WHERE WE CAME FROM AND WHERE WE ARE HEADING

Milk recording and data value before and now

Uffe Lauritsen
RYK, Denmark

ICAR 2018
Auckland, New Zealand

Technologies & Tools: Sensor Devices
THIS PRESENTATION IS MEANT TO

- Highlight the nerve of our core service then and now
- Focus on the basic values
- Remind us that cows and producers are the center – not technology
- Identify some key issues related to need for standards
THE FIRST COW SENSOR EVER
FARMER OR TECHNOLOGY

Body Condition
Body Weight

Milk Yield
Milk Composition
Milking Speed
Milk Flow Rate
Estrus/Pregnancy
Mastitis
Ketosis
Pathogens
MUN
Fatty acids
Johne’s
BVD
BLV

Temperature

Feed Intake
Respiration
Chewing/Eating
Methane Emission

Animal Location
Standing/Resting/Movement

Mobility
Heart Rate
Rumination

Hoof Health
MOVING FORWARD

- From lifestyle to food production
- From raw milk to infant milk powder
- From recording to legislation
- From human skills to technical understanding
THE HERDSMAN AND THE HERD

- Less time per cow
- Skills move from human to technology
- Errors will be systematic
- Focus moves to technology
- A good day is still when nothing goes wrong

Herds size, DHI Denmark

February 11, 2018
Late 1800 methods to find fat in milk

- Niklaus Gerber (1850-1914) and Stephen Babcock (1843-1931) developed methods to determine fat in milk
- N J Fjord (1825-1891) developed the cream separator
1890:
FOCUS ON BUTTER VALUE PUSHED FARMERS

CHALLENGE
Improve economy for farm families
Add butter value

TOOL
Measure and evaluate
Which cow adds most value to me?

METHOD
Compare between animals

Prod. cost per kg butter, relative Danish trial 1895-1896
ON-FARM IS WHERE IT ALL STARTED

- Milk recording and milk analysis
  - The lab and staff travelling from farm to farm
- Notes and databases local
- Updated results available 2-3 hours after morning milking
CLOUD DATA

Nothing new, most countries started back in 1950’s

- The challenge was to have data at hand when needed

In 1962 data from more than 500,000 milk recorded cows was handled in the Danish milk recording cloud

Today it is 525,000 cows

- The challenge is to have calculations at hand when needed
LEGISLATION AND ANIMAL WELFARE

● Audits are moving close legislation
  ● body condition, lameness, skin and hock lesions
  ● clean and healthy cows
● When involving technology, standards will be required
WHAT IS THE MESSAGE?

SCC on testday – 750 Holsteins

On-farm sensor vs SCC central lab

Holsteins
THERE IS A NEED FOR STANDARDS

- Farmers should have confidence in selected products
- Different types of technologies increase risk of confusion
- Any product must support farm economy
  - SCC on farm match what is analyzed for payment
  - Fat and protein must be close to real value
- Legislation – welfare
  - Objective scores
  - ….
HUMAN BARRIERS AND CHALLENGES

Mental – seniors
- Know a lot about cows – most of us can milk a cow
- Know less about latest technology

"Youngsters" – next generation
- Know less about cows
  – few know how to handle cluster and hoses
- Know a lot about latest technology

We all need to listen carefully
THANKS FOR YOUR ATTENTION

THANKS TO
Steven Sievert, NDHIA, US
Finn Strudsholm, SEGES, DK
Henrik Laessoe Martin, SEGES, DK
Colleagues at RYK

PICTURES
SAC, Denmark
Uffe Lauritsen