



PROJECT 2013-2018

IMPROVING HOOF HEALTH IN CANADIAN DAIRY FARMS

Principal Investigator:

FILIPPO MIGLIOR

University of Guelph

COLLABORATORS:

Flavio Schenkel and David Kelton

University of Guelph

Number of students trained (MSc, PhD, Post-Doc):

4

TOTAL BUDGET

\$821,396

INVESTMENT PARTNERS



Agriculture and Agri-Food Canada



Canadian Dairy Network

OBJECTIVE:

This activity aimed to improve hoof health in Canadian dairy herds, providing the farmers with new herd management tools and genomic evaluations for resistance to hoof lesions.

KEY OUTCOMES:

- Development of codification and tables for allowing the storage of hoof health data in the national dairy databank.
- Development of an interface for the download and upload of DHI herd information and hoof health data from Hoof Supervisor® (KS Dairy Consulting, Wisconsin) to the Canadian DHI databank. The new DHI interface allows the trimmers to exchange data with Canadian DHI.
- The genomic evaluation for digital dermatitis was available at the Canadian Dairy Network (CDN) since December 2017. Since the end of 2018, a new index for Hoof Health now replaces the Digital Dermatitis index. Also, a new management report has been developed at Canadian DHI and it will be available soon for farmers that use the service of hoof trimmers who participate in the data collection system.
- SNPs associated with infectious and horn lesions were detected. This discovery helped to understand the mechanisms involved in different lesions and it can also contribute to increase the accuracy of genomic selection for these traits.

BENEFITS TO THE DAIRY INDUSTRY

Hoof health has been identified as the number one health and welfare issues by Canadian farmers. This activity has tackled this important problem and has developed practical tools that will help improving hoof health in our national herd: a) a new data pipeline for hoof lesions collection from hoof trimmers to Canadian DHI and CDN; b) genomic evaluations for multiple lesions using newly developed and innovative methodologies; and c) DHI management report to be used by producers to improve hoof health in their herds.