Introduction

• Background & Role of ICBF
• The National Database & Industry Links
• Data Recording
• HerdPlus® & Management Reports
ICBF Background

• ICBF Formally Established in 2000.

• Membership/Board: AI companies (18%), Milk Recording (18%), Breed Societies (18%) & Farmer Organisations (46%).

• Stakeholders in cattle breeding control decision making.

• Mission: To achieve the greatest possible genetic improvement in the national cattle herd – Dairy & Beef.
Role of ICBF

• Focus on genetic improvement as a tool for improving future profit on Irish cattle farms.
• Establish & maintain a central database of performance data.
• Define a breeding goal and selection index (e.g. EBI & Euro-Star Index).
• Provide routine genetic evaluations for all relevant breeds and traits.
• Ensure a breeding scheme of optimal design is operating in Ireland (e.g. Gene Ireland).
• Ensure continuous improvement base on science.
ICBF Database - 2000

- 6,000 Farmers
- DAFM
- AI Companies
- Milk Recording
- Herd Books

ICBF Database

© Irish Cattle Breeding Federation Soc Ltd 2016
Importance of ICBF to the Agrifood Sector

• June 2014, UCD study to investigate performance of the Agrifood Innovation System (AIS) within Ireland.

• Looked at the strengths and weaknesses of the Agrifood Sector.

• Some quotes from the report:
  - "The ICBF is widely cited as a success story within the agrifood sector."
  - "Trust and collaboration with key stakeholders is the essence of how ICBF operates."
  - "Punching well above its weight, the ICBF is at the cutting edge when it comes to genetics and the Irish cattle herd."

© Irish Cattle Breeding Federation Soc Ltd 2013
What data do farmers record on ICBF

• Birth Registration
  • Sire, Calving Ease, Pedigree Name, Birth Weights
• Fertility Data
  • Heats, AI & Natural Serves, Pregnancy Diagnosis
• Dry-offs
• Health Events
  • Mastitis, Lameness, Scour, Pneumonia, etc.
• Liveweights
• Milking Speed (Tru-Test meters)
• Dept. of Agri. Schemes
  • Calf Docility & Quality
  • Dam Temperament, Docility & Milkability
  • Stock Bull Docility & Functionality, Culling Reasons
Data in the ICBF Database

- Herds: 102k
- Live Animals: 6.2m
- Calving Records: 2.1m/yr
- Milk Recording: 2.6m/yr
- Farm Movements: 2.8m/yr
- AI Inseminations: 700k/yr
- Slaughter Data: 2m/yr
- BVD records: 2.1m/y
- Genomics: 8.6 billion
Increase in Data recording

- 90% of the world's data was created in the past 2 years
  - Mobile devices account for 17% - 27% by 2020
  - IOT accounts for 2%
- Volume of data in the world will double every 2 years
- ICBF examples:
  - Tully Feed Sensors
  - Health data – Liver Fluke, TB, Johnes
  - Spectra Data (OptiMir)
  - Genomics
How do farmers record data on ICBF

- ICBF web site
- DAFM web site
- Farm software companies
- Animal Events Sheets
- Mobile Phones - Text Messages & Apps
- Handhelds:

  - AI & Linear Scoring
  - Scanning Data
  - Electronic Weighting Scales
What is HerdPlus®

• Breeding information service which provides farmers with various reports and profiles on the performance of their stock

• These reports allow farmers gauge themselves against national averages and top performing herds e.g. Top 10%

• Other applications also available such as Dairy Sire Advice, Inbreeding Checker, Stock Reports

• 8,400 Dairy Herds, 12,750 Beef Herds.

• Cost - €60/year
HerdPlus® Products

- Dairy HerdPlus
  - EBI Report
  - Sire Advice ✔
  - Breeding Chart ✔
  - Calving Report ✔
  - Fertility Report
  - Dairy Cow Report
  - Pocket Notebook
  - Herd Catalogue
  - Stock Reports
  - 5 Year Trend Report
  - Discussion Group Reports ✔

- Beef HerdPlus
  - Euro-Star Report
  - Calving Report
  - Suckler Cow Report
  - Bull Tracker Report
  - Pocket Notebook
  - Herd Catalogue
  - Stock Reports
  - Weighing Report
  - Slaughter Report
  - Discussion Group Reports
  - Beef Journal

© Irish Cattle Breeding Federation Soc Ltd 2013
HerdPlus® Management Reports

- Allows farmer and/or adviser to summarise the herds performance and also benchmark against the national figures e.g. Dairy Calving Report;
- Allows performance of a herd to be assessed and identify areas for improvement;
- Key tool to allow a fast & cost-effective assessment of current performance;
- Provides a standardised approach to calculating the KPI’s (Calving Interval, 6 week calving rate, calves/cow/year).
- Text reminders when reports are ready!

**Dairy Calving Statistics**

(01/07/2013 --- 30/06/2014)

<table>
<thead>
<tr>
<th>Herd Owner: HERD A</th>
<th>Herd Number: IE1</th>
<th>Print Date: 11/09/2014</th>
<th>Page: 13</th>
</tr>
</thead>
</table>

**Spring Calving Dates**

<table>
<thead>
<tr>
<th>Cows</th>
<th>Start Calving</th>
<th>Median Calving</th>
<th>Last Calving</th>
<th>Calving Period</th>
<th>Avg Age Calving</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/02/2014</td>
<td>25/02/2014</td>
<td>20/04/2014</td>
<td>10 weeks + 2 days</td>
<td>5y 7m</td>
<td></td>
</tr>
<tr>
<td>Heifers</td>
<td>06/02/2014</td>
<td>17/02/2014</td>
<td>7 weeks + 0 days</td>
<td>1y 11m</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Calves born</td>
<td>239</td>
<td>133</td>
</tr>
<tr>
<td>Cows</td>
<td>45</td>
<td>27</td>
</tr>
<tr>
<td>Calves Dead at Birth</td>
<td>6</td>
<td>5</td>
</tr>
</tbody>
</table>

| Calves Live at Birth | 233 | 128 | 105 |
| Heifers | 43 | 25 | 18 |
| Med Calving (Herd) | 236 |

**Top 5 Key Performance Indicators (KPI’s)**

<table>
<thead>
<tr>
<th>KPI</th>
<th>Your Herd</th>
<th>Nat Avg</th>
<th>Btm. 5%</th>
<th>Top 5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Calving Interval (days)</td>
<td>366 days</td>
<td>396 days</td>
<td>456 days</td>
<td>364 days</td>
</tr>
<tr>
<td>2. Spring 6 Week Calving Rate</td>
<td>85%</td>
<td>56%</td>
<td>71%</td>
<td>90%</td>
</tr>
<tr>
<td>3. Calves per cow per year</td>
<td>0.98</td>
<td>0.89</td>
<td>0.91</td>
<td>1.01</td>
</tr>
<tr>
<td>4. Females not calved in Period</td>
<td>26%</td>
<td>10%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>5. Current Replacements rate</td>
<td>20%</td>
<td>22%</td>
<td>Not Applicable</td>
<td>Target 18-22%</td>
</tr>
</tbody>
</table>
Teagasc Discussion Group Reports

- Group report allows Teagasc advisors compare individual herds performance with group average and the group top performer;
- Major reduction of workload for advisor;
- More accurate data for constructive discussion.

**Discussion Group Dairy Calving Report**

**Group Name:** MONITOR FARMS
**Chairman:** AN Other
**Group Advisor:** AN Other
**Secretary:** -

<table>
<thead>
<tr>
<th>Name</th>
<th>Herd Id</th>
<th>Total No. of Calvings</th>
<th>Calving Interval (Days)</th>
<th>6 Weeks Calving Rate(%)</th>
<th>Calves per Cow per Year(%)</th>
<th>Females Not Calved(%)</th>
<th>Dead at Birth(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farmer 1</td>
<td>IE1517166</td>
<td>187</td>
<td>374</td>
<td>82</td>
<td>0.98</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Farmer 2</td>
<td>IE1514192</td>
<td>154</td>
<td>407</td>
<td>69</td>
<td>0.85</td>
<td>7</td>
<td>0</td>
</tr>
<tr>
<td>Farmer 3</td>
<td>IE1510137</td>
<td>122</td>
<td>373</td>
<td>68</td>
<td>0.98</td>
<td>0</td>
<td>2.4</td>
</tr>
<tr>
<td>Farmer 4</td>
<td>IE1418809</td>
<td>168</td>
<td>376</td>
<td>79</td>
<td>0.99</td>
<td>0</td>
<td>1.8</td>
</tr>
<tr>
<td>Farmer 5</td>
<td>IE2411956</td>
<td>166</td>
<td>373</td>
<td>86</td>
<td>0.98</td>
<td>0</td>
<td>4.7</td>
</tr>
<tr>
<td>Farmer 6</td>
<td>IE1510038</td>
<td>236</td>
<td>366</td>
<td>85</td>
<td>0.98</td>
<td>0</td>
<td>2.5</td>
</tr>
<tr>
<td>Farmer 7</td>
<td>IE2411030</td>
<td>100</td>
<td>377</td>
<td>67</td>
<td>0.95</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Farmer 8</td>
<td>IE3415524</td>
<td>178</td>
<td>369</td>
<td>75</td>
<td>0.99</td>
<td>0</td>
<td>1.1</td>
</tr>
<tr>
<td>Farmer 9</td>
<td>IE1416542</td>
<td>329</td>
<td>370</td>
<td>77</td>
<td>0.98</td>
<td>0</td>
<td>3.9</td>
</tr>
<tr>
<td>Farmer 10</td>
<td>IE1512116</td>
<td>114</td>
<td>375</td>
<td>68</td>
<td>0.92</td>
<td>1</td>
<td>6.1</td>
</tr>
</tbody>
</table>

**Group Average:** 182 374 76 0.96 1 2.6
**Group Top:** 365 87 0.99 0 0
**Group Target:**
Which bulls should I choose to improve any weaknesses in my herd?

HerdPlus Dairy Sire Advice will help you to choose the most suitable bulls.
### HerdPlus® Dairy Sire Advice

<table>
<thead>
<tr>
<th>Traits</th>
<th>My Herd</th>
<th>Select Trait</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dairy EBI</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EBI</td>
<td>€ 200</td>
<td>✓</td>
</tr>
<tr>
<td>EBI Rel%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Sub Index</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk</td>
<td>€ 64</td>
<td></td>
</tr>
<tr>
<td>Fertility</td>
<td>€ 104</td>
<td>✓</td>
</tr>
<tr>
<td>Calving</td>
<td>€ -5</td>
<td></td>
</tr>
<tr>
<td>Beef</td>
<td>€ 29</td>
<td></td>
</tr>
<tr>
<td>Maint</td>
<td>€ 0</td>
<td></td>
</tr>
<tr>
<td>Management</td>
<td>€ 3</td>
<td></td>
</tr>
<tr>
<td>Health</td>
<td>€ -1</td>
<td></td>
</tr>
<tr>
<td><strong>Milk Production PTA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Milk (Kg)</td>
<td>172 Kg</td>
<td></td>
</tr>
<tr>
<td>Fat (%)</td>
<td>0.12 %</td>
<td></td>
</tr>
<tr>
<td>Prot (%)</td>
<td>0.08 %</td>
<td>✓</td>
</tr>
<tr>
<td>Fat (Kg)</td>
<td>13.00 Kg</td>
<td></td>
</tr>
<tr>
<td>Prot (Kg)</td>
<td>10.00 Kg</td>
<td></td>
</tr>
<tr>
<td><strong>Fertility PTA</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Calving Int</td>
<td>-5.50 days</td>
<td></td>
</tr>
<tr>
<td>Survival %</td>
<td>2.90%</td>
<td></td>
</tr>
</tbody>
</table>

- Avoid Inbreeding.
- Minimise difference between Prod. & Fert. sub index.
- Minimise variation on milk kgs.

© Irish Cattle Breeding Federation Soc Ltd 2013
HerdPlus® Breeding Chart

Animal ID, Ancestry & EBI, calving data

Suggested Matings

Record Heats & Serves

Printed on A3 Sheets and put on the wall of the dairy/office

© Irish Cattle Breeding Federation Soc Ltd 2013
Summary

• The ICBF database is one of the most integrate cattle breeding databases in the world.
• Data is the lifeblood of ICBF – the more data; the higher the reliability.
• Collaboration is a key aspect of success in cattle breeding.
• HerdPlus is enabling Irish farmers make more profitable and efficient breeding decisions.
Thank you for your attention

twitter.com/HerdPlus

facebook.com/HerdPlus