

Udder Health/Milk Quality Concerns

Milk Quality Report CardsIV: Clinical Mastitis Records

In this final chapter on Milk Quality Report cards, we will discuss the usefulness of clinical mastitis records. Clinical mastitis refers to those cases of mastitis that cause visible changes in the milk, with occasional systemic illness in the cow. The complete udder health story cannot be told without clinical mastitis records! I have worked with several herds in Colorado whose bulk tank somatic cell counts were less than 200, 000; had no contagious mastitis pathogens in the milk; and had 85-90% of their herds in the "low" SCC category on DHI test, only to struggle with persistently high levels of clinical mastitis. How can it be that a clinical mastitis problem is not reflected in the bulk tank SCC? The answer relates to the management of cows affected with clinical mastitis --most dairymen segregate these cows and discard their milk, and therefore the bulk tank remains unaffected.

We must ask two questions when dealing with clinical mastitis: a) what is the level of clinical mastitis; and b) what is the cause of the clinical cases? The "level" of clinical mastitis in a herd is best expressed in terms of the percent of the lactating herd with new cases of mastitis **per month**. For example, a 200-cow herd with 6 cases per month would have a 3% per month incidence of clinical mastitis. What is the normal incidence? No dairies can prevent all clinical mastitis; we believe that an achievable goal is to have fewer than 3% of the lactating herd with mastitis per month. I recommend that this number be calculated and recorded or graphed every month so that trends can be identified quickly. (see graph below)

It is essential to identify the bacteria responsible for an unacceptably high incidence of clinical mastitis. Sterile samples should be collected from at least the next 10 cases and submitted to a lab for culture. In addition to the Colorado State Diagnostic Laboratory, there are several private consultants and veterinarians across the state with milk culture labs. It is essential to ensure that the lab can screen the samples for *Mycoplasma*. This organism can be responsible for an outbreak of clinical mastitis, and it will not grow under routine procedures to identify most other intramammary pathogens.

With the identity of the causative organism in hand, steps can be taken to ensure that the existing cases are being treated appropriately and to limit the rate of new infections. For instance, if most of the clinical cases are caused by *Staph. aureus* or *Mycoplasma*, culling may be the "treatment" method of choice and reservoirs of infection (other infected cows) should be identified and eliminated. On the other hand, if colliforms or environmental streps are responsible, supportive care for the sick animals is essential, and efforts should be made to ensure that cows' teats are clean and dry when milking units are attached. Management of specific udder pathogens will be discussed in future columns.

