

Working Group on Milk Testing Laboratories



- Report of activities in 2004-2006 -

Ch. Olivier Leray

WG membership

9 members

MTL WG members		Country
Christian	BAUMGARTNER	Germany
Egil	BRENNE	Norway
Marina	GIPS	Israel
Olivier	LERAY (Chair)	France
Ugo	PAGGI	Italy
George	PSATHAS	Cyprus
John	RHOADS	U.S.A.
Gavin	SCOTT	New Zealand
Harrie	VAN DEN BLIJGAART	The Netherlands

WG membership

- 1- Retirement : *Ugo PAGGI (AIA-LSL, IT)*
- 2- New member from 2006: *Silvia ORLANDINI (AIA-LSL, IT)*
(to replace U. Paggi ; endorsement requested to the Board)
- 3- Extension (under consideration) with regard to the change to the new status of Sub-Committee
to *Latin American, African & Asian areas*
- 4- Identified candidate as *Latin American representative* :
Roberto CASTANEDA (INTI-LACTEOS, AR)
(to be confirmed by the national organisation of Argentina before endorsement)

Meeting(s) since ICAR Session 2004 :

- ✓ Magaliesburg (South Africa) : 24 May 2005
⇒ *IDF/ISO Analytical Week 2005*
- ✓ Nicosia (Cyprus) : 10 November 2005
⇒ *Joint meeting with IDF JAT Automated methods*
- ✓ Kuopio (Finland) : 6 June 2006
⇒ *35th Biennial ICAR Session*

Terms of reference

1. Contribute to adequate analytical performance quality for milk recording purposes world wide that does allow valid comparisons between ICAR countries.
2. Monitor the development of reference document and standards on methods of milk analysis and quality assurance in laboratories applicable to milk recording.
3. Maintain a frame for analytical quality assurance of milk testing laboratories through recommendations to ICAR member organisations and an international network of reference laboratories.
4. Monitor the development of instruments for milk analysis of interest for milk recording and equipment related to milk recording analysis (sampling, in-farm analysis, data capture/transfer). In doing so the Group should keep in contact with, manufacturers, ICAR Sub-Committees and Working Groups in those areas.
5. Advise ICAR on new developments in the field of analytical methods, analytical quality assurance and milk testing laboratories.
6. Establish and maintain liaisons with international organisations / bodies involved with respect to milk analysis issues dealt by ICAR, in particular IDF and ISO.

Current programme of work

- ✓ Guides & protocols
- ✓ Standardisation of methods of milk analysis (IDF/ISO)
- ✓ Laboratory harmonisation
- ✓ Prospect on analytical methods/systems and connected devices
- ✓ Communication

Guides & protocols

- ⇒ Guidelines for quality assurance in milk recording analysis :
 - Update of the first version of 1998
 - Publication in ICAR Guidelines 2006
- ⇒ Milk analyser approval by ICAR and evaluation protocol :
 - Finalisation of the procedure in 2005 to submit and treat the approval requests related to new milk analysers
 - Next implementation of the approval system in July 2006 :
 - > information to national organisation and manufacturers
 - > ICAR web site
 - Publication in ICAR Guidelines 2006

Guides & protocols

- ⇒ Sampling vials and containers : (Jointly with SC RD)
 - New guidance to be published in ICAR guidelines

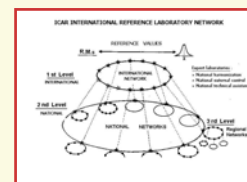
Standardisation of methods of analysis (IDF/ISO)

- ⇒ Cow : Reference methods for lactose & SCC
- ⇒ Sheep and goat : Reference methods for fat, protein, lactose & SCC
- ⇒ All species :
 - Validation Protocol for alternative method of milk analysis (IDF 128-3 / ISO 8196-3) (deriving from the ICAR Protocol)
 - Infra Red milk analysers : Revision of ISO 9266 | IDF 141.

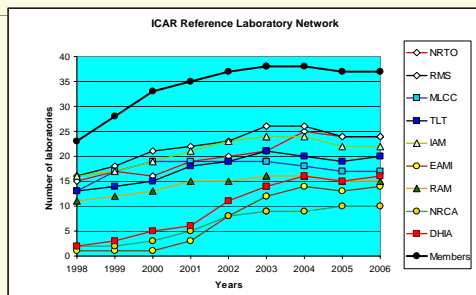
Laboratory harmonisation

- ⇒ ICAR Reference Laboratory Network :

Maintenance / member list : 37 members of 31 countries
among which : 14 members for goat
13 members for sheep



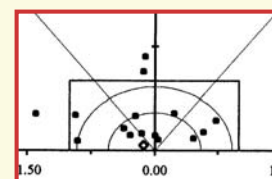
Evolution of membership and missions/activities from 1998 to 2006



Laboratory performance harmonisation

- ⇒ International PTs for cow, sheep & goat milk :

Criteria : F, P, L, SCC and urea
2004-2005: 2 series for cow, 1 for sheep & goat
2006: 2 series for cow
⇒ Sheep & goat: Expectation for more participants



Prospect on analytical methods/systems and connected devices

⇒ On-farm analysis :

- Collection of information (e.g. IR analysis on-line, portable analytical devices, etc)
- Consideration of AQA aspects related to **QC Guide** and **validation protocol** of analytical systems/devices
⇒ **Connection with SC Recording Devices**
- Provision of information on **measurement precision** needed for milk recording analysis on farm

Communication

- ⇒ **ICAR Web site** : Regular updating MTL WG web space
- Various information: Meeting minutes, workshop proceedings, events, PT programmes, list of analytical methods, list of centres for method evaluation, guides, protocol, etc
- ⇒ **Yearly information letter & annual programme of activities**
- ⇒ **MTL WG meeting** : - IDF/ISO Analytical Weeks & ICAR Sessions
- ⇒ **ICAR Biennial Session** : Kupio 2006
 - Reference Laboratory Network meeting : 6 June 2006

Conclusion & prospect

1- First Phase of implementation of an international AQA system in milk recording completed:

- a- Definition & characterisation of **appropriate** analytical methods:
 - ⇒ AQA guidelines, evaluation protocol, method standardisation
- b- Definition of **minimum conditions** of quality assurance :
 - ⇒ AQA guidelines : methods, samples, control
- c- Definition of **a frame and a model** for harmonising and structuring AQA:
 - ⇒ ICAR Reference Laboratory Network, list of competence & missions
- d- Definition of **tools** (methods) to achieve lab harmonisation and establish analytical traceability:
 - ⇒ Technical presentation (ICAR session proceedings)

Conclusion & prospect

2- A Second Phase of implementation is on to begin :

Based on:

- a- strengthening the reference role of the network:
 - ⇒ **involvement of every national organisation (nominations) and reference lab (PT participation) ; implementation of reference systems**
- b- strengthening the roles of national reference laboratories in their countries:
 - ⇒ **harmonised protocol to organise collective works in ICAR member countries (e.g. proficiency testing and centralised calibration)**
- c- Improving networking thanks to Internet and websites facilities :
 - ⇒ **searchable data base on laboratories within ICAR**
- d- Developing analytical service supply via Service ICAR to laboratories :
 - ⇒ **e.g. analytical information, teaching, auditing, reference materials, etc**

Conclusion & prospect

3- The New Deal of on-farm milk analysis and sampling :

- > **On farm milk analysis is becoming reality** as shown in Manufacturers Showcase session 2006 and more recent pieces of **information collected**.
- > **Milk measurement, sampling and milk analysis** are to be considered jointly
 - thus **Guidelines for the evaluation and quality assurance** of on farm measurement devices have to be **thought through and elaborated** jointly with SC RD.
- > As well **aspects of other species** than cow are to be accounted (**sheep and goat**)
- > **Interrelation and joint meetings** are to be organised in the future with SC and WG involved in this topic.

A new programme of work will be elaborated and proposed for 2007.

Next meetings

- ✓ **Münich (Germany) :** 21-25 May 2007
 - ⇒ **IDF/ISO/AOAC Analytical Week 2006**
- ✓ **Niagara Falls (USA) :** 16-24 June 2008
 - ⇒ **36th Biennial ICAR Session**

Thank You for your attention!

35th ICAR Biennial Session - Kuopio
(Finland) - 6-10/06/2006

19