

Cornell University  
College of Agriculture  
and Life Sciences



**The PRO-DAIRY Mission**

Increase the profitability and competitiveness of New York's dairy businesses through industry-applied research and educational programs that enhance farm profitability while advancing dairy professionals' knowledge, skills and enthusiasm.

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# PRO-DAIRY

Annual Report

 2009 – 2010

*Success through  
Commitment & Collaboration*



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Through commitment and collaboration, PRO-DAIRY has for more than 20 years played a central role in sustaining New York's robust dairy industry. PRO-DAIRY's contribution has helped New York to maintain its position as the number three dairy state in the country.

PRO-DAIRY is committed to excellence in educational programming and applied research. The 2009-2010 PRO-DAIRY Annual Report reviews programs and research in these key areas: farm business management; profit-focused discussion groups; field crops and nutrient management; waste management systems; cattle housing, health and productivity; environmental management; dairy youth; and Extension and agribusiness education.

In 2009 - 2010 PRO-DAIRY:

- ▶ Grew participation in its monthly benchmarking tool - Dairy Profit Monitor.
- ▶ Initiated a new business analysis program, collaborating with Farm Credit East.
- ▶ Increased the number of people attending the successful CAFO Off-Road Show.
- ▶ Expanded the number of farmers who receive The Manager, a quarterly publication done in collaboration with Eastern DairyBusiness.
- ▶ Raised the number of participants in statewide Dairy Profit Discussion Groups. Members now represent one-third of New York's cows.
- ▶ Created DairyFAST, in collaboration with the New York Center for Dairy Excellence, to provide education and networking for agriservice professionals.
- ▶ Encouraged hundreds of young people to consider dairy industry careers through the dynamic Junior DAIRY LEADER.
- ▶ Partnered with the Northeast Dairy Producers Association to host its 2010 conference, attracting nearly 600 participants.
- ▶ Updated the PRO-DAIRY website to improve access to valuable dairy information.
- ▶ And much more.

Through its diverse programs, PRO-DAIRY contributes to the economic health of New York's dairy industry. In turn, this positively impacts the rural economy. According to Cornell University research, every dollar of output on a dairy generates

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▶ **Impact**

an additional 83 cents in the economy. Given that the annual farm gate milk revenue is an estimated \$2 billion, the economic multiplier is huge.

PRO-DAIRY is a joint venture of the New York State Department of Agriculture and Markets and Cornell University's College of Agriculture and Life Sciences. In these difficult economic times for the dairy industry and program funding at the state level, PRO-DAIRY is particularly appreciative of the continued strong support from the Department of Agriculture and Markets.

In addition, several of the successful programs featured in this report could not exist without our partnerships with the New York Farm Viability Institute and Center for Dairy Excellence. We value these partnerships tremendously: It has helped to bring many organizations together to work for the betterment of New York's dairy industry.

To accomplish its mission, PRO-DAIRY also partners with an extensive group of institutions, associations, businesses and individuals. (Please see a complete list of these collaborators on the inside back cover.) PRO-DAIRY thanks these partners for their support.

This annual report marks a major change for the PRO-DAIRY program. After 13 years as its director, David Galton handed over leadership of the program. His vision and guidance have enhanced tremendously both PRO-DAIRY and New York's dairy industry.

Since 1988 PRO-DAIRY specialists have committed themselves to providing top-notch programs, research and leadership to the New York State dairy industry. The results of their efforts are clear: New York's dairy farms are among the leaders in U.S. milk production and dairy farm management.

Thomas Overton  
Director  
PRO-DAIRY

## PRO-DAIRY Collaborators

PRO-DAIRY thanks the State of New York, New York Farm Viability Institute and New York Center for Dairy Excellence for their financial support and the New York State Department of Agriculture and Markets for its years of commitment and guidance. Through collaboration with these partners and the 125 listed here, PRO-DAIRY will continue to lead New York's dairy industry.

ABS Global  
Advanced Comfort Technology  
Advanced Dairy Services  
AeroTech  
Ag Choice Farm Credit  
Agricultural Consulting Services  
Agricultural Waste Solutions  
Agri-Labs  
Agway Foundation  
Alpharma Animal Health  
Alta Genetics  
American Dairy Association & Dairy Council  
American Farmland Trust  
Arm & Hammer Animal Nutrition  
Attica Veterinary Clinic  
Bank of Castile  
Barton & Loguidice P.C.  
Battenkill Veterinary Clinic  
Blue Seal Richer Dairy Nutrition  
Bourdeau and Bushey Inc.  
Brown's Feed  
Capital Area Ag Consulting  
Cargill Animal Nutrition  
Carolina Eastern Vail Inc.  
Cayuga Marketing LLC  
Cayuga Renewable Energy LLC  
Central New York Dairy, Livestock & Field Crops Program  
Champlain Valley Agronomics  
Community Bank NA  
ConsulAgr  
Cook's Consulting  
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Cornell Industrial Labor Relations Extension  
Countryside Veterinary Clinic  
County-based Soil and Water Conservation District Programs  
Cows Come First  
Cuff Farm Services  
Dairy Nutrition Inc.  
Dairy One Cooperative Inc.  
DairyLea/ DFA  
Dairy Support Services  
Dehm Associates  
Diamond-V

DLtech  
EASTERN DairyBusiness Magazine  
Eastview Veterinary Clinic  
Elanco Animal Health  
Farm and Country Insurance  
Farm Credit East  
Feed Commodities International  
Fort Dodge Animal Health  
Genex/CRI  
Gramco Inc.  
Granville Veterinary Services  
Grober Nutrition Inc.  
Harry Austin Milling  
Hewitt Brothers  
Holtz-Nelson Consulting  
Intervet/Schering-Plough Animal Health  
Jess Engineering  
Jim Henion  
JW Ferry & Associates  
Keseca Veterinary Clinic  
Land O'Lakes/Purina Feed  
Lowville Farmers Cooperative  
Lowville Digester Work Group  
Lutz Feed  
McDowell & Walker  
McLanahan, Inc.  
Mercer Milling  
Merial  
Midland Bioproducts  
Midstate Veterinary Clinic  
Midvale Veterinary Clinic  
New York Animal Agriculture Coalition  
New York Farm Bureau  
New York Organic Dairy Initiative  
New York State Agriculture Mediation Program  
New York State Cattle Health Assurance Program  
New York State Certified Agricultural-Environmental Planners  
New York State Department of Conservation, Division of Water  
New York State Energy Research Development Authority  
New York State Soil & Water Conservation State Committee  
Norbc

Northeast Agriculture Technology Corp.  
Northeast Certified Crop Advisor Program  
Northeast Dairy Producers Association  
Northeast Farm Credit AgEnhancement Program  
Northwest New York Dairy, Livestock & Field Crops Program  
Novartis Animal Health  
Ochs Consulting LLC  
Palmer Veterinary Clinic  
Pennfield Corp.  
Perry Veterinary Clinic  
Pfizer Animal Health  
Poulin Grain Inc.  
Quality Milk Production Services  
Ranch Veterinarians  
Rapp Dairy Nutrition  
Reisdorf Brothers  
Renaissance Nutrition Inc.  
Ridge Animal Hospital  
Round House Mill  
Rupert Veterinary Clinic  
Shur-Gain USA Inc.  
Springville Veterinary Services  
Spruce Haven Farm & Research Center  
Starland Veterinary Services  
The Old Mill-Troy Inc.  
Turning Point Dairy  
Twin Birch Farm  
U.S. Geological Survey  
Upstate Niagara Cooperative  
USDA Farm Service Agency  
USDA Natural Resource Conservation Service  
Venture Milling  
Ward and Van Scoy  
Watertown Animal Hospital  
Western New York Crop Management Association  
Whitman's Feed Store  
Wight and Patterson  
William H. Miner Agricultural Research Institute  
Zinpro Corp.

# Collaboration & Commitment

## 2009-2010 PRO-DAIRY Programs and Cow-Number Impact

<u>Program</u>	<u>Approximate Number of Cows Represented by Program Users</u>
Cornell Dairy Farm Business Summary and Analysis	66,544 (direct PRO-DAIRY contribution)
Dairy Profit Discussion Group	197,552 (608 dairies)
Eastern DairyBusiness Magazine	2.5 million (20 states)
Cornell Dairy Executive Program	10,000
Dairy Farm Monitor (monthly benchmarking tool)	94,600
Winter Dairy Management Program	23,462 (dairy producers)
	277,425 (agriservice client dairies)
Northeast Dairy Producers Association Conference	64,488 (dairy producers)
	201,700 (agriservice client dairies)
Environmental/Nutrient Management	
Professional Engineer Training	275,000 (all dairies with nutrient management plans)

### **New York Dairy Industry**

- ▶ **5,470 dairies**
- ▶ **3<sup>rd</sup> nationally in milk production**
- ▶ **12.4 billion pounds of milk annually**
- ▶ **\$2 billion (est.) in farm-gate milk revenue annually**

*The New York Farm Viability Institute is pleased to partner with PRO-DAIRY on a variety of technical and managerial projects that address farmer-identified barriers to enhancing profitability. We are especially excited about continuing work with PRO-DAIRY on two major programs: the manure management technology initiative and the farmer profit-focused discussion groups.*

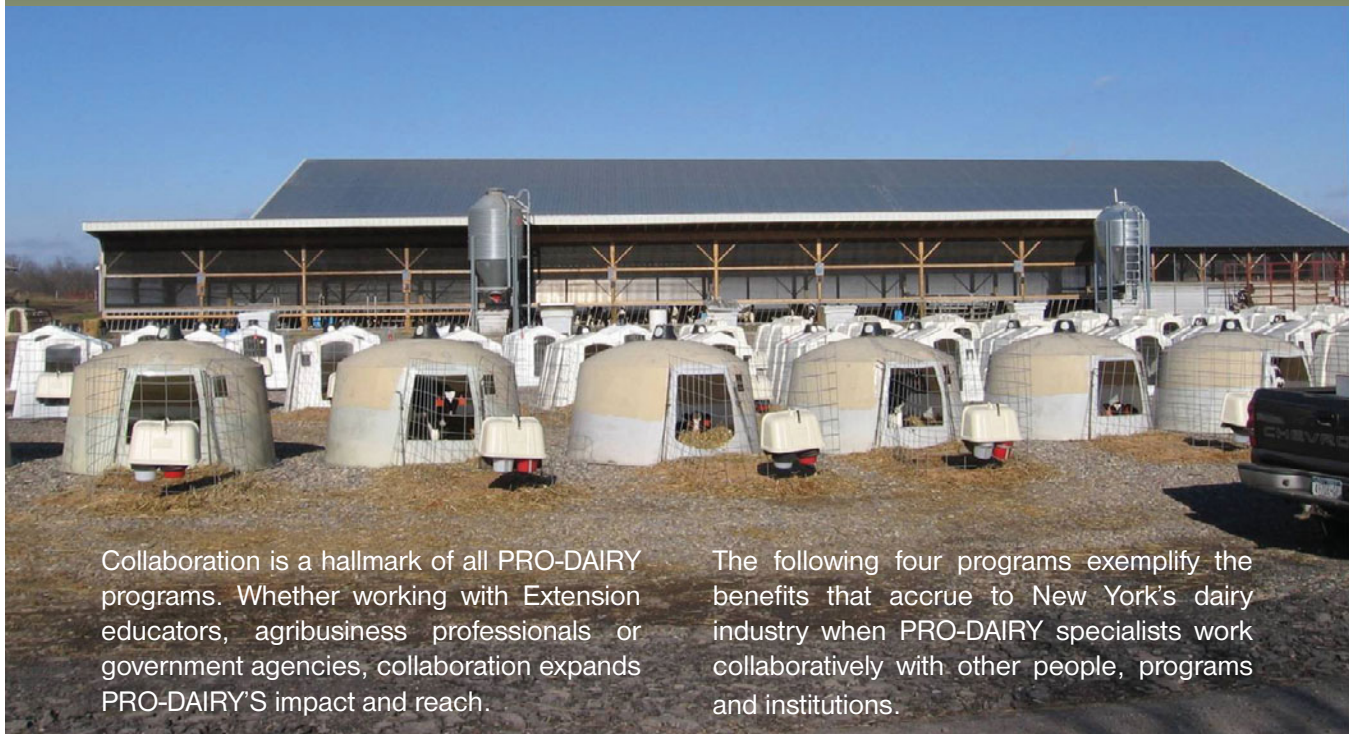
**Tom Sleight**  
Executive Director  
New York Farm Viability Institute

*New York's dairy industry is a close-knit family that relies on good collaboration and cooperation among farmers, suppliers and experts in research and Extension. PRO-DAIRY effectively brings these parties together in order to help ensure profitability on the farm. I am always impressed with the commitment and teamwork exhibited by PRO-DAIRY staff and commend them for their efforts in keeping New York's dairy industry our leading agricultural sector.*

**Patrick Hooker**  
New York State Agriculture Commissioner



# Collaborate for Dairy Success



Collaboration is a hallmark of all PRO-DAIRY programs. Whether working with Extension educators, agribusiness professionals or government agencies, collaboration expands PRO-DAIRY'S impact and reach.

The following four programs exemplify the benefits that accrue to New York's dairy industry when PRO-DAIRY specialists work collaboratively with other people, programs and institutions.

## DairyFAST

**PRO-DAIRY specialists:**  
**Kathy Barrett and John Conway**

PRO-DAIRY collaborated with the New York Center for Dairy Excellence to create Dairy Farm Advisor Skills Training, or DairyFAST. It provides professional development and networking opportunities for agriservice professionals. Armed with the latest and best information on dairy farming, these professionals can better serve their dairy clientele who turn to them for advice.

The program offers a series of educational programs quarterly at five sites across

New York State. Agriservice providers and dairy producers provide input on topics for the programs. Local Extension educators and agriservice professionals facilitate the sessions. Collaboration at work!

## ► Impact

- Since its kickoff in 2010, DairyFAST has addressed two topics: risk management and maximum forage quality. The program presented each topic at five locations. More than 130 agriservice professionals participated in the sessions.

*Kathy Barrett and John Conway have been instrumental in developing the DairyFAST program. They provide agribusiness people with opportunities to network and learn more about issues impacting New York's dairy industry. DairyFAST works with agriservice providers who are on farms every day, informing them about best practices in the industry. When that trusted advisor says to a farmer, "Have you ever considered...", the farmer may give more thought to adopting a new practice than they might otherwise.*

**Janice Bitter**  
**Vice President/Branch Manager**  
**Farm Credit East, ACA**

# Field Crops/Nutrient Management Program

**PRO-DAIRY specialist: Karl Czymmek**

Karl Czymmek's long-running collaboration with Cornell University's Nutrient Management Spear Program, led by Quirine Ketterings, continued in 2009-2010. Over the last 10 years the team has conducted soil fertility and nutrient management research on commercial and research farms across the state. The work has changed crop fertility practices on New York farms, benefiting their bottom lines and the environment.

In both the Nitrogen for Corn Project and the New York Starter Phosphorus Project, the team tested the idea that growers could, in many situations, make better use of manure and other on-farm nutrients to reduce fertilizer inputs without negatively impacting yields.

## ► Impact

- The New York Starter Phosphorus Project consisted of field trials in 2001-2003. Combining on-farm research with impact-oriented, integrated

research and Extension programming has contributed to a 20% reduction in P use in 2007 compared to 2000. There has been a cumulative reduction of 57 million pounds of P application in that time period.

- The team recently received a grant to expand the hay crop potassium response trials to farm locations around New York State.

*Since the start of our program, we have collaborated closely with Karl Czymmek and other PRO-DAIRY staff members. This has enabled us to build an applied research and Extension program recognized for its relevance to and impact on crop production and agricultural environmental management for New York dairy farms.*

*Quirine Ketterings  
Leader, Nutrient Management  
Spear Program  
Cornell University*



Educational programs, in collaboration with government agencies and other educators, are central to the PRO-DAIRY Field Crops/Nutrient Management Program. One emphasis of 2009-2010 programs was how dairies can reduce fertilizer costs by accounting for manure nutrients.

## ► Impact

- More than 1,300 people attended nutrient management programs that involved PRO-DAIRY efforts.
- An additional 4,000 people learned how dairy farms recycle nutrients at the Ontario County biennial “Fun on the Farm” event in September 2009.
- PRO-DAIRY helped develop and deliver basic nutrient management training, reaching more than 225 participants. Many of them were new staff with Soil and Water Conservation District and Natural Resources Conservation Service.

Guidance on Concentrated Animal Feeding Operation (CAFO) regulations and permitting falls under the purview of Karl Czymmek and other PRO-DAIRY specialists. They play a major role in presenting the popular CAFO Off-Road Show which covers such nutrient management issues as safety, regulations, application rates, spreading setbacks and record keeping.

## ► Impact

- In March 2010, PRO-DAIRY specialists and others delivered the CAFO Off-Road Show at six locations to 160 people, representing 22 dairies and about 16,000 cows, and four custom manure haulers/applicators. One dairy producer who was so pleased with his staff’s performance after attending the program in 2009 organized a repeat session in 2010, inviting neighbors and custom haulers to attend.



PRO-DAIRY continues to work with the New York State Department of Agriculture and Markets and the Department of Environmental Conservation (DEC) staff on CAFO-related issues. Specialists serve on the CAFO Work Group where they provide practical, science-based information about dairy farming and manure management to regulators who write the rules dairy businesses must comply with.

Once the Clean Water Act CAFO Permit is released this year, PRO-DAIRY staff will educate farmers on what it means to their businesses. This impacts all dairies of more than 200 cows, representing a total of more than 300,000 cows.

## Cornell Cooperative Extension Dairy Group

**PRO-DAIRY specialist: John Conway**

Cornell Cooperative Extension educators are indispensable collaborators with PRO-DAIRY. They work hand-in-hand to provide New York's dairy community with the latest and most useful information on dairy production and management.

At an Extension Dairy Summit, held in April 2009, 65 Extension educators and Cornell faculty created a template for prioritizing programs. Work groups, based on different dairy structures such as grazing/organic, small/mid-size tiestall and larger freestall dairies, generated reports on each category's general characteristics, issues, educational challenges and effective program delivery methods. These reports help PRO-DAIRY and Extension to meet the educational needs of the state's dairy producers in a tough economic environment. Attendees re-evaluated their reports in April 2010.

Momentum from the Summit shaped the In-service Training Session held in November 2009. In addition to presentations by Cornell faculty, the Dairy Group held a session on a dairy where members participated in lameness scoring of the herd and performed an evaluation for animal welfare. These two



activities were a prelude to the 2010 Winter Dairy Management Workshops.

Among the many benefits of the PRO-DAIRY-Extension collaboration is the sharing of information. A new in-house website improves the ability of dairy Extension field staff to share newsletter articles and topics and guest speakers for Dairy Profit Discussion Groups.

*Over time dairy Extension educators have developed parallel programs across New York State. Unfortunately, the experience gained and the resources gathered haven't always been common knowledge among colleagues. But with the Cornell Cooperative Extension Dairy Group activities, we have a clearinghouse for ideas, materials and contacts to avoid reinventing the wheel in an era when fewer do more.*

**Jerry Bertoldo, DVM**  
Extension dairy educator  
Northwest New York Dairy,  
Livestock & Field Crops Program  
Batavia, NY





## 2010 Northeast Dairy Producers Association Conference

The biennial Northeast Dairy Producers Association (NEDPA) conference has always been a premier event for dairy producers and other professionals from New York and beyond. The program has a reputation for presenting cutting-edge information on dairy production, management and current issues.

The conference's success rests in large part on the collaboration between PRO-DAIRY and

NEDPA. Program development, led by David Galton, former PRO-DAIRY director, targeted major dairy themes - the challenges of growing the world food supply, opportunities to reduce the environmental impact of dairy production and animal welfare.

### ► Impact

- 550 attendees: approximately 140 dairy producers, representing about 62,500 cows; 260 agriservice professionals and educators, working with 425,000 cows on client dairies; and 150 students.

*The PRO-DAIRY team combines knowledge, passion for dairy and a commitment to moving the industry forward. This makes PRO-DAIRY an ideal partner for the Northeast Dairy Producers Association. Through collaboration with PRO-DAIRY, NEDPA can provide its membership with valuable information about environmental issues and dairy herd management through the Northeast Dairy Producers Conference, the Dairy Operations Managers Conference and farm tours.*

**Caroline Potter**  
Executive Director  
Northeast Dairy Producers Association



# Dairy Youth Programs

PRO-DAIRY specialist: Deborah Grusenmeyer

## Programs

- Junior DAIRY LEADER
- Dairy Discovery
- 4-H Career Exploration/Dairy Focus
- Animal Crackers
- Traditional 4-H Dairy Programs

## Junior DAIRY LEADER

The future of New York State dairy farms and agribusinesses rests with young people who have the enthusiasm, knowledge, skills and commitment to create successful careers in the industry. How can young people learn about dairy career options? How can they get hands-on experience in these careers? How can they meet people who have a passion for dairying? Junior DAIRY LEADER is the answer.

Since 1999, the PRO-DAIRY-initiated and directed program has introduced 217 young people to exciting opportunities in the dairy industry. According to Deborah Grusenmeyer, PRO-DAIRY youth specialist, the year-long program exposes young people between the ages of 16 and 19 to careers; progressive, profitable business people; and diverse management styles and ideas.

Through eight workshops, young people learn they can have a future in the dairy industry. Here's a sampling of what the Junior DAIRY LEADER program offers:

- ▶ Hands-on experience in veterinary science, dairy nutrition, cattle reproduction, calf health and growth, and milk production with opportunities to develop technical skills.
- ▶ Visits to successful dairy farms to learn management skills.
- ▶ Development of skills in leadership and communication.
- ▶ Performance of on-farm financial and production analysis.
- ▶ Enhancement of career planning through discussions with dairy industry leaders and work experience.
- ▶ Trips to the National 4-H Dairy Conference and to dairies in New York, the Northeast, and Wisconsin where young people interact with professionals who have positive, enthusiastic attitudes about the dairy industry.

Junior DAIRY LEADER thanks the following sponsors: PRO-DAIRY, Northeast Agricultural Education Foundation, Cargill Animal Nutrition, New York Center for Dairy Excellence, New York Farm Viability Institute, Northeast Farm Credit AgEnhancement program, SHUR-GAIN USA, Dehm Associates and Genex/CRI.

*The kids who participate in Junior DAIRY LEADER are better prepared and more mature. These two things are key to young kids who are planning on entering the dairy industry. If we want agriculture in the Northeast, we need young people who are trained and prepared. Junior DAIRY LEADER does that.*

**Ray Dykeman**  
Dairy owner/manager  
Fultonville, NY  
(His son Kyle is a Junior  
DAIRY LEADER graduate.)



## ► Impact

- In 2009-2010, the Junior DAIRY LEADER Program graduated 28 young people. They represented 21 farms and more than 11,400 cows/heifers.
- Over the past 11 years, 98% of the 217 Junior DAIRY LEADER graduates continued their education beyond high school.
- Notably, 87% of these youth have attended or are attending college to study agriculture even though 40% of them said at the beginning of the program they didn't plan to pursue agricultural careers.
- Surveys of Junior DAIRY LEADER graduates show young people are staying in or going into agriculture and dairy careers with better skills and knowledge to succeed.
- The program led to the creation of four regional dairy youth programs modeled on Junior DAIRY LEADER. Deborah Grusenmeyer annually provides two programs for these groups, which target 14- to 16-year-olds.

## Dairy Discovery

This annual statewide program offers hands-on workshops for 15- to 19-year-olds at Cornell University. Young people spend a day and a half on campus learning about dairy careers and delving into the specifics of dairy cattle production. For example, during the herd health and management focus, young people rotate through a series of stations observing and participating in technical skill training related to such topics as fresh cow care, hoof health, diseases and prevention, and records analysis.

## ► Impact

- In 2009, 100 young people and adults participated in Dairy Discovery. They represent 45 dairies, 14,489 cows and 10,875 heifers. On a scale of 1 to 5, with 5 being the highest, young people rated the program 4.53.

## 4-H Career Exploration/ Dairy Focus

At the annual 4-H Career Exploration Program, held at Cornell University, Deborah Grusenmeyer provides a dairy focus. Her



presentations give 15- to 19-year-olds the opportunity to learn more about the dairy industry and its careers, build personal and professional skills, and develop a positive attitude about the dairy industry.

Youth participate in hands-on learning of skills and knowledge in veterinary science, dairy nutrition and production management. Participants interact with faculty in the Cornell Department of Animal Science and dairy industry professionals.

## ► Impact

- 23 youth participated in the 2009 4-H Career Exploration.

## Animal Crackers

This annual event for youth ages 9 to 13 introduces them to Cornell faculty and students. They learn about different aspects of animal care and interact with producers and industry experts. Hands-on workshops are held for each species group, with dairy featured on even years.

## ► Impact

- 120 youth and parents participated in the dairy track of Animal Crackers in May 2010.
- On a scale of 1 to 5, with 5 being the highest, the overall program received 4.74. Knowledge and understanding of dairy cattle scored 4.56.



## Traditional 4-H Dairy Programs

Deborah Grusenmeyer also provides leadership for 4-H dairy programs such as Dairy Quiz Bowl, dairy cattle judging and dairy skill-a-thons. These and other 4-H programs statewide give 9- to 19-year-olds opportunities for positive dairy experiences.

## ► Impact

- More than 400 young people participate in Dairy Quiz Bowl yearly.
- 300 youth participate in dairy cattle judging.
- Dairy Challenge, a skill-a-thon for youth, attracts 150 youth yearly.

*When I started Junior DAIRY LEADER, my plan was to go to college for sports medicine. But after being in the program, I decided I wanted to study dairy and animal science in college. The herd health session gave me a passion for diagnosing and treating animals, and from the Wisconsin trip I learned to network with others in the dairy industry. I now have the confidence to ask questions of anyone – producers, professors, classmates.*

**Katie Donnan**  
Junior DAIRY LEADER  
Animal Science major  
Cornell University



# Dairy Management Education

PRO-DAIRY specialist: John Conway

PRO-DAIRY's sixth Winter Dairy Management program, held in 2009-2010, brought together three statewide organizations to provide dairy producers with tools they can use to monitor dairy herd performance. PRO-DAIRY collaborated with the New York State Cattle Health Assurance Program (NYSCHAP) and Quality Milk Production Services (QMPS) to present Widening Dairy Margins Using Herd "Intelligence."

Both NYSCHAP and QMPS offer monitoring tools to help dairies track two areas that are important to business success. QMPS offers bulk tank surveillance to monitor for mastitis, cattle disease pathogens and human food-borne pathogens. NYSCHAP, through its Animal Welfare Certification Program, offers routine lameness assessment.

Many other collaborators joined PRO-DAIRY, QMPS and NYSCHAP to bring the Winter Dairy Management program to dairy producers at 11 sites across the state: Cornell Cooperative Extension, the Miner Institute, veterinarians and dairy producers who acted as case farms. Industry sponsor Intervet/Schering-Plough underwrote part of bulk tank surveillance testing fees for producers.

This collaboration demonstrates how stakeholders in the number three dairy state pull together for progress.



*In spite of industry-wide low morale due to sustained very poor milk prices, PRO-DAIRY, NYSCHAP and QMPS still motivated producers and agriservice people to get off the farm and look at some new and key herd health and well-being measures. Even when profits are meager to negative, the dairy business is still about capturing all the margin you can from comfortable, healthy cows.*

*Pete McMahon  
Dairy owner/manager  
Homer, NY*

## ► Impact

- 204 participants, including 133 dairy producers, 63 agriservice professionals and eight students, at 11 sites.
- The producers represented 115 farms, 23,462 cows and 19,420 heifers. The agriservice professionals represented 277,425 cows on clients' dairies.
- NYSCHAP saw a 30% increase in Animal Welfare Certified herds following the program. And more dairies are scheduled for precertification audits.
- QMPS saw 23% more dairies take advantage of its bulk tank surveillance program.
- Working with QMPS and NYSCHAP specialists, PRO-DAIRY published a 16-page insert on bulk tank surveillance and animal welfare in the May 2010 issue of *Eastern DairyBusiness*. This reached all New York dairy producers, as well as approximately 12,000 dairies in 31 other states.
- NYSCHAP welfare-certified herds will be panelists at the NEDPA/PRO-DAIRY Operations Managers Conference in January 2011. They will discuss the benefits to their dairies of building the standard operating procedures (SOPs) required for certification.

# Dairy Profit Discussion Groups

PRO-DAIRY specialist: Kathy Barrett

PRO-DAIRY and the Center for Dairy Excellence collaborated to create Dairy Profit Discussion Groups in 2007. The program brings dairy producers together to share ideas and experiences with other farmers who have similar business interests and challenges.

The small group format and farmer-driven discussions make the Dairy Profit Discussion Groups particularly valuable for members, said Kathy Barrett, the PRO-DAIRY specialist who leads the program. Discussions are all the more meaningful because groups have targeted membership. That is, they're comprised of young farmers, dairy farm women, calf raisers, feed managers, or people from large herds or small, to name a few. Other groups have members involved in value-added or organic milk production, robotic milking systems or grazing. Extension educators and agribusiness professionals facilitate the groups.

Group members benefit in many ways by participating in a Dairy Profit Discussion Group. Members:

- ▶ Keep abreast of industry trends.
- ▶ Learn more about specific technologies or practices.
- ▶ Interact and build professional relationships with other respected farmers and with agribusiness professionals who speak to groups.
- ▶ Move toward their farm goals for profitability, as this comment from a discussion group member illustrates:

*- The discussion about methods to reduce PI counts caused me to change my sanitizer. I now receive 50 cents per hundredweight more for my milk because of the quality premium.*

## ▶ Impact

- ▶ The 45 Dairy Profit Discussion Groups have an average of 14 members for a total of 608 producers milking 197,552 cows, collectively. The groups are located in 28 New York State counties, with several multi-county and statewide groups.

## Dairy Profit Discussion Group in Action

Steuben County Small Dairy Discussion Group  
Facilitators: Kerri Bartlett and Jim Grace,  
Cornell Cooperative Extension Educators

The members of this group manage small dairy farms, ranging from 30 to 80 cows, in southern Steuben County. The group formed to meet the need of these farmers, who often can't leave their farms for meetings, to network with others from similar dairies. We achieved our goal of getting these owners of small dairies together, if only for a few hours, to meet and interact with their neighbors. The group has been a great success.

Farmers who traditionally do not attend Extension workshops showed up and participated in the discussion. Many times the farmer networking lasted more than an hour after the formal meeting.

The group has prompted important changes for some of its members. One dairy switched to intensive grazing from confinement housing, taking advantage of the ideal grazing conditions in this area of Steuben County. Another producer looked closer at his herd's nutrition and breeding programs. By talking to others, he made changes in both areas and improved production. A meeting where members learned about milk check analysis was a huge success and an eye-opener for group members.



# Dairy Farm Business Management

PRO-DAIRY specialists: Jason Karszes, Kim Skellie, Kyle Getty

## Programs

- Dairy Farm Business Summary and Analysis
- Dairy Profit Monitor
- Profit Discussion Groups – Business Focused
- Enterprise Analysis Project
- Cornell Dairy Executive Program

## Dairy Farm Business Summary and Analysis

PRO-DAIRY specialists collaborate with Extension educators to increase the benefit of the Dairy Farm Business Summary (DFBS) and Analysis to participating dairy producers. The 53-year-old DFBS, a partnership with the Cornell Department of Applied Economics and Management and Cornell Cooperative Extension, provides producers with business analysis reports based on their annual production and financial information.

With PRO-DAIRY involvement, the program has compiled business analysis summaries for different sizes of dairies and different management systems, such as grazing herds. Dairies can better evaluate their business performance by comparing them to similar types of businesses.

## Impact

- ▶ PRO-DAIRY specialists either worked directly with dairy producers or with Extension and agriservice professionals to conduct the DFBS with 89 New York dairy farms, representing 66,544 cows.
- ▶ Specialists presented business management information based on the DFBS at 10 meetings.
- ▶ Case studies developed from DFBS summaries and other relevant educational materials were used to train farm management consultants on using the DFBS with dairies.

## Dairy Profit Monitor

This on-line business analysis tool provides producers and their consultants with a monthly snapshot of key business operating parameters and efficiencies. Dairy producers use the Dairy Profit Monitor (DPM) to track business progress and trends over time, to assess impacts of management changes and to highlight potential areas of opportunity.

*By being involved in the discussion group, my anxiety and reluctance to analyze my business disappears and is replaced with excitement and understanding of why it's critical to the success of our business. The group makes business analysis fun.*

**Mary Kelly**  
Dairy farm owner/manager  
Rensselaer Falls, NY



## ► Impact

- The DPM has 371 registered users, including producers and agribusiness professionals. In 2009, 142 dairies representing 94,600 cows, entered information on-line. DPM information has been used in a variety of venues, including Dairy Profit Discussion Groups, on-farm Dairy Profit Teams and management meetings.

## Dairy Profit Discussion Groups – Business Focused

Through the Dairy Profit Discussion Group program, nine discussion groups have formed to focus specifically on business performance data. They use both the DFBS and DPM data as the basis for discussions.

## ► Impact

- PRO-DAIRY specialists directly facilitate five of the nine groups that base discussions on DFBS and DPM data. They also prepare reports for and interact with four additional groups, facilitated by local Extension educators. All total, 75 dairies, representing 47,417 cows, are involved.
- In a survey of members of the five discussion groups, 95% of the respondents said they had changed some aspect of their business. Some 93% believe they improved some component of their dairy, as reflected in this producer's comment: *I implemented new feeding practices as a result of discussions on feed costs. I chose ingredients that are more cost-effective.*

## Cornell Dairy Executive Program

PRO-DAIRY developed this executive-level management training program under the leadership of Jason Karszes to offer dairy producers the opportunity to increase their leadership skills and management acumen. Working with world-class instructors, members of the Cornell Dairy Executive Program (CDEP) develop strategic business plans and perform a comprehensive evaluation of their businesses, among other activities.

## ► Impact

- 23 professionals completed the 2008-2009 CDEP in November 2009. The group included 19 dairy producers, representing more than 10,000 cows. A new class will begin late in 2010.

## Enterprise Analysis Project

PRO-DAIRY collaborated with Farm Credit East to create a format for dairy managers and their consultants to analyze the cost of different enterprises within a dairy business. With funding from the New York Farm Viability Institute, a team of PRO-DAIRY specialists, Cornell faculty and Farm Credit East consultants worked on the first of four target areas – milk harvest cost. They collected data from a pilot group of 25 dairies.

The remaining enterprises are reproduction costs, manure hauling costs and forage production. After the analysis with the pilot group is completed in each area, the team will create spreadsheets. They will be available on the Internet for dairy managers and their consultants to use to analyze and benchmark performance.

# Dairy Housing and Waste Management

PRO-DAIRY specialist: Curt Gooch

## Programs

- Dairy Biomass-based Renewable Energy
- Dairy Facilities Regulated Air Emissions Monitoring and Reporting
- CAFO Engineer Training

## Dairy Biomass-based Renewable Energy

In collaboration with seven New York dairies, PRO-DAIRY finished the field monitoring component of its long-term on-farm anaerobic digester assessment project. The team under the leadership of Curt Gooch provided each collaborating dairy with regular written reports showing findings on the digesters' performance based on tracking day-to-day performance.

PRO-DAIRY developed educational materials on the findings and presented them to dairy producers, their advisors, agriservice professionals, regulators and government officials. This information helps dairies, lenders and developers better predict the performance of new digester systems. Information from the monitoring project was posted on the Cornell Manure Management Program's website: [www.manuremanagement.cornell.edu](http://www.manuremanagement.cornell.edu)

## ► Impact

- Published two issues of *Biogas News*, sent to more than 700 people. The quarterly newsletter provides information on various anaerobic digestion topics such as funding, performance and applied research.
- Developed and delivered new information on how dairies can reduce their greenhouse footprint through on-farm anaerobic digestion technology.

## Dairy Facilities Regulated Air Emissions Monitoring and Reporting

As part of the National Air Emissions Monitoring Study (NAEMS), professional engineer Curt Gooch concluded monitoring at the Northeast dairy site located in New York. His team implemented the Site Monitoring Plan and followed U.S. Environmental Protection Agency (EPA) approved Standard Operating Procedures and Quality Assurance/Quality Control Plans.

When EPA released changes to the reporting requirements of ammonia-N ( $\text{NH}_3\text{-N}$ ) and hydrogen sulfide ( $\text{H}_2\text{S}$ ) under two laws, EPCRA and CERCLA, in late 2008, PRO-DAIRY's Curt Gooch and Karl Czymmek developed a dairy specific  $\text{NH}_3\text{-N}$  emission estimation tool, based on a University of Nebraska publication. Then they built step-by-step farmer-friendly instructions into EPA's EPCRA emissions reporting document. Dairy producers can use the tool to estimate ammonia emissions, see if they trigger the reporting threshold and then report emissions if they choose to do so. The team also concluded that dairies may not need to report hydrogen sulfide emissions as there wasn't enough information available to make an emission estimate.





## ► Impact

- A final report for the NAEMS was submitted to the EPA in early 2010.
- A NAEMS add-on study to measure greenhouse gas emissions at the same New York site was conducted in the fall 2009/winter 2010.
- On-line tools developed by PRO-DAIRY enabled producers to meet their legal obligations for reporting air emissions.



## CAFO Engineer Training Program

PRO-DAIRY specialists and collaborators conducted two training sessions for New York State professional engineers to educate them about dairy farm issues and Concentrated Animal Feeding Operation (CAFO) requirements that need addressing by licensed engineers. The first session focused on technical evaluation and proper design of undesigned manure transfer systems. The second covered the evaluation of existing steel slurry tanks and renewable energy opportunities.

## ► Impact

- 41 professional engineers earned 54 Continuing Education Unit (CEU) certificates that were applied to the state's professional engineering licensing requirements. This included 10 new participants to the training program that began in 2006. In that time engineers have earned 280 credit hours through the Cornell School of Continuing Education.

*The PRO-DAIRY manure management team has been invaluable to the progress we have made on manure issues in New York in the last few years. Tim Shepherd, Curt Gooch and Jenny Pronto have enabled us to take advantage of data gathered from all the digester operators' experience, not just the one we operate. PRO-DAIRY has validated the use of recycled manure solids on the dairy. This has helped us keep our bedding costs in check while using more of own resources. PRO-DAIRY specialists have also prodded us to step up to the next level as farm managers and environmental stewards.*

**Rob Noble**  
Dairy owner/manager  
Pavilion, NY



# Integrated Dairy Waste Management

PRO-DAIRY specialist: Tim Shepherd

The work of the Integrated Dairy Waste Management program centers on providing dairy producers and their advisors with systems-based information about dairy byproduct management. Research and programming provides the dairy industry with answers to these questions: What impacts do dairy byproduct treatment systems have on the nutrient value of manure? What impacts do any treatment systems have on air and water quality? What about the impact on a dairy's bottom line?

## ► Impact

- Partnered with the Northeast Dairy Producers Association (NEDPA) to hold a field day where more than 60 dairy producers learned about integrating anaerobic digestion with other manure treatment and land application methods.
- Began pilot projects on two advanced manure treatment methods for nutrient partitioning: sequenced mechanical separation and ammonia recovery. PRO-DAIRY's Tim Shepherd presented a report "Sequenced Mechanical Separation of Dairy Manure: On-Farm Impacts of Membrane Separation" at the 2010 NEDPA Conference. Ongoing analysis and testing of the ammonia recovery process will lead to estimated capital and operating costs of this process.
- Developing a series of case-study documents on the installation and performance of manure storage covers to complement previously developed Extension materials on these covers in New York.



# Agricultural Environmental Management and Policy Education

PRO-DAIRY specialist: Lee Telega

## Programs

- AEM Program Support
- Operational Management of CAFO Permit Requirements
- Policy Issues and Education

## AEM Program Support

PRO-DAIRY specialist Lee Telega provides educational and programming support for the Agricultural Environmental Management (AEM) Program, administered by the Soil & Water Conservation State Committee. AEM helps farm owners identify and address their environmental concerns through technical and cost-sharing support. As the Cornell representative on the State Committee, PRO-DAIRY coordinates resources across

the College to support the scientific and educational needs of the Committee and the AEM program.

## ► Impact

- PRO-DAIRY coordinated three educational programs for members of the Soil & Water Conservation State Committee and its technical advisors. Topics included Impacts on NYS Agriculture and Forests from Climate Change, Carbon Markets and Carbon Sequestration, and Dairy Production on Grass Pasture Systems.
- Eight CALS faculty made presentations and interacted with the State Committee over the past year.



## Operational Management of CAFO Permit Requirements

PRO-DAIRY works with three New York crop consulting organizations to develop methods their certified farm environmental planners can use with Concentrated Animal Feeding Operation (CAFO) clients. The goal is to improve dairies' ability to incorporate tasks required by their permit into regular routines.

### ► Impact

- Helped train consultants in applying tactical and control planning as taught in PRO-DAIRY's flagship program, Managing for Success. With PRO-DAIRY assistance, each consultant will assist two clients in developing and implementing tactical and control plans for CAFO's daily, monthly and seasonally required tasks and record keeping.
- Develop educational materials based on the consultants' work with clients to demonstrate how CAFO permit requirements can be better managed.



## Policy Issues and Education

The U.S. Center for Dairy Sustainability's Dairy Power Program identified New York as the best state to benefit from using its dairy manure to generate biogas, a renewable energy source. In response to that designation, PRO-DAIRY's Lee Telega, Jenny Pronto and Curt Gooch provided leadership to the Center to organize a statewide Dairy Power Summit. This exemplifies PRO-DAIRY's commitment to further the New York dairy industry's understanding of policy issues.

### ► Impact

- More than 200 people from diverse industries participated in the Dairy Power Summit. They explored how adoption of technology that generates biogas from anaerobic digestion of dairy manure and other organic food wastes can potentially reduce greenhouse gas emissions and the carbon footprint for the production of dairy products.
- Two major goals set at the summit are to have 40% of the state's dairy manure generating biogas by 2020 and to reintegrate dairy farms as the heart of their communities.
- PRO-DAIRY specialists provide leadership in the New York Dairy Power steering committee and to the 17 workgroups addressing the economic, policy and business barriers to widespread adoption of anaerobic digestion.

# PRO-DAIRY Outreach

## Programs

- *The Manager* in *Eastern DairyBusiness*
- Dairy Profit Seminars
- PRO-DAIRY on the Web

PRO-DAIRY follows several paths to reach out to New York dairy producers and agribusiness professionals. In addition to its popular and well-attended meetings, workshops and discussion groups, which attracted thousands of participants in 2009-2010, PRO-DAIRY achieves its mission to advance dairy professionals' knowledge, skills and enthusiasm through the agricultural press and on websites.

## The Manager in Eastern DairyBusiness

PRO-DAIRY's commitment to its mission has resulted in an 11-year collaboration with *DairyBusiness* Communications to provide educational articles to the dairy industry. Since 1999, PRO-DAIRY has published *The Manager* in *Eastern DairyBusiness*, a *DairyBusiness* Communications' magazine.

PRO-DAIRY's *The Manager* is a 15-page section published quarterly, beginning in February, and mailed to more than 17,000 subscribers. The section of professionally prepared articles is also mailed independently to more than 4,000 New York dairy producers who do not receive *Eastern DairyBusiness*.

## ► Impact

- *Eastern DairyBusiness*, formerly *Northeast DairyBusiness*, reaches approximately 17,250 dairy producers and agriservice professionals in 31 states east of the Mississippi. These dairies produce more than half of the nation's milk.
- Based on a 2010 independent audit, conducted for *Eastern DairyBusiness*, respondents provided the following information:
  - 78% of the subscribers have directly requested the magazine.
  - 74% of the survey respondents report that the magazine with the PRO-DAIRY content does the best job of presenting regional information useful to dairies.



- An average of 2.1 people per farm address read *Eastern DairyBusiness* with The Manager. This is significant “pass along” readership.

## Dairy Profit Seminars

PRO-DAIRY has partnered with *DairyBusiness* Communications for several years to develop and deliver Dairy Profit Seminars at Empire Farm Days, the Northeast’s largest outdoor farm show. PRO-DAIRY specialists often serve as both panelists on and moderators of the seminar panel discussions. A different topic is presented each day of the three-day farm show.

Over the years topics have ranged from small farm innovations, moderated by PRO-DAIRY director Tom Overton, to manure management, calf raising, cow comfort, employee management and dairy farm transfer.

At the 2010 Dairy Profit Seminar, PRO-DAIRY collaborated with a number of New York dairy industry organizations (Northeast Dairy Producers Association, New York Animal Agriculture Coalition, Dairylea Cooperative, New York State Department of Agriculture and Markets, and the New York State Cattle Health Assurance Program) to present a symposium

on Contemporary Farming: Helping the Food Chain Understand Agriculture.

## ► Impact

- Audiences at the Dairy Profit Seminars typically approach 150 to 200 attendees daily.

## PRO-DAIRY on the Web

During the past year, PRO-DAIRY overhauled its primary website to provide more effective access to PRO-DAIRY materials and programs. Although site traffic information isn’t available yet for the new website, we expect traffic to match, if not exceed, previous years’ traffic. Various PRO-DAIRY websites had more than 152,000 visitors in the 2008-2009 period, with a total of approximately 452,000 “hits.”

The major PRO-DAIRY websites are:

<http://ansci.cornell.edu/prodairy>

<http://prodairyfacilities.cornell.edu>

<http://dairyprofit.cornell.edu>

<http://manuremanagement.cornell.edu>

In addition, PRO-DAIRY specialists work closely with the following websites that represent Cornell dairy industry related programs:

<http://nmisp.cals.cornell.edu>

<http://dfbs.aem.cornell.edu>

