

# **Evaluation of a Lameness Risk Assessment and Adoption of Lameness Prevention Strategies on Alberta Dairy Farms**

Michelle van Huyssteen, Jesse Schuster, Herman Barkema, Cindy Adams and Karin Orsel

Department of Production Animal Health, Faculty of Veterinary Medicine, University of Calgary. 3330 Hospital Dr NW Calgary AB T2N 4N1. Email: msvanhuy@ucalgary.ca

Lameness is a severe health and welfare problem in the Canadian dairy industry that negatively impacts cow longevity, milk production, and reproductive performance. Our current knowledge, however, has not been successful in adoption of effective strategies by dairy producers as lameness prevalence estimates are still around 20% on average in Alberta. Therefore, we developed an on-farm lameness risk assessment (RA) that will allow for identification of farm-specific risk factors that may contribute to high lameness prevalence on dairy farms. The purpose of this study will be to 1) validate the RA and determine if it accurately identifies the critical control points for lameness on farm, and 2) explore whether the RA result and suggested intervention strategies will have an impact on producers' attitude and behavior towards lameness control with an emphasis on identifying perceived barriers. We will aim to recruit 100 Alberta dairy farms in the study. From each farm, we will collect a completed risk assessment, a lameness prevalence estimate, hoof lesion records together with trimmers from the Western Canadian Certified Hoof Trimmers Association, and a producer questionnaire. We will then identify 4 groups defined by either high or low lameness prevalence and high or low RA scores. Group comparison will allow for validation of the RA and help identify the critical areas for lameness on farm. In addition, hoof lesion records will be compared to RA scores for both non-infectious and infectious causes of lameness. Based on these data (and the producer questionnaire) we will select a small sample of producers to conduct an in-depth interview with the aim of identifying roadblocks prohibiting changes targeting lameness reduction.

Implications: If accurate, the RA will be an important farm-specific strategy for targeting the critical risk areas on dairy farms for lameness control. With an understanding of perceived roadblocks, advisors are in a better position to support producers in lameness control.