North Lawrence trap in late July. A total of 1400 moths were trapped in just 7 days. (Photo by K. O'Neil, St. Lawrence County, July 2018)

The grant was funded and provided traps, posts, and lures and some travel reimbursement to lower the barrier for staff and volunteers to join the network and begin monitoring this pest each week. Sara Bull eagerly jumped on board and installed traps in corn fields in Beekmantown, Champlain, Chazy, Ellenburg, Mooers, and Peru, NY. Carly Summers installed WBC traps in Westport and Willsboro, NY, near corn fields in those locations. The results showed large WBC populations and that we should not assume WBC is not problematic in Clinton and Essex Counties. The Chazy trap caught the 5th highest total number of moths in the whole state, behind North Lawrence, Moira, Ellisburg, and West Bangor traps. The Beekmantown, Champlain, and Peru traps were all in the top 20 of the 118 NYS locations monitored in 2018. Essex traps caught fewer moths, but additional traps are planned for 2019.

Northern NY was again the hotspot in the state in 2018, with 22 of the highest 25 moth trap catches statewide. The expansion of the WBC traps into more eastern NNY fields shows that the range of the WBC is expanding or has gone undetected with such few monitoring traps deployed in previous seasons. Field scouting this summer in Clinton County documented corn fields with nearly 20% of the ears infested with WBC larva. These observations suggest that the WBC populations are reaching levels that will require future management of this insect pest for all of NNY. The trap network will continue in 2019 as we learn about this pest and continue to develop best management strategies for local farms.

CALS-CCE Intern Amanda Bond joins North Country Regional Ag Team for Summer 2018

Amanda Bond, standing in a Clinton County soybean field. Photo by K. O'Neil, August 2018.

This Cornell summer internship program partners a Cornell College of Agriculture and Life Sciences (CALS) faculty with Extension specialists and educators in statewide offices to involve CALS students in research projects and programs that benefit NYS communities. Our North Country Regional Ag Team was lucky to have Amanda Bond, Ag Sciences major from Bond Dairy Farm in Belleville, NY, join us for the summer. Amanda inquired with Mike Hunter and Kitty O'Neil about the possibility of working on a field crops project as she is interested in agronomy and ag business. Mike and Kitty were already working with Gary Bergstrom on a Northern NY Ag Development Program-funded survey of corn and soybean diseases in the region. The project was a great fit for Amanda, who wanted to hone her crop scouting skills in anticipation of taking her Certified Crop Advisor exam next year.

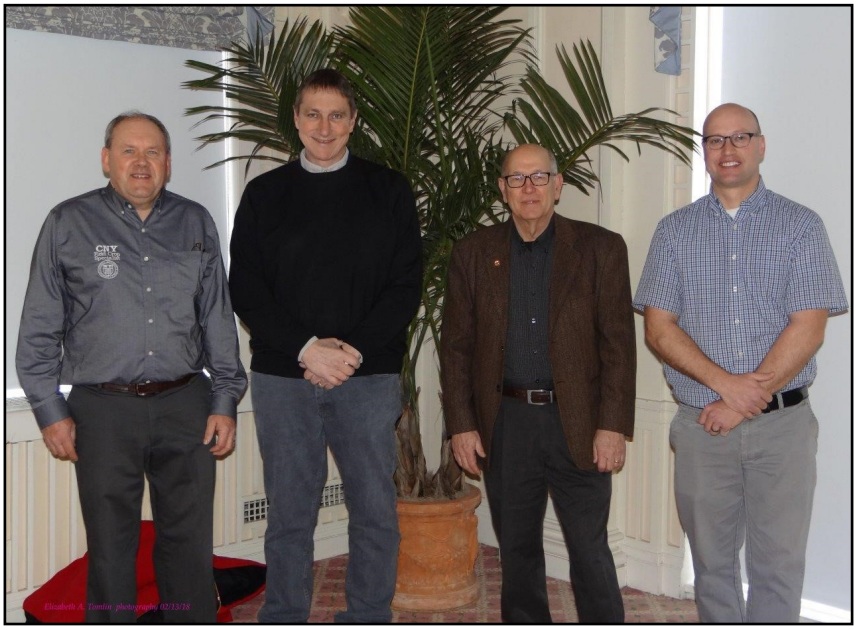
Amanda joined the team at the end of May and made the "Diagnosis, Assessment, and Mapping Critical Diseases and Pests of Field Crops in Northern New York" project her top priority. Amanda selected 40+ fields across Jefferson, Lewis, St. Lawrence, Franklin, Clinton, and Essex Counties to serve as 'sentinel' fields that she would scout for disease and pest symptoms several times during the season. Though it was a dry and low-disease pressure season overall, Amanda did diagnose eyespot, common rust, and Northern Corn Leaf Blight in Jefferson and Lewis Counties by early August in addition to downy mildew in soybeans in St. Lawrence and Jefferson Counties. Amanda also learned to spot non-pathogenic symptoms of herbicide injuries and nutrient deficiencies. In addition to the corn and soybean pest and pathogen project, Amanda also contributed to first cutting alfalfa height monitoring, grass and alfalfa pest scouting, youth education programs, farmer troubleshooting calls, alfalfa snout beetle diagnosis, an Avipel corn seed treatment study, pasture walks, monitoring Western Bean Cutworm traps, cow lameness scoring, and even sheep shearing. Amanda capped off her summer projects with a newsletter article on Northern Corn Leaf Blight and a poster display describing her corn and soybean disease project to display back on campus.

Our team was incredibly happy to host Amanda for the summer and enjoyed working and learning with her. We know she'll succeed in her chosen field of agriculture and we look forward to the great things she'll contribute to NYS farms and communities. Grant funding was received from the Northern NY Agricultural Development Program and the Cornell University College of Ag and Life Sciences to support Amanda's internship and these projects in 2018.

Delivering Timely Agronomic Information One Talk at a Time

In the first quarter of 2018, North Country Regional Ag Team Field Crop Specialists, Mike Hunter and Kitty O'Neil, gave 32 presentations at regional CCE, local CCE, and ag industry grower meetings. These two specialists had the opportunity to share their field crop research findings and other timely agronomic management information to over 1,400 growers and ag industry individuals. They were asked to present on many different topics including: Western Bean Cutworm; alfalfa snout beetle; herbicide resistance management; corn, soybean, and small grain weed control; dicamba-tolerant soybeans; Avipel seed treatment; integrated pest management; pesticide applicator safety; manure management; corn nitrogen management; hay and pasture management; and conservation tillage practices.

Grower meetings are an effective means to deliver the latest agronomic updates and the results of our many on-farm research trials that we conduct each growing season. Our primary goal is to provide information which enables the grower and agribusiness to make informed decisions that will have a positive effect on their business. The opportunity to share our knowledge and expertise at these programs oftentimes strengthens our relationships with the growers and agribusinesses in attendance. This is just one more way the Regional Extension Specialists deliver educational information to our audience.



Mike Hunter, pictured above speaking about herbicide resistance, poses with other speakers from the Madison County Crop Congress. Photos by Elizabeth Tomlin, Country Folks.

Shared Trucking through Hub on the Hill

The Farm Business Management Specialist was approached by one of the directors at Hub on the Hill in Essex County for assistance with a new project they had taken on. This project was the purchase and management of a transport truck for moving local Essex County products to the city. When the truck arrived, they were very excited to start using it and started making trips with it right away. What they realized, however, was that they needed a method to record, price, and schedule trips with the farmers in the community. Kelsey O'Shea was asked to help the Hub design a model that could record, price, and schedule the truck.

After the first meeting, Kelsey worked on building a simple model through the use of the online platforms Google offers to ensure ease of accessibility by the farmers and Hub on the Hill. The first attempt proved to be not quite complex enough for the pricing model. There were many factors to consider including the distance traveled, the time at each stop, the shared portions of the routes, the back haul, and the amount of product per farm on the truck. All of these factors were worked into the pricing model to ensure that farmers are paying proportionally to their route and content, but also gaining the benefit of sharing portions of the route. After two additional meetings, both Kelsey and Hub on the Hill staff felt that a model had been reached that factored in everything that was needed. When asked about the experience, Jori Wekin, Director of Hub on the hill said "my work with Kelsey on this project was crucial in helping to determine how we set up our delivery service model. We were able to work through the process to see what was feasible and make adjustments - her knowledge and experience gave me confidence that we were setting up our forms and billing matrix appropriately."

Right now this truck is making one or two trips per week to various locations serving at least four farms per trip. The goal of the trucking system was to provide farmers in the area with an affordable way to distribute their products and ultimately expand their businesses. By sharing this resource, farmers are able to save up to 37% on the cost of transportation through group usage. The hope is that even more farms will participate, enough to have the truck running more often than once or twice per week. This service allows these farmers to reach a completely new market, and increase their personal brand visibility. Now, invoicing and paying for this service is streamlined allowing Hub on the Hill more time to focus on other ways to help farmers in the area. In addition, since the model is available to farmers in an online platform, they can see and understand how their pricing is calculated and how much is saved by sharing the loads with other farmers. The use of technology ultimately is providing more transparency for both the farmers and the service providers.

http://thehubonthehill.org/

Community Involvement is a Priority

The North Country Regional Ag Team has been participating in various community events focused on educating and informing consumers in our communities about farming and agricultural practices and procedures. The NCRAT Advisory Board continues to indicate that they would like us to help strengthen community connections to farms within our region and to share with the public the scientific rationale behind a range of farming practices. This year, the Regional Team participated and aided in coordinating Fuel Up to Play 60 events (American Dairy Association), Open Farm Day Events, Consumer Research Panels, Farm Bureau Events, County Ag Legislative tours, NYAAC Events (NY Birthing Center), County Fairs, and Empire Farm Days.

Discussions with Dragoon's management team on the Clinton County Legislative Ag Tour. Photo by K. O'Neil.

Over the past year, Kelsey O'Shea has attended and presented at three Fuel Up to Play 60 events to share with students and adults the story of dairy farming. These events were planned to honor students and advisors who promote exercise and healthy eating (including dairy products) in their schools. At these events, they bring in NFL players and dairy farmers to speak briefly to students about their health stories. Kelsey attended and shared farming stories and information with students and adults who may not otherwise be exposed to agriculture at all.

All of the Regional Specialists participate as speakers and educators at various county "Day at the Farm" or "Open Farm Day" events. At these events, our Specialists provide basic explanations of how and why farmers do things the way they do, allowing the farmers to then mingle and answer questions about their specific operations. Some topic areas covered include: manure management, GMOs, crop technology, milking parlor techniques, calf care, cow care, and animal nutrition. The Specialists can also share relevant research they're conducting to further impress upon the public just how committed farmers are to the health of their animals and the safety of their products.

Specialists are also incorporated into County Ag Legislative Tours. Their role at these events is to provide both background information and details to permit legislators to see how their county appropriations impact the profitability and health of farms in each county. This year, Specialists were sure to share their farmer impact stories and the overall financial impact those farms have on the local economy in areas where farms are the largest economic sector. Providing close connections between Specialists and legislators, follow-up, and additional explanation allows legislators to come away with a full picture of their local farming economy and of Extension.

Finally, Regional Team Specialists volunteered at the NYS Birthing Center, County Fairs, and Empire Farm Days. All of these events allow the team to connect directly with both farmers and non-farm consumers to provide science-based information and answers to questions. Although this one-on-one format offers less public contact than a group presentation, they allow the team to reach both consumers and farmers on a more direct and personal level. This results in more "word of mouth" sharing of information and messages about farming. By connecting directly to consumers and communities, the team is then better able to inform and guide farmers on current trends or beliefs that arise in real time. The Regional Team prioritizes community education and consumer connection as we view this a crucial component of farm success going forward.

Serving Farmers through "Financial Office Hours"

Through a brainstorming meeting with The Hub on the Hill in Essex County on how to better reach and assist farmers in the area, Kelsey O'Shea, Farm Business Management Specialist, decided to start monthly "office hours" at the Hub. She scheduled the first Tuesday of the month from 10am to 2pm at minimum. Kelsey is on-site and available during that time to address any and all business related needs. She has held four sessions already in 2018, and more farmers seem to attend each session. Farmers are beginning to make appointments with Kelsey in order to ensure the one-on-one time they need to better improve their businesses through education. At the most recent office hours, four farmers stopped by at various times for assistance on topics ranging from tax planning to accounting to retirement. Over the series of four sessions, Kelsey has met with 8+ farm operators and most have resulted in follow-up meetings. On one occasion, two farmer meetings overlapped, and those farmers stated "anything that you (the other farmer) are asking about I am sure can apply to me! This is so nice to ask all of our questions and get immediate answers." This arrangement is working so well that another county has requested a similar program, modeled on this success. Looking forward, these monthly office hours permit farms to take advantage of a standardized time and place to go for questions that often provides enough to meet their needs. This new program also maximizes Kelsey's time and impact in an individual county, allowing for greater contact to new industries and producers. It is the hope that this model may work for all the counties in the Northern NY region, and can be a great model for Kelsey to connect with more farmers than were previously utilizing Extension resources.

Artificial Insemination Course Teaches Farmers How to Successfully Breed Their Cows

On-farm and hands-on AI training in NNY. Photo by Carly Summers.

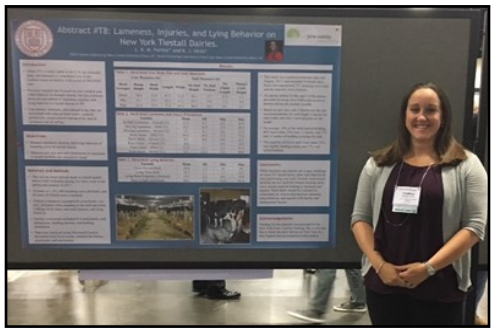
Over the last few decades, huge improvements have been made in genetics and management of commercial dairy cattle. Artificial insemination (AI) is most commonly used to breed cattle as it allows for more variety and control over the genetics used, and it is much safer for cows and handlers compared to using a bull. Genetic companies provide on-farm services such as heat detection and breeding, however some dairy farmers prefer to perform these tasks themselves. While doing farm visits in the fall for 2017, a desire was emphasized by several farms for them to learn how to breed their own cows. In February of this year, Dairy Specialist Lindsay Ferlito teamed up with the local educators in Clinton and Essex Counties to bring in experts from Genex to host an AI Training Course. Over two days, seven participants from local farms completed coursework both in the classroom and on farm. They learned about reproductive physiology, how to identify a cow in heat, and how to properly breed a cow. Each afternoon, the participants were able to practice what they learned by testing their skills on-farm. The course was a success, and it was encouraging to see some farmers pick it up right away and successfully breed a cow during the on-farm practice session. Two months after the course, multiple participating farms said they had been breeding their own cows and have indicated it is going well.

Defending Industry Practices and Tie Stalls

NY tiestall dairy. Picture by L. Ferlito.

The roster of standard operating procedures and recommended practices on dairy farms is constantly evolving, shaped by new technology, science, and practical experience. This evolution is increasingly driven by measurable animal welfare outcomes and societal pressures about what is acceptable according to our customers and consumers. Concerns and questions about management practices need to be addressed using both science and ethics. In 2016, there was customer concern around tie stall and stanchion facilities for lactating cattle and how they potentially limit freedom of movement. The customer in this scenario was not the person going to the grocery store to buy a gallon of milk, but was the companies purchasing milk from cooperatives to process it into dairy products. In NNY, we have a large contingency of tie stall facilities, that would have been impacted by this shift. National Milk Producers Federation (NMPF) developed a task force to address the customer concern, as well as to develop best management practices (BMP) for tie stall facilities. Regional Dairy Specialist Kimberley Morrill was able to sit on this task force as a science resource and to share the voice of dairy producers. The first step to addressing the problem was to understand the concern, and then provide information to the customers. A literature review was conducted to evaluate current tie stall design recommendations and reported rates of welfare indicators. Based on research available, tie stall facilities that implement BMP provide equal opportunities for lactating dairy cattle in comparison to those housed in other types of facilities including freestalls.

At the same time these customer concerns became critical, Regional Dairy Specialist Lindsay Ferlito and Betsy Hicks from the South Central NY Team were in the middle of a tie stall research project funded by NYFVI, focused on evaluating cow comfort in tie stall facilities and building customized recommendations for farms to improve cow comfort. In the winter and early spring of 2018, multiple on-farm meetings were held at local tie stall dairies across the North Country. Data and key findings from these projects were shared with over 45 attendees, and farmers had the chance to tour the host facility and have a discussion about housing and management and ways to improve their own dairies. The data and conclusions from the study were also shared with producers in the North Country and across the state through the PRO-DAIRY Winter Webinar Series, and in print and online articles in Lancaster Farming and Dairy Herd Management. Further, in June, data from the NYFVI project and the NMPF task force were shared at the annual American Dairy Science Association (ADSA) conference in Tennessee, which draws thousands of participants (farmers, researchers, veterinarians, students, and Extension associates) from across the globe each year. Participants at the ADSA conference were excited to see tie stall data, specific to NY, being presented. Data from these projects will continue to be shared by the Regional Team and its collaborators through all avenues, including the International Dairy Federation World Dairy Summit in South Korea, to ensure producers have access to and can benefit from the information. One producer who participated in the tie stall project commented on how great it was to see so much coverage of the project at local and statewide meetings. He hoped it would encourage other farms to consider making changes to improve cow comfort.



Lindsay Ferlito presenting at ADSA conference.

Naturally Dairy Campaign Increases Support for Local Dairy Industry

With continued low milk prices, producers have been asking the North Country Regional Ag Team to help promote the industry. The Naturally Dairy campaign was born, and is a collaboration between Cornell Cooperative Extension, Lewis County Economic Development, Lewis County Dairy Princess Court, and local farms. The campaign targets both North Country dairy farms and the public. Local farms need to know that Extension and other county organizations support them and are here to help the industry in different ways. The community and public need (and want) to learn more about dairy farms in their community and accurate facts about dairy foods and farming. The campaign has been focused on social media (Facebook) and at local county events like the Lewis County Legislator meeting in June and the 1st Annual 5k Milk Run. From June until December 2018, there is a different theme each month to promote and educate on all aspects of the industry. Themes include “A Day in the Life of a Farmer”, “Meet your Family Farm and Generational Stories”, and “Refuel with Dairy”. In just the first three months of the campaign, the Facebook page has 472 “Likes” and individual posts have reached thousands of people, with the most popular post reaching over 11,500 people. Local producers have shared their support and appreciation for the campaign and are pleased to see this unique approach taken by Extension. Other counties have expressed interest in doing something similar, creating a ripple effect from the initial campaign across the state.

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Building Strong and Vibrant New York Communities