



ICAR International Interlaboratory Proficiency Study Scheme

General

From network creation in 1996, ICAR has proposed to network members international interlaboratory proficiency study programme dedicated to main (cow) milk component of interest for milk recording. This has been made possible thanks to early partnerships established with the French (non profit) association CECALAIT and later on, from 2002 to 2005, with the Italian organisation AIA-LSL for the development of similar international PT programmes for sheep and goat milk analysis.

ICAR PT trials have been proposed for the laboratory participation on a voluntary basis to help them to comply with analytical quality assurance requirements.

Indeed, the system of Certification of Quality implemented by ICAR from 2006, includes a recognition of the competence of laboratories, and more widely of analytical systems in ICAR member organisation, and requires regular PT participation with international anchorage.

Current news

In Year 2011, participation in the ICAR proficiency testing scheme has shown a slight increase as compared to 2010 with the respective numbers of participation in March/September 2011, 15/19 for fat, 18/18 for protein, - 14/16 for lactose, 16/16 for somatic cell counting and 13/14 for urea.

However the today participation represents but the half of the network members since then enlarging the participation in PTs to all the laboratory members of the network is the most desirable objective for the next future. As well need is to complete the network representative-ness for all the dairy organisation member of ICAR and involve the new ICAR members in the laboratory network and PT trials.

So this letter is the occasion for a recall on the interest of the reference system so-developed which serves both individual member organisations and the ICAR milk recording community and a renewed invitation to join the network and make it grow - hence more and more representative and effective - to provide accurate analytical traceability and anchorage to ICAR laboratories.

Programme 2012

As in the former years, there are two interlaboratory study series scheduled in 2012, the 33rd and 34th trials from 1996, in March and September 2012 respectively. They concern the determination of fat, protein, urea and somatic cell counting and lactose in cow milk. They will be organised by the French association ACTILAIT by its eastern site located in Poligny ACTILAIT-CECALAIT.

Particular cautions for registration

It is important to have in mind that two registration forms are needed :

- the Actilait-Cecalait form, according to regular Actilait-Cecalait trials or as appended in Annex page 11, to receive the samples and obtain an individual performance report.
- the authorisation form for data use, which can be either permanent or yearly renewable (page 9), to benefit of ICAR group statistical evaluation and group discount.

Particular cautions for international delivery

Large delays can result from missing exact fulfilment of the custom requirements of the importing country so need to update Actilait-Cecalait on the local custom requirements and the latest changes.

For new participant particular attention should be brought to the first trial to check transport effectiveness and where needed enable possible improvement with regard to delays. The most adequate way for sample transport and delivery will be determined.

Details of the annual programme are provided here below in a specific information sheet including the registration forms.





ICAR INTERLABORATORY PROFICIENCY STUDY PROGRAMME 2012



ANALYTICAL METHODS FOR COW MILK

- TECHNICAL INFORMATION -

1) **Methods to apply:** Reference methods used by the participant to calibrate its automated routine methods for fat and protein, and all methods for somatic cell counting, lactose and urea.

Attention: Applying infra-red measurements cannot provide an effective evaluation of lab performances like with chemical methods. Infra red read-outs are influenced by variability in fat and protein composition. Therefore, laboratories in different countries and regions will work with different calibration settings. Measuring trial samples with infrared would hamper a fair comparison and a proper interpretation of the results. Centralised calibration can only be a specific choice of the country that can apply IR trials in its national schemes.

2) **Samples:**

- 10 whole milk samples: preserved with 0.02 % bronopol, regularly ranging from 1.5 % to 4.9 % fat and from 2.5 % to 4.0 % crude protein (TNx6.38)
- 10 whole milk samples: preserved with 0.02 % bronopol, regularly ranging from 4.6 % to 5.1 % lactose
- 10 whole milk samples: preserved with 0.02 % bronopol, regularly ranging from 50 to 1600 x10³ cells/ml
- 10 whole milk samples: preserved with 0.02 % bronopol, regularly ranging from 10 to 70 mg urea /100 ml
- 3 Kjeldahl solutions: 1 tryptophan + 1 Glycin + 1 ammonium sulfate, at N concentration of milk
- 1 lactose solution : at the concentration of milk.

3) **Dispatch conditions:**

- **packaging :** 65 ml or 35 ml polyethylene screw-capped vials with airtight joints.
- **number of samples :** 1 set of 10 samples for fat and protein measurements (nitrogen by Kjeldahl), 1 set of 10 samples for lactose measurements, 1 set of 10 samples for SCC and 1 set of 10 samples for urea.
- **dispatch :** by express carrier with ice in isolated boxes => arrival within 1 day (for most European countries) up to 5 days, depending on the consignee's country.
- **storage in the laboratory:** samples must be stored at 4°C upon arrival and should be analysed for SCC no longer than 5 days, and for chemistry no longer than 10 days, after the dispatch date.

4) **Date of sample dispatch :**

	1st trial	2nd trial
Europe and next to	: 5 March 2012	3 September 2012
Arrival expected	: from 6 to 10 March 2012	from 4 to 8 September 2012

5) **Statistical treatment:**

Evaluation versus the participant group (network reference) with the whole group presentation (anonymous) :

- * assessment of repeatability (duplicates requested)
- * assessment of accuracy
- * assessment of calibration (where needed)
- * assessment of linearity (where needed)
- * laboratory evaluation through a ranking table and a target figure.

Evaluation versus ACTILAIT-CECALAIT reference values with individual bulletins of own results and scores.



ICAR INTERLABORATORY PROFICIENCY STUDY PROGRAMME 2012



ANALYTICAL METHODS FOR COW MILK

- REGISTRATION / AUTHORISATION FORM FOR DATA USE -

Laboratory name: Country :

Address: Telephone:
..... Fax:
..... E-mail :

Name of the contact:

Aware of that

- ICAR interlaboratory proficiency studies for fat, protein, lactose, urea and somatic cell determination are organised by the proficiency trial organiser ACTILAIT-CECALAIT under the umbrella and on behalf of ICAR, following technical requirements defined in an annual convention passed between ICAR and ACTILAIT,
- ICAR interlaboratory proficiency studies are performed according to the same experimental design and using the same samples as those of ACTILAIT-CECALAIT trials organised at the first quarter (March) and third quarter (September) of the year,
- ICAR interlaboratory proficiency studies are specially organised in the frame of ICAR Reference Laboratory Network so as to help members in self-evaluating by comparison with peers for the objective of analytical quality Assurance in national and international milk recording and, as such, are parts of a general quality assurance system implemented by ICAR,
- ICAR interlaboratory proficiency studies enable to provide, beside the assessment of own quality by individual scores, a collective technical information (anonymous) on methods/participants behaviour for the benefit of users,

the above-named organisation/laboratory by the present form hereby :

- requests to participate in ICAR PT programme therefore gives its authorisation to the organiser ACTILAIT-CECALAIT to utilise its results addressed during the normal course of ACTILAIT-CECALAIT trials for the purpose of ICAR statistical treatments, for the analytes or measurands or criteria proposed in ICAR trials.
- declares the present form as a complement to the ACTILAIT-CECALAIT order form so as to benefit of the specific ICAR rates for the defined ICAR criteria, according to the conditions here-after appended.
- declares the above-mentioned authorisation valid for network trials of Year 2012 only. It should be annually renewed for further yearly application by the laboratory [] (*)
- declares the above-mentioned authorisation valid permanently for the Year and subsequent years until cancellation by simple request of the laboratory [] (*)

Date:

Signature :

(*) tick in the square where appropriate / cross out the sentence where inappropriate

Please, return to : ACTILAIT-CECALAIT, B.P. 70129, 39801 POLIGNY CEDEX, France - Fax : 33.3.84.73.63.29

BY : 20 February 2012



ICAR INTERLABORATORY PROFICIENCY STUDY PROGRAMME 2012



ANALYTICAL METHODS FOR COW MILK

- CONDITIONS OF PARTICIPATION -

- 1- Registrations are made through the unique form of physicochemical proficiency testing on raw milk of ACTILAIT-CECALAIT so as to avoid confusion between different schemes :

The form is for common use to ICAR and ACTILAIT-CECALAIT interlaboratory proficiency studies carried out in parallel. As such it allows to register for more criteria than the only required by ICAR for other purposes but such extra registration would be for CECALAIT treatment only. The first (March) and third (September) columns relate to ICAR network trials.

In addition an individual authorisation for analytical data use in the network treatment is specially requested through a 2nd form "Registration/authorisation form for data use". It can be valid for the year, then to be renewed every year, or be permanent until it is denounced. Its role is to avoid multiple registrations and prevent from mistakes / forgetting thanks to systematic registration to ICAR.

In case prior registrations were already made for ICAR criteria using the only form of the ACTILAIT-CECALAIT service catalogue, it is only needed to return the "registration/authorisation form for data use".

If ever you have not registered for all the ICAR criteria you need, you can address a modification of the former order by the deadline mentioned.

- 2- ICAR compounds/criteria proposed are fat, protein, lactose, urea and somatic cell counting. Fat and protein relate to the reference methods used to calibrate routine analytical devices. Fat and protein results obtained with infra-red spectroscopic methods cannot be taken into account in the statistical treatments since they cannot provide valid performance evaluations.
- 3- Rates are those of ACTILAIT-CECALAIT with the advantage of the 10 % discount for consistent groups of more than 10 participants and shipping costs are real costs invoiced by express carriers, according to the same principle as in ACTILAIT-CECALAIT trials :

Table with 3 columns: Network PT fees (Euros out of VAT per trial), ACTILAIT/CECALAIT members (*), Others (non members). Rows include Participation fees, Shipping cost, Organising, Fat, Protein, Lactose, Urea, and Somatic cells.

(*) Membership is opened to every laboratory worldwide through paying an annual membership fee (www.cecalait.com)

Extra bank transfer charges where applied are owed by the ordering laboratory. Invoicing and payment recovery are made by Actilait-Cecalait with payment due by 45 days after invoicing according to Actilait-Cecalait rules.

- 4- Two statistical treatments are provided : Individual score bulletins distributed by ACTILAIT-CECALAIT on one hand, and the general network statistical treatment of ICAR.

TO BE FILLED IN BY ACTILAIT

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N° CECALAIT®:	
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N°:	
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**REGISTRATION FOR PHYSICO-CHEMICAL PROFICIENCY TESTING
ON RAW MILK IN 2012**
(this sheet is equivalent to an order form)

Tariffs for each dispatch:

	CECALAIT® subscriber	non-subscriber
Registration fees	51.62 €	77.42 €
Participation fees (for each test)	51.62 €	77.42 €
Supplement for total and non-protein nitrogen	10.32 €	15.50 €

(these prices do not include postage and packing for international delivery or VAT)

Special conditions: for associations or groups with at least 10 participating laboratories: 10 % discount**Payment conditions:** within 1 month receiving of invoice

Name and delivery address (or company stamp):	Name and invoicing address:

Name of the person in charge of the laboratory:

TEL:

FAX:

e-mail:

Intra-community VAT no.:Prefers to have results and comments sent back in FRENCH ENGLISH *(delete as applicable)*

Wishes to participate in the following CECALAIT® proficiency testing (fill in the appropriate box):

TO BE FILLED IN BY ACTILAIT ---

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PHYSICO-CHEMICAL PROFICIENCY TESTING ON RAW MILK	Cecalait +ICAR dispatch : 5 Mar 2012	Cecalait dispatch : 4 June 2012	Cecalait + ICAR dispatch : 3 Sept 2012	Cecalait dispatch : 3 Dec 2012
FAT BY GERBER				
PROTEIN BY NOIR AMIDO				
FAT BY ROSE-GOTTLIEB				
TOTAL NITROGEN + NPN				
NON CASEIN NITROGEN				
DRY MATTER				
LACTOSE				
FREEZING POINT BY CRYOSCOPY				
UREA				
SOMATIC CELLS				

*NB: we reserve the right to cancel a criteria if there are less than 10 participating laboratories
Samples may arrive on a bank holiday in your country: please, be careful*

SIGNATURE*

DATE

* Signing this order form implies that you have read and accepted the proficiency testing regulations

RETURN TO: ACTILAIT-CECALAIT®, B.P. 70129, 39801 POLIGNY CEDEX FRANCE - Fax: 33.3.84.73.63.29
BY: 20 February 2012 for the first dispatch, then at least 10 days before each dispatch
ICAR Laboratory Network Programme 2012 - 5/5