

Udder Health in Canadian Dairy Heifers Around Calving

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Abstract. Mastitis occurring early in lactation for first-calving dairy heifers results in decreased milk production and an increased risk of culling. Although previous studies have examined the distribution of mastitis in different countries, none has focused on the extremely varied conditions across Canada. 91 farms participated in the study during a 2-year period as part of the National Cohort of Dairy Farms organized by the Canadian Bovine Mastitis Research Network and contributed regular milk samples from healthy cows, and those with mastitis. This study determined the variation in proportions of heifers with clinical mastitis, udder infections, and high somatic cell count (SCC) across geographic regions, herd bulk milk SCC (BMSCC) and stall type during the first 30 days of lactation. Clinical mastitis occurred more often in older cows than heifers, with the most marked differences occurring in low BMSCC herds in Ontario and Atlantic Canada. CM caused by contagious pathogens such as *Staphylococcus aureus* occurred much more frequently in tie-stall in older cows than in heifers. Proportions of animals with udder infections varied greatly across BMSCC and region, with the highest rates in high BMSCC herds in Alberta and Ontario. Infections by contagious pathogens was lowest in medium BMSCC herds, while infections by environmental pathogens were most common in high BMSCC herds. Udder infections by non-*aureus* staphylococci were most common across all herds. The percentage of heifers calving with a high SCC was different between heifers and older cows in Quebec and Ontario, with the overall rate being lowest in Alberta.