eDHI – Integrating Sensor Data and Eliminating Farm Visits

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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
AMSSs 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
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 Day’ approach that is very similar to existing services – allowed rapid implementation, very efficient, existing data flow processes, quality edits…etc.
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 history and lifetime production
- Reproduction, health... info and reporting
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
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
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
5. Official/Publishable Lactations

- For Milk kg portion of records (not fat or protein)
- May participate in some breed award programs (eg. Lifetime milk).
Significant Herd Management Benefits...

- Highly Convenient 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 devaluing sampling and lab services
Thank You!

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

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