

How we work

cdR is involved on solve analytical routine apply, bringing the best technology to simplify and reduce cost of quality control. Our analytical system is dedicated to be use everywhere: in a lab, close the production and on the field. To optimize as best our system we take in care all the steps of the project: we produce directly chemicals, electronics and software. Thanks to the synergy we can offer you reliable system that will became the reference of your Quality Control.

Our Results

TEST	Linearity	Sensitivity	Discriminant capacity	Accuracy	Repeatability	1 test reading time	A batch reading time	Calibration curve
L-Lactic acid on Milk	60 ppm	2 ppm	2 ppm	± 10%	CV < 6%	8 min	(14 test) 1 min/test	R ² > 0,99
Ammonia Milk	50 ppm	1 ppm	0,5 ppm	± 2%	CV < 4,5%	8 min	(14 test) 1min/test	R ² > 0,99
Chloride Aqueous sol.	5 g/dL	0,05 g/dL	0,01 g/dL	± 5%	CV < 6%	5 sec.	> 60 test/h	R ² > 0,99
Chloride Milk	300 mg/dL	50 mg/dL	10 mg/dL	± 2%	CV < 2,5%	5 min	10 min >1 min/test	R ² > 0,99
Urea Milk	100 mg/dL	5 mg/dL	1 mg/dL	± 1%	CV < 1%	8 min	(14 test) 1 min/test	R ² > 0,99
Peroxides value high	150 mE/Kg	8 mE/Kg	10%	± 5%	CV < 2%	3 min.	> 60 test/h	R ² > 0,99
Peroxides value low	20 mE/Kg	0,5 mE/Kg	10%	± 5%	CV < 3%	3 min.	> 60 test/h	R ² > 0,99
Fat Acidity value high	3,5%	0,1%	10%	± 2%	CV < 2%	5 sec.	> 100 test/h	R ² > 0,99
Fat Acidity value low	0,5%	0,01%	10%	± 1%	CV < 3%	5 sec.	> 100 test/h	R ² > 0,99

The linearity (range of value reachable) can be personalized by calibration to meet client needs .

Our Validations

All the complete validation show below are available

OUTCOME OF THE TEST CARRIED OUT BY LABORATORIO STANDARD LATTE OF ITALIAN BREEDERS ASSOCIATION

The analytical method and the instrument were compared, with positive results, to the official methodologies at laboratories of principal dairy industries. In particular the test of the Urea has been verified in the Laboratorio Standard Latte (Standard Milk Laboratory), credited SINAL no. 138, of the Associazione Italiana Allevatori (Italian Breeders Association).



OUTCOME OF THE TEST CARRIED OUT BY THE NEOTRON LABORATORY

"The Cdr FOODLAB is easy to use. The tests carried out relative to the determinations of the number of peroxides, acidity have shown excellent photometric linearity of the instrument and the results are comparable to those of the tests carried out in parallel using ISO method for number of peroxides and acidity".



OUTCOME OF THE VALIDATION CARRIED OUT BY THE PARMALAT QUALITY ASSURANCE LABORATORY

"The AMMONIA TEST give the result directly, expressed in ammonia milk concentration without needs preliminary treatment of the ample than use of glasses and reagent except R2. to use." *Test/time 10 minutes against 15 min (dedicated electrode method)*
 "The L-LACTATE TEST needs only a minimal practise to add reactives R1 and R2, because it is not ask preliminary treatment of the milk sample; the result is expressed directly in concentration (ppm) of L-Lactate." *Test/time 10 min against 80 min (Boemger method)*



Advanced system for chemical test on raw and pasteurized milk, whey, cheese and dairy products



The FoodLab System makes quick and simple quality analysis on different food matrices. The Dairy dedicated test available use raw sample without any special preparation



- Urea (milk)
- L-Lactic Acid (milk - whey)
- Ammonia (milk / cheese)
- Chlorides (milk)
- Chlorides (whey and watery solution)
- Chlorides (cheese)
- ALP Alkaline Phosphatase (milk)
- Hydrogen Peroxide (milk)
- Fat acidity (butter)
- Fat peroxides (butter)

milktest
www.milktest.com

Our References



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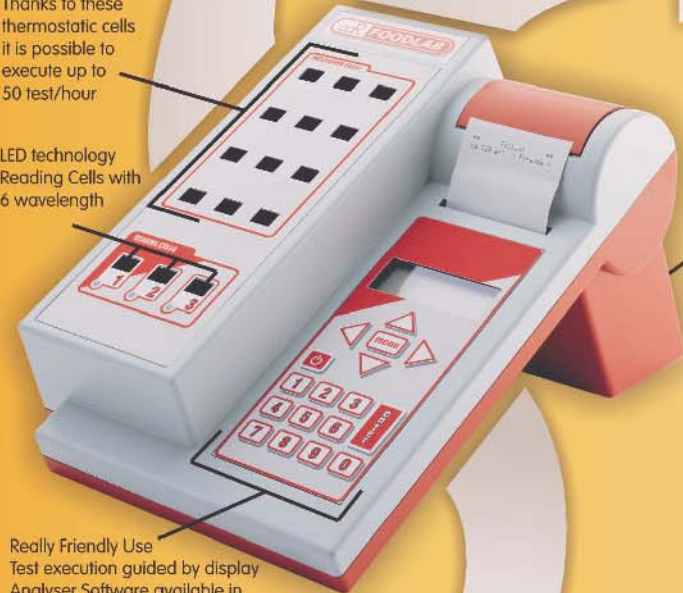


CHECK THE QUALITY AT MILK ACCEPTANCE:

- L-LACTATE:** specific by-product is the unequivocal index of microbiological quality of raw milk. This index unveils the true history of the milk from the origin whether thermic treatments and pH corrections.
- AMMONIA:** specific by-product of psychrophilic bacteria it's basic on quality and freshness evaluation of pasteurized milk
- CHLORIDE:** permit to unveil salt solution added to milk not recognized by cryoscopy test
- UREA :** it is a basic feedback to the cows breeders to improve and optimize the alimentation (unveil urea added to milk to increase protein value with traditional evaluation)
- HYDROGEN PEROXIDES:** it is addicted to milk to reduce bacteria in sheep milk, so cheese production may be altered
- PEROXIDES IN MILK FATS:** unveils a past oxidation stress of the milk

Thanks to these thermostatic cells it is possible to execute up to 50 test/hour

LED technology Reading Cells with 6 wavelength



Really Friendly Use
Test execution guided by display
Analyser Software available in different language: english, french, spanish, (other on request)

PROCESS QUALITY CONTROL:

- L-LACTATE:** it's useful to monitoring the vitality of the whey making cheese.
- CHLORIDE:** to check the brine on mozzarella and cheese production
- HYDROG. PEROXIDE:** unveil sanitizing solution residual in tubes and in Aseptic Tetrapack packaging line

- Alphanumeric sample index
- Serial port to connect PC (data available in XML)
- Compatible with LIMS system.
- Software up-gradable: *new test methodology can be implemented directly, free of cost, to have always the latest version of the FoodLab.*
- Port available for a barcode gun (ISO tracing)

Test in progress 2003

Check their future availability on www.milktest.com

The Foodlab System will be more versatile. We encourage you to submit us the test you like to see in this list!

- Alkaline Phosphatase (milk)
- Peroxidase (milk)
- Real Protein (milk)
- Nitrites and Nitrates (milk)
- Total Fats (milk)
- Lactose (milk)
- Galactose (milk)
- Glucose (milk)
- Thermic indicator (Furosine likes)

When it is request the best portability to perform analysis the Handy Food is the best solution. It brings the same accuracy of FoodLab and may be customized to execute up to 3 analyses. Need only a 12 volt plug as the car lighter plug or a battery to be used outdoor. RS232 port for PC connection



A new point of view on food chemical analysis



The Foodlab System concept is to make quickly and simply perform the routine quality analysis meet the short timing requested by production needs. An unique true versatile tool able to perform different chemical quality test which have a common methodologies based on prefilled mono-use cuvette where it is put the sample using the micro pipette set. Specific reagents develop colorimetric reaction, read photometrically by LED technology. Thanks to these solutions the FoodLab is really useful in a lab, closed to the production and as a portable analyser. With FoodLab it became possible to localize control at the milk acceptance where also specialized worker can perform the analysis with effortability and precision.

This new concept introduces real new vantages in the Quality Control Management:

- A standalone analyser system, all inclusive, just ready to work
- Free of maintenance and daily calibration free
- No more waste of unused reagents thanks to prefilled cuvette
- It is not need glass or other lab's material
- Use of milk sample without preparation
- Friendly use and really fast and simple training
- Great reliability with 3 years warranty
- Very light environmental and waste impact because it is free of high toxic compounds and really low quantitatives of reactive.



How it works: (Urea test in the example below)

The analytic procedure is similar for all the test available . All the step doesn't request more than 9 minutes. Because the FoodLab doesn't request extra time for calibration or cleaning, the timing is the real. The Foodlab is true versatile: it is possible to execute single test, different kind of test in the same time and batch of test up to 50 -100 test/h depending on kinds. There is not extratime changing analysis and the FoodLab is always ready.



1 Selection of the test



2 Addition of 5 µL of sample



3 Agitation of sample



4 5 min. Incubation



5 Blanking



6 Addition of 200 µL of reagent



7 3 min. Incubation



8 Reading of the reaction



9 Printout of results