ICAR Inter Laboratory Proficiency Testing – Ireland Update

Review 2002 - 2011

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May 28th ICAR 2012 Cork
Overview Ireland: Prof. Test Structure

ICAR

Ireland Member: Irish Cattle Breeding Federation (ICBF)

Ireland Reference Lab: Teagasc National Research Laboratory

Reports

Milk Recording Organisations

Industry Milk Payment Labs

Monthly Samples

Industry Milk Recording Labs
10 Yrs Ago - Ireland Milk Recording Labs 2002

2002 MILK RECORDING LABS
380K cows recorded
- 8 laboratories!

Source: ICBF/IFA
Current - Ireland Milk Recording Landscape 2012

2012 - MILK RECORDING LABS
4 laboratories and > 500k cows recording

Tipperary Co-op
Recording ~ 14k cows

Munster Milk Recording
~ 290k cows

Progressive Genetics/
NML
Milk Recording
~ 210k cows

Source: ICBF/IFA
Moorepark participates in ICAR International ring tests twice a year.

For each test, 10 milks are done by Moorepark for:

- % Fat: +/- 0.020 Mean diff and Std Dev of 0.030
- % Protein: +/- 0.025 Mean diff and Std Dev of 0.020
- % Lactose: +/- 0.100 Mean diff and Std Dev of 0.100
- Somatics: +/- 35.1 Mean diff and Std Dev of 35.1 (cells by 1000)

Due to Staff retirements and new hire delay, the International Ring test was deferred – resuming again in 2012.
Monthly Inter Lab Scoring System

- Whether Milk Rec. or Milk Payments - participate in Monthly ring tests.

- Teagasc Moorepark (National Dairy Research Lab) are contracted by ICBF to conduct the proficiency ring test each year. The system is very simple.

- Each month each lab receives 2 samples to test from Teagasc Moorepark.

- Test results to Moorepark & compared vs Reference Methods *.

**Tolerances; Fat +/-0.10, Prot +/-0.07, Lact +/-0.10, SCC +/- 15%**

- 1 Penalty Point and a Yellow Card if Difference is > tolerance.
- 2 Penalty Points and a Red Card if Difference is > 2 x tolerance.

(* Rose Gottlieb (Fat), Kjeldahl (Prot) Polarimeter (Lact), SCC CECELAIT SRMs used *)
## Moorepark Proficiency Programme Report 2011

### Number of Yellow & Red cards received by each lab in the year 2011

<table>
<thead>
<tr>
<th>Lab Code</th>
<th>Fat</th>
<th>Protein</th>
<th>Lactose</th>
<th>SCC</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Y</td>
<td>R</td>
<td>Y</td>
<td>R</td>
<td>Y</td>
</tr>
<tr>
<td>E</td>
<td>1</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>14</td>
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<td>J</td>
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<td>K</td>
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<tr>
<td>Total</td>
<td>4</td>
<td>0</td>
<td>54</td>
<td>2</td>
<td>1</td>
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</tbody>
</table>

Yellow: 5.4%, Red: 0.5%
## Moorepark Proficiency Programme Summary 2002 > 2011

<table>
<thead>
<tr>
<th></th>
<th>Fat</th>
<th>Protein</th>
<th>Lactose</th>
<th>SCC</th>
<th>TOTAL</th>
</tr>
</thead>
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<tr>
<td></td>
<td>Y</td>
<td>R</td>
<td>Y</td>
<td>R</td>
<td>Y</td>
</tr>
<tr>
<td>2011</td>
<td>4</td>
<td>0</td>
<td>54</td>
<td>2</td>
<td>1</td>
</tr>
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</table>

### Percentages over 10 year period

<table>
<thead>
<tr>
<th></th>
<th>% Y</th>
<th>% R</th>
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</thead>
<tbody>
<tr>
<td>% in 2011</td>
<td>7.4</td>
<td>0.0</td>
</tr>
<tr>
<td>% in 2010</td>
<td>12.6</td>
<td>2.8</td>
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<tr>
<td>% in 2009</td>
<td>11.9</td>
<td>0.0</td>
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<td>% in 2008</td>
<td>13.1</td>
<td>3.4</td>
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<td>% in 2007</td>
<td>14.7</td>
<td>1.7</td>
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<tr>
<td>% in 2006</td>
<td>13.0</td>
<td>1.2</td>
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<tr>
<td>% in 2005</td>
<td>14.7</td>
<td>2.7</td>
</tr>
<tr>
<td>% in 2004</td>
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<td>2.5</td>
</tr>
<tr>
<td>% in 2003</td>
<td>12.0</td>
<td>2.2</td>
</tr>
<tr>
<td>% in 2002</td>
<td>9.2</td>
<td>1.2</td>
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<tr>
<td>Averages</td>
<td>12.2</td>
<td>1.8</td>
</tr>
</tbody>
</table>

### Averages

- Fat: 12.2%
- Protein: 1.8%
- Lactose: 3.6%
- SCC: 10.9%
- TOTAL: 8.0%
Inter Lab Results & Milk Recording Management

2002 – 8 Milk recording agencies, ageing equip = difficult to review/action results

2012 – 2 Milk Recording agencies account for 97% of cows recorded

Higher volume, newer equip

Easier to review with 2 x Milk Recording Management teams
2012 – 2017 Future challenges/Opportunities Irish Labs

- Optimir (in progress)

- More from sample - Carry Over (sampling and lab?)

- In Line analysers (how close?…)

end