How Qlip assures accuracy of their testing results?

Qlip is Europe's largest milk testing laboratory testing 15 million raw milk samples per year.

2,5 million Milk Quality payment samples routinely analysed on behalf of processors such as FrieslandCampina, Bel Leerdammer, DOC, A-ware & Cono.

12 million Herd Recording samples are routinely tested on behalf of CRV Delta (Dairy Herd Improvement organisation which runs largest Milk Recording Program globally). Qlip follows internationally recognized ISO standards and is an ISO17025 accredited laboratory. To support the calibration of the routine testing analysers, Qlip produces Calibration and Control Samples as well as performing many additional analyses. To assure the quality of routine testing of raw milk Qlip analyses over 150,000 control samples of raw milk.

Each year, Qlip performs over 200,000 Rose Gottlieb (fat) and Kjeldahl (protein) analyses, 90 percent of which are carried out in duplicate. These duplicate analyses are used by Qlip to calculate the Uncertainty of Measurement of the Calibration Material, currently **+/- 0.01%** for fat and protein.

What does this mean for you?

After making a significant investment in a Filter of Fourier Transform milk analyser to rapidly test dairy products and generate reliable results, it is important to maintain the accuracy using Calibration and Control samples.

Three main factors influence the robustness of the calibration line.

- Analyser performance
- Calibration sample range
- Calibration sample Uncertainty of Measurement

Analyser performance is down to your choice of Manufacturer and is out of our hands. However, we can and do supply Calibration samples with the widest component ranges with the lowest Uncertainty of Measurement.

For example, the Raw Milk Calibration Samples have Ranges of 6% for fat and 5% for protein and Lactose. The combination of these ranges with the low Uncertainty of Measurements guarantees you a robust and reliable calibration line.

What is the impact if you can improve the accuracy of your instrument by 0.01%?

For a dairy processor, which process monthly over 31 million kgs of raw milk, an improvement of 0,01% accuracy for testing protein will save monthly a value of €18,750 on protein and €9.375 on fat! The financial impact on your production process of an accurate calibration of your instrument is immense!

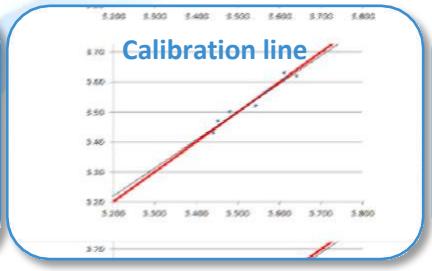
IMPACT OF ACCURACY IMPROVEMENT OF TESTING DAIRY PRODUCTS
Calculation for dairy processor with own dairy farmers / raw milk suppliers

# raw milk suppliers (farms)	500 farms
annual milkproduction / farm	750.000 kgs of milk
Total annual milk supply	375.000.000 kgs of milk
Monthly milksupply	31.250.000 kgs of milk

Improved accuracy of testresult	0,01%
Annual saved product	37.500 kgs

RAW FARM MILK	Price (£ / 100kg)	*Annual saving*	Monthly saving
Protein	£ 600	***£ 225.000***	£ 18.750
Fat	£ 300	***£ 112.500***	£ 9.375
Lactose	£ 60	***£ 22.500***	£ 1.875

How can I achieve an improved accuracy of my instrument and assured quality of my testing results?



CALIBRATION → *DAILY CONTROL with Control Samples*

○ ISO 17025 ACCREDITED METHODS ○ FAT BY ROSE GOTTLIEB ○ PROTEIN BY KJELDAHL ○ LACTOSE BY HPLC ○ SOLIDS BY OVEN	○ WIDE RANGES ○ LOW UNCERTAINTY ○ OPTIMUM ACCURACY ○ ROBUST CALIBRATIONS	○ CONTROL CHARTS ○ ISO RECOMMENDED ○ OPTIMUM ACCURACY
○ AVAILABLE REFERENCE MATERIALS	○ COW MILK ○ GOAT MILK	○ RAW MILK ○ HOMOGENISED MILK ○ CREAMS ○ WHEY PRODUCTS ○ CUSTOMIZED PRODUCTS

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