



Reference system for somatic cell counting

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on behalf of the IDF/ICAR Project Group on Reference System for Somatic Cell Counting in Milk

EU-RL MMP 2011 workshop, anses, Maisons-Alfort, 3. Mai 2011



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An update

- First information in this framework 28.05.2009, Workshop NRLs MMP
- Since then 3 further meetings of the project group:
 - IDF World Dairy Summit, Berlin (DE) 17-21 Sept. 2009
 - ISO/IDF Analytical Week Montreal (CA) 18 May 2010
 - Jubilee of MPR-Bayern, Freising (DE) 20 Oct. 2010
- 2 newsletters were issued (see also www.fil-idf.org and www.icar.org)





Reference system for somatic cell counting

Membership

- growing interest in membership:
 - 23 members
 - 16 countries
 - 3 continents



Dave Barbano, Cornell University (US)
Christian Baumgartner, MPR-Bayern (DE)
Thomas Berger, ALP (CH)
Harrie van den Bijgaart, Qlip (NL)
Ute Braun, MUVA (DE)
Pierre Broutin, Bentley Instruments (FR)
Mabel Angelica Fabro, Inti Lacteos (AR)
Marina Gips, ICBA (IL)
Slavica Golc Teger, Univ. Ljubljana (SI)
Paul Jamieson, SAITL (NZ)
Steen Kold Christensen, Foss (DK)
Olivier Leray, Actilait (FR)
Bertrand Lombard, Anses/EU-RL MMP (FR)
Chrysa Matara, Greek Dairy Organization (GR)
Véronique Ninane, CRA-W (BE)
Silvia Orlandini, AIA-LSL(IT)
Anne Pécou, CNIEL (FR)
Peristeri Popi, Greek Dairy Organization (GR)
George Psathas, CMIO (CY)
Tiina Putkonen, Finnish FSA Evira (FI)
Dalia Riaukiene, Pieno Tyrimai (LT)
Andrea Rosati, ICAR Secretariat (IT)
Philippe Trossat, Actilait (FR)
Hendrik de Vries, Delta Instruments (NL)



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Presentations of the work

- IDF World Dairy Summit, Berlin (DE) Sept. 2009
- ICAR Conference, Riga (LV), June 2010
- JRL-IRMM Workshop, Geel (BE), 23-25 Nov. 2010
- BIPM-CCQM Workshop, Sèvres (FR), 6-7 Apr. 2011
- NMC/AABP Symp., St. Louis (US), 22-24 Sep. 2011
- IDF World Dairy Summit, Parma (IT), 15-19 Oct. 2011



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Questionnaires on current status

- Reference material providers, beginning 2010
 - replies from 13 providers (11 Europe, 1 USA, 1 South America)
 - matrix: raw or heat treated milk
 - analyte: somatic cells or cells of other origin, ranging from 50'000 to 1'000'000 cells/ml
 - preservation: different, shelf life 7 to 180 days
 - characterization: ref. method in own lab to proficiency testing
- Routine laboratories, end 2010
 - use of reference materials
 - Outcome to be discussed at ISO/IDF Analytical Week Lyon (FR), 23 May 2011



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Ongoing work

- Guidelines for reference materials
 - Draft will be updated with the outcome of the questionnaire to routine labs
- Preparation of reference material
 - Description of existing and new experiences
- Assessing PT schemes and laboratories
 - Probabilistic approach was chosen
 - Excel sheet is prepared
- Pilot test of PT and lab assessment
 - Phase I: test with already interlinked labs
 - Phase II: to be planned after evaluation of phase I

SCC Reference Systems – Comparison
Assessing laboratories by a Quality Index P_L

Weight w for q 0.3

Lab No	Lab Label	s_r	\bar{y}	θ	σ_r	σ_R	n	\bar{z}_n
1	a	10.28	19.80	18.00	14.80	23.70	15	0.005
2	b	10.28	19.80	18.00	14.80	23.70	15	0.005
3	c	10.28	19.80	18.00	14.80	23.70	15	0.005
4	d	10.28	19.80	18.00	14.80	23.70	15	0.005
5	e	10.28	19.80	18.00	14.80	23.70	15	0.005
6	f	10.28	19.80	18.00	14.80	23.70	15	0.005
7	g	10.28	19.80	18.00	14.80	23.70	15	0.005
8	h	10.28	19.80	18.00	14.80	23.70	15	0.005
9	i	10.28	19.80	18.00	14.80	23.70	15	0.005
10	j	10.28	19.80	18.00	14.80	23.70	15	0.005
11	k	10.28	19.80	18.00	14.80	23.70	15	0.005
12	l	10.28	19.80	18.00	14.80	23.70	15	0.005
13	m	10.28	19.80	18.00	14.80	23.70	15	0.005
14	n	10.28	19.80	18.00	14.80	23.70	15	0.005