What’s on the Horizon for Grazing Genetics?

Matthew Costello
CRV Sales Project Specialist

Cattle Improvement at CRV

• Established in 1874
• Mission: “CRV is a leading customer-focused cattle improvement co-operative, fully committed to adding value for farmers.”
• CRV helps on various fronts
  • consultants on the farm
  • management products
  • research focused on new solutions
  • services
• Several breeding programs

The Role of Breeding in New Zealand

New Zealand breeding objectives changed over time:
• ’60’s – ’80’s Fat
• Mid ’80’s Fat + Protein
• Post ’90 Economic efficiency – account for cost of dry matter for maintenance
• Now Also includes non-production traits like Survival, Fertility and SCC

The increased economic efficiency achieved on dairy farms in New Zealand from genetic improvement in dairy cows has been one of the critical factors in maintaining the economic viability of the dairy industry.

Economic Efficiency

Goal: Improve net income per unit of feed consumed
Improved output over input
MORE WITH LESS

Can improvements be made?

Crossbreeding the NZ-way

Cross-Cross – little black cow
Manage size by using Jersey or Friesian
Maiden refers to jersey
Anything that looks like jersey goes to Friesian and vice versa
F8R animal is the goal.
Hybrid vigor is bonus

Using Crossbred bulls
Simplicity is key – what to use on Xbred-cows
Hybrid vigor not the focus
Want to stabilize breed make-up
1/8 Friesian through to 1/8 Jersey
Merge desired traits from 2 dominant breeds to design cow that meets farm and management system

Changing the Breed

Graph 4/10: Trend in the percentage of inseminations of each major breed for the last 10 seasons.
New Zealand Herd Statistics

<table>
<thead>
<tr>
<th>Breed</th>
<th>Cows Tested</th>
<th>DIM</th>
<th>Milk (ltr)</th>
<th>Fat (kg)</th>
<th>Prot (kg)</th>
<th>Solids (kg)</th>
<th>Fat%</th>
<th>Prot%</th>
<th>Body Weight</th>
<th>Solids/Kg Body Weight</th>
<th>Calving Interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friesian</td>
<td>925,203</td>
<td>211</td>
<td>4,414</td>
<td>193</td>
<td>354</td>
<td>468</td>
<td>4.42</td>
<td>3.65</td>
<td>468</td>
<td>0.76</td>
<td>368</td>
</tr>
<tr>
<td>Jersey</td>
<td>340,146</td>
<td>210</td>
<td>3,118</td>
<td>176</td>
<td>304</td>
<td>376</td>
<td>5.65</td>
<td>4.14</td>
<td>376</td>
<td>0.81</td>
<td>368</td>
</tr>
<tr>
<td>Xbreed</td>
<td>1,225,542</td>
<td>212</td>
<td>3,932</td>
<td>193</td>
<td>345</td>
<td>434</td>
<td>4.95</td>
<td>3.89</td>
<td>434</td>
<td>0.85</td>
<td>368</td>
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Crossbreeding in the US…so far

<table>
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<th>Sire Breed of Crossbred Females</th>
<th>33 Heifers imported by the Philippines in 2011:</th>
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<td>- Calved in November 2011 at 27-30 months of age</td>
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<td>- 90% confirmed pregnant on 28 February 2012 (105 days)</td>
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<td>- Milk Production over 320 days</td>
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<td>Range 9.5 to 23.6kg/cow/day</td>
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<td>Average per Cow 14.4kg/day</td>
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<td>Lactation Average 4,600kg/annum</td>
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<td>Better beef value when culled</td>
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Sahiwal

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- 90% confirmed pregnant on 28 February 2012 (105 days)
- Milk Production over 320 days
Range 9.5 to 23.6kg/cow/day
Average per Cow 14.4kg/day
Lactation Average 4,600kg/annum
Better beef value when culled
How would they do in better situations?

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10th Mid-Atlantic Dairy Grazing Conference

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**Girolando**

Production Statistics:
- Average age at first calving 35 months
- Calving interval of 468 days
- Daily milk yield 12.3kg/day
- Lactation yield 4,400kg/305 days
- Fat 4.0%  Protein 3.7%
- Good carcass yields

**Other Possibilities**

Unfortunately we cannot import semen from Brazil

What are our other options?
- Heat Tolerance Selection
- Create selection indexes for improved performance

Key to Success:
Make the cow to fit your system, and get the most return from your grass.

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Thank You

Any Questions?

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