PRELIMINARY PRODUCTION DATA FOR THE AUSTRALIAN INDUSTRY SHEEP CRC RESOURCE FLOCK

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As part of the meat program of the Australian Sheep Industry CRC, a resource flock has been established at the NSW Agriculture Centre for Sheep Meat Development, Cowra. The flock generated progeny in 2003 for use in strategic studies on fat and muscle development. Sires were selected using LAMBPLAN EBVs for growth and muscle development and are linked to previous genetic studies. Lamb types were generated by using 4 sires per sire group as follows:
1. Terminal sire x Border Leicester x Merino (growth sires) (MBLPD),
2. Terminal sire x Merino (muscle sires) (MPDm),
3. Terminal sire x Merino (growth sires) (MPDg),
4. Merino x Merino (MM), and
5. Border Leicester x Merino (MBL).

A successful AI program in February 2003 resulted in over 80% of the ewes pregnant (450 Merino and 120 Border Leicester x Merino) with lambing occurring in July. The progeny were randomly assigned to 1 of 4 slaughter dates from 4 to 18 months of age. The first slaughter occurred at weaning in November 2003, and future slaughters are due in March 2004, September 2004 and February 2005.

This paper presents birth weight and growth rates to weaning and initial post weaning for each sire group. Data have been analysed using Generalised Linear Regression Model with removal of non-significant terms. Predicted means (Table 1) take account of significant terms such as birth type, lamb sex and number of lambs raised per ewe.

Table 1. Lamb numbers, birth weights, pre- and post-weaning growth rates for sire groups (see text).

<table>
<thead>
<tr>
<th>Sire Group</th>
<th>No. born</th>
<th>Birth weight (kg)</th>
<th>No. weaned</th>
<th>Wean gain a (g/d)</th>
<th>No. post-wean</th>
<th>Post .wean gain b (g/d)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBLP 216</td>
<td>4.71 b</td>
<td>172</td>
<td>313 c</td>
<td>117</td>
<td>132 c</td>
<td></td>
</tr>
<tr>
<td>MPDm 188</td>
<td>4.54 ab</td>
<td>140</td>
<td>264 c</td>
<td>89</td>
<td>105 b</td>
<td></td>
</tr>
<tr>
<td>MPDg 173</td>
<td>4.47 a</td>
<td>135</td>
<td>270 c</td>
<td>87</td>
<td>116 b</td>
<td></td>
</tr>
<tr>
<td>MM 145</td>
<td>4.48 a</td>
<td>117</td>
<td>232 c</td>
<td>74</td>
<td>73 c</td>
<td></td>
</tr>
<tr>
<td>MBL 138</td>
<td>4.40 a</td>
<td>116</td>
<td>252 c</td>
<td>83</td>
<td>112 b</td>
<td></td>
</tr>
<tr>
<td>l.s.d</td>
<td>0.18</td>
<td>8.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a Wean gain from birth to weaning (10th November 2003)
b Post weaning gain from weaning to 8th January 2004
Different letters in columns represent significant differences (P<0.05)

Birth weights and growth rates to weaning are similar to those reported by Fogarty et al. (2000), however, post weaning gains are lower than can be achieved under full feeding conditions (Hopkins et al. 1996). The post weaning gains reflect summer pasture conditions and limited supplementary feeding (silage and grain). Sire groups have performed as expected, however, the MPDg group to date has not shown a significant advantage for having sires selected for high growth EBVs. This may change as the animals are held till the last slaughter at 18 months of age. At each slaughter, a large number of muscle, fat and bone samples are being taken by a number of scientists involved in the collaborative program, and the results of this work will be published in the future.

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