PRACTICAL ASPECTS OF SIRE REFERENCING

Hans Porksen

Gallows Hill Farm, Cambo
Morpeth, Northumberland, England

The scheme consists of over 50 Suffolk breeders who mate 30 of their stock ewes to 2 or 3 genetically superior ‘Reference Sires’.

The main aim is to identify superior breeding stock with higher growth rates, more muscle and retain fat level at current levels.

Figure 1.
8 Week and 20 Week (Scan) Weight Estimated Breeding Values (EBV) for the Suffolk Sire Reference Scheme.

Figure 2.
Muscle and Fat Estimated Breeding Values (EBV) for the Suffolk Sire Reference Scheme.
Figure 3.
Index for the Suffolk Sire Reference Scheme.

Why the scheme is successful

1. Breeders make all the decisions after taking advice from the experts.
2. Rules and regulations are kept to a minimum.
3. No element of compulsion regarding which ram is mated to what ewe - the breeder decides.
4. A good selection of genetically superior reference sires are now available.
5. The scheme secretary and members are very involved in promoting the scheme.
6. Artificial Insemination (A.I.) results are improving.
7. Commercial producers are looking for high index sires and are prepared to pay a premium.

How my flock (T79) performs

Figure 4.
Comparison of Flock T79 with the Overall Suffolk Sire Reference Scheme for 8 Week and 20 Week (Scan) Weight Estimated Breeding Values (EBV).
This means in practice that our lambs are on average 2.57 kg heavier at 8 weeks and 5.40 kg heavier at 20 weeks, they have 1.45 mm more muscle and slightly less fat compared to the average of all 4019 lambs in the Suffolk Sire Reference Scheme for the base year 1990 when the Index was set at 100. The current scheme average is 142.

Table 1. T79 Flock Figures 1995.

<table>
<thead>
<tr>
<th>FLOCK T79</th>
<th>8 week (kg)</th>
<th>20 week (kg)</th>
<th>Muscle (mm)</th>
<th>Fat (mm)</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average for 99 lambs in 1995 crop</td>
<td>2.57</td>
<td>5.40</td>
<td>1.45</td>
<td>-0.01</td>
<td>189</td>
</tr>
</tbody>
</table>
A.I. results - 1995/6 season

Of 84 ewes inseminated 75 held to A.I. Both frozen and fresh semen was used.

Average conception: 89%
Fresh semen: 93.5%
Frozen semen: 86%

Reasons for good results

a) ‘Edinburgh Genetics’ instructions are followed exactly.
b) Rams used fresh have a selenium injection 10 weeks before mating and are closely inspected and carefully managed.
c) Ewes have no contact at all with rams until 5 days before sponge insertion when each ewe is exposed to the ram individually. The effect of this is that all ewes have a silent oestrus the following day, and their ovaries are starting to work before being put ‘on hold’ by the sponges.

I have no scientifically researched evidence that this will increase conception but believe it to be so. It is a logical follow up from the results of our commercial ewes where last year all but 2 out of 486 ewes lambed within 20 days without the use of sponges and only using this ‘ram effect’ to achieve synchronization.
d) Ewes that don’t suit the system are culled.

Selection of Breeding Stock

Sires

Table 2. Sires Used in Flock T79.

<table>
<thead>
<tr>
<th>RAMS</th>
<th>8 week (kg)</th>
<th>20 week (kg)</th>
<th>Muscle (mm)</th>
<th>Fat (mm)</th>
<th>Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savernake Harvest Star</td>
<td>6.33</td>
<td>12.42</td>
<td>4.94</td>
<td>0.42</td>
<td>319</td>
</tr>
<tr>
<td>Robinson’s Juan Fernandez</td>
<td>3.74</td>
<td>10.10</td>
<td>2.88</td>
<td>-0.08</td>
<td>273</td>
</tr>
<tr>
<td>Fordafourie Supersire 94</td>
<td>4.21</td>
<td>8.22</td>
<td>2.89</td>
<td>0.21</td>
<td>241</td>
</tr>
<tr>
<td>Hallhill Supersire</td>
<td>4.08</td>
<td>9.31</td>
<td>1.14</td>
<td>0.65</td>
<td>195</td>
</tr>
</tbody>
</table>

In the future only R.R. resistant rams will be used.

Females

All replacements for the flock are above the average flock index.
All stock is inspected carefully to be sound in every way and good examples of the Suffolk breed.
Sheep with obvious faults are slaughtered at 12-14 weeks of age.

Benefits of Being a Member

a) Performance level of the flock is improving - both physical and financial.
b) Progress is very rapid (it appears slow at the start).
c) The future for sound genetically superior stock looks good.