Monitoring Subclinical Mastitis Level
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Knowing when a cow has clinical mastitis is usually an easy task – you see and feel the swollen, hot quarter, or see the abnormal milk that is expressed from a teat when the cow is being prepped for milking. But how do you monitor/detect subclinical mastitis infections, the kind that you don't see the visible signs of but that could be “robbing” you of hundreds of pounds of milk yearly from each infected cow in your herd?

Unfortunately, many producers don’t give enough attention to monitoring/detecting subclinical infections, and choose to deal only with the clinical cases when non-saleable milk is produced. I would suggest that producers should give more attention to the detection of subclinical infections, and treat those cases when appropriate, plus change management practices and improve facilities/equipment as needed to reduce the incidence of both subclinical and clinical cases in the herd.

Monitoring the subclinical mastitis status in a herd should be done at both the herd and individual cow level. At the herd level simply reviewing the bulk tank milk somatic cell count score received monthly or more frequently is the first step in knowing how much subclinical infection is in the herd. Scores over 200,000 cells/ml of milk often suggests a significant prevalence of subclinical mastitis in the herd. There are times when only a few highly infected cows can be shedding millions of somatic cells in response to the infections they have and run the bulk tank milk SCC score up. However, if there are only a few mild clinical cases and the bulk tank SCC is high, then there are probably many subclinical infections in the herd that should be dealt with.

Individual cow monitoring for subclinical mastitis infection should also be done. There are several ways of getting SCC or infection data on each cow. Having somatic cell counts run monthly on each cow through the DHIA program is one approach. Doing cow-side SCC monitoring monthly or more frequently is another approach. The long-time used California Mastitis Test kit is an acceptable first line method to use. Several cow-side electronic testing devices are another method that can be used effectively. Some milking systems have the capability to measure electrical conductivity of milk as a way of detecting subclinical infections. And certainly doing milk culturing of individual cows to detect not only infection status but also to know the type of organism causing the infection is another method that some producers use on at least selected or suspected infected cows.

I think producers should be monitoring/determining the subclinical infection status of all cows within the first few days after each freshening. Knowing which cows are infected and the extent or degree of the infection by quarter at the very beginning of each lactation gives the producer the ability to treat infections early in the lactation when appropriate, and hopefully reduce or eliminate the milk loss associated with an udder infection that lactation. Culturing the milk of infected fresh cows to determine if antibiotic treatment is appropriate should be part of the detection practice.

Producers should discuss early subclinical mastitis detection practices with their veterinarian or other qualified consultant, and implement an early detection program to increase the profitability of the herd.