LAMBPLAN: Meeting Market Specifications

Produced for the CRC for Premium Quality Wool undergraduate program by;
Dr. Robert Banks and Dr Alex Ball, MLA LAMBPLAN.
The Sheep Industry Challenge

Real Prices for Wool and Lamb

Year

Real Price ($)
What are the specs in sheepmeat?  
I: Domestic Lamb

- Standard domestic carcase is 18-22 kg, and rising
- Domestic markets want fat score 2-3, with 7-12 mm often preferred
- Domestic markets prefer E, U or R muscling
- 2nd-cross preferred
What are the specs in sheepmeat? II: Export Lamb

- Carcase weight 20 kg and above, and rising
- Fat score 2-3 preferred, some flexibility
- Prefer E, U or R muscling, but more flexible
What are the specs in sheepmeat?
III: Mutton (old, young)

• Greater than 24 kg (usually)
• no spec on fat, muscle, ...
• Colour?
• Age?
• Price ~ as cheap as possible
• Mutton is not at present a food product!
How to reduce cost-of-production?

- Sires need to be genetically high growth rate, lean and well-muscled
- Dams must be genetically high weaning rate and good milking
- Dams should cut plenty of wool (reduces cost of production of meat!)
How to source the seedstock:

• Sheepmeat production is simply adding feed to genes then managing!

• LAMBPLAN provides EBVs and Index Values for terminal sire, crossing, dual-purpose and Merino animals

• EBVs are your best guide to the value of an animal’s genes
### Example EBVs and Index Values:

<table>
<thead>
<tr>
<th>ID</th>
<th>Ywt (kg)</th>
<th>Yfat (mm)</th>
<th>Yemd (mm)</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>980001</td>
<td>+ 3.0</td>
<td>- 1.0</td>
<td>+ 1.0</td>
<td>+ 31</td>
</tr>
<tr>
<td>980002</td>
<td>+ 0.5</td>
<td>+ 0.5</td>
<td>+ 0.5</td>
<td>+ 7</td>
</tr>
<tr>
<td>980003</td>
<td>- 2.5</td>
<td>+ 1.0</td>
<td>- 0.5</td>
<td>0</td>
</tr>
</tbody>
</table>
How are EBVs Produced?

- Breeders supply ID, pedigree, date of birth, birth type, management group
- Scanners measure backfat and eye muscle depth
- Pedigree and performance data is processed to produce EBVs and Indexes
- All LAMBPLAN is ACROSS-FLOCK
# Indexes for Different Breed Roles

<table>
<thead>
<tr>
<th>Animal Type</th>
<th>Emphasis in $Index on</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Growth</td>
</tr>
<tr>
<td>Terminal sires</td>
<td>***</td>
</tr>
<tr>
<td>Dual-purpose (meat)</td>
<td>**</td>
</tr>
<tr>
<td>Dual-purpose (wool)</td>
<td>*</td>
</tr>
</tbody>
</table>
# Sire Specs for Different Markets:

<table>
<thead>
<tr>
<th>Market Target</th>
<th>Weight (PWWT)</th>
<th>Fat (YFAT)</th>
<th>Muscle (YEMD)</th>
<th>Index (60:20:20)</th>
<th>Index (80:10:10)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trade (R and O)</td>
<td>+3</td>
<td>&lt;0</td>
<td>&gt;0</td>
<td>117.52</td>
<td>120.04</td>
</tr>
<tr>
<td>Trade (E and U)</td>
<td>+3</td>
<td>&lt;0</td>
<td>+2</td>
<td>144.78</td>
<td>138.88</td>
</tr>
<tr>
<td>Heavy (R and O)</td>
<td>+2</td>
<td>&lt;0</td>
<td>&gt;0</td>
<td>111.68</td>
<td>113.36</td>
</tr>
<tr>
<td>Heavy (E and U)</td>
<td>+2</td>
<td>&lt;0</td>
<td>+2</td>
<td>138.94</td>
<td>132.2</td>
</tr>
<tr>
<td>Export (R and O)</td>
<td>+2</td>
<td>-2</td>
<td>&gt;0</td>
<td>123.56</td>
<td>119.7</td>
</tr>
<tr>
<td>Export (E and U)</td>
<td>+2</td>
<td>-2</td>
<td>+2</td>
<td>150.82</td>
<td>138.54</td>
</tr>
</tbody>
</table>
What are the Challenges for Sheepmeat Breeders and Producers?

- Better breeding!
- Better feeding and management!
- Better marketing strategies!