



Group Report – Dairy Cattle Milk Recording Working Group

Date of report	26 May 2019
SC/WG/TF	Dairy Cattle Milk Recording WG
Chairperson	Pavel Bucek (Czech Republic)
Members (names)	<ul style="list-style-type: none"> • <u>Pavel Bucek (Czech Republic) – chairperson</u> • Franz Josef Auer (Austria) • Xavier Bourrigan (France) • Bruce Dokkebakken (USA) • Kevin Haase (USA) • Kai Kuwan (Germany) • Juho Kyntäjä (Finland) • Yaniv Lavon (Israel) • Filippo Miglior (Canada) • Danuta Radzio (Poland) • Friedrich Reinhardt (Germany) • Carlos Trejo Jimene (Chile) <p>I would like to thank all members for their excellent work. Everyone has contributed with invaluable input and continues to represent the interests of the group.</p>
Members to have left since February 2018	<p>Friedrich Reinhardt from VIT (Vereinigte Informationssysteme Tierhaltung w.V.) is due to retire. He has however agreed to continue in a temporary advisory capacity with the ICAR CoQ Expert Advisory Group.</p> <p>On behalf of the working group I would like to thank Friedrich for his outstanding work for the Dairy Cattle Milk Recording WG and wish him all the best in the future. We will be recruiting a statistics specialist to replace Friedrich in due course.</p> <p>Kevin Hasse has been promoted at CentralStar, one of two organisations to disband from the former NorthStar over the last 24 months. Kevin's increased responsibilities means he must now prioritise this new position and unfortunately leave the group. On behalf of the working group, I would like to thank Kevin for his excellent work for the group. We will be advertising a vacancy for Kevin's replacement in due course.</p>

<p>Meeting(s): 01/2018 – 26/05/2019</p>	<p><u>Previous:</u> The previous report covered projects up until 15/01/2018. <u>This report covers the period 16/01/2018 – 26/05/2019.</u> Meetings: Whole working group meetings & individual meetings Face-to-face WG meetings</p> <ul style="list-style-type: none"> • 09/02/2018 Meeting in Auckland, New Zealand • 16/01 and 17/01/2019 Meeting in Rome <p>Ad-hoc face-to-face WG meetings</p> <ul style="list-style-type: none"> • 14/06 and 15/06/2018 Meeting in Paris <p>Whole WG videoconferences</p> <ul style="list-style-type: none"> • 16/04/2018 • 18/04/2018 • 20/04/2018 • 21/06/2018 • 22/06/2018 • 29/06/2018 • 26/09/2018 • 3/10/2018 • 28/03/2019 • 2/04/2019 • 3/04/2019 • 17/05/2019 • 22/05/2019 <p>Individual videoconferences</p> <ul style="list-style-type: none"> • 8/03/2018 • 22/03/2018 • 07/06/2018 • 07/06/2018 • 06/07/2018 • 17/09/2018 • 25/10/2018 • 05/11/2018 • 26/11/2018 • 12/02/2019 • 08/03/2019 • 29/03/2019 • 05/04/2019 • 12/04/2019 • 24/04/2019 • 26/04/2019 • 09/05/2019 	<p><u>Upcoming:</u></p> <ul style="list-style-type: none"> • Preparatory meetings as required in Prague (between 26/05 to 18/6/2019) • Meeting of the entire group in Prague on 18/06/2019 • Face-to-face meeting in Rome (or at different venue) in-between ICAR 2019 and ICAR 2020. Decision TBC • After Prague, regular videoconferences involving the whole WG & meetings between the chairperson and individual members & face-to-face meetings as required
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<p>Priorities addressed since January 2018</p>	<p><u>Key WG projects: 01/2018 – Present</u></p> <ol style="list-style-type: none"> 1. <i>Survey: Global 24-Hour Calculation Trends in Automatic Milking Systems & Classical Milk Recording Systems. Research and update the 24-hour calculations section of the Guidelines.</i> 2. <i>Organise sessions, a practical workshop on cattle milk recording, and prepare papers for the ICAR conference in Prague.</i> 3. <i>Develop projects on general parts of the Guidelines, define specific topics and engage in in-depth discussions on these points with a view to improving the Guidelines.</i> 4. <i>Support CoQ for DCMR functions. Develop turtle diagrams and KPIs for ICAR MR audits.</i> 5. <i>Provide support to other ICAR Groups and ICAR members where necessary.</i> <p>New cattle milk recording guidelines were approved at the ICAR Conference in Auckland in February 2018. These changes were general. Going forward, the WG intends to update Procedure 1, which covers 24-hour calculations.</p> <p>Survey focusing on 24-hour calculations in automatic and classical milk recording systems and gauging the opinions and needs of MROs. Fifty-two organisations from around the world were surveyed. Totalling 90 questions, the survey provides a general overview on practical experiences with using methods recommended in the ICAR Guidelines, problem areas MROs wish to address, priorities and needs, and processes used to estimate coefficients and factors and other relevant details. This project is now complete, with the results to be discussed and presented in Prague. The Dairy Cattle Milk Recording WG survey has recruited a record number of organisations, surpassing the previous total of 46 organisations for the survey presented at the 2015 congress in Poland.</p> <p>Milk Recording Workshop at ICAR 2019 in Prague organised by the working group. There has been significant interest in the workshop. As of 26/05/2019 more than 140 participants had registered to attend.</p> <p>The workshop covers hot topics in relation to the ICAR Guidelines and practical day-to-day activities among MROs.</p> <ul style="list-style-type: none"> • How to keep AMS customers happy? • Whose milk is in the vial? • How complex is it to calculate daily yields?
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The DCMR WG is organising and chairing TS 4 at ICAR 2019: Future Daily Yield Calculations for Cattle.

The DCMRWG is also involved with other sessions, with group members serving as chairpersons or co-chairpersons on various sessions:

- Manufacturers Showcase
- Technical Session 6: Where Will New Technologies Take Milk Recording?
- Panel Discussion: "What Next?"
- Organising Committee & Programme and Scientific Committee for ICAR 2019. With a programme featuring more than 130 oral presentations and electronic posters, the ICAR conference in Prague is set to be one of the most extensive and far-reaching in its history.
- Several papers due to be presented during the ICAR 2019

IDF/ISO

- Manufacturers Showcase

Research project: Recalculation of the Liu Method

With a view to improvement, the method is currently being recalculated based on ongoing discussions at working group meetings. Research is now complete. Final results to be discussed at ICAR 2019.

Research project: 24-hour calculations for method C

Now complete. Group recommendations will be defined based on the results. Final results to be presented at ICAR 2019.

Discuss possible improvements to adapting the Liu method to method Z

The prevalence of method Z has increased and improvements to it could prove valuable.

Discuss final results of the Galesloot method research

Discuss final results of the plausibility checks project

Big data project

Testing cow rationing using new data mining software. Data from herd programmes correspond with milk inspection results and feeding data: DHI reports, maximising profits and improving economic management on farms. Data mining and big data: a perspective for the future. Results to be presented in Prague.

24-Hour Calculations – General Discussion

Detailed technical analysis has been conducted by the group at various meetings covering methodologies, practical recommendations, deriving/estimating of formulas/factors for expanding AT, new factors for alternate milkings, etc. There has

also been discussion on directions in future policies in this field.

The group has discussed comparing different 24-hour calculation methods

- An ongoing project
- There has been some discussion
- To be completed before ICAR 2020
- Methods used in automatic milking systems and in conventional milk recording

Practical cases in selected countries (24-Hour Calculations)

- USA
- Chile
- A thorough analysis of the needs and practical problems facing MROs and farmers is needed

Development of Turtle Diagrams and KPIs for Cattle Milk Recording

Some group members have been researching cattle milk recording processes with a view to developing key performance indicators in this field. The work is expected to significantly enhance audits and questionnaires related to the ICAR Certificate of Quality. A questionnaire on turtle diagrams, risks and KPIs is being compiled to evaluate opinions in this field.

Some members are active ICAR auditors.

Audits are critical to maintaining a comprehensive and informed overview of the global milk recording industry, enabling the group to respond to the daily challenges faced by MROs.

The group is represented on the Sensors Device Task Force, with regular updates in this area discussed and monitored within the group. Franz Josef Auer represents the group on the Task Force.

The group also shares its expertise with ICAR members and other ICAR working groups as needed

- Resolving practical problems raised by milk recording organisations
- Offers recommendations and advisory services on these matters

Special interdisciplinary projects

The WG is also carrying out several specialist projects.

- Connections between milk yield production and health traits and what they mean for farmers (postpartum disease and future performance)
- Individual lactation qualification – discussion and analysis

The group will present 15 papers consisting of either oral presentations or electronic posters at ICAR 2019 at various technical sessions, the plenary session, its own milk recording workshop and the panel session.

<p>Priorities: From June 2019</p>	<p>Working group will start to prepare a new version of Procedure 1, Section 2 of the ICAR Guidelines – Computing 24-hour Yields. Based on different research projects, surveys, technical analysis, discussion from ICAR 2019, and other output produced by the group.</p> <p>Comparing different 24-hour calculation methods. Beginning in advance of ICAR 2019 and finishing by ICAR 2020.</p> <p>Discuss big data and innovative approaches to milk recording outcomes.</p> <p>Project on the milk-recording industry in Austria. Discuss results relevant to the group.</p> <p>Estimating coefficients: international project. Subject TBC.</p> <p>Future direction to be discussed at ICAR 2019.</p> <p>The points mentioned in this section may be changed following ICAR 2019</p>
<p>Issues the group wishes the ICAR Board to consider</p>	<p>We are keen to have a technical session devoted to working group activities at the next ICAR Conference in the Netherlands in 2020.</p> <p>We are also interested in organising a milk recording workshop in the future. To be discussed after Prague.</p>