

# Texas Dairy Matters

*Higher Education Supporting the Industry*

---

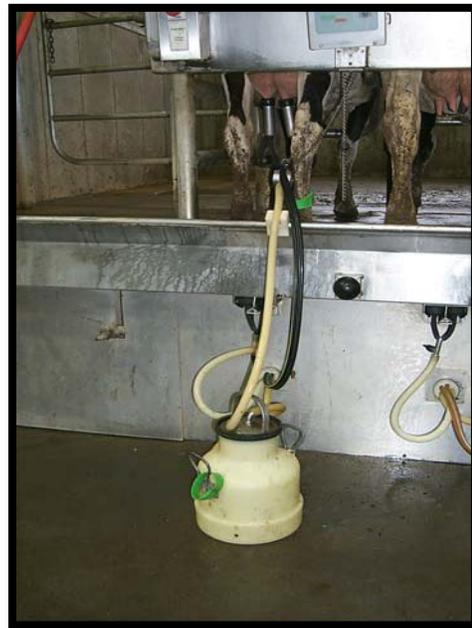
## ENVIRONMENTAL STREP MASTITIS

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

With rain usually comes more mastitis. In all probability, at least a portion of that mastitis will be caused by environmental streptococcal. Improved milking procedures and teat dipping have controlled *Strep agalactiae*; however the environmental streps are different. *Strep agalactiae* is a contagious organism primarily spread during milking, while the environmental streps are found in the cow's environment. They usually aren't spread during milking, so improved milking procedures don't help with the environmental streps. The most common type of environmental strep is *strep uberis*.

Environmental streps can live everywhere. They've been isolated from the bedding, soil, rumen, feed, lips, teats, mammary gland and the list goes on and on. And they are somewhat sneaky when they get in the mammary gland. Unlike many mastitis pathogens that cause a rapid rise in somatic cell counts when a cow becomes infected, *strep uberis* hides from the somatic cells so they respond much slower to the infection.

From work that Joe Hogan at Ohio State has conducted; about half the mastitis infections caused by environmental streps occur during the dry period. Since this period is about 60 days compared to in excess of 300 days for lactation, over 5 times as many infections occur during the dry period as during lactation.



Dry cow therapy really helps with infections early in the dry period, but does not help with those infections that start immediately pre-calving. It is critical to keep the area in which dry cows are kept as clean and dry as possible. That's difficult during rainy periods. If cows are on pasture, make sure that its pasture and not a mud lot. When cows are in drylots, regular grooming and maintenance help, but sometimes bedding materials such as cotton burrs may be required.

The upside to environmental streps is that they do respond to treatment. About half of the cows that are infected will spontaneously cure and the other half responds pretty well to lactating cow therapy. Although *strep uberis* pathogens hide from the somatic cells, they do not bury deep into the tissue like *staph aureus*, instead they stay in the milk ducts. Thus, when treatment is given, therapy can reach the bacteria. But as usual, prevention is better than treatment.

The secret to controlling the environmental streps is keeping a clean environment to minimize teat exposure. When that fails, work with your veterinarian to develop an effective treatment program.