Irish Cattle Breeding Federation

Ireland's Beef Data & Genomics Scheme.
Challenge; past focus on terminal traits => cow herd is not “fit for purpose”

Current calves/cow/year is only 0.80.
Challenge; Suckler cows are viewed negatively in context GHG.

- 12% of global GHG emissions are from agriculture
  - Ireland are worst in EU (33% of our GHG is from Ag).
- One solution; cut the Irish cattle herd (-40%).
- Irish Solution; Breed more sustainable animals => BGDP 2015-2020.
Replacement index – Weight

- 35 kg at weaning

Ratio weanling: cow weight

- 31 kg lighter

Replacement Star Rating

1 2 3 4 5

Weight (kg)

Weaning weight
Cow weight
Ireland’s BDGP Scheme.

- If suckler cows are viewed as “the problem”, surely they can also be part of the solution!
- Funded as part of EU Rural Development Program. Co-funded with our own DAFM.
  - Agriculture, Climate and Environment Commissions.
- €300m total funding over 6 years.
  - Works out at approximately €90/cow.
  - ~€40m towards cost of genotyping.
  - 1 million animals genotyped in next 2 years.
- ~25k farmers & ~550,000 cows involved.
Key Actions re: Scheme.

• Calving. Complete additional calving details at birth, e.g., sire & calving survey.
• Surveys. Collect additional survey data on individual animals (calves, cows, stock bulls).
• Genotyping. Genotype 60% of “reference cows” (number cows calved in 2014) on annual basis.
  – Pedigree animals given priority.
Key Actions re: Scheme.

- Replacement Strategy.
  - Herds MUST have a genotyped 4/5 star breeding bull on farm by 2019, on either the replacement or terminal index. If using AI, 80% of semen used from 2016 must be to genotyped 4/5 star sires (on either index).
  - 50% of female herd MUST be genotyped 4/5 star on replacement index.
  - Animals defined as “eligible” for the scheme based on 4/5 stars, with a genomic evaluation.
- Carbon Navigator. Complete a carbon navigator within first 12 months. Update each year.
- Training. Attend training course in first year.
IDB Chip

- The International Dairy & Beef Chip.
- Currently on v3.
- 54k SNP’s.
  - 40k core, 6k for better imputation, 7k for “regions of interest” & 1k for major genes/defects.
- 160 Major genes/defect.
- €22 to farmer incl Tax, sampling tags & all P&P
## Genotyped non AI animals

<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>Animals</th>
<th>Aug-15 official Repl index</th>
<th>Aug-15 genomic Repl index</th>
<th>Aug-15 rel %</th>
<th>Aug-15 genomic rel %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Females NO sire</td>
<td>36,300</td>
<td>€79</td>
<td>€118</td>
<td>19</td>
<td>39</td>
</tr>
<tr>
<td>Females WITH sire</td>
<td>26,417</td>
<td>€82</td>
<td>€101</td>
<td>32</td>
<td>45</td>
</tr>
<tr>
<td>Males born pre 2014</td>
<td>37,499</td>
<td>€73</td>
<td>€73</td>
<td>34</td>
<td>44</td>
</tr>
<tr>
<td>Males born since 2014</td>
<td>2,027</td>
<td>€81</td>
<td>€83</td>
<td>21</td>
<td>36</td>
</tr>
</tbody>
</table>
Opportunities to expand.

• There are 12m suckler cows in the EU.
• Clear opportunities for other EU countries to have same/similar scheme to IRE.
  – Scotland now have a scheme approved and will genotype 50k animals/year over next 3 years.
• Speak with your government contacts.
  – RDP programs can be updated each year. All countries will have a “mid-term” review in 207.
• ICAR/Interbeef can help provide a co-ordinating role.
• Fantastic opportunity to fast forward our beef breeding efforts.