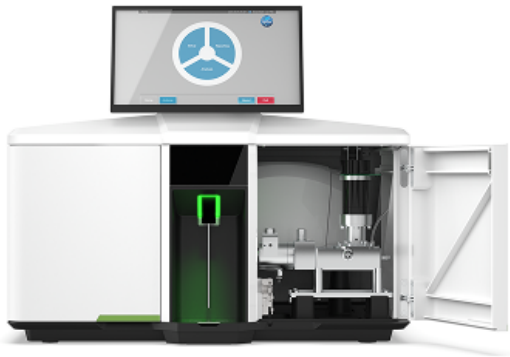
LactoScope 500 Delivers Next-Level Dairy Analysis, for Greater Accuracy, Stability, and Operational Control

SHELTON, CT, UNITED STATES, May 13, 2026 /EINPresswire.com/ -- Perten, a PerkinElmer company and global leader in analytical solutions for the food industry, today announced the launch of the LactoScope 500, a next-generation Fourier Transform Infrared Spectroscopy (FT□IR) dairy analyzer designed to help medium and large processors move beyond traditional testing limitations for greater control of quality, yield, and efficiency.



Fourier Transform Infrared Spectroscopy (FT□IR) instruments are widely used in dairy laboratories & production environments around the world to ensure food quality & consistency, reduce waste, improve yield, & support a more sustainable & resilient global food supply

FT□IR has become the industry standard for dairy analysis, yet many systems still struggle with variability in real□world production environments, particularly when analyzing high□fat or viscous products. Measurement instability, inconsistent sample preparation, and calibration drift can force processors to work with wider safety margins than necessary. The LactoScope 500 is engineered to address these challenges, delivering faster, more stable, and more repeatable results across the full range of dairy applications.

The LactoScope 500 provides rapid, multi□component analysis of fat, lactose, protein (including casein specificity), and total solids in seconds. This enables processors to operate closer to target specifications, reduce product giveaway, and make more confident quality and process decisions in real time.

“Too often, processors are forced to compensate for measurement uncertainty with wider safety margins,” said Paul Morrison, Managing Director at Perten. “The LactoScope 500 is designed to mitigate that tradeoff, giving customers the confidence to run tighter processes and capture more value from every batch.”

Designed to Solve the Industry's Biggest Accuracy Challenge

One of the most persistent challenges in dairy analysis is the impact of fat globule size and sample inconsistency on measurement accuracy. Many conventional systems rely on external or inconsistent sample preparation, introducing variability before analysis even begins.

The LactoScope 500 addresses this challenge at the source through a fully integrated dual‑stage high‑pressure homogenizer. By standardizing samples within the instrument, the system minimizes light scattering and spectral noise, delivering more accurate and repeatable results, particularly for demanding applications such as cream, yogurt, and ice cream mixes. This integrated approach eliminates additional preparation steps, improving workflow efficiency while increasing confidence in the data.

Engineered for Consistency in Production Environments

Beyond accuracy, long‑term stability remains a key concern with traditional FT‑IR systems, where calibration drift and environmental sensitivity can impact performance over time. The LactoScope 500 combines robust mid‑infrared optics, stable calibration models, and a rugged, vibration‑resistant design to deliver consistent results day after day. Integrated remote diagnostics further reduce downtime and simplify maintenance, supporting reliable operation in both laboratory and at‑line production environments.

Built for Modern Dairy Operations

A compact footprint, integrated computer, and intuitive 15‑inch touchscreen simplify daily operation and reduce reliance on operator expertise. Lower consumables usage helps reduce operating costs while supporting sustainability initiatives by minimizing waste and resource consumption.

"Processors are no longer looking for incremental improvements," said Damien Seroux, PerkinElmer's SVP Food Solutions. "They need reliable gains in performance, stability, and control. The LactoScope 500 delivers a more robust and integrated approach to dairy analysis, enabling greater confidence, consistency, and efficiency."

By enabling faster, more accurate, and more stable measurements, the LactoScope 500 helps processors reduce variability, improve yield, strengthen quality assurance, and support more sustainable dairy production.

About PerkinElmer

PerkinElmer is a global leader in analytical, measurement, testing, and bespoke life sciences services, serving customers across the life sciences, applied & industrial, and food markets. Drawing on nearly 90 years of pioneering innovation and engineering expertise, we support the science of our customers with insights of the highest standards of safety, quality and compliance for vital therapeutics, the integrity of the global food chain, the performance and sustainability of critical materials, and the sustainability of our environment. Together with scientists, laboratory

and quality leaders, and manufacturing operators worldwide, our 5,000 colleagues in 35 countries empower progress by providing trusted insights and services for a healthier, safer, and more sustainable world.

Perten is a global leader in analytical instrumentation for the food industry, delivering market-leading NIR analyzers, Falling Number systems, and calibration databases to customers in over 100 countries. With 60+ years of expertise, Perten solves the food quality testing challenges facing grain, flour, feed, and dairy processors by turning complex testing into fast, actionable insights. Purpose-built analyzers drive efficiency, consistency, and profitability, helping food processors cut risk, lift yield, and protect quality from farm to finished product.

For more information, visit: www.perkinelmer.com

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