

# Sub-Committee on Milk Analysis



## - Report of activities in 2008-2010 -

Ch. Olivier Leray

37th ICAR Biennial Session - Riga  
(Latvia) - 31 May-4 June 2010

1

## MA SC membership 11 members

MA SC members	Country
Christian BAUMGARTNER	Germany
Egil BRENNE	Norway
Roberto CASTAÑEDA	Argentina
Jan FLOOR	South Africa
Marina GIPS	Israel
Olivier LERAY (Chair)	France
Silvia ORLANDINI	Italy
George PSATHAS	Cyprus
John RHOADS	USA
Gavin SCOTT	New Zealand
Harrie VAN DEN BIJGAART	The Netherlands

37th ICAR Biennial Session - Riga  
(Latvia) - 31 May-4 June 2010

2

## MA SC membership

---

- 1- Retirement :**        *None*
- 2- New member from 2008:**  
      > *Jan FLOOR (LactoLab, ZA)*
- 3- Extension (under consideration)**  
      *to Asian areas*

## MA SC meeting(s) since ICAR Session 2008 :

---

- ✓ Niagara Falls (USA) :        17 June 2008  
      ⇨ *36<sup>th</sup> Biennial ICAR Session*
- ✓ Sochi (Russia) :            17 May 2009  
      ⇨ *IDF/ISO Analytical Week 2009*
- ✓ Montreal (Canada) :        16 May 2010  
      ⇨ *IDF/ISO Analytical Week 2010*
- ✓ Riga (Latvia) :              2 June 2010  
      ⇨ *37th Biennial ICAR Session*

## Project meetings (special issues):

### Joint IDF-ICAR project on Reference system on SCC

- ✓ Sochi (RU) : 22 May 2009
- ✓ Berlin (DE) : 22 Sept. 2009
- + World Dairy Summit => Communication and poster
- ✓ Montreal (CA) : 18 May 2010

## Terms of reference (unchanged)

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
- ✓ Update and prospect on analytical methods/systems and devices
- ✓ Communication

## Guides & protocols

---

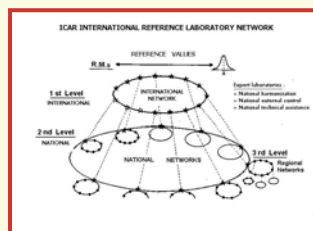
- ⇒ Guidelines on organising interlaboratory proficiency studies (new)
- ⇒ Guidelines on organising centralised calibration (new)
- ⇒ Guidelines on on-farm milk analysis (new)
- ⇒ Milk analyser evaluation protocol and procedure (update)
  - 2009 : ISO 8196-3 | IDF 128-3
  - Procedure for particular cases

## Standardisation of methods of analysis (IDF/ISO)

All species (cow, sheep, goat):

- ⇒ Reference methods for **fat, protein, lactose**
- ⇒ Validation Protocol for **alternative methods** of milk analysis (IDF 128-3 / ISO 8196-3 from the ICAR Protocol)
- ⇒ Infra Red milk analysers : Revision of ISO 9266 | IDF 141.

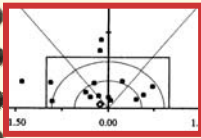
## Analytical Laboratory harmonisation



⇒ **ICAR Reference Laboratory Network** :

Maintenance / member list :  
38 members of 32 countries  
with :  
17 members for goat  
14 members for sheep

⇒ Need to **expand membership** to all the dairy country /  
member organisations to  
**broaden worldwide recognition and enhance efficiency**  
of reference systems underway and future  
⇒ **CALL to ICAR MO**



## Analytical quality and laboratory performance harmonisation

### ⇒ ICAR International Proficiency Studies (PTs) :

Criteria : F, P, L, SCC and urea  
 2008-2010: 4 trials for cow (2 /year)

### Conclusion of Reference Laboratory Network meeting (1st June 2010)

⇒ Need for **regular participation of all the members** of the reference laboratory network to **provide confidence and demonstrate analytical equivalence** within ICAR

**Should participate become an ICAR rule ?**

⇒ Motion proposed to the Board

37th ICAR Biennial Session - Riga  
 (Latvia) - 31 May-4 June 2010

11

## Communication

### ⇒ **ICAR Web site**

### ⇒ **Yearly information letter** **& annual programme of activities**

### ⇒ **MA SC meetings:** - IDF/ISO Analytical Weeks & ICAR Sessions

### ⇒ **ICAR Biennial Session:** Riga 2010

- **ICAR Laboratory Network : 1 June 2010**

37th ICAR Biennial Session - Riga  
 (Latvia) - 31 May-4 June 2010

12

## Information and technical assistance

(2010-2012)

- On-line questionnaire on state of the Art in ICAR laboratories
- Calculation of analytical result uncertainty:
  - =>Template (Excel sheet) to be developed and proposed on ICAR website
- Technical assistance:
  - => List of experts with respective fields of competence available for assistance to ICAR labs

## Training and education (T&E)

### Under continuous consideration

- Reflection on **tools** and **adequate supports** to implement
- Implementation through **Reference Laboratory Network**
- MA SC
  - > to **promote** national/local action
  - > to **indicate** essential points, **provide** standard tools.
- **Joint ICAR/IDF project on video clips** is considered

## New Work Item

### Experiment for future service in reference systems

⇒ **Subject** : Evaluation of the effect of geographical origin of milk on MIR calibration worldwide

⇒ *Measurement of the overall analytical error in a centralised calibration system and regional effects with the MIR spectrometric method*

⇒ **Request** : Financial Support to be considered by ICAR

## Co-operation and links to other WG/TF/SC

1- Joint action with the Working Party on On-farm Milk Analysis (WP OMA) and RD SC.

2- Joint action with IDF/ISO :  
Continuous activity through participation as experts in IDF/ISO project groups (e.g. Berlin IDF and ICAR meeting 2009)

3- Direct liaison to IDF MSSG through O Leray and ICAR contribution in IDF/ISO symposium in Sochi (RU) in 2009 and Montreal (CA) in 2010.

4- Joint IDF/ICAR new work item on an international reference system for somatic cell counting (SCC RS) launched and presented during the World Dairy Summit in Berlin on 23/09/2009.



## Key points to address

### 1. ICAR Reference Laboratory Network:

As worldwide recognition is a general issue, it is requested :

- ⇨ the **membership of every ICAR dairy country**
- ⇨ the **participation of every network member** in ICAR PT schemes

### 2. ICAR approval of milk analysers:

- ⇨ Use of ICAR protocol required to approve new methods from 2002
- ⇨ ICAR protocol has become an ISO standard in 2009

### 3. Provision of knowledge and service development:

Request for a **financial support** to evaluate **worldwide regional effect on MIR calibration** within ICAR.

## Conclusion & prospect

### MA SC

- In expansion for worldwide representativeness (regions, sectors)
- Carry on its regular activities (work programme)
- Consolidate existing ICAR AQA system and broaden its recognition
- Strengthen IDF/ ICAR collaboration for common interests
- Broaden focus onto milk analysis out of laboratories (with other ICAR technical bodies),
- Aim to develop adequate tools and future services for laboratories

## Next meetings

---

- ✓ Lyon (France) : May 2011
  - ⇒ [IDF/ISO/AOAC Analytical Week 23-27 May 2011](#)
- ✓ Bourg-en-Bresse (France) : June 2011
  - ⇒ [International Professional Meetings 22-24 June 2011](#)
- ✓ Parma (Italy) : October 2011
  - ⇒ [IDF World Dairy Summit 15-19 October 2011](#)

**Thank You for your attention!**