THE SIGNIFICANCE OF PEN LIBIDO TESTING OF RAMS
IN RELATION TO Paddock MATING PERFORMANCE

M.D. RIVAL* and P.J. CHENOWETH*

Previous studies have revealed promising relationships between ram libido-serving capacity assessments and their mating performance in the paddock (Mattner et al. 1971; KIlgour 1979; and KIlgour and Whale 1980). Such assessment methods are generally time and effort consuming. In an attempt to develop a procedure suitable for large-scale ram testing, Rival and Chenoweth (1982) reported a pen-libido test which was rapid, simple and repeatable. This report describes a field mating trial to evaluate this test.

44 mixed-age Merino rams were libido tested as described previously (Rival and Chenoweth 1982) and high (n=8), medium (n=10) and low (n=6) libido ram groups were selected for joining with randomly selected ewes at a ram to ewe rate of approximately 5%. A total of 489 3 y.o. Merino ewes were prior subjected to out-of-breeding-season (November) regimes employing progestagen impregnated intra-vaginal sponges (Chronogest 30 mgm, Intervet) and parenteral PMSG (Pregnecol 400 I.U., Livestock Laboratories). Sire-sine ram harnesses were used to identify ewes served (weekly observations) and ewe pregnancy rates were based on non-return to service over 6 weeks breeding and udder examination at lamb marking. Results were subjected to Chi-square analysis.

TABLE 1 Effect of libido of ram syndicate on paddock mating performance

<table>
<thead>
<tr>
<th>Libido category of syndicate</th>
<th>Average libido score of rams</th>
<th>Ewes joined</th>
<th>Ewes served(%)</th>
<th>Return to service(%)</th>
<th>Ewes pregnant to first cycle (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>8.25/10</td>
<td>163</td>
<td>71.2</td>
<td>55.2</td>
<td>2.09</td>
</tr>
<tr>
<td>Medium</td>
<td>4.25/10</td>
<td>124</td>
<td>65.8</td>
<td>61.4</td>
<td>1.79</td>
</tr>
<tr>
<td>Low</td>
<td>1.25/10</td>
<td>124</td>
<td>57.3</td>
<td>58.3</td>
<td>13.9</td>
</tr>
</tbody>
</table>

Approximately 60% of ewes responded to the hormonal regimes (based on sire-sine data) and, of these, approximately 20% became pregnant to first cycle breeding. Significant differences occurred among sire-libido groups in the percentage of ewes served, with the high libido group being superior to the low libido group (p<0.05). Although favourable trends in returns to service and ewe pregnancy rates were observed, no significant differences were detected.

These data indicate that the libido test was useful in predicting ram-syndicate paddock mating performance. It is considered that the use of in-season ewes in this programme would have placed greater breeding pressure on the rams causing greater divergence in the performance of the different libido groups.


* Pastoral Veterinary Centre, J.U. Box 168, Goondiwindi, Qld 4390.