

Recommendations for Recording and Presenting Selected Clinical Diseases of Dairy Cattle

Kerry Lissemore DVM, DVSc and **David Kelton DVM, PhD**
Department of Population Medicine, University of Guelph
Guelph, Ontario, Canada N1G 2W1

As the North American dairy industry prepares for increased global competition, there is a growing interest in the recording of cattle health data, pertaining to diseases of economic significance. These data are needed to further investigate the genetic component of disease occurrence and resistance, to describe, compare and investigate disease occurrence on a national and regional basis, to modify management practices that promote animal health, and to monitor the health status of the national dairy herd. A major impediment to this initiative is the lack of national standards for disease definition and presentation. To deal with the confusion over mastitis case definition, the International Dairy Federation has recently proposed international guidelines for the recording and presentation of mastitis data.

We conducted a survey of national and international agencies/organizations involved in the recording of dairy cattle diseases and completed a literature search of five citation index databases (*Agricola*, 1970-March 1996; *Medline*, 1983-present; *CAB Abstracts*, 1984-October 1995; *Life Sciences*, 1986-December 1995; *Focus On*, January 1996-present). While there are at least 500 distinct diseases of cattle that have been reported in the veterinary literature, the objective of this report was to select those diseases that met the following criteria:

- a) Based on the survey of data recording systems, the disease was one that was currently being recorded and reported by a majority of the systems.
- b) The median reported frequency of occurrence of the disease in adult dairy cows was 5% or more.

- c) There was a documented economic significance to the disease.
- d) The disease manifested itself clinically and it was possible to agree on a discrete case definition for the disease that could be used by a producer and/or veterinarian without the need for laboratory confirmation.

Based on these criteria, we collected information pertaining to the following seven diseases: left displaced abomasum; retained placenta (retained fetal membranes); milk fever (hypocalcemia, parturient paresis); ketosis (acetonemia); lameness (foot/joint problems); cystic ovarian diseases (includes follicular and luteal cysts); metritis (includes endometritis and pyometra).

For each disease described, two approaches to summarization and reporting have been proposed. The guidelines for **retrospective analysis** should be used when historical data is being analyzed for purposes such as genetic evaluation. In most instances, the recommendation is to report **lactational risk**, presented as *affected lactations per lactation at risk*.

Current analysis is likely to be used for status monitoring (comparing current performance parameters against herd or group goals) and trend monitoring (tracking changes in a parameter over time). The calculation should account for all events, and all animals at risk, for a recent period of time. In most cases the recommendation is to report **incidence** as a **true rate**, presenting *cases per cow-time of risk*, in order to account for additions to and removals from the population under scrutiny.