Harvest New York

Cornell University
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HARVEST NEW YORK!

HARVEST NEW YORK PROGRAM HIGHLIGHTS
Quarterly Report
July 2012-December 2012

Growing New York's Agriculture and Food Economy

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Tristan Zuber
Dairy Processing Specialist

Quarterly Report
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Training of Employees Entering the Food Processing Sector

Over the past six years, job numbers in the New York State dairy processing sector have risen 3% and along with that, wages have grown 14%. Employees entering the dairy-processing sector are those who may have been displaced from other manufacturing sectors. Along with this, dairy processors are growing in size and in numbers. Yogurt production has been a major contributor to this sector growth. Since 2008, yogurt production in New York State has increased 140%.

In August 2012, members of the Dairy Foods Extension Team and the Harvest New York Team held training in Basic Dairy Science & Sanitation for recently hired employees for a new yogurt manufacturer in Western New York. Funding for this training was granted through collaboration with the Rochester Institute of Technology's Food Processing Cluster Initiative. The training is intended for teaching basic concepts in food safety as it applies to dairy foods processing. Of the numbers of employees trained, 80% had zero previous experience working in the food industry. Employees found the program to be incredibly relevant to their line of work and some will pursue further training in dairy foods processing as part of the Cornell Dairy Foods Certificate Program. The same program will be held for other processors in the first quarter of 2013.

Development of an Acid Whey Work Group

For every four pounds of Greek yogurt manufactured, approximately three pounds of acid whey is produced. Acid whey is also produced through other culture dairy product manufacturing. It is estimated that cultured dairy product manufacturers produce well over 1.12 billion pounds of acid whey per year.

Much of this acid whey is fed to cattle or applied to fields as fertilizer and has been considered a waste of cultured dairy manufacturing. Many feel that there are various other alternative uses of acid whey that have yet to be discovered. As part of the Harvest NY program, I have formed an Acid Whey Work Group, which encompasses faculty expertise from multiple disciplines. The purpose of this group is to develop a research plan that focuses on sustainable solutions for use of acid whey. A grant application has been submitted to obtain funding to address various research needs.

Megan Fenton
Economic Development Specialist

Quarterly Report
July 2012-December 2012

New York State produce auctions demonstrate stronger economic growth when they receive effective extension education support services.

Wholesale produce auctions are a growing market channel for New York farmers. There are now three incorporated auctions throughout New York State that are resulting in substantial financial growth for farmers in addition to consumer access to fresh fruits and vegetables. These produce auctions range in establishment times from 2000 to 2009. Harvest New York researched the New York State produce auction to determine if extension education services are a key driver and resource for auctions. A survey of auctions, growers and buyers supports the value of extension, as the auction with the highest contact with the Cornell Vegetable Program grew in sales by $185,612 per year, while other auctions only grew by $27,042 and $33,333 respectively.

Effective extension services resulted in stronger economic growth for the farmers and the associated growers. By definition effective extension involves the adequate and timely access by farmers to relevant advice, with appropriate incentives to adopt the new technology. For extension education to be effective it needs to include education programs, on farm education and applied research. The positive effect of effective extension education was demonstrated by the adoption of season extension structures by New York State farmers. The adoption of season extension techniques that have been researched and promoted by the Cornell Vegetable Program allowed the produce auction growers to deliver quality produce earlier and later into the season than the season would have otherwise allowed. The growers received educational program through annual growers meetings presented by the Cornell Vegetable Program. The farmers surveyed received an average of two on-farm visits per year where consultation on season extension structures occurred. Finally there was more than a half million dollars of research dollars granted to the Cornell Vegetable Program to conduct applied research on season extension.

It was the synergies of the three extension services that resulted in effective extension education and the adoption of season extension technology by New York State Produce auction growers that had access to the Cornell Vegetable Program. One produce auction grower simply stated that without the Cornell Vegetable Program he would have “never even thought to consider a high tunnel (a type of season extension structure)”. The adoption of season extension technology increased the income of associated produce growers and produce auctions because it allows for the growing season to be extended granting them greater access to the market. The research conducted by Harvest New York narrowed down the elements of effective extension education so that they can be replicated throughout the region to produce strong agriculture economic development. The full research and publication is in press. If you have any further questions please feel free to contact the Harvest New York, Agriculture Economic Development Specialist, Megan Fenton at mef46@cornell.edu.

Emerging New York food hubs represent new opportunities for New York State farmers to meet the local food demand.

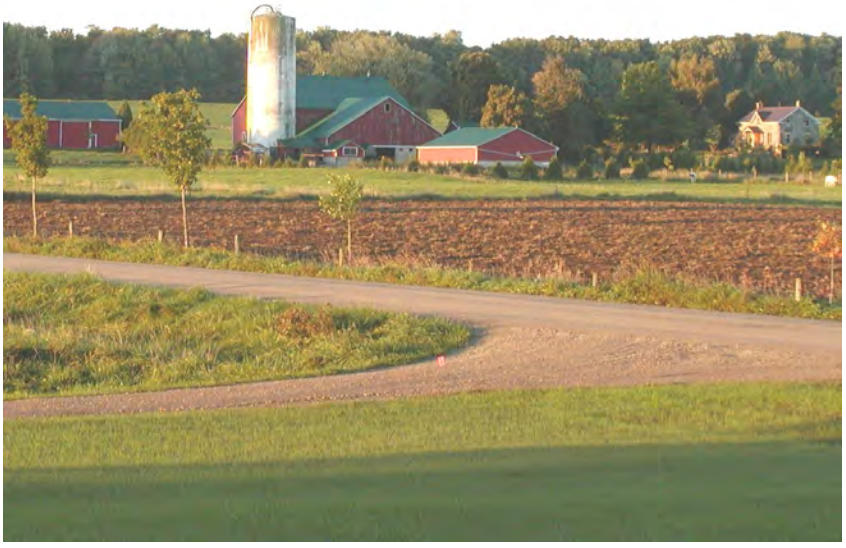
In 2008 the size of the United States local food market was $ 4.8 billion. The United States Department of Agriculture (USDA) Economic Research Service projected that the demand for local food would total $11 billion within three years. The local food marketing channels for farmers are varied from roadside farm stands to national distributors. Unfortunately farmers are challenged by the lack of distribution, processing and marketing infrastructure that would give them greater access to the local food market. This is particularly a problem for small to mid size farmers who do not have the critical mass to access large volume customers that would allow them to increase their business.

The USDA supports regional food hubs as a method to encourage small farmers to scale up their operations and have greater access to larger volume customers that are creating a demand for local product. The USDA defines a food hub as a business or organization that actively manages the aggregation, distribution and marketing of source identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail and institutional demand. When looking at food hubs across the nation the USDA found that they represent significant job creation as can be seen in Table 1. In addition to job creation food hubs generate significant economic development through the sale of food products. In the nationwide survey of thirty five food hubs conducted by USDA it was found that the average food hub sales was $3.7 million with the range being from $46,000 to $40 million dollars.

Table 1 Employment by Food Hubs across the United States. (USDA)

Employees	Average	Median	Range
Full- time	7	3	0-112
Part-time	5	3	0-40

In New York there are currently three established regional food hubs with many more emerging or unidentified. The Harvest New York Agriculture Economic Development Specialist works to support food hubs as they represent opportunities for significant agriculture economic development. Harvest New York works with area food hubs to research value added processing, find qualified growers, explore grant funding and find markets. The result is that the area food distributors have greater access to New York State grown produce. These early efforts have already resulted in a new market for area farmers. One farmer who is now participating in the food hub stated that "the Harvest New York team provided the technical advice all year to produce a quality product resulting in an additional $40,000 income" that was earned through the food hub market channels.



The USDA has identified the following as critical needs for the success of regional food hubs; capital improvements to develop infrastructure, working capital for business management systems and enterprise development training and technical assistance to increase grower capacity to meet buyer requirements.

The Harvest New York program is successfully working with area food hubs to meet these critical needs to ensure successful agriculture economic development through food hubs. If you have any further questions please feel free to contact the Harvest New York, Agriculture Economic Development Specialist, Megan Fenton at mef46@cornell.edu.

Beth Dahl
Dairy Modernization Specialist

Quarterly Report
October 2012-December 2012

Opportunities for Growth and Improvement in Productivity at Farm Level in Western New York Dairy Industry

With recent reinvigoration of the New York dairy foods processing sector has come growth in demand for raw milk from our local dairy farms. A predominant animal health company in conjunction with two leading milk-marketing cooperatives, commissioned a study that identified a milk deficit as large as four billion pounds in 2014. This outcome would likely result in an inability for New York to continue to attract and provide for new and thriving dairy processing companies.

Growth in milk production at the farm level can take place in three ways- the first being new dairy farms, milking cattle not previously milked in New York. It is not anticipated that this will represent significant milk growth, largely due to limited availability of land to grow feed for cattle. The second area of growth is from increased cow numbers on existing farms. Despite limiting factors, many dairy farms in New York currently have plans to grow, and many more have the ability to grow, but may not yet have interest due to challenges procuring labor and land, profit volatility, or lack of next generation interest in dairy farming. The third area of milk production growth will be from managing existing cattle for greater milk production per cow.

Data collected by New York Department of Agriculture and Markets, shown on the next page, shows several counties in western New York currently exceed the state average for herd size and milk production per cow. Even so, farm profitability dictates either growth in cow numbers or increased milk sold per cow in order to maintain a standard of living for owners, and as such, farmers pursue one, or a combination of both, as a means to successful operation of their farm.

As seen in the following chart, daily milk production per cow averaged 65 pounds in 2010, but ranged dramatically by county, from 97 to 37 pounds. It is not uncommon to find herds with milk production exceeding 23,000 pounds per cow, per year- or 75 pounds per day. In fact, seven of the seventeen counties in western New York averaged 76 pounds per cow in 2010, yet the other nine counties, representing 96,000 cows, fell short of even 65 pounds of milk per cow, per day.

For the average herd of 120 cows in the region to increase daily milk production by ten pounds per cow, would mean nearly $40,000 in additional annual income at current milk price and feed costs. The economic impact across all herds would exceed $200 million dollars in farm revenue each year. Additionally, if every cow in western New York were to produce another ten pounds of milk per day, we could meet eighteen-percent of the projected milk shortfall, equivalent to 722 million pounds of milk a year with existing cows.

Western New York Dairy Farm Demographics

County	Milk lbs per Cow (2010)	No. Dairy Farms (2007)	No. Cows (2010)	Total Milk (2010) (1,000 lbs)	Average Herd Size
Yates	19,600	262	11,800	180,600	45
Steuben	18,000	254	21,000	378,500	83
Chautauqua	18,700	229	18,500	345,500	81
Cattaraugus	22,500	226	14,200	319,500	63
Wyoming	23,700	181	46,500	1,100,00	257
Ontario	21,500	122	21,000	450,500	172
Erie	18,200	119	13,800	251,500	116
Allegany	14,700	115	8,700	127,500	76
Seneca	18,100	110	7,200	130,000	65
Livingston	19,900	76	23,500	468,500	309
Genesee	23,500	68	24,000	565,000	353
Wayne	29,800	60	6,600	196,500	110
Schuyler	21,800	48	5,300	115,500	110
Niagara	17,100	43	9,100	156,000	212
Orleans	18,500	37	2,600	48,000	70
Chemung	11,300	36	3,000	34,000	83
Monroe	n/a	14	n/a	n/a	n/a
WNY Total/Average	**19,806**	**2000**	**236,800**	**3,767,100**	**118**
NY State Average	*20,807*	*5683*	*611,000*	*12,713,000*	*108*

Identifying New York Dairy Farm Growth Opportunities Stemming from Proposed Medium CAFO Permit Threshold Increase

For many years beginning in the early 1980's, New York dairy farms began a period of tremendous growth and made significant capital investment in their dairy businesses; adopting innovative management techniques that moved the state to the forefront of the dairy industry. Many of these herds planned their expansions carefully and in the past two decades, have grown beyond 500 cows- a group that while small as a percent of total farms in the state, represents a majority of milk produced. In recent years however, growth has stagnated as these herds became limited in their ability to grow.

Present conditions in New York suggest that an opportunity to stimulate a new burst of growth and innovation in dairy farming may be upon us. It is important to note however, that dairy farmers are faced with numerous challenges, including diminishing availability and skyrocketing cost of land suited for crops to feed cattle, inability to find and maintain adequate and legal labor, and volatility in both milk price and input costs. Access to capital, environmental legislation compliance, and a shortage of young people to continue existing farming businesses have also been noted as restricting growth.

In an attempt to ease the burdensome price tag of constructing and improving facilities to meet CAFO Permit requirements ($100,000 to $1,000,000 is not uncommon), the New York Department of Conservation (DEC) committed to changing legislation that would allow many small and mid-sized dairy farms to increase herd size without triggering CAFO compliance at 200 cows. By extending the permit threshold to 300 cows, growing dairy farms will have the advantage of more cows across which to spread the cost of becoming CAFO compliant, should they desire growth beyond 300 cows. Farmers also have the option to maintain a herd size of up to 299 cows without requiring a permit.

As a result of this change to legislation, Harvest NY participated in a pilot project marrying financial impact analysis and evaluation of changes needed to meet CAFO standards as a way to ease the planning process and stimulate strategic planning for dairy farms considering growth from less than 200 cows to greater than 300 cows. In the report to the DEC, it has been recommended that Harvest NY maintain an active roll in additional pilot projects, as well as in subsequent farm outreach when the program is finalized.

Recognizing that more than half of all herds in western NY could take advantage of this change in legislation, Harvest NY developed a survey, sent to a representative sample of western New York dairy farmer owners. Responses are expected to provide Harvest NY and Cornell Cooperative Extension with better insight into the needs of dairy farms anticipating growth, providing quantifiable data on how many herds are considering adding additional cows, expanding beyond 300 cows, or pursuing methods to increase milk production per cow. Survey results will also be used to develop outreach targeted to these farms.

Harvest NY is expected to play a critical role in helping farms interested in growth and transition better prepare for major change to their farm business.