# The Art of Seeing - Quality Milk Production Management

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**Production of the highest possible quality milk is extremely important for today's dairy farm. There is increasing pressure from both regulatory and consumer interests in improving the quality of milk and the perception of the quality of milk that is available on dairy shelves for consumers. The veterinarian has been identified repeatedly in studies as being one of the most trusted advisors to dairy producers. Unfortunately, many dairy veterinarians have not become involved in the milk quality programs of their clients. If the veterinary profession does not become involved in this key area of profitability, then other individuals will become involved with your clients.**

Routine reproductive health programs have been established on many dairies throughout the United States. Expanding into quality milk can be very simply achieved by providing monthly monitoring of key milk quality factors. These can include the weekly bulk tank somatic cell count information, the number of clinical mastitis cases, the average somatic cell count of cows that have freshened in the last month or any other records that are important to a particular dairy producer. The key to successfully becoming involved in milk quality is to monitor selective parameters on a regular basis and educate your dairy producers to the importance of those monitors to the profitability of their operation.

Some veterinarians feel that they need to be milking machine equipment specialists in order to offer a quality milk program. Although some veterinarians have become involved in monitoring and routinely analyzing milking equipment, milking equipment evaluation is not a necessity to offer good milk quality programs for your clients. Dairy veterinarians should have a working knowledge of the common milking equipment that is installed in their specific practice localities. The AABP and various state and local associations offer excellent continuing education opportunities to become familiar with milk system analysis. The veterinarian does not need to have expensive test equipment in order to offer good information to clients. However, a working knowledge of milking systems is important as well as good working relationships with the milking equipment dealers in your particular practice location.

The two most important aspects of instituting milk quality programs in a dairy are the enthusiasm and interest shown by the dairy practitioner. Inquiring and writing down specific information each time you are at the dairy for routine herd health exams will clearly indicate to your clients that you are interested and committed to the milk quality area. Monitoring selective parameters will eventually lead to questions on the part of your clients. Questions from clients lead to involvement in improving the milk quality of the dairies that you are working with. Veterinarians have a unique training which qualifies them to offer information to their clients concerning the production of quality milk.

When a dairy producer mentions to me that he feels his cows are not milking properly and has what I call poor "milkability", something has changed on the dairy. Either the milking techniques have been modified, or there is a problem developing with the milking equipment. In either case, a further investigation needs to be done. Milk time visits are a necessary part of the good, sound milk quality program. It is important to be present during milking so observations can be made about the milking techniques and the use of milking equipment. I am convinced that dairy producers read the same magazines that the rest of us do and quite often can give you correct answers to questions you may ask at normal herd health visits or in your office setting. It is very eye opening to go to a dairy after you have questioned the dairy producer and see what is actually being done in the parlor. Many times the owner of the dairy will give you one set of answers to your questions, and the employees in the parlor are doing something entirely different.

**The importance of being present during actual milking can not be overestimated.** While doing a milk time analysis it is important to do your homework prior to arriving at the dairy. If possible, pick up the last DHI information from the herd, including individual cow's somatic cell counts. Make a list of the high count cows and then ask milkers or management to identify these cows as they come through the parlor during

milking. Careful attention should be paid to the condition of the teat skin, the teat opening, and udder confirmation on these animals. Dairy practitioners should come to the milk time visit prepared to perform CMT's on these high count cows and collect milk samples from selected quarters. When I am scheduling visits, I will have the dairy collect bulk tank samples from full tanks 4 to 5 days prior to my visit and freeze them immediately after they are taken. This allows a bulk tank culture to be sent at the same time individual cow samples are cultured at the conclusion of the farm visit. Once the culture results are back, a report can be prepared outlining specific recommendations for some of the individual cows that were cultured, as well as more general recommendations depending on what type of organisms are found in the bulk tank. Bulk tank cultures need to be used properly. Many bulk tanks will show extremely high levels of environmental bacteria, which are directly due to poor milking techniques. Bulk tank cultures and individual cow cultures are both a part of a good quality milk program and need to be done on a regular basis. The bulk tank culture is often an excellent tool to motivate management and milkers to do a better job during milking. Modifying the milking routine and improving procedures will result in a significant drop in environmental bacteria present in the bulk tank milk at subsequent bulk tank cultures.

The equipment that is really needed to do a milk time analysis are a stopwatch and a good quality small flashlight. An analysis should be made of the overall cleanliness of the teat ends which is very easy to do with alcohol pads and small white cloth wash towels. Just before units are attached to the cows, alcohol pads can be used on the teats closest to the milker to determine their cleanliness. I will often check the first 10 to 15 cows that are being milked and keep the alcohol pads where the milkers can see them when I have taken them off the cows. The use of white cloth towels also clearly shows the importance of properly drying teats and how poorly many milkers dry teats when they are using paper cow towels. Many environmental mastitis problem herds can have their new infection rate dramatically lowered by simply offering good advice about how to achieve clean, dry, stimulated teats when the units are attached to the cow. I try to be in the background during milking and not be in the way of the milkers either in a parlor or a flat barn. Stand back and observe what's happening, record your observations, and make notes on each milker that is working during your visit. Pay particular attention to how the units are attached to the cows and how the units are adjusted once they are up and running. Research has continually recognized liner squawks as a major source of new infections of both environmental and contagious mastitis pathogens. Proper unit adjustment can minimize liner squawks in most milking operations. Educating dairy producers on proper adjustment devices to use and proper methods to achieve good unit adjustments will result in an improvement in the bulk tank somatic cell count and the lowering of the number of clinical mastitis cases.

During milking the overall cleanliness of the cows needs to be evaluated. Particular attention should be directed toward the feet and udder area of the cows. Many well managed herds have significant environmental problems simply because there is too much manure splashed on the feet and floors of the udders as cows are brought to the holding pen in the parlor. An assessment should also be made of the condition of the hocks as the cows come through the parlor. Cows that are uncomfortable in stalls will have more lesions and swelling in the hocks which will result in a higher rate of new infections compared to cows maintained in excellent cow comfort conditions in either freestalls or tie stalls.

No milking time farm visit is complete without walking through the facilities where cows are kept between milkings. Particular attention should be given to cross over alleys in freestall barns or areas where manure is scraped for loading and removal from alleyways in barns. Simply increasing the frequency of manure removal during weather conditions that offer optimal bacteria growth conditions can significantly reduce the incidence of environmental mastitis. Another area that needs to be carefully observed is the close-up dry cow facility. All herds can usually improve their overall udder health by having a designated dry-off pen. Cows are put into this facility for a set period of time in larger dairies, or until their udders are involuted in smaller operations. These designated dry-off areas should have very comfortable stalls, be extremely clean, and offer the option of varying the ration being offered to the cows to allow for an abrupt, very quick udder involution.

It is very important to communicate back to the dairy your findings and recommendations after performing a milk time analysis. Prioritize your recommendations and always start with a recommendation you are confident will result in the dairy "seeing" some improvement. The best way to improve client acceptance of your programs is to offer good, solid recommendations presented in a written report to both management and specifically to individual milkers pointing out their good points as well as areas that need some improvement.

**Become more interested in Quality Milk. There are obvious benefits to both the producer and dairy practitioner in improving milk quality. Remember, the future of the Dairy Industry depends on the quality of the diary products produced and offered to the consumer.**