

# FOSS UPDATE - LEADERSHIP & INNOVATION

NALMA ANNUAL MEETING – GRAPEVINE, TX SEPTEMBER 9, 2019

# FOSS

Roman Kwasiorski – Industry Sales Manager – Raw Milk Testing



ANALYTICS BEYOND MEASURE

# AGENDA

**FOSS**

- Meet your FOSS Team at NALMA
- Brief Intro to Foss
- Instrument and Digital Services Solutions
- Sample Automation
- Service and Support

# INDUSTRY LEADING SOLUTIONS FOR INDUSTRY LEADING CUSTOMERS

# FOSS

RAW MILK TESTING



DAIRY



GRAIN, MILLING & OILS



WINE



MEAT



FEED & FORAGE



OTHER INDUSTRIES



LABORATORIES

ANALYTICS BEYOND MEASURE

# MILK TESTING – 60 YEARS OF INNOVATION

# FOSS



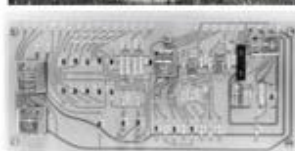
1950s



1960s



1970s



1980s



1990s



2000s



2016



ANALYTICS BEYOND MEASURE

# MORE THAN 60 YEARS OF INNOVATION

**FOSS**



- Strive to bring the advantages of new technology to our customers first
- Revenue of approx. \$400 Million/yr
- Approximately 15% of revenue invested in R&D yearly
- 1500+ Employees. 300+ highly skilled engineers and scientists in R&D alone.
- Partnership with leading international universities
- Tightly woven network of technology partners
- Customer driven innovation

## FOSS NORTH AMERICA FACTS

- Sales and service subsidiary. Eden Prairie, MN
- 90+ Employees (45+ in service and applications support)
- \$70+ Million annual revenue

# RAW MILK TESTING – PORTFOLIO OF SOLUTIONS

**FOSS**

MilkoScan 7



Fossomatic 7/7DC



BactoScan FC+



CombiFoss 7



BacSomatic



# DIGITAL SERVICES

# FOSS

IMPROVE QUALITY AND OPTIMIZE PRODUCTION WITH FAST, EASY-TO-USE AND DEDICATED ANALYTICS



## Ease management of instruments

- Connectivity
- Up and download of data
- Remote management and configuration
- Product: - FossConnect™

## Getting the most out of instrument and data

- Monitor instrument and application performance
- Develop applications
- Products: - FossAssure Instruments™  
- FossAssure Calibration™  
- FossCalibrator™ (Not released)



# RAW MILK TESTING

**FOSS**

- Solutions in operation in 80+ countries
- 3,000+ MilkoScan™ sold (7 generations)
- 3,000+ Fossomatic™ sold (7 generations)
- 1,200+ BactoScan™ sold (3 generations)
- Solutions in compliance with international and national standards (e.g. IDF/ISO, EU, NCIMS/FDA)





# BACTOSCAN FC+ HIGHLIGHTS

**FOSS**

- High capacity automated enumeration of total bacteria in raw milk
- Time to result 9 min
- Capacities of 65, 130 and 200 samples/hr
- NCIMS/FDA Approved
- Most widely used milk bacteria analyzer in the world
- Introduced in 1998 as BSC FC
- New version BSC FC+ released in 2013



# COMBIFOSS 7/7DC HIGHLIGHTS

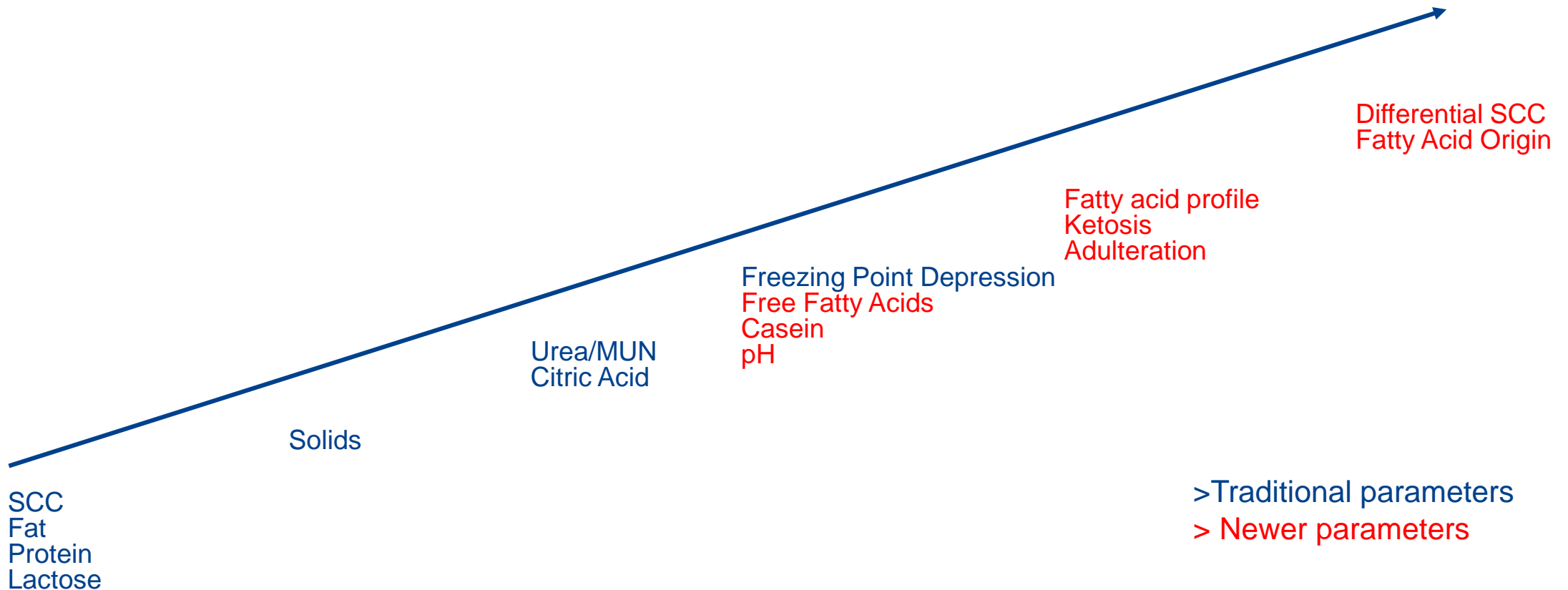
**FOSS**

- High capacity automated analysis of milk components and SCC
- 19 plus parameters measured in seconds
- 7th generation released in 2016 (CF7) and 2017 (CF 7DC)
- Many hardware and performance improvements over previous generations
- Capacities ranging from 100 to 600 samples/hr
- Introduction of new DC parameter (Differential Cell Count)  
Another industry first
- Sold to date (Oct 2016 - March 2019)
  - 148 MilkoScan 7
  - 66 Fossomatic 7
  - 96 Fossomatic 7DC



# 7<sup>TH</sup> GENERATION COMBIFOSS – EVOLUTION OF PARAMETERS

**FOSS**



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CF 215	CF 360	CF 4000	CF 5000	CF 6000	CF FT+	CF 7 & 7DC
1970s	1980s	1980s	1990s	2000s	2010s	2017

# BACSOMATIC – A NEW TOOL FOR DAIRIES AND FARMS

**FOSS**



- A compact and easy to use instrument for analyzing total bacteria cell count and somatic cell count at the same time
- Based on same technology as the larger lab instruments. Same accuracies.
- FDA/NCIMS approved method
- Results in <9min Bacteria, <2.5min SCC
- Use for:
  - Screening incoming loads at the dairy plant
  - On farm test for individual cow spot checks and to verify bulk tank and outgoing loads.
  - Solution for smaller central milk testing labs

# SAMPLE AUTOMATION FOR COMBIFOSS AND BACTOSCAN

**FOSS**

- FOSS has provided, for many years now, several unique automation options for conveyor systems such as:
  - Automatic re-test functionality
  - Multiple barcode and RFID options
  - Automatic Pilot sample detection
  - Conveyor Extensions
  - Output Buffer Tables
- For further automation:  
Three main milk analyzer automation partners:
  - Bartec
  - Intellitech - ILAS
  - Raudsusz
- FOSS is able to interface and has worked with all three.
- FOSS has more automation experience than any other instrument manufacturer with dozens of installations across the globe.
- Examples...

# BARTEC

# FOSS



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# INTELLITECH - ILAS

# FOSS

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# RAUDSZUS

# FOSS

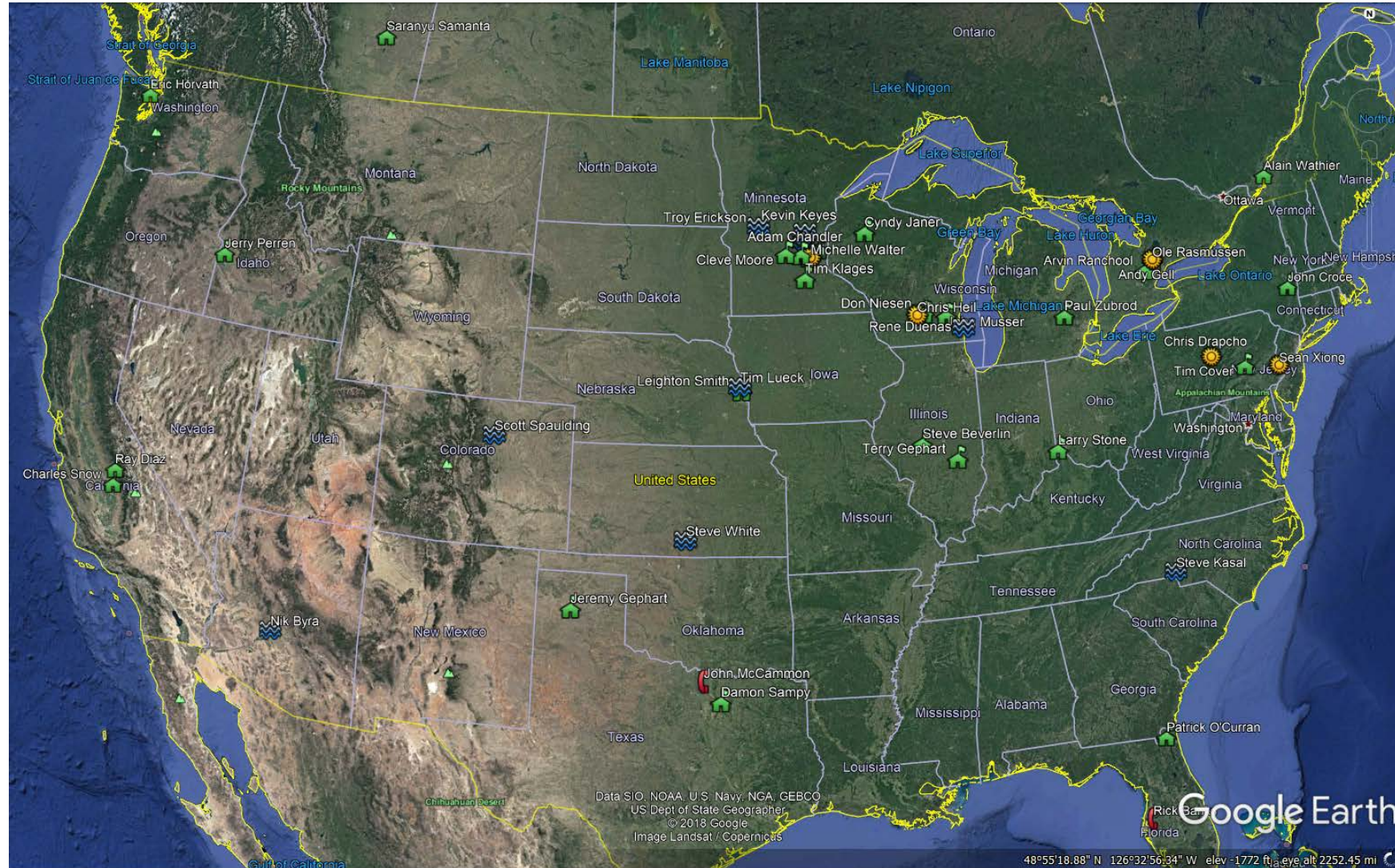


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# UNRIVALLED NORTH AMERICAN SERVICE AND SUPPORT

**FOSS**



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**THANK YOU**