Health data recording in Finland

J. Kyntäjä

ProAgria Agricultural Data Processing Centre, PO Box 25, 01301 Vantaa, Finland

Abstract

Health recording in Finland started in 1982 according to a Norwegian model and slightly earlier than in Sweden and Denmark. Its principle is that veterinarians write treatments down on an individual cow health card and AI technicians collect the data at their next visit. Herd owners can also enter these data to the database by themselves. No party has a duty to enter treatment data into the register, so it is a voluntary system. Yet, about 89 % of all herds sent in at least one treatment during 2011, and the total number of registered treatments reached 55 % of the number of recorded cows. The data belongs to the farmer but carries with it an automatic authorisation for use by Faba, NAV and Viking Genetics for breeding purposes. Each year, summary statistics are made by Faba and the data about the health status of dairy cows in the municipality to respective authorities. Farmers receive a health summary in the annual report from milk recording.

Keywords: veterinary, data, Finland.

Introduction

In Finland, veterinary treatment data has been recorded for breeding purposes since 1982. Around that time, the need for progeny testing for health had arisen in all Nordic countries and each one was putting up their own system while Norway was the first to actually start it and Finland was the second.

From the beginning, the system has been working on a voluntary basis. Keeping the records or sending them to the database is voluntary. Yet in 2011, 89 % of herds sent in at least some data and the total number of treatments equaled 55 % of the total cow number. According to Virtala (2012), some 83 % of all treatments are captured in the database.

The data is owned by each individual farmer but Faba, NAV and Viking Genetics are allowed to use it for breeding purposes.

Two databases

Treatment data exists in two separate databases. The older one is the advisory database that was established for breeding purposes. Apart from veterinary treatments, it also gathers data on preventive measures, hoof treatments and self-medication done by farmers. It has 195 different treatment codes.

Apart from the advisory database, the so-called Naseva database was established in 2006. It is a voluntary food safety register whose main focus is medication and withdrawal periods before slaughter.

Data capture methods

Treatment data is collected through seven different channels. The oldest system is based on individual cow cards that are sent out to the farms twice per year after the heifer calves reach the age of 6 months. These cards are kept on the farm and presented to the veterinarian and the AI technician every time they visit. Each time, they make notice of what they have done to which cow. Apart from that, the AI technician collects both kinds of data on the computer and sends them to the central database after a day's work.

The farmer can enter data into the advisory database through the Ammu on-farm software. Hoof trimmers have their own mobile software that they use when treating the animals, or some still send in data on sheets.

The farmer can also enter data into the Naseva database through a software solution but this option is mainly used for cows that are being slaughtered. Apart from that, some veterinarians transfer data from their clinical software to the Naseva database.

Table 1. Relative use of different data capture methods and capture delay per method.

Data capture method	Percent of all entered data	Average delay, days
Veterinarian	12.6	38
Farmer through Naseva	18.1	64
Farmer through Ammu	5.6	55
Advisor through Ammu	4.6	98
Hoof trimmer on sheets	0.8	232
Hoof trimmer	16.7	2
AI technician	41.5	84

Table 2. Treatment prevalences in the Finnish cow population in 2011 (Faba, 2012).

Breed	Fertility treatment	Milk fever	Ketosis	Nutritional disorder	Udder disease	Hoof disease	Total
Ayrshire	17.8	3.2	0.9	1.7	16.2	1.2	50.8
Holstein	20.4	4.6	1.7	2.3	20.9	1.7	63.0
Finncattle	13.7	4.1	2.3	1.7	16.3	1.1	47.8
All cows	18.7	3.7	1.2	2.0	17.9	1.4	

Treatment data is used for breeding purposes: each animal receives breeding values for udder health, hoof health and other treatments. Genetic trends show that Finland has managed to keep these on a rather steady level while selecting for production traits.

The data is also summarised on farm level and reported back to the farmers. The summaries are available in management software. There is also a web service where farmers can look at individual cow treatments for their own animals and their ancestors.

Treatment statistics are also prepared annually.

Faba, 2012, Terveystarkkailutulokset 2011. Available at: *www.faba.fi/ jalostus/lypsykarja/terveysjalostus/terveystarkkailutulokset_2011.*

Virtala, Anna-Maija, 2012, Assessment of the validity of the dairy health recording systems in the Nordic countries, "DAHREVA". Project No. MMM 5247/502/2006