

Cornell University
Cooperative Extension
Harvest New York

2015 YEAR IN REVIEW



IN THIS ISSUE

• Harvest NY Grows!	2
• Dairy Strategic Planning – Year in Review	3
• Buffalo Farm to School: What We’ve Learned and Next Steps	4-5
• Double Up Food Bucks: 2015 Program Recap and Next Steps	6
• HNY Promotes NYS as a Processing Market	7
• Malting Barley Supply Chain Analysis	8
• Assessing the Costs and Returns of Implementing Food Safety Practices	9

GROWING NEW YORK’S AGRICULTURE & FOOD ECONOMY
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Cornell Cooperative Extension is an employer and educator recognized for valuing AA/EEO, Protected Veterans, and Individuals with Disabilities and provides equal program and employment opportunities.

Harvest NY Grows!

With support from the NYS Senate Agriculture Committee funding in the state budget increased in 2015 from \$300,000 to \$600,000, which allowed the project to expand from Western New York into Northern New York. The team of 7 specialists expands and enhances existing agriculture extension programs with the addition of three areas of expertise.

Dairy Processing and Food Safety Specialists focus on dairy and food processing, with emphasis on dairy processing manufacturers making artisan cheeses, ice cream, yogurt, and other value-added dairy products.

Anika Zuber plans to work on implementing an on-site “Dairy Basics” course which is meant for dairy manufacturing employees. It would cover basic dairy chemistry, sanitation, and processing. This should have great impacts for dairy workforce training because many current employees are retiring, and new employees typically have little dairy background.



Anika Zuber, Regional Dairy & Marketing Specialist



Mackenzie Waro, Livestock Processing & Marketing Specialist

Livestock Processing Specialist works in conjunction with colleagues at SUNY Cobleskill. This position increases the profitability of Livestock production with enhanced processing and marketing expertise.

MacKenzie Waro plans to coordinate efforts between the meat processors and livestock producers in an 8 county area to increase market opportunities for meat products. MacKenzie is working with SUNY Cobleskill to create a seminar for producers where they can learn from industry professionals about cuts of beef, lamb, and pork. They will also learn about the different avenues to market and how to build consumer relationships.

Local Food Distribution and Marketing Specialists increase investment and jobs in agricultural and food systems to enhance the viability of farms through expansion, value-added production, diversification, and distribution of locally produced farm products.

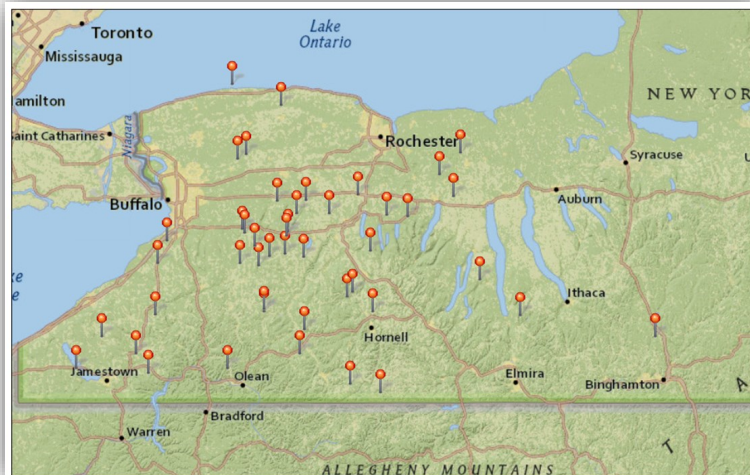
Lindsey Pashow plans to evaluate pricing adjustments that farmers make during the growing season across Northern New York in collaboration with the Eastern New York Commercial Horticulture and Capital District Horticulture Teams.



Lindsey Pashow, Ag Business Development & Marketing Specialist

Dairy Strategic Planning – Year in Review

Figure 1– Direct on-farm contacts 2015



- Worked directly with 45 farmers in Western New York and the Southern Tier on farmstead layout and/or facility planning (see figure 1) . Many of these included detailed, long term plans to develop and expand the business in an intelligent and environmentally friendly manner.



- Completed 17 farmstead topographic surveys which have been/will be used for farmstead planning. As a result three new structures have been/are being constructed which will increase efficiency, improve animal care, and decrease the farm's energy consumption. Collectively, this adds up to more than \$450,000 in capital investments in the region.
- Select surveys have been forwarded to private engineers for development of stamped designs under the Dairy Acceleration Program.
- Continuing to work closely with Soil and Water Conservation Districts, USDA Natural Resources Conservation Service, Crop Management consultants, and private engineers to facilitate the implementation of Best Management Practices necessary for environmental regulatory compliance and future farm growth. Frequently this involves leveraging State and Federal monies to complete the projects.
- Presented the *Alternative Energy* program with Megan Burley - Erie Co. CCE to 28 farmers and agribusiness participants.
- Continuing to serve on Farm Profit Team — advisory committees to the farm owners/operators usually comprised of Extension personnel, nutritionists, veterinarians, and financial consultants.

Buffalo Farm to School: What We've Learned and Next Steps

The Buffalo Farm to School (F2S) initiative connects schools, farms and community partners to improve student nutrition through agriculture, health and nutrition education; and to strengthen the economy by supporting local farmers and food producers.

Plagued in decades past by economic distress, poverty and job loss, Buffalo is on the cusp of a resurgence, supported by the entry of new industries and the subsequent creation of thousands of jobs. Despite this positive direction, high rates of poverty, food insecurity and childhood obesity are still prevalent throughout Buffalo. Food access is an issue in Buffalo, despite that it's nested in a rich agricultural region of New York State, recognized for the thousands of farms that grow a diversity of fruits and vegetables. By harnessing the power of our F2S program, the Buffalo F2S team is committed to bridging this unfortunate dichotomy.

F2S efforts catalyzed in Buffalo following the award of a 2015 USDA F2S planning grant to Buffalo Public Schools (BPS), in collaboration with Harvest NY and Erie County, Massachusetts Avenue Project and the Buffalo Niagara Medical Campus.

BPS is comprised of 65 schools and 34,000 students, with 100% of students eligible to receive free meals under the Community Eligibility Provision. This allows schools and local educational agencies with high poverty rates to provide free breakfast and lunch to all students. With a produce bill exceeding \$2M annually and varying styles of food service operations, the BPS F2S team has our work cut out for us.

To ensure the success of our F2S program, we selected 10 pilot schools to launch F2S efforts in, paying careful attention to choose schools that represent the district at large. Following that, we hosted multiple community engagements events, toured farms with hundreds of students and food service workers, engaged our local farmers and food distributors in the conversation, incorporated tools, such as “geographic preference” into the produce bid, and most notably, launched a 3-month Harvest-of-the-Month (HOM) pilot program.

In September-November of 2015, the F2S team, utilizing a new harvest item each month, developed and tested new recipes to be featured every Thursday of the month; wrote nutrition and food systems curriculum; developed supporting marketing materials; and conducted thorough program evaluations to determine what worked best, in advance of program expansion.



IMPACTS:

- In the 2014-15 school year, BPS spent a total of \$165,573 on New York State grown produce, which accounted for 11% of the annual produce budget.
- In the first three months of the 2015-16 year, \$23,182 was spent on local produce to support the three month HOM pilot in just 11 of the 65 schools in the district (we had one control school, plus 10 pilot schools). When the program expands district-wide and year-round, expected local produce expenditures will surpass \$400K.
- We engaged 8,000 students through a combination of food systems and nutrition education, farm tours, a marketing campaign, F2S events, and taste tests.
- We conducted taste test surveys during lunch in every pilot school throughout the 12 week program, asking the students to vote yes or no on the new item. On average, we collected responses from 3,500 students weekly. We are confident we turned a handful of once skeptical students into new fans of the harvest item. Lesson learned? Students appreciate knowing their opinion matters!
- To encourage students to try new food items, such as kale and Brussels sprouts, requires more than just serving it, but rather, reinforcement in the cafeteria, the classroom and the community.

So what's next for Buffalo F2S? The good news is that the New York State Department of Agriculture and Markets saw value in our HOM program and provided the District with a \$43,000 grant to develop 10 full months of the program. Incorporating lessons learned from the 3-month pilot, the F2S committee will:

- Purchase, at minimum, 35% of produce from New York State farms by the end of the 2016-17 school year.
- Reevaluate how we disseminate nutrition information as the curriculum.
- Engage the school community more in student taste tests.
- Offer two new recipes per month, with the intention that Food Service staff has a better chance of perfecting the recipes, and kids become more familiar with the menu items.
- Focus more time and energy on marketing and community engagement efforts.
- Increase the number of farm tours we offer as we found they were a great way to connect children with their food source and provide many urban children a first time chance at being on a farm.
- Evaluate which evidence-based interventions are most effective at achieving our goal of encouraging BPS students to try new healthy food items.

Harvest items the F2S team is on the lookout for in the coming year include such delicacies as asparagus, winter squash, summer greens, hot house tomatoes, watermelon, beets, dried beans, and cauliflower. Over the course of the next 10 months, we are committed to determine best practices for district-wide expansion. It is the F2S team's sincere hope that this multi-faceted program will help us to achieve our goals of connecting BPS students with access to affordable nutritious food during the school day and strengthen our farm economy through local sourcing.



Double Up Food Bucks: 2015 Program Recap and Next Steps

Year two of Double Up Food Bucks (DUFB) serves as a tremendous success story as to how good programming can support New York State farmers, while simultaneously increase access and affordability of fresh fruits and vegetables to low-income individuals and families.

DUFB is a SNAP incentive program that is administered by Field and Fork Network, with the continued support of the Harvest NY Team. DUFB provides a \$1 for \$1 match on any SNAP (supplemental nutrition assistance program, formally known as food stamps) up to \$20 per market visit per day. The DUFB incentive can only be used to purchase fresh fruits and vegetables grown in New York State. In 2015, the DUFB program expanded from 7 farmers markets to 15 farmers markets, spanning five counties of Western New York. Table 1 highlights the growth in food assistance dollars spent at participating farmers markets from 2013-2015.



	SNAP Sales	DUFB Sales	Total Food Assistance
2013 (in 7 pilot markets)	\$24,564	NA	\$24,564
2014 (in 7 pilot markets)	\$56,598	\$45,216	\$101,814
2015 (in 15 markets)	\$74,578	\$70,334	\$144,912

With regard to the impact on local farmers in 2015:

- 76% of surveyed farmers said they made more money
- 90% of surveyed farmers said they sold more fruits and vegetables
- 62% of surveyed farmers reported having a new customer base

With regard to increasing access to and affordability of New York State grown fruits and vegetables in 2015:

- 97% of surveyed customers said their families were eating more fruits and vegetables
- 1,356 new SNAP customers shopped at participating farmers markets

Exciting plans are in the works for year three of DUFB. Our goals are to offer the program in various types of food access points, beyond just farmers markets, to offer the incentive year-round and to increase our geographic footprint across a wider range of New York State.

"There was certainly an overwhelming response to the program...I had a 5-10% increase in my business because of the [DUFB] program".

-Tom Tower, Tom Tower Farms



Harvest NY Launches Online Course to Save NY Processors Training Costs

In 2015 the Harvest NY Dairy Foods Specialist assisted in the launch of partial online classes to alleviate the cost and time burden for processors sending employees to Ithaca for training. Online workshops in Basic Dairy Science & Sanitation, The Science of Yogurt & Fermented Dairy Products, HACCP, Basic Dairy Science & Sanitation and Vat Pasteurization have been launched to date. One day of lectures are taught through a self-paced online forum, whereas 1.5 days are taught onsite, involving hands-on activities. This enables attendees to still obtain valuable contact time with instructors, while also saving their employers the time and expense away from the dairy manufacturing facility.

Harvest NY Promotes NYS as a Processing Market



New York State is an ideal location for new and expanding food manufacturers. With access to abundant high quality raw materials, water, world renowned universities, and within a ten hour drive to 128 million customers, it is no wonder that many food companies are choosing New York as a place to start their business.

Marketing these assets is a goal of the Harvest NY program. Together with Buffalo Niagara Enterprises and the Genesee County Economic Development Center, the Harvest NY Dairy Foods Specialist launched a New York Loves Food Tech Campaign to highlight the support network New York offers to new food businesses. This campaign can be found on the [Harvest NY website](#) and showcases major food manufacturers, academic institutions that have food industry related programs, industry suppliers and entities that support research and development, laboratory testing and incubation activities.

Additionally, [reasons why NYS is a place for your dairy foods business](#) was featured in the March national publication of Dairy Foods magazine. As the word continues to be spread about what NY is doing to support industry, we will continue to attract new businesses to the New York area! With the addition of our Livestock Processing Specialist we see increased opportunity to promote meat processing across the state.

Malting Barley Supply Chain Analysis

The Farm Brewery Law became effective on January 1, 2013 and was designed to support New York's breweries, increase demand for locally grown farm products, expand the industry, and promote economic development and tourism. Those brewers that operate under the farm brewery license (referred to in this report as farm brewers) benefit from a number of incentives including the exemption from some fees, the opportunity to open satellite locations and the ability to taste and sell other New York labeled beer, wine, cider, and spirits. In order to receive the farm brewer license and these incentives, beer brewed by farm brewers must be made with a certain percentage of New York grown inputs. Until 2018, at least 20% of all ingredients must be from New York. After January 1, 2018, the percentage increases to 60%. On January 1, 2024, the percentage increases to 90% of all ingredients.

Prior to the passage of the legislation, only a few farmers grew malting barley or hops, there were no malt houses, and 95 licensed brewers in the state. In June 2015, there were 250 licensed brewers in New York, 8 operating malt houses that were selling product to brewers and 32 farmers growing malting barley.



This was a new industry in New York. Malting barley was a new crop for farmers and the best varieties and management practices were not known for New York's climate. Malt houses were new businesses without access to technical assistance and testing support. Farm brewers were small to start without a long history of brewing. These startup challenges for the stakeholders within the supply chain created many questions about the industry's long term needs.

As the industry continued to grow, farmers needed to know how much demand there would be for New York grown inputs, malt houses needed to know how much malt brewers would need and brewers needed to know what types of NY grown products would become available. Since this market was brand new there was no long-term data to help guide this new industry which led to projections on quality, quantity and price based on the best available information at the time.

As the industry becomes more established, it is possible to look back over the last three years and answer these initial questions, which is precisely what Harvest NY Specialists Newbold and Thayer set out to do. The final report, which is on [Harvest NY's website](#), was produced through a collaboration with Cornell University Plant Sciences Faculty, Cornell Cooperative Extension Field Specialists, Empire State Development, Hartwick College Center for Craft Food and Beverage, New York State Brewers Association, New York Craft Malt, LLC, and PM Farms.

Assessing the Costs and Returns of Implementing Food Safety Practices

The roots of Good Agricultural Practices (GAPs) trace themselves back to the 1998 FDA Guide to Minimize Microbial Food Safety Hazards for Fresh Fruits and Vegetables. Though this was voluntary guidance offered to fruit and vegetable growers, many buyers demanded the implementation of GAPs as a purchase requirement.

In 2011, the passage of the Food Safety Modernization Act's Produce Rule proposed the first ever regulations pertaining to fresh produce production. New York has had an active GAPs training program for produce farmers since 1999, with training that has evolved to meet growers' needs for farm food safety plans. In 2015, Harvest NY helped to provide training on GAPs to 57 farmers.

One obstacle to increased GAPs adoption is the unknown cost associated with food safety implementation. In 2014, Harvest NY, in collaboration with Cornell University's Department of Food Science and Dyson School surveyed training participants to assess the extent to which the food safety improvements accordingly allowed them to maintain and/or expand sales in existing or new markets.

By assessing both the costs and sales impacts due to GAPs food safety improvements, we can determine the relative benefits and costs impacts to farms implementing improved food safety practices. In total, 80 surveys were completed. Of those, 70 had implemented additional food safety practices (with positive costs). 40 farms reported maintained or expanded sales due to the implementation of these practices. This is likely driven largely by whether the improvements were required following a third party audit (3PA). Of those farms reporting strictly positive maintained or expanded sales from their food safety improvements, 71% have had a 3PA. The balance are likely implementing practices in anticipation of future buyer requirements or food safety regulations, or an enhanced commitment to food safety on their farms. A farm food safety plan is required before a farm is eligible for a 3PA. Day 2 of GAPs training is dedicated to providing growers with the tools they need and assisting them with writing their farm food safety plans. Prior to the training, 13% of growers said they had a completed plan, at the end of day 2, 48% had a completed plan, and post-training, 64% had a completed plan. The training provides growers with the necessary tools they need in order to successfully pass a 3PA and therefore maintain or gain access to established and new markets.

Costs and returns for food safety practices were clearly influenced by farm size and whether farms were required to have a third party audit. On average, benefits in terms of maintained and/or expanded sales were roughly four times that of the annual costs of food safety improvements. 44% of growers reported maintaining sales valued from \$14,000 to \$2,000,000. 18% of growers reported expanded sales valued at \$15,000 to \$300,000.

As a result, benefit-cost ratios were scale neutral. The benefit to larger farms from economies of scale (on the cost side) were exhausted by diminishing returns to scale (on the sales side). While much concern about how impending FSMA requirements will unduly affect small producers, the results here for food safety improvements associated with implementing GAPs may be a signal that overall profitability impacts may not differentially impact smaller producers.

This work was completed in collaboration with Elizabeth A., Bihn, Senior Extension Associate, Department of Food Science, Cornell University, Gretchen L. Wall, Extension Associate, Department of Food Science, Cornell University, and Todd M. Schmit, Associate Professor, Charles H. Dyson School of Applied Economics and Management, Cornell University.



The National GAPs Program
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About Us

Harvest New York is a program in Western New York and Northern New York designed to expand and enhance existing regional agriculture extension programs with the addition of three new areas of expertise: agriculture economic development, dairy modernization, dairy food processing, and livestock processing.

Maximizing connections to the research and resources of Cornell and Cooperative Extension, responding to emerging issues, and developing new opportunities, CCE's newest regional team members will help increase the profitability of the New York agricultural industry.

The Harvest New York agricultural team specialists, housed at separate locations throughout the state, will work in close consultation with Cornell faculty members, local and regional extension staff and grower groups. They'll bring new information and resources to the table, particularly in areas where there is potential for industry growth and expansion.

***Welcome Carl!**

New to the Team in 2015, Carl brings expertise from the dairy processing industry to HNY. Carl also works in Western New York and the Southern Tier.