eDHI – Integrating Sensor Data and Eliminating Farm Visits

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THE GLOBAL STANDARD
FOR LIVESTOCK DATA

Agenda

- Why eDHI?
- What is eDHI & How it Works?
- Customer Benefits
- Lactanet Benefits

Why eDHI?

- Increasing investment in on-farm milking and sensor technologies
  - strong trend

AMSs in Canada

>110,000 Robot cows on DHI

>900 Robot herds on DHI

2-3 customers per week to AMS

Why eDHI?

- Increasing investment in on-farm milking and sensor technologies
  - strong trend

- Changing expectations of the next generation
  - Less loyalty in industry improvement programs
  - Convenience & time is priority
  - Belief that on farm systems provide similar levels of integrity
  - Have required info for day to day management

- Resulting in pressure on Milk Recording services and participation

- Necessary to adapt and make changes in service offering… as things change, we must be responsive

What is eDHI & How it Works?

eDHI is an electronic-only DHI service:

- No milk sampling… No staff visit to the farm

- Remote data access

- Targeting farms with electronic milking systems (ICAR approved meters) and automated cow ID

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What is eDHI & How it Works?

As a starting point…

- Producer provides access to HM Software and milking system info, as well as milk shipment/bulk tank data (required)

- Herd averages for Milk is derived from milking system, while Fat, Protein, SCC and other Herd metrics are derived from tank results

And if sensor data is available…

- Cow Fat, Protein & SCC estimates are retrieved from on farm system

- Tank data used to validate Herd averages

- Data is processed in MR database as if it was a 'test day'

- Individual cow lactation records (%, kgs) calculated based on sensor data

- Records are 'labelled' as electronic/sensor

What is eDHI & How it Works?

Simple approach… objective was to limit development and streamline into existing processes:

- Remote access, once a month

- Retrieve events and milk weights (24hr/multi day avg.)

- Retrieve F/P/SCC sensor data from that day, and upload as a 'lab file'

- 'Test <u>Day</u>' approach that is very similar to existing services – allowed rapid implementation, very efficient, existing data flow processes, quality edits…etc.

eDHI Customer Benefits

1. Monthly Herd Reports & Herd Trends

Unique Reports and Metrics (Standard Milk, Milk Value, BCAs...)

Validation through our data quality edits

Components and SCC reports

Robot-specific report including robot benchmarks

Enhanced 305 milk projections (versus on-farm software)

All lactation <u>history</u> and <u>lifetime</u> production

Reproduction, health... info and reporting

eDHI Customer Benefits

2. Easy and Standardized Access to Herd Data

- For Vets and Nutritionists, in a format they know and understand – production, health, repro...etc.

- Systems and processes are already in place

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eDHI Customer Benefits

3. Benchmarks, Annual Reports & Rankings

➢ Benchmarking & Ranking:

- Production: including components & SCC based on Tank
- Reproduction (preg. rate, conception rate, days open, etc.)
- Other Herd Metrics (heifer repro & age at 1st calving, days dry, culling, etc.)
- Identifies management Strengths & Opportunities

eDHI Customer Benefits

4. Genetic Evaluation, Information & Tools

- Genetic Indexes – EBV's, LPI, Pro$
- Contributes to GE – Milk volume, health traits, reproduction
- Herd inventory and information for AI mating programs and herd genetic strategy programs

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eDHI Customer Benefits

5. Official/Publishable Lactations

- For <u>Milk kg</u> portion of records (not fat or protein)
- May participate in some breed award programs (eg. Lifetime milk).

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eDHI Customer Benefits

Significant Herd Management Benefits...

- Highly <u>Convenient</u> Service
- Lower Cost
- Recognizes Customer Investment in Technology
- Can still participate in Industry Programs

eDHI Lactanet Benefits

As a New Service:

- Broadens service offering – demonstrates proactiveness
- Retain & gain new customers
  - Robotic & larger herds in particular
- Maintain data pipeline for Genetic Improvement (Milk volume, health traits, repro) and industry programs
- Maintain our position as 'reference' for data management
- Initial step & sets the stage for future eData capture and long term strategy
- And yes… risk of devaluating sampling and lab services

Thank You!

Thank you for listening - looking forward to the question and discussion session.

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