

THE USE OF A COMBINATION OF A DAIRY HERD HEALTH MANAGEMENT SYSTEM, AN EXPERT SYSTEM, AND AN EPIDEMIOLOGICAL ANALYSIS MODULE FOR RESEARCH OF CLAW DISEASES IN DAIRY CATTLE.

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In the Netherlands a network has been started for the collection and analysis of data concerning claw-diseases in dairy cattle. The incidence of claw problems are analyzed in relation to management, treatment, and disease parameters. Data from 150 cattle farms are collected and analyzed centrally.

The following procedure is used:

Data collection concerning claw-diseases on farms using the herd health management program Cattle-MACE (Cattle Management Assistance through Computerized analysis and Epidemiology).

Additional data collection, using a small weather station (LAIR = Local Air-condition Incidence Registration) for measuring temperature, humidity, velocity, winddirection and number of hours sunshine.

Epidemiological analysis and data export on the spot by using EDA (Epidemiological Data Analysis) and centrally by the Agricultural University of Wageningen.

The results of this analysis are stored in MES (Multi-purpose Expert System), which supports the practitioner in his daily analysis of herd health problems, by running on top of Cattle-MACE.

Secondary MES will not only analyze, but also validate new data entry into Cattle-MACE to prevent data-bias.

EDA will analyze and export new datasets with a higher validity, because the results of the first analysis are used to supervise new data sets.

Using this procedure, the practitioner will not only directly assist in the data-collection, but also receive a feedback from the results of this analysis. The information from this analysis will be directly stored in an expert system, which supports the veterinarian in his daily work. In this way an expert system proves to be of great value in analyzing farm data (Cattle-MACE), in validating data for new epidemiological research, and providing proper advice to the farmer.