
Report of the ICAR Sub-Committee on Milk Analysis

O. Leray

Actilait-Cecalait, BP 70129, 39802 Poligny Cédex, France

The scope of the subcommittee has been broadened to include and every analytical methods, devices and systems whatever the location of analysis. Accordingly the group was renamed in Sub-Committee on Milk Analysis (MA SC).

Introduction

At the date of the present report, the Sub-Committee is composed of 10 members:

- Christian Baumgartner (Germany).
- Egil Brenne (Norway).
- Roberto Castañeda (Argentina).
- Marina Gips (Israel).
- Olivier Leray (France).
- Silvia Orlandini (Italy).
- George Psathas (Cyprus).
- John Rhoads (United States).
- Gavin Scott (New Zealand).
- Harrie Van den Bijgaart (The Netherlands).

From the last ICAR session the foreseen extension of the membership to Latin America was concretised with Roberto Castañeda (manager of INTI-Lacteos, Argentina) as a new member. Uggo Paggi retired and was replaced by Silvia Orlandini from the same organisation AIA-LSL.

Further membership extensions to other areas such as Asia and Africa are still planned to enlarge worldwide representation in MA SC.

The activities were carried out thanks to email communication and regular meetings either of the whole Sub-Committee or of part of it (project groups) as follows:

- MA SC: München (Germany) , 23 May 2007, IDF/ISO Analytical Week 2007.
- MA SC: Montreux (Switzerland), 22 May 2008, IDF/ISO Analytical Week 2008.
- MA SC: Niagara Falls (USA), 17 June 2008, 36th Biennial ICAR Session.
- PG Reference system ; PG Education & Training: Rome (IT), 18-19 October 2007.
- Working Party on On-farm Milk Analysis (1st meeting): Rome (IT), 27 November 2007.
- PG Reference system: Joint ICAR/IDF meeting: Berlin (DE), 20-21 January 2008.
- Working Party on On-farm Milk Analysis (2nd meeting): Niagara Falls (USA), 17 June 2008.

Working programme and current activities

A working programme was drawn up according to proposals and conclusions of the laboratory meetings in Kuopio (Reference Laboratory Network and MTL WG) and was approved by MA SC in early 2007. It is split into ten work items/ fields dealt with each by two to five project leaders from MA SC (see Annex). The status of current activities is reported in the minutes of MA SC meeting in Montreux (CH) on 23 May 2008 and Niagara Falls on 17 June 2008. Significant progress is noted.

Key issues

An horizontal working group called Working Party on on-farm Milk Analysis (OMA WP) was created in the end of 2007 to define guidelines suitable for milk analysers installed on-farm.

Milk analysis on-farm

OMA WP is composed of Marina Gips, Christian Baumgartner, Harrie van den Bijgaart, Olivier Leray (SC Milk Analysis), Pierre Billon (SC Recording Devices), Jean-Michel Astruc (WG Milk Recording in Sheep), Filippo Miglior (WG Lactation Calculation Methods), Reinhard Pauw (TF Milk Recording Practices), Norbert Wirtz (WG Animal Recording Data).

A draft document for guidelines was produced and circulated for comments to the members of OMA WP. The draft was discussed in Niagara Falls to prepare last amendments. Completion of work was targeted to end of 2008.

Milk analyser approval by ICAR

Launching of the process was made in July 2006 with a dispatch of information to main (known) manufacturers in July and September. Since then additional interests have been shown by manufacturers for:

- Defining a procedure to carry out milk analyser evaluation in three countries in short delays, either in parallel or in sequence, as an alternative to the step-by-step way based on three national approvals. MA SC proposal is it would be directly managed by ICAR (Service-ICAR) in contact with manufacturers and ICAR would entrust expert laboratories to carry out the evaluation work.
- Broadening of the scope of the ICAR protocol (limited today to rapid routine milk recording analysers) so as to enable evaluation/approval for manual analysers as possible master instruments.

Adaptations of procedures should be developed accordingly.

International reference systems

The ICAR analytical quality assurance system involving the ICAR Reference Laboratory Network has shown evidence for a strong potential in the harmonisation of analytical results through international reference materials. Such an approach is being thought through and developed jointly by ICAR and IDF in an IDF project on somatic cell counting. Four experts of MA SC participate tightly in the project as project leaders. The aim will be to provide reference materials for SCC internationally recognised and used for both regulatory and private purposes in a sustainable way. Service ICAR might be involved at the stage of practical implementation. The project is at a start-up stage.

It was renewed in 2007 and 2008 for cow milk with no change and renewal for 2009 was approved in Niagara Falls. The convention between Service-ICAR and the organiser (Actilait/Cecalait, France) will be updated and the new proposals for 2009 dispatched with the usual annual information/announcement letter in December. Proficiency studies in sheep and goat milk analysis are still not proposed in 2008 but the door is open in case needs are expressed by laboratories for 2009. An update of the laboratory network situation and proficiency study activities as made in Niagara Falls during the meeting of ICAR Reference Laboratory Network and are reported in relevant proceedings.

Annual international proficiency testing programme

It has been identified as a new issue of major importance in analytical harmonisation. Today it is developed mainly through communication in dedicated workshops. In this way, regular meetings of ICAR Reference Laboratory Network during biennial ICAR sessions are appropriate to provide general orientation and promote optimum methods and practices.

Education and training

A reflection is underway about ways and supports through which suitable information can be distributed to laboratories in ICAR countries. A preliminary document was produced. The principle lies in education and training actions to be made through lab network members and MA SC to promote national/local action and indicate essential points, provide standard tools.

On the latter point, the possibility to develop video clips as supports to analytical method standards is under consideration by both ICAR MASC and IDF.

Regular information is given by e-mail through the annual letter on reference laboratory network activities and the updates of the list of network members, through the website of ICAR where report, survey results, protocol, procedures, etc are posted, and thanks to open meetings of MA SC and ICAR Reference Laboratory Network held during international events such as ICAR sessions and IDF/ISO analytical weeks.

Information to ICAR and ICAR members

As an example, the last laboratory workshop held in Niagara Falls was made to get provision of information on existing reference and calibration system within ICAR and point out adequate procedures and methods. Presentations and findings will be all reported and posted on the website of ICAR.

Development of tools to improve the access to information is underway (on-line questionnaire on laboratory situation) or under consideration (ICAR laboratory data base in milk recording).

The next meetings will be organised during the next IDF and ICAR international events as follows

Next meetings

- Kislovodsk (RU), 18-22 May 2009, IDF/ISO Analytical Week 2009.
- Montreal (CA), 17-21 May 2010, the IDF/ISO Analytical Week.
- Latvia, 1-4 June 2010, 37th ICAR Session.

Four yearly programme of Sub-Committee on Milk Analysis (MA SC) 2007-2010

Work item	1	2	3	4	5	6	7	8	9	10	11
Theme	Analytical QA (toolbox)	Analytical QA (toolbox)	Analytical QA (toolbox)	Analytical QA (toolbox)	Analytical QA (toolbox)	Laboratory network & harmonisation	Laboratory network & harmonisation	Laboratory network & harmonisation	Laboratory network & harmonisation	Laboratory network & harmonisation	International co-ordination & consistence
Title	Guidelines on organising proficiency study	Guidelines on organising centralised calibration	Guidelines on on-farm analytical devices	Reference materials	ICAR approval of new milk analysers	On-line questionnaire on laboratory situation within ICAR	Website data base on laboratories of ICAR countries	International proficiency studies	Reference Laboratory Network meeting	Education & training on analytical matters	Liaison to other (international) groups of experts
Experts	<i>O Leray G Psathas S Orlandini</i>	<i>C Baumgartner O Leray S Orlandini</i>	<i>C Baumgartner H v d Bijgaart M Gips O Leray E Brenne</i>	<i>C Baumgartner O Leray S Orlandini</i>	<i>3 examiners + All</i>	<i>G Psathas G Scott + ICAR HO</i>	<i>O Leray G Psathas + ICAR HO</i>	<i>O Leray S Orlandini</i>	<i>All</i>	<i>C Baumgartner S Orlandini + ICAR HO</i>	<i>H v d Bijgaart O Leray</i>
Objectives	ICAR guidelines and IDF/ISO IS	ICAR guidelines and IDF/ISO IS	ICAR guidelines	To be considered	Eval. report examination / advising ICAR	Two-yearly information	Regular updated information	Evaluation services	Two-yearly information	Improving laboratory testing performances	Information and feed-back / Horizontal work
2007	- Introduction - Outlines	- Introduction - Outlines	- Introduction - Outlines	Consideration for interest : - Provision of information - Guidelines on RM Qualification - Qualifying RMs	On-going process			Annual Programme	Programming	Elaboration of supports for teaching/training (movies on methods)	Setting up of a horizontal ICAR working party on on-farm testing (<i>composition, work programme, meeting</i>) Liaison persons with IDF MCM & QASADS SC
2008	Working draft	Working draft	Working draft		On-going process	Definition of content, structure, reporting	Content & design definition	Annual Programme	Organising	On-going process Video clip project	Meeting of on-farm testing WP
2009	- Reviewed draft - MO draft	- Reviewed draft - MO draft	- Reviewed draft - MO draft		On-going process	- February: Launching the on-line survey - May : Report to ICAR Session	Developing existing RLN part	Annual Programme	Programming	On-going process Video clip project	Meeting of on-farm testing WP
2010	Final draft: - G.A. approval - Inclusion in ICAR guidelines	Final draft: - G.A. approval - Inclusion in ICAR guidelines	Final draft: - G.A. approval - Inclusion in ICAR guidelines		On-going process		Implementing country web spaces and self-maintenance facilities	Annual Programme	Organising	On-going process Video clip project	Meeting of on-farm testing WP