

Epidemiology of Causal Pathogens of Mastitis in Heifers in Canadian Dairy Herds

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Pre-calving dairy heifers typically are not a focus for mastitis prevention and management strategies as they are not lactating. Mastitis incidence during the first lactation has been found to decrease milk production and increase the risk of culling during that lactation. As such there is significant economic incentive for understanding and preventing the occurrence of mastitis in pre-calving heifers. Ninety-one farms from across Canada participated in the study over a two-year period as part of the National Cohort of Dairy farms cooperating with the Mastitis Laboratory Network and the Mastitis Pathogen Culture Collection. Sample collection consisted of regular milk samples and teat scoring done on healthy cows and cows with sub-clinical and clinical mastitis. Samples were then cultured to determine pathogen species and better classify infection type. In addition, producer surveys provided information about management and housing in the herds. Incidence rates of mastitis for heifers and older cows will be compared over the different causal pathogens of mastitis for the period around calving and also further in lactation. Incidence of mastitis and distribution of pathogens will also be compared across bulk milk somatic cell count categories, regions and barn type.

Implications: By comparing incidence rates of mastitis between heifers and older cows the scale of the issue in Canada will be quantified, providing incentive for further research and focus on mastitis management in this group of animals. Through understanding the distribution of pathogens geographically as well across barn types and producers will be able to better target their mastitis prevention and management strategies to be most effective for their herds.