

The Effect of Intramammary Infection With Coagulase-negative Staphylococci on Udder Health, Production and Culling in Canadian Dairy Herds

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Coagulase-negative staphylococci (CNS) are the primary cause of subclinical mastitis in fresh dairy heifers and the most common cause of udder infection in lactating cows worldwide. However, their impacts on udder health, production and culling are still under debate. Some studies showed that heifers which were infected with CNS in their early lactation tend to have a higher milk production, compared with other cows which had no intramammary infection (IMI) or had an IMI of main pathogens. One of the explanation is the persistent infection of CNS may protect the udder from the infection of major pathogens, while their results were still inconclusive. Ninety-one commercial dairy farms across Canada were sampled over 2 years in a study performed by National Cohort of Dairy Farms, Mastitis Laboratory Network and Mastitis Pathogen Culture Collection. The milk samples were bacteriologically identified using standardized procedures. Demographic and Dairy Herd Improvement data were recorded. Four groups (major pathogen-positive, CNS-positive, other minor pathogen-positive and culture-negative) were identified. The aim of the study will be to determine if an association exists between udder infection with CNS (overall and species-specific), incidence of clinical mastitis, somatic cell count, milk production and culling.

Implications: By comparing the data between these four groups of cows, new insight will be acquired about the impact of udder infection with CNS in the dairy cattle.