



Interprofessional laboratories: how to guarantee reliable analyses?

Interview with Anne Pecou, head of CNIEL's laboratory assistance and standardization department

CNIEL plays a key role in ensuring the reliability of analyses for milk payments. Can you explain this to us?

This is indeed a key role played by CNIEL –its first, even. CNIEL must provide a guarantee to farmers, processors and authorities that the laboratory analyses carried out for milk payments are reliable and fair throughout France. To this end, CNIEL carries out technical monitoring and standardizes the methods used by the laboratories.

How does this work in practice? Each laboratory determines the composition and quality of milk based on the prescribed methods. Day-to-day, the lab follows documents explaining the technical procedures defined by CNIEL for controlling the quality of analyses. These CNIEL manuals serve as a reference for all laboratories, which therefore all share the same control plan and the same demanding analytic standards.

Finally, CNIEL experts are involved in the international authorities that discuss standards for analysis methods.

From this shared basis, each laboratory develops its own quality management system (ISO 17025 standard) and is accredited by the French Accreditation Committee (Cofrac), the benchmark in this field.

What does laboratory monitoring involve?

Two main organizations carry out monitoring: CNIEL and Cofrac. For Cofrac accreditation, each laboratory is audited by this body, which checks its technical skill and compliance with CNIEL methods and procedures. Cofrac accreditation is an important stamp of credibility for the industry.

In addition to analyses, it is also essential to check the reliability of the process of taking and storing samples, since the results must be representative of the composition and quality of the milk delivered. Therefore, each laboratory also receives a visit from a CNIEL auditor. Every 18 months, this audit checks the correct implementation of all quality procedures.

CNIEL's National Commission for Assistance and Harmonization (CNAH) examines the audit reports and supports laboratories in their quality management approach.



Cofrac accreditation and the CNAH certificate of compliance with CNIEL standards express the trust placed in laboratories for carrying out analyses for milk payments. The laboratories are recognized by the French Ministry of Agriculture.

CNIEL organizes interlaboratory testing programmes to check the consistency of analyses across France. Every two months, the same series of specially prepared samples are sent to the laboratories for analysis.

CNIEL processes the results and every laboratory can check its accuracy and compare its performance with the other laboratories. CNIEL also sends each lab a record. This process ensures appropriate lab performance and the reliability of results over time.

I would also like to emphasize the proactive role played by CNIEL on behalf of the industry in studying new analysis methods and equipment.

For example, new models of analytical instruments or automatic samplers are all evaluated and approved at a national level before being authorized for use for milk payment analyses.

This sort of initial technical control guarantees that routine quality objectives can be met.

What procedure has been set up for taking milk samples for analysis?

What you need to know is that a sample is taken systematically by the tanker drivers who collect milk from farms. The laboratory makes a round of the dairies to collect these samples. Every month, it analyses at least three random samples to assess the milk's composition and quality: the farmers and the dairies do not know when a sample will be analysed. The results of these analyses are critical for farmers since they are taken into account for milk payments. This explains the importance of the quality procedure implemented with CNIEL's support to guarantee the reliability of the 20 million annual analyses carried out by France's 17 interprofessional laboratories. The quality of the analysis results does not only depend on the quality of the operations carried out in the laboratory. The "quality chain" starts when a sample is taken from a farm's storage tank. It also includes the sample's transportation and refrigeration on its way to the laboratory. Finally, it integrates the processing of lab results and how they are used to determine the price of milk payments.

Quality concerns everyone. For this chain of operations, the traceability of samples and results is essential.

Employees are trained, engaged, and work rigorously and effectively on a daily basis. That's quality: a major issue indeed!