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Preventing Heifer Mastitis

Recent research has shown that 8 to 90 percent of all heifers have some type of mammary infection prior to calving depending upon the herd. The rates tend to be higher in warmer, wetter climates and in heifers calving during the summer months. Thus, udder infections in heifers during the summer in Texas need to be monitored.

Part of these infections are caused by *Staphylococcus aureus*, while other causes include the other coagulase-negative staphylococci, environmental streps and coliforms. The economic losses from mastitis may actually be higher in heifers than in older cows due to the extensive damage done to developing secretory tissue.

What are the risk factors for mastitis in these heifers? In general, contagious mastitis is spread to youngstock by direct contact with infected adult cows and ingestion of their milk. Early studies found that mastitis can be spread by suckling among co-housed calves fed contaminated milk. In addition, flies have been shown to be an important vector for transmission of *Staph aureus*.

What practices can be implemented to control the disease? Start by segregating cows from calves. Also prevent calves from suckling one another particularly as long as calves are fed with a bottle. If feeding discarded milk to heifer calves, pasteurize it. And then for heifers of all ages, provide excellent fly control.

Can heifers be treated with antibiotics before they calve if they have mastitis? Currently this is an extra-label use of antibiotic therapy which can only be used with a valid veterinarian-client-patient relationship. There have been several studies evaluating intramammary antibiotic therapy in heifers before they calve. In general, these trials have been very successful with reductions in average somatic cell counts and increases of roughly 1000 lbs of milk in a 305 day lactation for treated heifers compared to control heifers. These improvements were seen at calving and as reductions in clinical mastitis during the following lactation.

Should all heifers be treated pre-calving? There is a risk in treating all heifers. It is not easy to administer the antibiotics into the streak canal of heifers so potentially the streak canal could be damaged. Of course the treatments must occur early enough before freshening to prevent antibiotic milk residues. Thus, unless you are having a problem with heifer mastitis, you probably won't want to initiate a blanket treatment program.

How does a producer know if there's a problem with heifer mastitis? First look at the linear score. If more than 90 percent have a linear score less than four at the first test day after calving, a problem doesn't seem likely. Next check the percent of heifers with clinical mastitis during the first 30 days. If it is less than 5 percent again, no problem. If you don't meet these goals, check your heifer management and then discuss whether pre-calving antibiotic therapy is right for your herd with your veterinarian.

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