

Texas Dairy Matters

Higher Education Supporting the Industry

MASTITIS AND PRODUCTION LOSSES

Ellen R. Jordan, Ph.D.
Extension Dairy Specialist
Department of Animal Science
Texas A&M AgriLife Extension Service
The Texas A&M University System

Mastitis continues to be one of the major diseases facing dairy producers. One of the hidden costs of mastitis is how long milk production is reduced by an incidence of mastitis.

With daily milk weights, the impact of various disorders including mastitis on milk production can be accurately determined. Recently, Cornell researchers captured daily milk weights on over 3000 cows in two NY herds. Cows identified as having clinical mastitis were cultured to determine which mastitis pathogen was causing the problem.

The pathogens identified were the various *Streptococcus* species, *Staphylococcus aureus*, other *Staphylococcus* species, *E. coli*, *Klebsiella*, *A. pyogenes*, and then mastitis with no pathogen isolated. Milk production both before and after the day clinical mastitis was detected was evaluated for first lactation animals, as well as for second and greater lactation animals. Production was compared to that of cows that never had mastitis.

With many pathogens, milk production decreases actually started 1-2 weeks before the cow was diagnosed with mastitis. Of course the most severe decreases occurred right around the time of diagnosis. One of the interesting findings was that even after 10 weeks milk production losses were never totally recovered with some of the pathogens.



For first lactation animals, *Staph. aureus*, *E. coli*, *Klebsiella* and “no pathogen isolated” resulted in the most milk losses. The list was much the same for older cows except the “no pathogen isolated” didn’t appear on the list for most losses, and *Streptococcus* species and *A. pyogenes* were added to the list.

The production loss varied depending upon the organism and lactation number. For example first lactation cows that had clinical mastitis caused by *Klebsiella* lost more than 25 pounds of production in the first week of infection and continued to have production losses of roughly 20 pounds ten weeks later. On the other end of the spectrum, cows with clinical mastitis caused by *Streptococcus* species lost about 11 pounds of production during the first week after infection, and losses had decreased to about 2 pounds after 10 weeks.

The cost of treatment and dumped milk is only a small part of the cost of mastitis for producers. Producers, milkers, herdsmen and veterinarians need to join forces to develop a strategy to combat mastitis before it gets started.