Milk Quality Pays

Dr. Sandy Costello is the owner and chief dairy management consultant at her dairy service practice, Milk Quality Pays. This small business is based in the eastern United States and was developed in 2011 as a way to actively focus on the diverse needs of clients. Milk Quality Pays works with all size dairy farms, whether they have rotary parlors, Hispanic labor, and lots of cows, or have high-fat dairy breeds to produce and sell organically-certified cheese to a local niche market. Milk Quality Pays also works with small service and product-based dairy businesses dedicated to working with producers to help improve their businesses and diversity of products offered. Meeting client needs means motivating, directing and redirecting the focus of management, workers, and service and product suppliers toward the farm’s economic and best practice goals. This results in a collective effort to improve animal health and welfare, as well as workforce environment which ultimately enhances quality milk production.

It can be difficult to effectively meet client goals for improved dairy management while working for a corporation with product sales and profitability goals not always aligned with producer needs and goals. Addressing client needs most often means serving as a team facilitator of key farm dairy management advisors including the herd veterinarian, banker, nutritionist, and milking machine dealership. This often involves communicating quickly and unifying team members when key performance indicators veer from farm goals. In the current dairy economic climate where margins between milk income and production costs are low, meeting client goals often means acting as cheer-leader on and off-farm as to why quality work matters to achieving quality results.

Milk Quality Pays was developed to enable one-on-one supportive work with clients. This is in contrast to the one-time visit to the farm approach which is followed up with a report of recommended fixes. Decades of experience has proven how difficult it is to motivate change using that method, regardless of how simple or involved the risk assessment. Without in-person discussions, to explain the economics and reinforce the ‘whys’ of recommendations, positive change often takes longer. The small business model, like employed by Milk Quality Pays also allows for flexibility and quick adaptation to client needs. For example, alternative business and financial resources are available through nonprofit organizations funded by federal, state, and regional sources.

Milk Quality Pays has worked and continues working strategically to enhance skills needed to assist producers with their automatic milking systems.

Milk Quality Pays works with partners to identify these resources and provides connections to dairy producers for specific projects.

Dr. Costello is a lifelong learner and believes that continual skills development is essential to self-growth, generating excitement for work, becoming aware of new opportunities for dairy producers and allied industry, and for helping others in the dairy industry. Sandy holds a Postdoctoral diploma from Cornell University’s College of Veterinary Medicine Department of Population Medicine and Diagnostic Sciences for her work with Quality Milk Production Services (Q MPS) where she led development of the New York State Secure Milk Supply program and evaluated operations and profitability of the QMPS bulk tank milk.
pathogen surveillance program; a graduate certificate from the Penn State Hershey Medical School Public Health Sciences program, with focus on epidemiology and biostatistics; a PhD from the dairy science department at University of Wisconsin-Madison in mastitis and decision theory, with study of Staphylococcus aureus and impact of applying multiple herd and cow-level diagnostic test results on decision-making; and a MS from University of Florida-Gainesville in dairy cattle nutrition and extension service education, including leadership and program development and evaluation.

Work experience includes both on-farm personnel and dairy animal practices management on large and small dairy farms; dairy management software technical and training support, dairy management and husbandry course development with classroom and skills-based teaching of undergraduates at a University; technical support to nutrition sales representatives and dairy producers for a global feed company; mastitis and dairy management extension service work with dairy advisors and producers, and milking equipment manufacturer regional sales management. Work experiences were specifically focused on educating and motivating on-farm managers and workers as well as education of on-farm dairy management advisors including veterinarians, feeding and milking equipment sales people.

Dr. Costello is certified with the National Milk Producers Foundation as a Trainer and Evaluator for the Farmer's Assuring Responsible Management (FARM) Program, which works toward assuring consumers that best management practices are used by dairy producers in the United States. The intent of certification is to assist producers with the formal evaluations needed to retain their milk markets. This involves conducting animal well-being assessments, developing and refining farm-specific protocols for animal health, animal care including, calves and evaluations of milking operations, machine preventive maintenance, as well as prevention and monitoring systems.

On-farm records management programs can pose a significant challenge for farms. Over the past year, records monitoring programs were developed for specific dairy clients based on farm specific technologies. A single farm often utilizes many different software programs. They may combine milking equipment manufacturer systems with another manufacturer's activity tags, and then another dairy management software program preferred by the milk testing organization, breeder or herd veterinarian. Too often, these programs do not communicate effectively with each other. As a result, use of the technologies the farm is paying for is limited and disjointed, which impedes optimal decision-making. Milk Quality Pays has structured systems for farms to better record and monitor mastitis events. Farms often record mastitis events on paper, limiting their ability to evaluate treatment effectiveness, especially with multiple cases, or to combine subclinical and clinical databases to make best management decisions. Adaptation of monitoring programs available to farm personnel coupled with one-on-one training has greatly enhanced on-farm use of technologies by management and employees.

In addition, Sandy has recently taken automated milking system (AMS) training through both DeLaval and Lely to better provide technical and software assistance to dairies with these systems. This has been well worth the time. Despite a challenging financial year, AMS purchases and
Assessment of a cow's lameness score gives a visual assessment of the severity of a cow's lameness.

use by United States dairies is increasing due to labor wage increases, difficulty in accessing qualified workers, and end of life for many dairy milking facilities. However, as with integration of other technologies, a hodgepodge of software systems are used to prioritize and make dairy management decisions on-farm. In addition, there are still many advisors with limited experience with AMS technology. Milk Quality Pay's is working with manufacturers and with local dealerships to bridge this gap. One current client project is to identify the data needs of various advisors and develop systems for easy access to this information. The plan is to coordinate this information from the AMS database so that the farm can stop paying for similar data from multiple sources. A system is being developed for quick data retrieval. Trust is being built for accuracy of data from the AMS system by comparing data from multiple sources. Advisors, farm management and employees will be trained to use dairy data and key performance indicators from this single source. This process should reduce costs, enhance communication and problem identification. It should also unify all key service providers working to meet client dairy management goals.

Many regional, state, and federal non-profit small business training programs are available to help with small business financial and marketing skills. As part of a cohort group of small businesses, Milk Quality Pay's has worked to tap into local resources to improve its business prowess, and to provide additional networks and resources to client dairies. It has been very exciting to connect with non-agricultural partners who have a great interest in helping dairy farms thrive financially for the future. It is expected that more relationships will be uncovered and developed in the upcoming year.

Through several years of working for a milking equipment manufacturing company, assisting equipment dealerships, trouble-shooting and resolving cow comfort, teat health, and speed of milking challenges on individual dairy farms, Milk Quality Pay's has added an important service to its toolbox. Prior to this time, and despite taking classes, lots of self-study, and working with renowned experts, the process of evaluating milking equipment and then working with dealers to fix on-farm challenges was intimidating. Through lots of hands-on practice and use of testing equipment on many farms (baptism by fire), Milk Quality Pay's is now well equipped to teach others who may have felt similarly intimidated when troubleshooting milking equipment and/or working side-by-side with equipment dealers to assist dairy producers. This skill combined with a good eye for cow comfort, teat health, and cost/benefit of fast and gentle milking can be invaluable to 95% of dairy farms when provided in a low-biased and objective manner. Almost every dairy farm needs frequent tweaks to optimize the milking system for cow health, worker mental health and work efficiency. Unfortunately, few dairy producers, regardless of farm size understand how their milking equipment works, making them more vulnerable to poor buying decisions and incomplete

Body measuring of calves offers information about the animal's health and facilitates better informed breeding selections.
Skills and classroom training in the format of a 'train-the-trainer' program in Bangladesh.

Maintenance programs. Poor milking equipment choices can make a huge difference in dairy farm profitability. A training program to provide hands-on skills, especially for women dairy managers and women veterinarians, is being developed for 2019. This course will be modeled after the Penn State Dairy Production Management Skills training programs for advisors and producers that Costello developed in 2005 with comprehensive skills practice training.

Milk Quality Pays has worked and continues working strategically to enhance skills needed to assist producers with their Automatic Milking Systems. This work has been especially interesting and challenging. Most manufacturers of AMS systems are reticent to disclose logistics of their diagnostic models or the technical processes of their equipment. This makes troubleshooting more difficult. One recent area of interest with AMS systems is the apparent wide scale differences between farms in AMS maintenance costs. An informal evaluation to identify factors affecting maintenance and repair costs on-farm was initiated in 2018. Once these factors are identified, the plan is to work with dealerships and farms to optimize equipment performance while minimizing on-farm costs and then to provide this as an additional service to AMS client farms.

In 2019, Milk Quality Pays will be improving its' ability to provide assistance to clients interested in producing on-farm milk products in a safe and delicious way. We will be studying alternative equipment available for on-farm processing of dairy products to assist clients with purchasing and managing decisions. More dairies are interested in acquiring needed equipment to produce and sell niche products along with their traditional dairy farms. This business requires additional food safety and practice management skills to be successful. New services offering assistance to this facet of the industry should be under development by late 2019.

Dr. Costello has developed and provided on-farm skills training in dairy management, including quality milk production in Kazakhstan and Bangladesh. Skills and classroom training were provided in the format of a 'train the trainer' program to personnel from Land O Lakes, Heifer International, and Solidaridad Network. Funding was provided through USAID, Solidaridad Network of the Netherlands, and Winrock International. Short courses were adapted for target niche needs of the local dairy industry and included mastitis, breeding, general husbandry, facilities, feeding practices, and calf management. Milk Quality Pays is very interested in adapting and continuing this work in Eastern Europe, Southeast Asia, as well as Africa, and South, Central, and Latin America.

In my view, the future of the dairy industry is exciting, challenging, and very rewarding. Thank you to the M³-Team for your collaboration and wonderful magazine. M³