Metritis

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Cause

Metritis is an infectious disease within the uterus that is typically observed 10 to 14 days after calving. Approximately 12% of freshening dairy cows experience some degree of metritis, with the incidence rate being greater in those that experience a difficult birth, have twins, or have a retained placenta. *E. coli* is the initial bacterial contaminant associated with metritis. Certain strains of *E. coli* are adapted to cause an infection in the uterus, and these are different from those causing mastitis or scours in calves.

Identifying Problem Cows

Fresh cows with this infection have a foul smelling discharge and may or may not have a fever. Less than 45% of cows with metritis have a fever. After calving, all dairy cows experience some degree of bacterial contamination within the uterus and a cow's immune system must "kick in" to clear the infection. Healthy cows have a robust and well-regulated immune response that can respond to this contamination. Cows that later develop metritis may have a lower or delayed immune response around the time of calving compared to cows that remain "healthy". Thus, the difference between healthy cows and those which develop metritis is related to how effectively the cow responds to the infection and recovers.

Why Prevention Is Important

First, prevention is important because these infections can cause death. Cows with metritis have lower milk production and reproductive performance. Mature cows with a mild or severe case of metritis produce about 600 lbs. less milk within a lactation compared to healthy fresh cows. However, in studies, first-calf heifers did not show any significant difference in milk production whether they had metritis or not. Cows with severe metritis had lower pregnancy rates at first service and by 120 days in milk, but these differences disappeared by 300 days in milk. Culling rates were not different between cows with or without metritis.

Preventative Management Practices

Prevention starts by providing a clean calving environment separate from the sick pen. Cows that later develop metritis had lower dry matter intakes pre-calving than cows that did not develop metritis. Management practices, such as providing adequate bunk space (36 inches/cow), resting space (80% of capacity), and heat abatement, are important to optimize feed intake before calving. In addition, subclinical hypocalemia (milk fever) can be a risk factor for developing metritis. Calcium is important for uterine muscle contractions and for the best immune response to fight off bacterial challenges.

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