Milk Recording as a Decision Support System for the Commercial Farmer - Ireland Developments

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MR Ireland - Electronic DIY

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MR Statistics – Ireland

No. Dairy Herds/Cows in Ireland*
- 26,000 Dairy Herds in Ireland
- 1.15m Dairy cows in Ireland

* FAPRI-Ireland, DAF/Teagasc 2003

No. Milk Recording Herds/Cows in Ireland**
- 6,039 (24%) of these herds Milk Recording
- 382,734 (33%) of these Cows in Milk Recording

** Irish Cattle Breeding Federation database 2005

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Future : Irish Milk Recording

So, what is the VISION for Milk Recording in Ireland…?

In 5 years time where would we like to be…..?

2011
60% Dairy cows being recorded (~ 650,000 cows)

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Getting There!

So, to get the commercial dairy farmer to record we need to:

- Provide business based Management Info/ Reports,
- Provide "Action" based Reports – not just data
- Reduce inconvenience/hassle factor of MR
- Improve Service Quality, turnaround, reports etc
- Reduce Costs in providing MR

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Decision Balance for Commercial Farmer?

Minimise Effort
(Effort = Hassle/cost)

Maximise Benefit
(Increase Value Add)

<table>
<thead>
<tr>
<th>Effort</th>
<th>Benefit</th>
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</thead>
<tbody>
<tr>
<td>Recording must be geared to suit farmer i.e. time efficient &amp; easily operated, less intrusion, automate where possible.</td>
<td>Introduced Economic Breeding Index (EBI) - Profit based index to rate cows based on how much profit she leaves per lactation.</td>
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<tr>
<td>Provide more service options for farmer - eg. Number of visits, single sampling etc.</td>
<td>Redesign Reports – Action based to help farmer in Decision making, (eg Milk Quality, Sire Advice)</td>
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<tr>
<td>Reduce cost for farmer eliminate up front capital cost of meter.</td>
<td>Timely Reports - reduce cycle time to get quicker turnaround.</td>
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<tr>
<td>Reduce Cost to Service Provider – reduce labour element.</td>
<td>Format of info - give him in format he likes whether, email, Internet or text (SCC).</td>
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Management Reports – New Developments – e.g. Fertility Action

Reproductive Performance, Spring 2006

Week 3: First report

Week 5: First report

Week 7: Final report

1. Summary
The report is a summary of the reproductive performance of all cows that calved since the 1st of April and are available for the prescribed management decision. Records, neither are complete. The data are based on information recorded in Animal Health, online, online packages and IVI handbooks.

Culling, calving and rebreeding patterns, Spring 2006

% cows culled: 5%
% cows rebred: 85%

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Management Reports – New Developments – e.g. Fertility Action

Reproductive Performance, Spring 2006
Week 3: First report

Management Reports – New Developments – e.g. SCC Action

Milk Quality Report, Spring 2006

Management Reports – New Developments – e.g. SCC Action

Milk Quality Report, Spring 2006

Electronic Milk Recording System

- Cows’ IDs loaded direct from database
- Meter records Milk Volume Electronically
- Meter automatically agitates/samples
- Barcoded vial, no writing, more accurate
- Milk Yields electronically loaded to database
- Lab results electronically loaded to database
- Meters delivered - No Capital Purchase

Electronic Milk Recording System

- Meter automatically deposits sample into Barcoded bottles

Electronic DIY – Process Flow (Paperless)

1. Technician loads Cow IDs to Datahandler (DH) directly from database.
2. Farmer operates DH, meter reads PM, AM volumes & auto samples
3. Database merges weights & Lab file and sends reports to farmer
4. Lab tests barcoded samples, sends results file to database

Electronic DIY – Irish Model 2006

Equipment required:
- 72 x Tru Test Electronic Milk Meters
- 7 x Data Handlers, (DHs)
- 1 x Portable Printer
- 5,000 barcoded vials, and tray accessories etc
- Laptop for data Xfer
- Ancillary charging, data Xfer equipment, etc.

Van customised so meters are charged on the move

Electronic DIY – Cell Structure

North Cork Example - Dairygold

- 1 Cell serving approx 150 farmers, technician visiting 5 herds per day on average

Electronic DIY – Recorder Model vs Electronic (E-DIY)

<table>
<thead>
<tr>
<th>Criterion</th>
<th>Recorder based</th>
<th>E-DIY</th>
</tr>
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<tbody>
<tr>
<td>Inconvenience</td>
<td>3rd party in parlour, manual sampling, writing cow details, slow down milking</td>
<td>No stranger in pit, Farmer controls, meter auto agitates/auto samples, no writing</td>
</tr>
<tr>
<td>Hassle</td>
<td>Less Field staff</td>
<td>Select hi Q techs – easier to manage/motivate small team</td>
</tr>
<tr>
<td>Less Field staff</td>
<td>Service Quality</td>
<td>Less steps from farm to database, QUICKER TURNAROUND</td>
</tr>
<tr>
<td></td>
<td>Meter Cost/Utilisation</td>
<td>Meter used every test day, No purchase for farmer</td>
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<tr>
<td></td>
<td>Cost of Office Keeping</td>
<td>Every Herd has to be keyed</td>
</tr>
<tr>
<td></td>
<td>Cost Recorder</td>
<td>1 recorder for every test - Ave No. Herds/Recorder in Ireland is 12</td>
</tr>
</tbody>
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Electronic DIY – Irish Rollout

2004 > Feb 04 - Purchased 54 meters and 1 customised van
> Mar 04 - Piloted 30 herds in Dairygold (Munster) area.
> Jul 04 - due to pilot success grew to 100 farmers in cell
> Dec 04 – qualified and released dual volume single sampling

2005 > Feb 05 purchased further 200 meters
> Mar 05 - 3 CELLS in production some 320 farmers recording
> Apr 05 Reports made available to farmer via internet
> May 05 Farmer gets Text of worst 5 SCC cows/test
> Sep 05 Dry off by SMS text
> Nov 05 purchased 576 meters & 8 vans for 2006 season
Electronic DIY – Irish Roll out

2006 > Mar 06 Launched 8 further CELLS (11 CELLS now in operation with some 1000 farmers signed on*)
> Mar 06 released Milk Quality Action Report – SCC corrective action plan to help farmers tackle problem cows systematically
> Apr 06 released Reproductive Perf. Report – action plan to help farmers address fertility management systematically
> Apr 06 released Sire Advice Program – farmer enters breeding inputs on line or to call centre and we recommend 3 bulls per cow.

* Significantly of the 1000 or so sign ups to Elec DIY some 40% had not recorded before!

END