19. Milk Recording Workshop Modern Tools for Milk Recording Management

Title presentation

A DHI report to help improve the efficiency of use of milking robots

Author(s)

G. Bisson, R. Lacroix, R.K. Moore, D.M. Lefebvre

Institution for which the first author of this abstract is working

Lactanet Canada

Abstract

Milking robots provide information to help producers run their operations on a daily basis. However, our advisors have observed that robots on many farms are not always used optimally, leaving room for improvement in most situations. Dairy Herd Improvement (DHI) organisations can contribute to the assessment of the efficiency with which robots operate by accessing and putting in relation different sources of data. A DHI report was developed based on three sources of data: robot use indicators, milk shipments and milk recording.

The objective of the report is to help producers maximise total milk, components and revenue per robot. Total production depends on the time spent by the robot on milking, and milk produced during the time cows spend in the robot. These in turn can depend on many factors such as failures, refusals, cows per robot, milkings per robot, cow milking capacity and genetics. Except for genetics, these data are usually available in robot software. We developed a comprehensive, interactive report capturing these data associated with other sources of data to generate new indicators and 'brand-neutral' benchmarks.

The report can be used to make comparisons with other robot farms and assess the potential for improvement. For example, yearly average efficiency (or milkability), defined as the amount of milk produced per minute in the box, varied from 1.19 to 2.58 (1.79 +/- 0.22) in a sample of 204 Holstein herds for which data was collected at least 10 times over a period of at least one year. The report can also be used to detect and correct any suboptimal patterns over time. Large within-herd variations in efficiency were observed for some herds, while this indicator was very stable for other herds. The difference between the minimum and maximum efficiency observed on each farm varied from less than 0.19 for the lowest decile to more than 0.60 for the highest decile. The report contains 17 indicators that can be used to diagnose reasons for low performance. The following table contains descriptive statistics for a subset of indicators.