CATCH THE NEXT BIG WAVE IN MILK TESTING

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CombiFoss™ 7
CONTENTS

- The next CombiFoss™ 7 wave
- Differential SCC for better mastitis management
- More results at less cost with 7th generation CombiFoss technology
- Higher proficiency and less man hours with the latest in instrument management software
- Grow your business
Dedicated Analytical Solutions

MILK TESTING THROUGHOUT
60 YEARS INNOVATION

1950s
1960s
1970s
1980s
1990s
2000s
2016
Our goal is to help you

- Give better support for dairy farmers in tackling mastitis, ketosis and other cattle diseases
- Keep down the cost per sample
- Improve proficiency in the laboratory
19 parameters in 6 seconds from same sample, including differential somatic cell count

More results at less cost with 7th generation CombiFoss technology

Higher proficiency and less man hours with the latest in instrument management software
7th Generation CombiFoss

- Differential Somatic Cell Count
- Somatic Cell Count
- Fat
- Crude & True Protein
- Casein
- Lactose
- Solids (TS & SnF)
- Urea
- Citric Acid
- Freezing Point Depression
- Free Fatty Acids
- Fatty acids profile 1 & 2
- Ketosis (BHB & Acetone)
- pH
- Adulteration

Parameters in 6 sec:
- Differential SCC
- Fatty acid profile
- Ketosis
- Adulteration

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19 parameters in 6sec.

- Citric Acid
- Urea
- Solids Non Fat
- Total Solids
- Lactose
- Casein
- Crude Protein
- True Protein
- Fat
- Diff. Somatic Cell Count
- Somatic Cell Count
- Adulteration
- BHB – Ketosis
- Acetone – Ketosis
- Fatty Acid Profile 2
- Fatty Acid profile 1
- PH
- FPD
- Free Fatty Acids
Multifactorial disease

* Wellenberg et al., 2002, ** Seegers et al., 2003, *** Viguier et al., 2009

- **€32 billion annually**: Wellenberg et al., 2002
- **Losses are due to subclinical mastitis**: Seegers et al., 2003
- **Somatic cell counts (SCC) and bacteriology are standard**: Viguier et al., 2009
- **Major need for new biomarkers**: Viguier et al., 2009
A NEW WAY TO FIGHT MASTITIS

- First high-throughput analyser for simultaneous differential SCC and total SCC
- Replacing tedious and costly separate mastitis analytical methods
- Opportunity to build new business by offering advanced mastitis management tools based on differential and total SCC
According to Rivas et al., 2001; Paape et al., 2002; Schwarz et al., 2011a,b
Targeted selection of suspicious cows

Current state, SCC:
- Low SCC
- High SCC
  - Bacteriological examination
  - Treatment strategy

Prospective state, SCC and DSCC:
- Low SCC
- High SCC
  - Bacteriological examination
  - Treatment strategy

Healthy  Infected
MORE FOSS INNOVATIONS

- Screening for ketosis
- Fatty acid profiling
- Untargetted screening for abnormalities, for example due to accidental adulteration with cleaning chemicals
FOSS started in the nineties with Infrared analysis to test for simple and known adulterants – such as tests that screen for added water.

As adulteration schemes became more complex, FOSS developed new tools for making screening models that test for unknown adulterants.

MilkoScan 7 offers Untargeted Raw Milk Screening model for abnormalities in the milk.
FTIR spectra from natural raw milk samples is a unique fingerprint of normal milk.
7th Generation
Milkoscan Technology

- Superior performance at 600 samples per hour
- Optimized optics and flowsystem
- Increased signal/noise ratio
- Improved repeatability for minor constituents
- 10 year warranty on diamond cuvette
IMPROVED OPTICS

- Optics optimized on the interferometer module increasing the signal/noise ratio
- Same high performance at all cadences improving repeatability for minor constituents
Modular design for ease of cleaning and maintenance

Improved working factor from 300 to 100 (Fossomatic™ 7)

Option to choose manual or automatic reagent mixing

Rinse liquid refill without instrument stop

Easy to clean sample conveyor without need for compressed air

New Foss Integrator NOVA software
THE SMART WAY TO RUN YOUR COMBIFOSS

- Save your feet and save time by controlling multiple instruments from your desktop
- Avoid downtime by making upgrades and adjustments while instruments continue to run
- Perform operations in one go to reduce risk of human error and keep all data backed up in one place
"Repeated operations and waiting time"

Change limit settings on 4 Combi instruments
15 minutes job a 4 CombiFoss instruments
= 1 wasted instrument hour and 1 spent lab management hour

Follow up on check-samples and repeatability
A 10 minutes job at all 6 instruments
= 1 wasted instrument hour and 1 spent lab management hour

Total
2 hours lab manager time
2 hours instrument downtime
Dedicated Analytical Solutions

WITH MOSAIC SOFTWARE – SAVE YOUR FEET, SAVE TIME

“Mosaic offers a new way of operations”

- Operations done once from the desktop
- Less than 1 hour lab manager time
- Zero instrument downtime

Combifoss 1  Combifoss 2  Bactoscan 1

Combifoss 3  Combifoss 4  Bactoscan 2

Management

LIMS & IT

Lab manager & assistant
FOSS SUPPORTS YOU AS YOUR BUSINESS GROWS

- CombiFoss 7 is modular designed to meet your specific needs and can be expanded as your business evolves
- Offers flexible licenses for capacity and parameters
Dedicated Analytical Solutions

JOIN THE NEXT WAVE

19 parameters in 6 seconds from same sample, including differential somatic cell count

More results at less cost with 7th generation CombiFoss technology

Higher proficiency and less man hours with the latest in instrument management software
Thank you

CombiFoss™ 7