



New York State Cattle Health Assurance Program
Mastitis Module Fact Sheet
Staphylococcus aureus

The Disease

Staph. aureus is probably the most common cause of contagious mastitis. Typical of contagious mastitis, infected udders are the most likely source of new infections. However this bacteria is found on the skin of most cows and in the environment so even in an uninfected herd this disease may crop up. Milking is the most likely time to transmit this disease from infected quarters to uninfected quarters. Contaminated inflations, towels, milker's hands, strip and dip cups and any other items used at milking may carry the organism from cow to cow. Inflations may still have Staph aureus on them up to 6 milkings after their use on a S. aureus shedder. The milk of an infected cow may readily transmit staph. aureus and so should never come in contact with a noninfected cow. Staph. aureus, once colonized on the skin of the teat will make its way through the teat sphincter, into the canal and then into the gland. Due to its rapid development of resistance to antibiotics effective treatment of Staph. aureus during lactation may not be successful and recurrence is common.

The Consequences

This bacteria attacks the tissue of the udder causing production loss during infection and residual loss due to permanent damage to the udder. These losses are reported as high as 45% per quarter and 15% for each infected cow. Smoldering infections result in recurrent clinical infections and slow destruction of the udder. These cows may have a fluctuating cell count and intermittent shedding of bacteria. Because of this repeated culturing may be needed to detect them. Occasionally Staph. aureus results in fulminating gangrenous mastitis. If the disease spreads in a herd the cell count will rise resulting in a decrease in milk quality and value. The most effective time to treat an infected cow is during the dry period. Knowledge of the presence of this bacterium and its sensitivity or lack of sensitivity to antibiotics will guide the selection of a dry cow treatment. Refractory cows are candidates for culling.

Control or Elimination

Excellent milking technique and proper sanitation is essential.

- Single use paper or cloth towels should be used to clean and dry the udder and teats.
- Proper use of an effective post milking teat dip after each milking.
- Milking equipment should be well maintained to avoid liner slips, improper vacuum and damaged inflations.
- Use effective lactating and dry cow treatments based on culture and sensitivity results
- Investigate mastitis cases as to cause with cell count and culture to identify Staph. aureus infected cows. These should be milked last or with separate equipment.
- Monitor your herd for this agent with individual DHIA cell counts as a waxing and waning individual scc may be the first indication of a Staph aureus infection.