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## Staph Aureus Mastitis Screening and heifers

Staph Aureus, or alpha-beta Staph, is often found in many fresh cow and clinical mastitis cultures. It can be quite common in fresh heifers, especially when purchased in out of state lots. Heifers pick it up before ever joining the milking herd from ingestion of contaminated milk, cross-suckling in co-mingled groups, and from flies. Staph Aureus grows very well in large numbers on teat skin, so it doesn't take much to get it on other animal's udders or inside the teat of a young non-lactating animal. As time goes by, these infections can become serious, deep infections of mammary tissue that can ruin a cow. But initially, many of these fresh heifer Staph Aureus positives are superficial infections of the streak canal and teat cistern, or even skin contaminants in the sample. Literature states that about 50% of these "streak canal" positives will resolve just by milking out at freshening. And those animals who are infected have yet to develop "deep" mammary tissue infections.....we can still reach the organism with mastitis tubes and either cure or reduce the infection.

Staph Aureus can be a serious contagious mastitis problem, and should be monitored on all expanding dairies. The goal is eradication. The old saying "once a staph cow, always a staph cow", has some credibility. Staph Aureus udder infections can be very difficult to resolve by treatment.....over time, these tend to become abscesses in the udder that are walled off and inaccessible to intra-mammary treatment. We see diminished production in the infected quarter and poor response to treatment when clinical cases appear. These cows become either sub-clinically infected with the potential to spread to other cows in the herd or else become chronic hospital residents. However, the younger the animal (lactation=1) and the lower the days in milk (fresh cow positives), the better the chance we have to treat the organism before it becomes a chronic infection with contagious potential that traditionally characterizes staph Staph Aureus infections.

Because of the cost of replacement animals, we suggest that a diagnosis of Staph Aureus in a cow does not necessarily have to be a death sentence. Particularly in animals diagnosed with Staph Aureus who are not yet clinical (fresh heifer cultures) or in animals experiencing their first case of clinical mastitis, there is a chance to successfully treat the infection. There is also some data to support a 30% cure rate in treating of existing (known) Staph Aureus cows at dry off, with the three-peat treatment.

Culture screening for identification of infected cows, and subsequent segregation or culling is still a major tool in controlling Staph Aureus in your dairy herd. This organism is to be respected.....it can be a major problem if not monitored closely. Some producers will adopt a **Zero tolerance to any staph aureus diagnosis, and for pre-purchase samples this is the proper stance.** Frequent (weekly) Bulk Tank Screening is a must to measure the progression of this organism in the herd as a whole, and proper milking hygiene and teat dipping are a must in controlling spread of existing infections. **But we do not recommend across the board culling of Staph Aureus positive heifers based on a fresh cow sample.** You should consider the identification of Staph Aureus cows, particularly fresh or purchased heifers that are not yet clinical, as an opportunity to intervene early and improve the productive life of that heifer.