

FOSS

Analytical solutions for central milk testing
– payment & dairy herd improvement



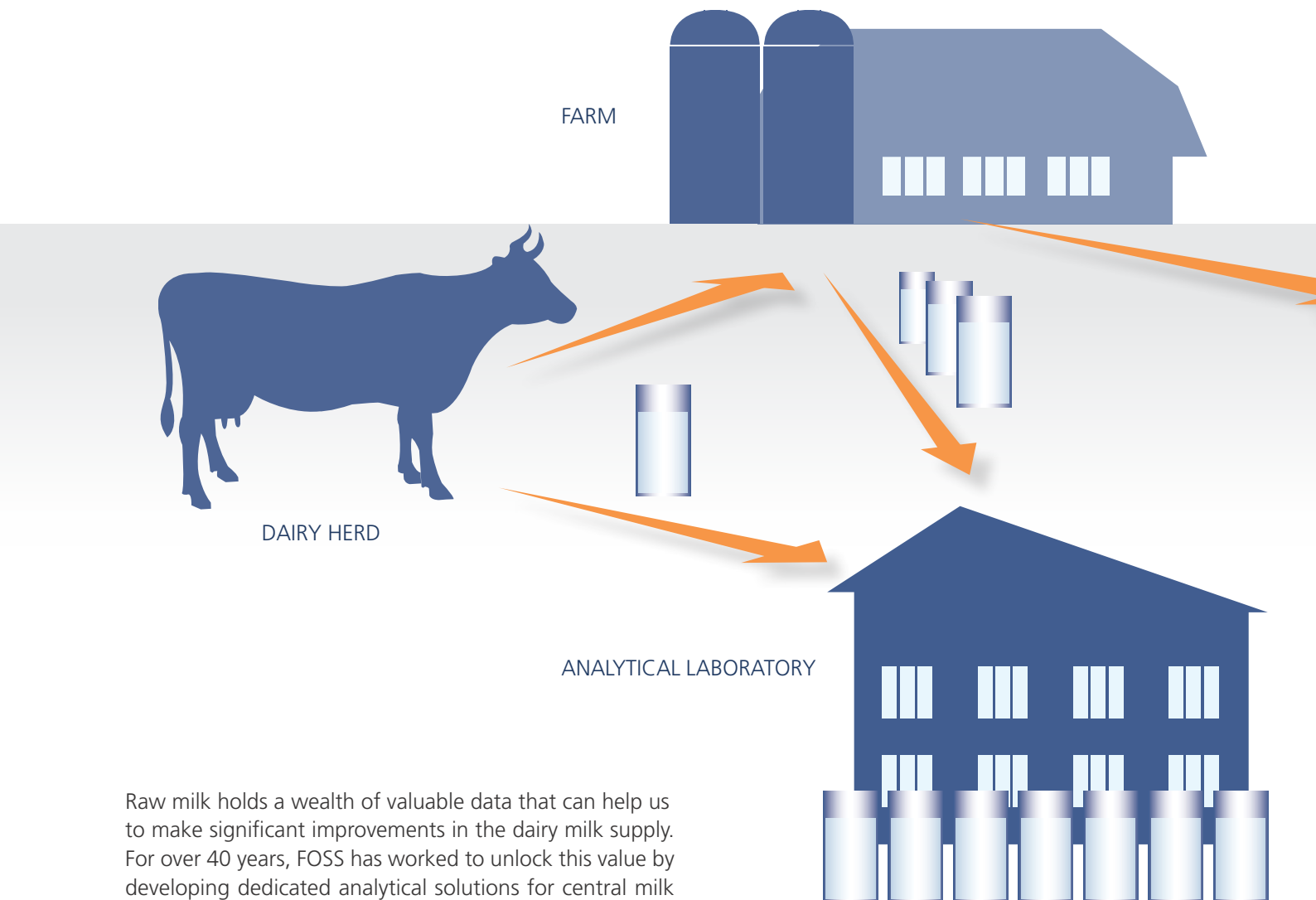
Dedicated Analytical Solutions





It is all about being first because that's what keeps central milk testing in business

Where FOSS adds value



Raw milk holds a wealth of valuable data that can help us to make significant improvements in the dairy milk supply. For over 40 years, FOSS has worked to unlock this value by developing dedicated analytical solutions for central milk testing laboratories, allowing you to offer an unrivalled range of services within dairy herd improvement and payment analysis.

Within dairy herd improvement, accurate and timely analysis results provided by FOSS solutions helps dairy farmers to:

- Optimise feeding
- Combat diseases such as mastitis
- Improve breeding programmes
- Manage culling

Similarly, in payment analysis of raw milk, FOSS solutions help to:

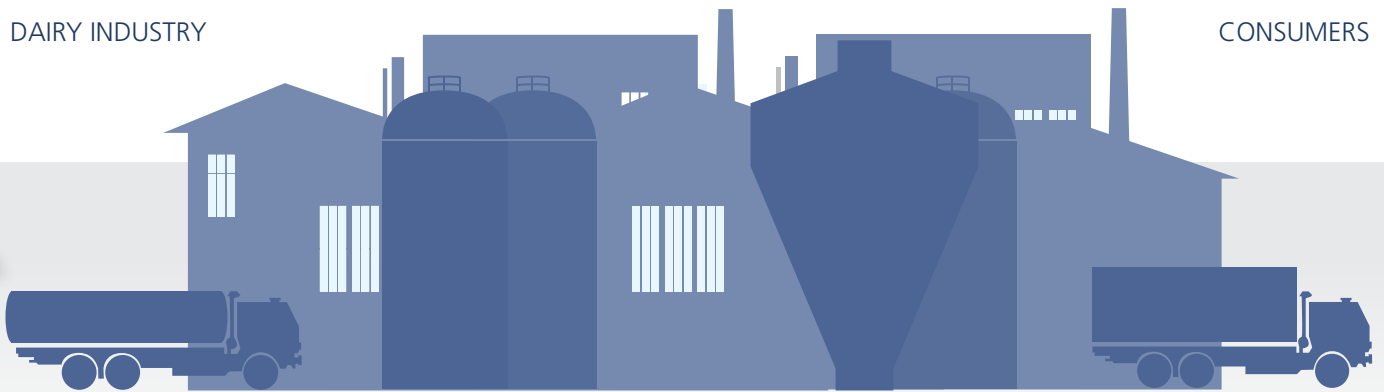
- Ensure compositional quality
- Improve hygienic quality
- Screen for food safety



For over 40 years FOSS has led the way in improving raw milk quality around the globe

DAIRY INDUSTRY

CONSUMERS



FOSS works side by side with dairies and milk testing laboratories around the world. Often being the first with groundbreaking innovations, our goal is to keep you a few steps ahead of the game with new analysis options for improved business opportunities. Here's a selection of some of our innovations over the years. FOSS was first to:

- Develop a rapid method for individual bacteria count as used in BactoScan™
- Introduce automatic somatic cell counting as used in Fossomatic™
- Use Fourier Transform InfraRed (FTIR) for milk analysis
- Implement routine analysis of urea with MilkoScan™ for optimised feeding
- Offer fast screening of fatty acids with MilkoScan for improved milk quality
- Use RFID recognition of samples
- Offer routine analysis of Casein
- Offer up to 600 samples an hour
- Develop screening for adulteration
- Offer screening for ketosis by FTIR
- Provide automatic measurement of freezing point depression with MilkoScan
- Link instruments in networks for online support



Routine tests avoid the costs of disease

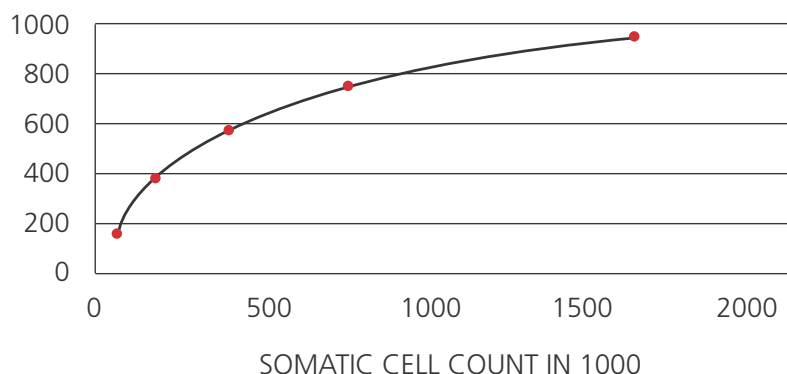
Milk analysis with FOSS can reveal important information about the health of the dairy herd

How to avoid clinical and sub-clinical mastitis

Mastitis is a costly disease both for individual farmers and the dairy industry as a whole, leading to unwanted veterinary costs, antibiotics, milk retention, decreased yield, poor quality and reduced payment and culling.

Somatic cells are white blood cells (leukocytes) and cells from the udder secretory tissue (epithelial cells) which eliminate infections and repair tissue damage done by bacteria.

LOSS OF MILK KG PER COW/YEAR



Regular testing of somatic cell count helps to avoid unnecessary loss of milk and valuable constituents due to mastitis.

The somatic cell count is very low in uninfected glands. However, when infection or damage occurs in the udder, the body sends high numbers of somatic cells to the injured site. The somatic cell count is therefore a common measure of mammary gland health and milk quality. Mastitis can be clinical (SCC usually > 1 mill.) or sub-clinical (usually 200,000 < SCC < 1 mill.).

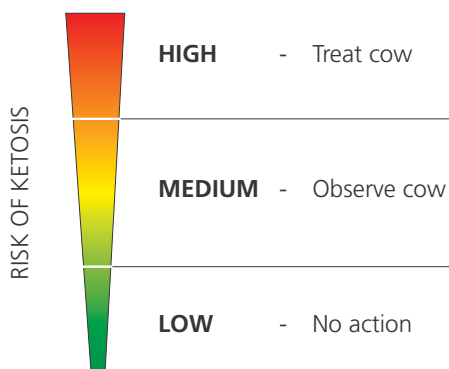
Of critical importance for the dairy farmer is to not only catch the obvious clinical cases, but the sub clinical as well. For every cow with clinical mastitis there are 15 – 40 others with sub-clinical mastitis and a substantial loss of yield occurs already at this sub-clinical stage.

Regular tests for somatic cell count allow results for individual cows to be monitored over time and any changes in somatic cell count can be used to give farmers a timely warning.



“For every cow with clinical mastitis there are 15 – 40 others with sub clinical mastitis”

ACETONE/BHB CONCENTRATION



As ketosis can often be a herd problem, a single alert gives the herd manager a timely warning to examine all early lactation cows.



Ketosis risk assessment

Ketosis is a metabolic disease that can cost the dairy farmer a lot of money. It can reduce milk yield by over 500 kilograms of milk per cow per year, while also having an adverse effect on reproduction and welfare for the individual cows. A screening system from FOSS can provide an early warning of ketosis in dairy herds.

Ketosis occurs in dairy cattle when energy output for milk production is too high relative to energy input from feed and uptake from fat deposits. Primary ketosis occurs when too little feed (or too low energy concentration) is offered to the cow. Secondary ketosis occurs if the cow stops eating due to illness while still producing (too much) milk.

In both cases, energy uptake from fat deposits is too high, as is the conversion of fat to glucose in the liver. As a result, acetone and beta-hydroxybutyrate (BHB) are excreted as residues.

An indication of levels of the acetone and BHB residues can be provided by the Fourier Transform Infrared (FTIR) technology used in analytical instruments such as the MilkoScan FT+ analyser, allowing screening for ketosis as part of routine milk testing.

The screening gives an indication of possible ketosis, allowing you to single out suspect samples for further investigation. You can give the herd manager a monthly screening of all his cows for ketosis and individual cows can be pointed out for treatment. As ketosis is often a herd problem, a single alert gives the herd manager a timely warning to examine all early lactation cows for problems and to take proactive action as necessary.

Laboratories already measuring acetone or beta-hydroxybutyrate using wet chemistry methods can save considerable resources by limiting the number of samples to those identified by the MilkoScan FT+.



Parameters

Fat, Protein (true & crude), Casein, Lactose, Solids (SnF & TS), Urea, Citric Acid, Free Fatty Acids, Fatty Acids Profile (15 Acids), Freezing Point Depression, pH, **Ketosis Screening**, Abnormal Spectrum Screening, **Somatic Cells**, Individual Bacteria Count



An additional kilogram of casein in the milk supply means three to four kilograms more cheese

Feed indicators allow fine-tuning for profit

Feed is a major production cost for dairy farmers. It also impacts fertility and optimal feeding reduces the environmental impact of dairy herds by avoiding unnecessary high levels of nitrogen in urine.

With FOSS milk testing equipment you can empower dairy farmers to get feed mix just right by giving them timely information derived from key parameters of milk such as Fat, Protein and Urea.

As well as a normal payment parameter, fat content can be used as a feed indicator. For instance, a low fat content indicates a low pH in the rumen. Likewise, protein is another payment parameter that also helps to define feed strategies. A decrease in the protein content indicates that adjustments to the feed mix are required.

Urea helps to get the feed balance just right

Information about Urea content in milk is especially valuable to the farmer in identifying nutritional issues and getting the balance between energy and protein in feed just right.

Cows need to be fed adequate levels of protein to maximise milk production, but feeding protein in excess of the cow's needs does not increase milk production further and will only be an extra cost for the farmer.

Urea, together with Fat/Protein ratio indicates whether the right balance between energy and protein has been achieved.

Less available energy may put early lactation cows at increased risk of ketosis and high levels of urea is toxic to sperm and embryos and can result in infertility and repeat breeding.

Urea levels also help to track the environmental impact of the dairy herd through excretion of nitrogen in urine.

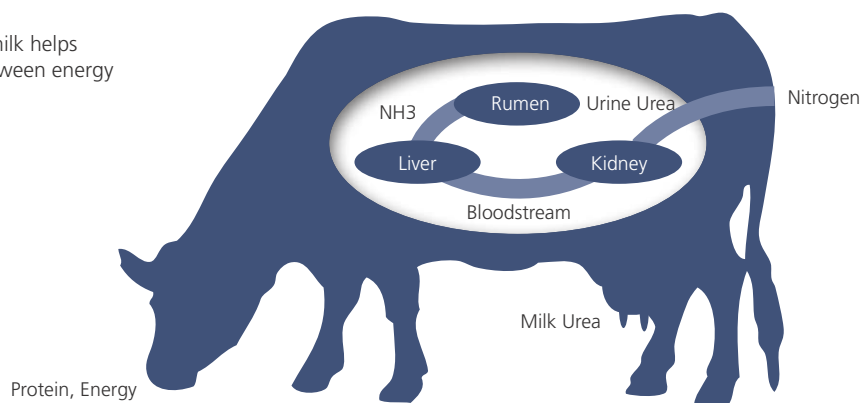
Breeding and feeding for more Casein

Casein is a valuable milk constituent, especially for cheese and yoghurt producers who often estimate casein content in milk from their protein measurement. However, research shows that casein as a percentage of protein in milk is subject to change due to factors such as the dairy herd feed, geography and seasonal variations.

Advanced milk analysis pioneered by FOSS allows Casein to be analysed more accurately as part of normal routine milk testing. This allows you to give farmers information on individual cows allowing breeding and feeding for optimal casein content.

Farmers can gain improved payment levels and the dairy can adjust the Casein to Fat ratio of the cheese milk to get the most out of the milk supply. As a general rule, one additional kilogram of casein in the milk supply means three to four kilograms more cheese. Milk from cows bred for more casein, shows better cheese precipitation time, better curd firmness and up to 5% higher cheese yield.

Information about urea content in milk helps dairy farmers to get the balance between energy and protein in feed just right





Parameters

Fat, Protein (true & crude), Casein, Lactose, Solids (SnF & TS),
Urea, Citric Acid, **Free Fatty Acids, Fatty Acids Profile (15 Acids),**
Freezing Point Depression, pH, Ketosis Screening, Abnormal Spec-
trum Screening, Somatic Cells, Individual Bacteria Count



BactoScan™ FC+ is the only US FDA/NCIMS approved rapid electronic counting method and has several national approvals

Quality starts on the farm

Your milk testing services have a vital role to play in helping farmers deliver quality milk with a long shelf life and with the qualities demanded by dairy producers and consumers.

Raising the hygiene level with bacteria counting

Milk with a high bacterial load is an undesirable raw material for dairy production. Although pasteurisation kills the majority of bacteria, their metabolites may cause off-flavours, and enzymes continue their activities resulting in product defects and reduction of shelf life. Most milk payment schemes therefore grade milk according to the level of bacteria.

Traditional plate count methods require at least two days of incubation before a result can be reported back to the farmer. Hygienic problems may go undetected for days, making corrective action more difficult and production losses larger than necessary.

By implementing the approved and rapid BactoScan™ FC+ method, offering results in less than nine minutes, farmers can be advised about possible hygiene breaches the same day as the sample is drawn. Such rapid feedback enables the farmer to correct for leaks, insufficient clean-

ing or cooling in the milking system, or health problems in the herd. The method includes control samples and other instrument-performance checks.

Keeping free fatty acids in check

A too high content of Free Fatty Acids (FFA) can cause a bitter taste in milk and rancidity in butter.

Free Fatty Acids occur when the milk fat is broken down into glycerol and free fatty acids through a chemical reaction called lipolysis, which is caused by lipase enzymes in the milk. There are two sources of lipase. One is a natural presence secreted into the milk while still in the cow and the other is bacteria entering the milk after milking and producing lipase either by excessive aeration or by agitation of the milk. The fat is exposed to attack by the lipase resulting in an increase in FFA during subsequent storage.

Thermal and mechanical treatment of the milk, such as milking, pumping, sloshing, temperature changes and transport can result in an increase of FFA. The level of FFA is also influenced by physiological conditions such as stage of lactation, seasonal changes, age of cow, milk yield, hormonal changes, diseases and composition of fodder. FFA is easily measured by MilkoScan™ FT+.



Milk with a healthier balance of saturated and unsaturated fats

Another FOSS innovation is the ability to monitor saturated and unsaturated fat content in milk to improve the quality of raw milk entering the supply chain and improving the characteristics of milk for healthier dairy products.

FOSS MilkoScan™ FT+ can reveal the main 15 groups of fatty acids in a milk sample. Dairy farmers whose milk does not match the ideal profile of fats can be alerted so that they can take action by adjusting the feed for their cows, for example, feeding based on more traditional

grass grazing and less corn has been found to reduce levels of saturated fats. Breeding programs have helped to breed cows giving a more favourable balance of fatty acids in milk.

In some regions, farmers have been involved in incentive schemes to provide milk with a specific fatty acid profile for several years. The milk is subsequently used in a special range of products which the manufacturer can then promote as containing higher levels of healthier fatty acids.



Parameters

Fat, Protein (true & crude), Casein, Lactose, Solids (SnF & TS), Urea, Citric Acid, **Free Fatty Acids, Fatty Acids Profile (15 Acids), Freezing Point Depression, pH, Ketosis Screening, Abnormal Spectrum Screening, Somatic Cells, Individual Bacteria Count**



Protecting the supply chain

As a key junction between the dairy farm and the milk used by dairy producers, your testing services can have an important impact on the integrity of the milk supply.

In addition to performing standard tests such as bacteria count, fat and protein, somatic cell count and freezing point depression, FOSS milk analysis technology allows you to offer dairies screening for accidental or intentional adulteration of milk. Such tests can be performed simultaneously with routine tests, involving no extra sample handling and at little extra cost to your operations.

Screening for added water

Extraneous water should be avoided for many reasons, and is therefore a penalty factor in most payment schemes. Earlier, added water was solely detected by cryoscopy measurement of freezing point depression in a number of randomly selected samples.

MilkoScan™ FT+ makes it possible to screen all samples as part of the ordinary analysis procedure, without any loss of analytical capacity.

In this way, suspect samples are easily identified for possible subsequent verification by cryoscopy.

FOSS innovation helps to enforce legal requirements and incentive programmes

Bacteria

BactoScan™ FC+ measures Individual Bacteria Count for immediate action.

Somatic Cells

Fossomatic™ FC offers Dynamic Precision (patented) for high grading accuracy.

Freezing Point Depression

MilkoScan™ FT+ screen samples based on combined FTIR and conductivity in the samples.

Free Fatty Acids

MilkoScan™ FT+ has a unique FFA calibration



Screening for abnormalities

Raw milk containing abnormalities is a growing problem. The abnormalities can be caused by deliberate adulteration, for example with lard or melamine, or by accident, for example, if milk from cows and buffalo are mixed unintentionally.

FOSS instruments are already used around the world to check raw milk for payment and quality assurance purposes and can be programmed using the Abnormal Spectrum Screening Module (ASM) to also screen incoming raw milk samples.

This feature helps to identify a suspect raw milk sample quickly and as a normal part of everyday testing. The suspect sample can then be further analysed to determine the contaminant.

A sample of milk is tested against a profile for normal milk. A warning is given if there is a mismatch. This alerts you to the need for further investigations to determine the nature of the abnormality. In practice, ASM allows you to screen for an unlimited number of unknown and known potential adulterants, for example, some of the

known adulterants could include lard, cleaning agents and melamine. Warning levels can be set for these known adulterants.

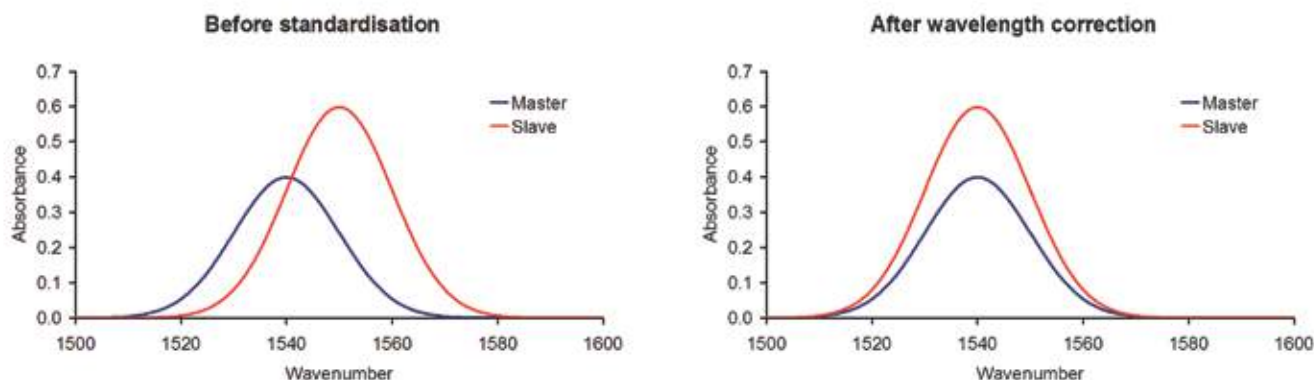
Adulterants - examples

- Cleaning agents
- Different types of milk (cow, sheep, goat, buffalo)
- Protein adulterants
- Fat adulterants
- Hydrolysed protein
- Plant oil
- NaOH/NaHCO₃
- Ammoniumsulfate
- Melamine
- Urea
- Lard
- NaNO₂
- Formaldehyde
- H₂O₂
- Sucrose
- And many more...



Parameters

Fat, Protein (true & crude), Casein, Lactose, Solids (SnF & TS), Urea, Citric Acid, **Free Fatty Acids**, Fatty Acids Profile (15 Acids), **Freezing Point Depression**, pH, Ketosis Screening, **Abnormal Spectrum Screening**, Somatic Cells, Individual Bacteria Count



All measuring the same: Equaliser samples keep your instrument standardised.

Higher standards in the laboratory

At FOSS, excellence in analysis starts with highly stable and accurate analysers and extends to all aspects of instrument maintenance and calibration.

Benefits for your laboratory include:

- Reliable measurements over time protect your reputation
- High uptime for efficiency and prompt response to customers
- Plug and play calibrations based on the unique FOSS global database
- Considerable time and money saved on calibration procedures with standardisation concept (patented)
- Operational and networking software

Uniform measurements

FOSS instruments are standardised to measure the same from instrument to instrument and over time.

Regular checks can be made using a number of tools such as zero-setting and pilot samples, and adjustment samples for Fossomatic and BactoScan instruments. Monthly verification and adjustment can be made on just one equaliser sample with the MilkoScan™ FT+.

Self-cleaning pipettes make it easy to measure even the most difficult samples quickly and efficiently and automatic sample tracing with Foss Integrator software avoids handling errors. Preventive maintenance of the instruments according to our recommendations keeps instruments performing optimally.

Powerful and comprehensive calibrations

FOSS analysers are delivered with calibrations based on the unique and comprehensive FOSS database built up over decades of activity in the central milk testing area.

A very robust calibration can be developed to cover many dimensions in the measurement such as race, feeding, season and region, where you traditionally need to develop and maintain several calibrations. This means reduced calibration development and maintenance costs, as less reference analyses are required.

The fact that FTIR instruments are standardised offers a great advantage. A calibration developed on one instrument may be transferred to other instruments, which due to the standardisation will provide identical readings.

Standardisation is achieved by comparing spectra of a specially developed FTIR equalizer sample, collected on a newly installed instrument (slave) to the spectra of a similar sample using a master instrument at FOSS.

FOSS in central milk testing

- FOSS has CMT solutions in operation in more than 80 countries
- More than 3,000 MilkoScan™ instruments sold world-wide (many generations)
- More than 3,000 Fossomatic™ instruments sold world-wide (six generations)
- More than 1,200 BactoScan™ instruments sold world-wide (three generations)
- FOSS CMT solutions have obtained many approvals and are in compliance with a number of standards/ guidelines/ directives (IDF/ ISO, EU)
 - National approvals to mention:
 - DE, FR, IT, ES, BE, US (FDA/NCIMS)



Parameters

Fat, Protein (true & crude), Casein, Lactose, Solids (SnF & TS), Urea, Citric Acid, Free Fatty Acids, Fatty Acids Profile (15 Acids), Freezing Point Depression, pH, Ketosis Screening, Abnormal Spectrum Screening, Somatic Cells, Individual Bacteria Count





The future of raw milk testing

Consolidation, competition, traceability, food safety – just a few of the themes you may recognise from your working day. The unique FOSS approach to central milk testing puts issues like these under the spotlight and results in not just advanced instruments, but the sophisticated solutions you need to secure your future business.

New testing possibilities reflect a close working partnership with industry players about emerging demands. A raft of support options available globally keep your laboratory operating perfectly wherever you are located. Approvals give peace of mind for you and your customers.

In-built quality assurance checks take the load off staff, freeing up resources for other things. Performance options, for example up to 600 samples an hour, keep the samples flowing and allow you to scale-up in line with consolidation in your business. Proven technology ensures high uptime.

Exploiting FTIR

Fourier Transform Infrared (FT-IR) spectroscopy coupled with advanced chemometrics methods has proven a valuable tool for not only conventional milk parameters but also providing new information on fatty acids profiling and screening for ketosis and abnormal milk.

These findings are promising for uncovering new herd management information for optimising herd as well as

individual cow performance, and for improving practical farm procedures and breeding programs.

Networking – expertise always online

A relatively new colour on the FOSS palette of options is the Mosaic networking software now available for CMT solutions. This allows support through the convenience of the internet for:

- Setup and support
- Instrument surveillance
- Calibration maintenance
- Performance monitoring
- Reporting

Some of the major challenges under our spotlight

- Consolidation
- Efficient lab operation
- Healthier dairy products
- Food safety
- Traceability
- Animal health
- Sustainability
- Hygienic quality

MilkoScan™ FT+

for routine compositional analysis

The MilkoScan™ FT+ is a high capacity, fully automatic milk analyser for payment and dairy herd improvement analysis. It employs Fourier Transform Infrared “FTIR” and is IDF and AOAC compliant.

Measuring capacity is 200, 300, 400, 500 or 600 samples per hour, subject to choice of model.

The MilkoScan™ FT+ employs a patented standardisation principle that enables transfer of calibrations between instruments, reducing the need and cost of calibration work considerably. Homogeniser efficiency and sample intake temperature is automatically monitored to secure optimal performance.

MilkoScan FT+ can be integrated with the Fossomatic™ FC somatic cell counter to form a CombiFoss™ FT+.



BactoScan™ FC+

for automated total bacteria count

BactoScan™ measures the hygienic quality of milk by analysing bacteria in raw milk. Delivering results in just nine minutes, BactoScan allows farmers or milk testing laboratories to take action fast to preserve and enhance milk quality.

BactoScan™ FC+ provides fully automated determination of the bacteriological quality of raw milk. It counts the total number of individual bacteria, based on flow-cytometry. In contrast to this, a standard plate count takes up to three days. Such rapid analysis can assist the farmer in an early detection of any breach in his milking hygiene.

The BactoScan method complies with IDF guidelines and is the only FDA/NCIMS approved rapid electronic counting method. It has become the industrial standard for counting bacteria in many countries all over the world, and in the EU more than 90 % of all milk supplies are paid based on BactoScan results.



Measuring capacity is 65, 130 or 200 samples per hour, subject to choice of model. The BactoScan™ FC+ is also available in a semiautomatic version without automatic sample conveyor and mixing. Two different levels of sensitivity are offered to allow for high quality results on all milk qualities.

Fossomatic™ FC for automated somatic cell count

Fossomatic™ FC performs accurate raw milk analysis using somatic cell counting. It is a high-capacity analyser that meets the demands of farmers in need of fast and reliable Dairy Herd Improvement, (DHI) results and for payment purposes.

Built on a winning combination of proven and leading-edge technology, Fossomatic™ FC is a robust solution that keeps the results flowing under the most demanding conditions such as dirty samples.

Fossomatic™ FC employs Dynamic Precision (patented) for undisputable grading accuracy. It employs waste separation for environmentally friendly operation.

Measuring capacity is 200, 300, 400, 500 or 600 samples per hour depending on choice of model.

The measuring principle is flow cytometry which complies with IDF and FDA/NCIMS requirements for somatic cell counting.

Fossomatic™ somatic cell counter can be integrated with the MilkoScan FT + to form a CombiFoss™ FT+.

Foss Integrator

Foss Integrator provides a common and powerful milk testing software platform for integrated analysis operations across different analysis instruments.

Analysers using the Foss Integrator software share a common user interface for easy learning, operation and maximum data safety. Foss Integrator provides automatic sample identification as well as automated analysis guided by sample ID's. It also offers performance checks, registration of QA data, customisable reporting, data export, built-in analyser- and software documentation and close integration with MicroSoft® office.

The common user interface makes operator training much easier and work planning more flexible. In a CombiFoss solution it greatly reduces manual sample handling and integrates results. The common conveyor system eliminates the need for sample re-arranging between CombiFoss and BactoScan™ analysis.



Configure your ideal solution

Capacity (samples/ hour)

CombiFoss™ FT+: 200 – 300 – 400 – 500 - 600
BactoScan™ FC+: 65 - 130 - 200

Sample presentation

- Pipette
- Conveyor 5000 Basic
- Conveyor 4000
- Left & right extensions
- Bracket for hinged lids
- Output Buffer
- Extra tray

Sample ID

- Barcode SW
- Barcode reader: horizontal, vertical, omni-directional or 2D scanning
- Radio Frequency Identification

Parameters

Fossomatic™ FC:

- Somatic Cells

MilkoScan™ FT+:

- Fat,
- Protein (true & crude)
- Casein
- Lactose
- Solids (TS & SnF)
- Urea
- Citric Acid
- Free Fatty Acids
- Fatty Acids Profile (15 Acids)
- Freezing Point Depression
- pH
- Ketosis Screening
- Abnormal Spectrum Screening

BactoScan™ FC+:

- Individual Bacteria Count



CombiFoss™ FT+

FOSS certified consumables

MilkoScan™ FT+:

- Zero liquid
- Cleaning Agent
- Fossclean

Fossomatic™ FC:

- Ready to use dye bags
- Buffer
- Rinse

BactoScan™ FC+:

- Buffer
- Staining medium
- Detergent
- Enzyme
- Rinse Concentrate

Software

- Foss Integrator operating SW
- Mosaic Network SW
- Advanced Data Communication
- Control Charts Option
- Automatic Job Control
- Data Export Spectrum Collection
- Calibration development tools

QA concept

MilkoScan™ FT+

- Equalizer for standardisation

Fossomatic™ FC

- Adjustment sample kit
- Dynamic Precision setup

BactoScan™ FC+

- Bacteria Control Sample

Accessories

- Tables
- Printer
- Extra trolley for Fossomatic FC
- Waste containers

Sample types

- Cow
- Goat
- Sheep
- Buffalo



The flexible laboratory

Whether you need to analyse milk from cows, buffalo, sheep or goats, FOSS solutions naturally provide the capability. Your analysers can be configured with FOSS global calibrations to your specific business requirements.

For payment, you can measure a range of well used and newer parameters such as Individual Bacteria Count, Somatic Cell Count, Casein, Free Fatty Acids, Freezing Point Depression, Fat, Protein, Solids ...and many more. While for herd improvement you can measure Somatic Cell Count, Urea, Fat, Protein, Fatty Acids profile, Ketosis and many more. And, depending on your setup, a wide range of service and support options are available.

These and other options are provided by a flexible analysis framework with a high degree of choice according to your business.

All instruments are fully upgradeable for capacity, parameters and software as your business develops.



Secure your investment with a FossCare™ Support Agreement

Let FOSS take care of you for a maximum return on your analytical investment. Get a four year warranty as part of the new FossCare Premium Preventive Maintenance Agreement or two years as part of any other FossCare agreement. In addition to the peace of mind afforded by the warranty period, the continual preventive maintenance pays off by keeping your analytical instruments working perfectly every day, year after year.

Why preventive maintenance?

As with any analytical solution, it is essential that your FOSS instrument receives regular maintenance to ensure optimal performance and extended lifetime. Avoiding expensive downtime is a matter of following factory standards and preventively replacing parts before they wear out. In turn, this helps ensure reliable and consistent results at the highest level.

Preventive and predictive maintenance combined with global support from 300 dedicated service, application, software and calibration specialists keeps your instrument running perfectly all year round.



Benefits of a FossCare™ Support Agreement:

- Extended Warranty (two or four years depending on the chosen agreement)
- Regular maintenance; the instrument is diagnosed, cleaned, adjusted, tested, fine tuned and recalibrated
- Minimal downtime from replacing components before they are worn out
- Consistent, accurate and reliable results you can always trust
- Preventative maintenance visits when it suits you (your business)
- 24/7 phone support - no need to worry about closing hours or PO
- Low, fixed service budget prevents unexpected expenses
- Discounts on additional services, spares, training, reagents, consumables and software upgrades

Centralised calibration, management and configuration of instruments

For dairy companies, and particular the ones with multiple sites, our sophisticated networking tools enable internet-based remote instrument monitoring and diagnostics. With this software, internal or external experts can precisely configure and monitor FOSS instruments regardless of their location. Calibration updates and bias corrections are easily and safely handled centrally through the network and the system can be monitored on a daily basis.



“

Because the machine has the ability to link directly to FOSS via the internet, and receive and transmit data, I have confidence of ongoing back-up support for the machine”

“... Networking with FOSS first of all provides us with “peace of mind” as we know there is a FOSS specialist managing and doing surveillance on our instrument. We have outsourced all complexity related to running our instrument, calibrations, diagnostics, etc. Networking makes sure that the performance of our entire setup is optimized at all times hereby allowing us to focus on our real business.”

“... Adjusting slope/intercept, etc. is surely not my expertise so it is valuable having FOSS do this.”

“... Having a large population of instruments the central security and management aspect of networking is extremely important. Operating our instruments is no longer dependent on having on-site specialists as all complexity is handled by our contact at FOSS.”

About FOSS and central milk testing

For decades, FOSS has worked side by side with milk testing laboratories with the goal of adding value to the central milk testing business.

Often the first with groundbreaking innovations in analytical technology, we aim to keep you a few steps ahead of the game with new analysis options for improved business opportunities. For instance, FOSS dedicated analytical solutions have proven significant for dairy-herd-improvement, raw milk testing, standardisation in dairy production and verification of end-product quality.

Today, trends such as increasingly sophisticated consumer tastes and the relentless pressure for profit improvement make FOSS dedicated analytical solutions more relevant than ever. They provide convenience, speed and labour savings, while delivering high analytical capacity and low cost per sample. Common issues such as the need for analytical results with minimal operational concerns about calibration, usability and instrument uptime are constantly kept in mind in the design of any FOSS solution.

Solutions for central milk testing cover compositional analysis, somatic cell count and hygienic quality of raw milk and are provided in a flexible solution framework with a high degree of choice according to your business.

FOSS

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