

Health Data Recording in Canada

In 2007, the Canadian dairy cattle improvement industry launched the National Health Project to record events associated with eight diseases of economic interest in dairy cattle production. The implementation of this national initiative was carried out by Canadian DHI partners as an expanded data collection service for farms enrolled on milk recording and/or on the DSA program offered mainly by Québec veterinarians. With nearly two years of history behind us, it is interesting to examine the current status of health data collection in Canada.

National Health Project Highlights

The national system for collecting health events in Canada concentrates on eight key diseases, namely clinical mastitis and lameness, which can occur multiple times within a lactation, as well as cystic ovarian disease, displaced abomasum, ketosis, metritis, milk fever and retained placenta, which generally have a specific period of risk shortly after calving to initiate each lactation. The primary goal of this initiative was the creation of a national dairy cattle health and disease data management system for improving herd health management decisions and for the eventual development of bull proofs to select for improved disease resistance expressed by their daughters.

Where Are We Now?

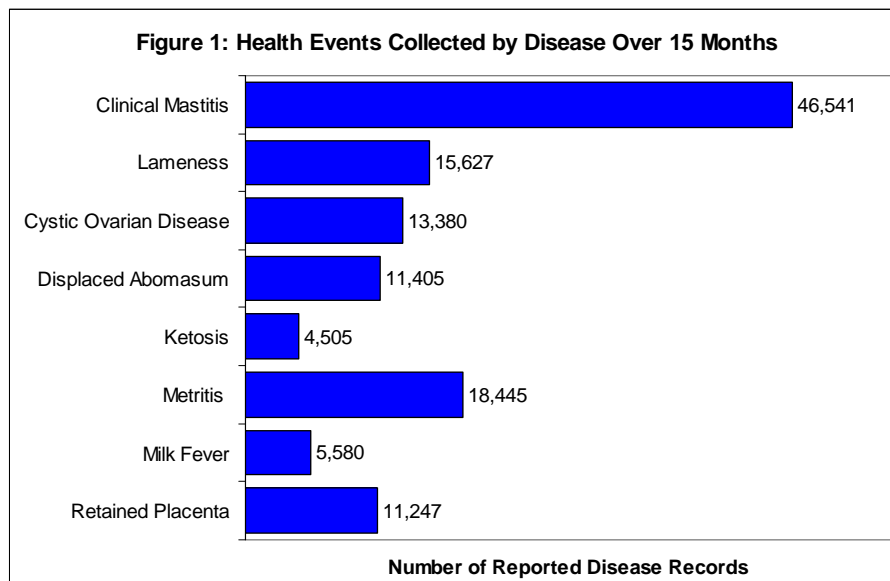
CanWest DHI and Valacta have been collecting health data from participating herds using three approaches. Firstly, the producer can enter each case of disease incidence into their on-farm herd management software, such as Dairy Comp or Agri-Lacta, and the DHI technician will download the data at each test day herd visit. In the absence of herd management software, the producer may also note each disease incident in their calendar log book for the DHI technician to transcribe at the following herd visit. Herds enrolled on the DSA program offered by Québec veterinarians may also opt to have their herd health data forwarded to the Canadian DHI database via their veterinarian. Currently, all of these avenues for submitting health data are being actively used with 30% coming from on-farm herd management software systems, 31% being transcribed by DHI staff and 39% being sourced via the DSA program.

In terms of producer participation for data submission, Table 1 provides the count of herds within each DHI service region for which the owner has expressed intent to record health events associated with the eight key diseases of interest. Of the 10,129 herds currently enrolled on DHI in Canada, a total of 3,890 (38.4%), representing 41.4% of milk recorded cows, have clearly identified intent to record health data for these diseases on an ongoing basis. Within each of the four DHI regions, the percentage of participating herds is very similar ranging from 37% to 41%. While not shown in this table, it is interesting to note that, nationally, 28% of these herds expressed an interest in recording health events for both cows and heifers in the herd, and this figure is highest at 48% for herds in the Western provinces of the CanWest area.

Table 1: Herds on DHI With Intent to Record Health Events, by Region				
DHI Service Region	Total Herds on DHI	% of National	Intent to Record	% Within Region
Valacta - Atlantic	475	4.7%	183	38.5%
Valacta - Québec	5,321	52.5%	1,976	37.1%
CanWest - Ontario	3,184	31.4%	1,311	41.2%
CanWest - West	1,149	11.3%	420	36.6%
CANADA	10,129	100.0%	3,890	38.4%

The collection of health data continues to grow over time as more and more herds see the value of providing information associated with each incidence of the eight diseases. By contributing to the national database of health events maintained by the Canadian DHI partners, producers have reports made available to them to assist with herd health management, in collaboration with their veterinarian.

On a monthly basis, participating herds are currently submitting an average of 9,500 health events across the eight diseases recorded. The distribution of health records by disease is presented in Figure 1, covering the most recent 15 months of data collection. As mentioned earlier, mastitis and lameness may occur at any time during a lactation whereas the other diseases have a much shorter risk period, generally soon after calving. While the record counts in Figure 1 are not incidence rates per se, it is clear that more health events have been reported for mastitis and fewer incidences have been recorded for ketosis and milk fever during the 15 months analyzed.



What More is Needed?

There is no doubt that the current herd participation rate of 38% is a great start for health data collection, especially since it is a voluntary program. Now that herd management reports are offered by Canadian DHI partners, it is important to have even more producers recording health events. More data from more herds across Canada is

required in order for the Canadian dairy industry to monitor trends at the national and/or provincial levels. Producers are encouraged to report every incident that occurs in their herd for each of the eight diseases, using the standard definitions provided by DHI or developed with their veterinarian. Also, the arrival of genomics to increase the accuracy of genetic evaluations for existing traits also allows for more accurate genetic evaluations for health traits to select for improved disease resistance in the future.

Summary

Following the implementation in 2007 of a national system for the collection of health events associated with eight key diseases affecting dairy cattle, 38% of all herds enrolled on DHI are voluntarily reporting health events on an ongoing basis, which represents 41% of milk recorded cows. From these herds, an average of 9,500 health events per month contribute to the national database at Canadian DHI. More producers are encouraged to join this initiative to help improve their own herd health management decisions and for the longer term development of genetic evaluations to select for enhanced disease resistance in Canadian dairy cattle. Herd owners with questions should discuss the importance of health data collection with their veterinarian and also contact their DHI representative.

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