Management of Milk Recording Organisations – Current Problems and Future Challenges

Extent of the project

- Number of organisations that completed the survey: 41
- Continents: North America, South America, Europe, Asia and Africa
- All dairy cows: 44,045,330
- Dairy cows recorded: 20,599,077
- Dairy cows recorded by organisations: 16,511,197
How is your organisation structured?

- **Hierarchical**: 26 (63%)
- **Matrix**: 8 (20%)
- **Strategic business units**: 4 (10%)
- **Other, please specify**: 3 (7%)

Milk recording organisations are mostly hierarchically structured.
Laboratories and ownership

- Advantages and disadvantages
- Selected comments in the case of a NO answer: easy to leave, freedom of decision, flexibility, etc.
- Selected comments in the case of YES answer: under direct control, continuous involvement, logistics and responding to customers, investment in ISOs, charging policies, higher responsibility, management supervision, etc.
What is your future milk recording strategy?

- **More than 30 responses per option:** electronic reporting, new online services, improving fertility services, feeding and health management, improving services through the use of milk analysis spectra

- **20 to 25 responses per option:** cost-cutting, advisory services, employ cutting-edge technology, new benchmarks and new traits

- **Less than 20 responses per option:** new summaries, new business areas, higher level of automation in laboratories, quality assurance system for the food chain, higher level of automation using TRU TEST EMM
In which areas have you introduced new services within the last 6 years (since 2010)?

- Computerisation, software,...: 26
- Herd management: 22
- Genomic selection: 20
- New traits, services, new data,...: 19
- Health traits: new modern...: 18
- Feeding: 17
- Milk quality: 15
- Animal welfare: 13
- Quality assurance: 10
- Other (please specify): 3

Number of organisations
Do you offer advisory services?

Number of organisations

- Yes: 9 (23%)
- No: 30 (77%)

- Advisory services are the common standard among MROs
- Fertility and pregnancy checks, herd management and feeding are common
- Designed to accommodate additional payments

In which field do you offer advisory services?

<table>
<thead>
<tr>
<th>In which field do you offer advisory services?</th>
<th>Yes, it is offered</th>
<th>Paid by basic fee</th>
<th>Additional payment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fertility and pregnancy check</td>
<td>18</td>
<td>4</td>
<td>16</td>
</tr>
<tr>
<td>Herd management</td>
<td>16</td>
<td>8</td>
<td>13</td>
</tr>
<tr>
<td>Feeding</td>
<td>13</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>Health traits</td>
<td>12</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Technical milking parlours, meters</td>
<td>7</td>
<td>3</td>
<td>8</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>2</td>
<td>7</td>
</tr>
</tbody>
</table>
Which areas do you think need additional research?

- **24-hour calculation**: 30
- **New traits**: 25
- **Sampling**: 15
- **In-line analysis**: 15
- **Plausibility checks**: 11
- **Other**: 4

**In-line analysis**
- DCMR WG and other ICAR WG and SC projects
- In-line analysis is a priority area for discussion
- The DCMR WG will review and revise changes to 24-hour calculation in Section 2.1

Number of milk recording organisations
Are you planning to introduce daily milk recording or are you interested in doing so in the future?

- We are not planning to do so in the near future: 21
- Yes for milking robots: 11
- Yes for electronic meters in milking parlours: 8
- Yes in general: 7
- Other options or comments: 4

The demand for the introduction of daily milk recording is low whereas interest among MROs is higher for AMS.
If a group of farmers were to request different services, would you change your services?

- **22**: We would assess whether it would be useful for our customers.
- **14**: We would adapt additional services.
- **3**: No.
- **2**: Yes.

Number of organisations
Do you offer your services to farmers in foreign countries (sample-taking, laboratory delivery, laboratory and data processing)?

- Yes: 5 (14%)
- No: 23 (68%)
- Other (specific case of yes or other specific cases): 3 (8%)

Number of organisations: 28 (78%)

Do any foreign milk recording organisations offer services to farmers in your area?

- Yes: 3 (9%)
- No: 32 (91%)

Are you planning to expand abroad and/or partner with foreign companies in the future?

- Yes: 7 (21%)
- No: 27 (79%)

- It is expected that the interest in offering services abroad will increase
- In some cases MROs offer or plan to offer specialised services
What fee scheme do you have in place for milk-recording services?

- Monthly fixed fee or fee per recording: 26
- Additional fees for extra services: 21
- Annual fixed fee per cow: 10
- Variable payments expressed for real costs: 9
- Annual fixed fee per herd: 9

- Some MROs are affected by laws and taxes on fee policies
- Monthly fixed fees or recording fees are most common
- Additional fees for extra services is also common

A small share may look to do so in the future
Please tick the options included in the minimum payment for recording

- Basic milk analysis: 38
- Data processing: 36
- Sample transport: 35
- Reports/outcomes for farmers: 32
- Travel costs for technicians: 28
- Supervision: 28
- Web service for farmers: 25
- Milk-recording by technician: 24
- Recording and sampling equipment: 22
- Data capture by technician: 21
- Interpretation of reports with the...: 16
- Animal identification system: 10
- Apps for mobile devices: 10
- Other: 6
- Advisory services: 6
- Animal identification equipment: 3
Please tick additional payment options provided by your organisation.

- Additional milk analysis 23
- Advisory services 21
- Interpretation of reports with the... 15
- Milk-recording by technician 14
- Recording and sampling equipment 13
- Apps for mobile devices 13
- Web service for farmers 13
- Data capture by technician 11
- Reports/outcomes for farmers 11
- Animal identification equipment 10
- Other options 9
- Animal identification system 9
- Travel costs for technicians 7
- Data processing 7
- Sample transport 5

Policy for the sale of services
Does your pricing vary according to herd size?

- **Yes, the price per cow decreases with herd size**: 24 (59%)
- **No, it does not vary**: 14 (34%)
- **Yes, the price per cow increases with herd size**: 3 (7%)

Fixed costs play a crucial role in price policy in accordance with herd size.
How were milk recording services paid for in 2015 (or 2014)? Please enter the share in %

<table>
<thead>
<tr>
<th>Interval (milk recording services paid by the farmer in %)</th>
<th>Number of organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>16 (40%)</td>
</tr>
<tr>
<td>61-99</td>
<td>10 (25%)</td>
</tr>
<tr>
<td>21-40</td>
<td>6 (15%)</td>
</tr>
<tr>
<td>Less than 20</td>
<td>4 (10%)</td>
</tr>
<tr>
<td>41-60</td>
<td>4 (10%)</td>
</tr>
</tbody>
</table>

Additional sources of possible financial sources for milk recording

<table>
<thead>
<tr>
<th>Possible financial sources for milk recording</th>
<th>The share of financial sources in interval in different organisations in the project</th>
</tr>
</thead>
<tbody>
<tr>
<td>Payments from AI - business</td>
<td>0-40</td>
</tr>
<tr>
<td>Payments from breeding organisations</td>
<td>0-33</td>
</tr>
<tr>
<td>Payments from the dairy industry</td>
<td>0-60</td>
</tr>
<tr>
<td>Public Sources</td>
<td>0-40</td>
</tr>
<tr>
<td>Government</td>
<td>0-100</td>
</tr>
</tbody>
</table>

Farmer payments are not included
How often do you evaluate your processes/management structure?

- According to requirements: 25
- In the event of changing situations: 14
- In the event of introducing new...: 11
- At regular intervals every number of...: 10
- Any comments: 3

Number of organisations

Are employee evaluations carried out?

- Annually: 31
- Less than once a year: 2
- More than once a year: 2
Is there a trend in milk recording mergers/take-overs, including milk analysis labs and data processing centres?

Mergers/take overs play an important role, a trend that is expected to continue to grow

Number of organisations

- Yes: 27 (71%)
- No: 11 (29%)
In the event of acceding to a merger or take-over, what would be the main reasons for doing so?

- **Economy of scale**: 18
- **Optimisation of processes**: 18
- **Critical mass for investments**: 12
- **Synergy**: 12
- **Common activities**: 11
- **Avoid decrease in cows**: 3
- **Other**: 1

Number of organisations
Are any special tax incentives for farmers used?

- Number of organisations: 34 (85%)
- Yes: 6 (15%)
- No: 28 (75%)

Are there any special incentives for farmers’ health insurance?

- Number of organisations: 33 (82%)
- Yes: 7 (18%)
- No: 26 (78%)
What percentage of your organisation’s working hours is devoted to milk recording?

- Less than 25%: 16 organisations
- 26-50%: 10 organisations
- 51-75%: 9 organisations
- More than 75%: 6 organisations

- Milk recording also impacts on other business and activities for the most part
- Some have diversified activities
**How many employees in your organisation are working in milk recording?**

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of organisations</th>
<th>Share of organisations in %</th>
<th>Number of organisations</th>
<th>Share of organisations in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less 50</td>
<td>13</td>
<td>32</td>
<td>21</td>
<td>51</td>
</tr>
<tr>
<td>51-200</td>
<td>14</td>
<td>34</td>
<td>13</td>
<td>32</td>
</tr>
<tr>
<td>201-1000</td>
<td>9</td>
<td>22</td>
<td>4</td>
<td>10</td>
</tr>
<tr>
<td>More than 1000</td>
<td>5</td>
<td>12</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Number of responses</td>
<td>41</td>
<td>100</td>
<td>41</td>
<td>100</td>
</tr>
</tbody>
</table>
Do you receive direct subsidies or financial support for any part of the recording process?

Number of organisations

- 19 (47%)
- 21 (53%)

- No, all services are paid for by the customer.
- Yes, some services receive financial support from government or public funds

Where financial support from government/public funds/industry is received, are these funds likely to change?

Number of organisations

- 12
  - Likely to decrease
  - Likely to increase
  - Likely to remain unchanged
If there are any, do public payments differ in accordance with herd size?

- Yes: 4 (14%)
- No: 17 (61%)
- Other: 7 (25%)

Do farmers receive any public refunds for recording fees?

- No: 30
- Quality assurance payments: 6
- AI refunds (e.g., lower price for...): 4
- AI refunds for testing sires: 3
How do you keep your data safety policy on track?

- Secured access to protected data: 30
- Data protection declaration: 15
- Standardised destruction of printouts: 9
- Others: 1

Do you share data with other bodies?

- Genetic evaluation: 32
- Veterinarians: 24
- AI: 22
- Ministry of: 16
- Feed advisory: 15
- Government: 14
- Commercial: 11
- Other: 9
- No, we do not: 1
Have you observed a change of interest in milk recording?

<table>
<thead>
<tr>
<th>Change</th>
<th>Number of Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decrease</td>
<td>1 (2%)</td>
</tr>
<tr>
<td>Increase</td>
<td>11 (31%)</td>
</tr>
<tr>
<td>No</td>
<td>18 (50%)</td>
</tr>
<tr>
<td>Other, non-specified</td>
<td>6 (17%)</td>
</tr>
</tbody>
</table>

Is milk recording the most important business for your organisation?

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of Organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>23 (56%)</td>
</tr>
<tr>
<td>No</td>
<td>17 (41%)</td>
</tr>
<tr>
<td>Other</td>
<td>1 (3%)</td>
</tr>
</tbody>
</table>
Is remote work a regular part of your organisational activities?

Number of organisations

- 23 (56%) We work remotely in some positions
- 5 (12%) We plan to increase the share of remote work in the future
- 13 (32%) No
If you do work remotely, which positions are catered for? What benefits have you seen?

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Managers</th>
<th>Specialists</th>
<th>Technicians</th>
<th>All positions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduction in costs</td>
<td>9</td>
<td>5</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>Higher productivity</td>
<td>11</td>
<td>9</td>
<td>9</td>
<td>6</td>
</tr>
<tr>
<td>Higher satisfaction of employees</td>
<td>10</td>
<td>9</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Better life/work balance</td>
<td>10</td>
<td>8</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
</tbody>
</table>
Does your milk recording organisation evaluate food chain quality?

Number of organisations

- Yes: 23 (59%)
- No: 16 (41%)
If your sources of financing were to decrease how would this issue be resolved?

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redesign pricing policy</td>
<td>26</td>
</tr>
<tr>
<td>Redesign all processes</td>
<td>19</td>
</tr>
<tr>
<td>Rapidly close less profitable services</td>
<td>12</td>
</tr>
<tr>
<td>Consolidation</td>
<td>11</td>
</tr>
<tr>
<td>Rapidly cut staff</td>
<td>10</td>
</tr>
<tr>
<td>Reduce the number of local branches</td>
<td>6</td>
</tr>
<tr>
<td>Enter new fields of business (specify)</td>
<td>6</td>
</tr>
<tr>
<td>Merger or take-over</td>
<td>5</td>
</tr>
<tr>
<td>Selling of property (buildings, etc.)</td>
<td>2</td>
</tr>
</tbody>
</table>
Which type of cost-cutting option would you prefer?

<table>
<thead>
<tr>
<th>Response</th>
<th>Number of organisations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automatic or remote data capture</td>
<td>21</td>
</tr>
<tr>
<td>Reduce overhead costs</td>
<td>20</td>
</tr>
<tr>
<td>Technician routes, travel optimisation</td>
<td>20</td>
</tr>
<tr>
<td>Increase farmer involvement in the recording and sampling process (Method C or B)</td>
<td>16</td>
</tr>
<tr>
<td>Cooperation in data processing</td>
<td>9</td>
</tr>
<tr>
<td>Encourage longer recording intervals</td>
<td>8</td>
</tr>
<tr>
<td>Encourage longer sampling intervals (some recordings are non-sampled)</td>
<td>8</td>
</tr>
<tr>
<td>In-line sensors</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>3</td>
</tr>
</tbody>
</table>
Possibilities

1. Services
   • New services
   • Advisory
   • Whole process

2. Expansion
   • Expansion
   • Lack of competition
   • Abolition of milk quota
   • Data from various sources
   • Unified national lab
   • New health traits

3. Tailor-made outcomes

4. Members – customer relationships
Threats

1. Milk price
   • Imports of dairy products
2. Sensors
3. Competition
   • DHIA, MROs
   • Foreign competitors
   • MR
4. Founding and politics
   • Agriculture policy
   • Founding
5. Regulation, legislation
6. Climate
7. Genomics
8. Decreasing market
9. Hostile politics (public)
   • Environment
Weakness

1. **Finance (daily work)**
   Founding, fee structure, external sources, decreasing customers, selling service

2. **Staff (daily work)**
   Recruiting, payment, training and managing, age

3. **Grown structures**
   Difficult to merge

4. **Equipment**
   IT system, Lab., meters, reliability of disease, testing

5. **Supervision, limited control abilities**

6. **More diverse, demand from customers**

7. **Interactive communication**
Strength

1. Staff
Dedication, experience, efficiency

2. Unification
Work flow, data processing, experience, software

3. Customers
Quick reporting, comprehensive, interactive reports, herd management, well perceived in the community, breeders support, accuracy, quality checks

Market share

Innovations

4. Organisation
Integrity, knowledge, competencies

5. Labs

6. Finance

7. Synergy

8. Health

9. Research and development

10. International ties
Conclusions

• The project summarises selected aspects of management among milk recording organisations

• All international territories including Europe, North America, South America, Asia and Africa are covered, comprising 41 organisations in total

• Different schemes of ownership are used

• The most common is a hierarchical organisational structure

• Most milk recording organisations operate privately

• There is a trend for mergers and take-overs among milk recording organisations

• It is most common to charge a monthly fee for milk recording services

• 40% of organisations report that fees are paid by farmers, while external financial sources play an important role for other organisations

• There is a growing trend towards the internalisation of milk recording activities

• Future strategies mostly include electronic reporting, new online services, improving fertility services, feeding and health management, cost-cutting, advisory services, the use of cutting-edge technology and new benchmarks (more than 20 responses)

• 77% of milk recording organisations are involved in advisory services.

• MROs see the need for research, especially in 24-hour calculation, new traits, in-line analysis and sampling
## Acknowledgements

Organisations (countries) to provide raw data along with relevant contacts

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Country</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Agency for Selection and Reproduction in Animal Breeding</td>
<td>BGR</td>
<td>V. Nikolov</td>
</tr>
<tr>
<td>Polish Federation of Cattle Breeders and Dairy Farmers</td>
<td>POL</td>
<td>D. Radzio</td>
</tr>
<tr>
<td>TINE SA</td>
<td>NOR</td>
<td>T. Roalkvam</td>
</tr>
<tr>
<td>NorthStar Cooperative</td>
<td>USA</td>
<td>K. Haase</td>
</tr>
<tr>
<td>Innovative Agricultural Services</td>
<td>ROU</td>
<td>C. Popa</td>
</tr>
<tr>
<td>CONVIS soc.coop.</td>
<td>LUX</td>
<td>A. Braun</td>
</tr>
<tr>
<td>AgSource Cooperative Services</td>
<td>USA</td>
<td>A. Coburn</td>
</tr>
<tr>
<td>ProAgria Group</td>
<td>FIN</td>
<td>J. Kyntäjä</td>
</tr>
<tr>
<td>Czech Moravian Breeders’ Corporation, Inc.</td>
<td>CZE</td>
<td>P. Bucek</td>
</tr>
<tr>
<td>LPT Ltd. (ÁT Kft)</td>
<td>HUN</td>
<td>J. Kótiné Seenger</td>
</tr>
<tr>
<td>Progressive Genetics</td>
<td>IRL</td>
<td>L. Feeney</td>
</tr>
<tr>
<td>CRV</td>
<td>NLD</td>
<td>L. van Keulen</td>
</tr>
<tr>
<td>South African Std Book and Animal Improvement Association</td>
<td>ZAF</td>
<td>J. van der Westhuizen</td>
</tr>
<tr>
<td>CONAFE (Spanish Holstein Confederation)</td>
<td>ESP</td>
<td>S. Alday</td>
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</tr>
</thead>
<tbody>
<tr>
<td>Association nationale des éleveurs de bovins Maroc</td>
<td>MAR</td>
<td>N. Belkadi</td>
</tr>
<tr>
<td>Växa Sverige</td>
<td>SWE</td>
<td>Nils-Erik Larsson</td>
</tr>
<tr>
<td>Agriculture Data Centre</td>
<td>LVA</td>
<td>E. Galvanovska</td>
</tr>
<tr>
<td>Eesti Põllumajandusloomade Jõudluskontrolli As</td>
<td>EST</td>
<td>A. Pentjärv</td>
</tr>
<tr>
<td>German Association for Performance and Quality Testing</td>
<td>GER</td>
<td>F. Onken</td>
</tr>
<tr>
<td>CanWest DHI</td>
<td>CAN</td>
<td>N. Petreny</td>
</tr>
<tr>
<td>BAIF Development Research Foundation, Central Research station, Urulikanchan</td>
<td>IND</td>
<td>R. L. Bhagat</td>
</tr>
<tr>
<td>Agricultural faculty of Novi Sad</td>
<td>SRB</td>
<td>M. Pećinar</td>
</tr>
<tr>
<td>ASR: Association of Swiss Cattle Breeders</td>
<td>CHE</td>
<td>E. Barras</td>
</tr>
<tr>
<td>RJA&amp;HS</td>
<td>JEY</td>
<td>D. Hambrook</td>
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<tr>
<td>Association Wallonne de l’Elevage asbl</td>
<td>BEL</td>
<td>X. Massart</td>
</tr>
<tr>
<td>Lancaster Dairy Herd Improvement Association</td>
<td>USA</td>
<td>J. High</td>
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<tr>
<td>Israel Cattle Breeders Association</td>
<td>ISR</td>
<td>Y. Lavon</td>
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<tr>
<td>France Conseil Elevage</td>
<td>FRA</td>
<td>L. Christophe</td>
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<tr>
<td>Cattle Information Services</td>
<td>UK</td>
<td>S. Harding</td>
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</table>
Acknowledgements
Organisations (countries) to provide raw data along with relevant contacts

State Animal Breeding Supervision Service under the Ministry of Agriculture
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RYK
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GBR T. Craven
ISL G. Johannesson
IRL M. O'Keeffe
DNK U. Lauritsen
GBR A. Bradley
AUT K. Zottl
BRA J. A. Horst
ARG L. Chazo
CHL A. Alocilla
URY F. Sotelo
COL F. Rapaioli
Thank you for your attention!
I would like to invite you all to ICAR 2019 to be held in the Czech Republic!