Wednesday, February 28, 2024

Abstract Submission Form

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Preferred presentation Oral

Preferred session Session 1: WG Animal Data Exchange – Decision Support Tools of the Future – Promoting Sustainability Farm Management

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Title of your paper The Dairy-Farm Management Monitor; a lab-driven system for sustainable farming, prevention of disease, and increased lactations

Insert ABSTRACT text

In the previous 13 years a system was developed tailored to farmer's wishes and to help him during his daily work by showing the state of each of the essential basics of farming: Presence or absence of Animal Disease, Quality of Feeding, Quality of Silage, Reproduction and the Quality of the Drinking Water.
This Dairy-Farm Management Monitor (Dairy-FMM) is driven by monthly bulk milk measurements of antibody-levels of 12 production-reducing diseases, 5 important feed-related minerals, and one parameter on silage quality are combined with a collection or measurements on samples of individual animals for pregnancy, and bi-annual measurements on the chemical and microbiological status of the animal drinking water. To this data from the production databases are added (monthly averages for collected liters of milk, data for fat and protein content, as well as somatic cell count), and data from medical databases (dddf, vaccinations, antibiotic use, etc.).

This monthly collection of lab and production data lead to a full set of time-dependent data and the trends and dependencies in the longitudinal data are used to predict potential outbreaks of disease, early

indications for malnutrition, and decreasing quality of silage. Timely actions can be taken to treat or eradicate disease in a very early stage, even before clinical signs are visible; and shortages of minerals from the feed can be supplied timely before the resistance of production-groups decreases to critical levels.
The Dairy-FMM gives a status-overview for the main stakeholders on a farm; farmer, his veterinarian, the visiting nutritionist, the insemination service, and gives also valuable insights for the milk-collection company, the dairy-producers and also the wholesale/retail of the farm-products (the farm-to-fork value chain).

The Dairy-FMM gives valuable insights during the optimization of the farming basics, eradication of disease, and maintaining good quality of feed and silage.
The presence of the Dairy-FMM on a farm strongly supports the durability of farming as well as extra lactations for the production animals. All in all the Dairy-FMM supports optimal animal welfare and allows increased milk production with fewer animals.

During the presentation many examples of output of the Dairy-FMM will be shown, from the effects on milk production during outbreaks of Salmonella and BVDV, or the presence of diseases like Paratuberculosis. Also the effects of feeding of additional minerals and postbiotics can be measured with the Dairy-FMM.

Enter keywords

preventive monitoring, sustainable farming, increased lactations, big data, optimized value chains, research platform