



# ICAR Inter Laboratory Proficiency Testing – Ireland Update

# Review 2002 - 2011





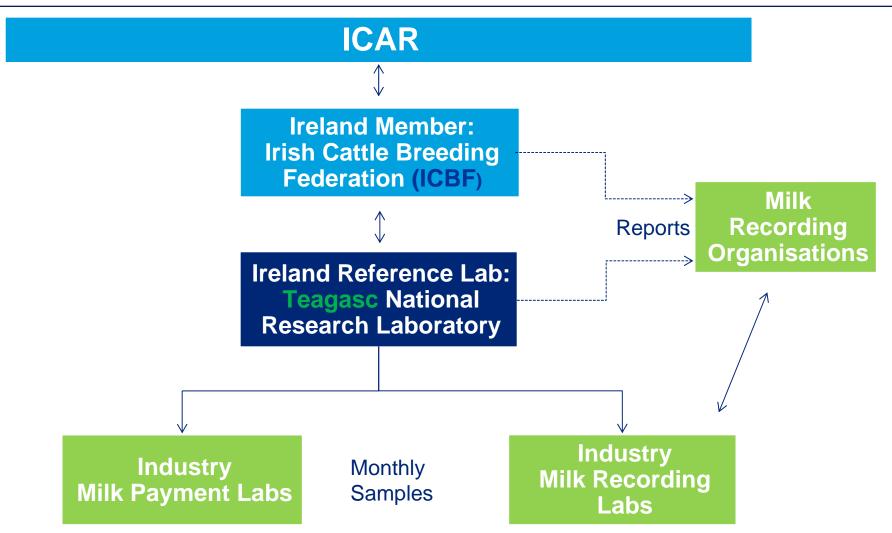
Martin Burke (ICBF), Des Eason (Teagasc), Anne Marie McAuliffe (Teagasc)

May 28th ICAR 2012 Cork



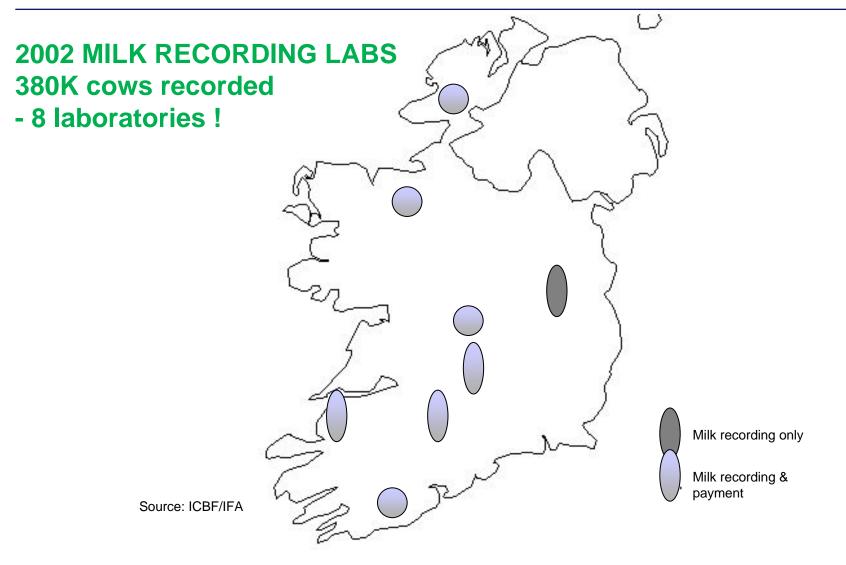
## **Overview Ireland : Prof. Test Structure**





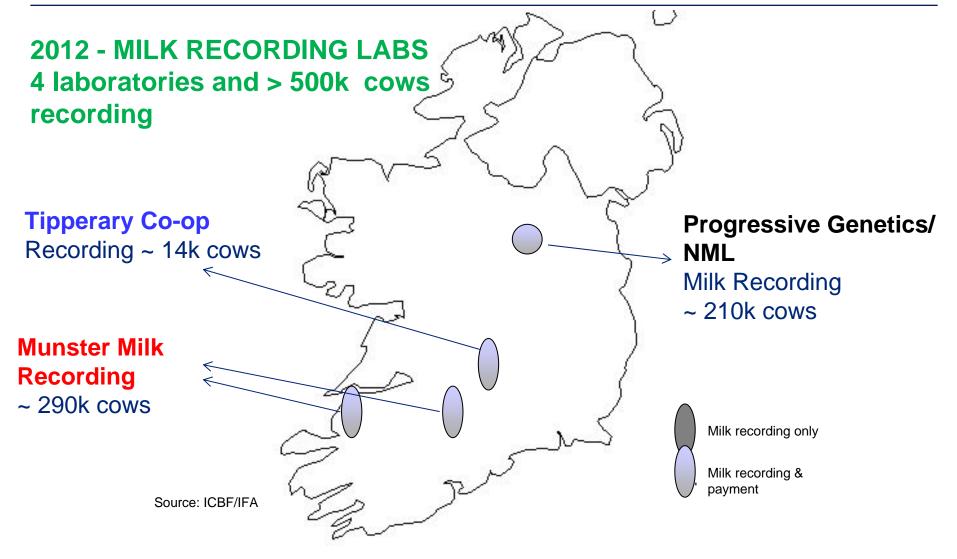
## 10 Yrs Ago - Ireland Milk Recording Labs 2002





#### **Current - Ireland Milk Recording Landscape 2012**





### **Moorepark International Ring Test – ICAR Labs**



□ 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**



U 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<br>Number of Yellow & Red cards received by each lab in the year 2011 |     |   |                |         |   |                |         |   |                |     |   |                |       |   |                |
|---|-----|---|----------------|---------|---|----------------|---------|---|----------------|-----|---|----------------|-------|---|----------------|
| Numb  | Fat |   |                | Protein |   |                | Lactose |   |                | SCC |   |                | TOTAL |   |                |
| Lab<br>Code   | Y   | R | No of<br>Tests | Y       | R | No of<br>Tests | Y       | R | No of<br>Tests | Y   | R | No of<br>Tests | Y     | R | No of<br>Tests |
| Е   | 1   | 0 | 14             | 0       | 0 | 14             | 0       | 0 | 12             | 5   | 0 | 13             | 6     | 0 | 59             |
| J   | 2   | 0 | 12             | 0       | 0 | 12             | 0       | 0 | 12             | 0   | 0 | 12             | 2     | 0 | 50             |
| к   | 1   | 0 | 18             | 2       | 1 | 18             | 0       | 0 | 16             | 0   | 0 | 17             | 3     | 1 | 73             |
| S   | 0   | 0 | 10             | 0       | 0 | 10             | 0       | 0 | 10             | 1   | 0 | 9              | 1     | 0 | 40             |
| Total   | 4   | 0 | 54             | 2       | 1 | 54             | 0       | 0 | 50             | 6   | 0 | 51             | 12    | 1 | 222            |

.4%, **R** 0.5%

#### Monthly Inter Lab Scoring Results 2002 -2011



| Moorepark Proficiency Programme Summary 2002 > 2011 |                                 |            |                |     |            |                |     |            |                |      |            |                |      |            |                |
|---|---------------------------------|------------|----------------|-----|------------|----------------|-----|------------|----------------|------|------------|----------------|------|------------|----------------|
|   |                                 |            |                |     |            |                |     |            |                |      |            |                |      |            |                |
|   | Fat                             |            | Protein        |     |            | Lactose        |     |            | SCC            |      |            | TOTAL          |      |            |                |
|   | Y                               | R          | No of<br>Tests | Y   | R          | No of<br>Tests | Y   | R          | No of<br>Tests | Y    | R          | No of<br>Tests | Y    | R          | No of<br>Tests |
| 2011 Totals   | 4                               | 0          | 54             | 2   | 1          | 54             | 0   | 0          | 50             | 6    | 0          | 51             | 12   | 1          | 222            |
|   | Percentages over 10 year period |            |                |     |            |                |     |            |                |      |            |                |      |            |                |
|   | % Y                             | % <b>R</b> |                | % Y | % <b>R</b> |                | % Y | % <b>R</b> |                | % Y  | % <b>R</b> |                | % Y  | % <b>R</b> |                |
| % in 2011   | 7.4                             | 0.0        | $\bigcirc$     | 3.7 | 0.5        | $\overline{}$  | 0.0 | 0          | $\bigcirc$     | 11.8 | 0          | $\odot$        | 5.4  | 0.5        |                |
| % in 2010   | 12.6                            | 2.8        |                | 8.2 | 0.9        |                | 3.1 | 0          |                | 15.3 | 3.0        |                | 8.6  | 1.5        |                |
| % in 2009   | 11.9                            | 0.0        |                | 7.7 | 0.3        |                | 3.2 | 0.3        |                | 14.4 | 2.3        |                | 8.3  | 0.6        |                |
| % in 2008   | 13.1                            | 3.4        |                | 8.0 | 0.6        |                | 3.9 | 0.9        |                | 8.4  | 1.9        |                | 7.6  | 1.5        |                |
| % in 2007   | 14.7                            | 1.7        |                | 6.1 | 0.9        |                | 3.7 | 0.3        |                | 7.0  | 1.1        |                | 8.0  | 1.0        |                |
| % in 2006   | 13.0                            | 1.2        |                | 7.8 | 0.0        |                | 0.7 | 0.0        |                | 11.7 | 1.2        |                | 8.3  | 0.6        |                |
| % in 2005   | 14.7                            | 2.7        |                | 9.5 | 0.8        |                | 5.2 | 0.0        |                | 7.4  | 1.0        |                | 9.4  | 1.2        |                |
| % in 2004   | 13.4                            | 2.5        |                | 9.9 | 0.5        |                | 6.3 | 0.0        |                | 15.4 | 4.8        |                | 11.0 | 1.8        |                |
| % in 2003   | 12.0                            | 2.2        |                | 6.1 | 0.5        |                | 5.2 | 0.5        |                | 5.8  | 1.6        |                | 4.7  | 1.6        |                |
| % in 2002   | 9.2                             | 1.2        |                | 9   | 0.6        |                | 4.7 | 0          |                | 11.7 | 2          |                | 8.6  | 0.9        |                |
| <b>Averages</b>                                     | 12.2                            | 1.8        |                | 7.6 | 0.6        |                | 3.6 | 0.2        |                | 10.9 | 1.9        |                | 8.0  | 1.1        |                |



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?...)