ALLIANCES - IMPLICATION FOR WOOL SHEEP BREEDING

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SUMMARY
Formation of alliances has been an evolutionary process. Exploitation of niche markets are useful, but the secure future for a large section of the wool industry will depend on development of co-operative structures, to maintain supply of wool to processors specification under strict quality control. Aggregation by groups of producers with sound management standards and similar wool specifications can be cost effective. Breeding programs can be structured to improve clip uniformity. A progeny testing program for wool processing traits has been implemented and described.

Keywords: Marketing, processing performance, breeding programs.

INTRODUCTION
My experience related to the formation of alliances through sheep breeding, wool production and marketing has been an evolutionary process including:

- long term experience in the application of objective measurement within a sheep breeding program.
- co-operation with other producers attempting to establish special wool sale catalogues of elite wools.
- a joint venture arrangement with a top maker to sell wool as tops.
- a co-operative venture selling tops through the innovative company, Australian Wool Enhancers.
- the purchase by our family company of a half share in the high quality knitwear producer, Toorallie.
- assisting a group of our clients to develop forward selling through a local exporter to an overseas processing and textile manufacturer.
- with the assistance of Advanced Breeding Services and CSIRO, restructuring our breeding program so as to align genetic improvement more directly to wool processing requirements.

Genetic manipulation can contribute to improvements in wool production, the development of market opportunities and enhanced performance as a textile fibre. Before being more precise about this however (in relation to the development of alliances within the industry) it is necessary to take the hazardous step of predicting the future of wool marketing.

My prediction is that forward selling and joint venture arrangements between producers and processors will continue to develop and may eventually become the dominant market influence.
The exploitation of niche market opportunities by specialist wool growers and enterprises such as 'Toorallie' play a useful role but cannot accommodate the great bulk of the Australian wool clip. As an American wool buyer commented recently, "In this sector forget about niche markets, your best bet is to develop niche marketing systems." In other words, producer alliances that can communicate details of their supply to the processors who want the product.

It is my view therefore that a more secure future for a large section of the wool industry will depend on the development of co-operative structures bringing together producers capable of maintaining a reliable supply of wool under strict quality control parameters that will attract the attention of the leading apparel textile processors and manufacturers.

THE GROUP MARKETING CONCEPT

The main factors to be taken into account by wool producers motivated to form co-operative marketing arrangements are-

- environmental compatibility
- similarity of wool type
- advanced management standards
- similarity of genetic background

Organisation can be the responsibility of an executive elected by the members, or by farm management consultants, the larger Merino ram breeding enterprises, wool broking firms, wool exporters etc. Whatever the arrangements made, it is essential that the group establish access to expertise in export and customer communication.

The producers group is the basic unit in this wool marketing concept. However in order to aggregate large quantities of wool and to establish continuity of supply of similar product throughout the year co-operation between groups with a spread of shearing season is desirable.

In this way large manufacturing enterprises can be offered continuity and reliability of supply within a just-in-time delivery framework.

BREEDING FOR WOOL CLIP UNIFORMITY

One of wools major disadvantages compared to competing fibres is the fragmentation of its production base. Average clip size is little more than 40 bales.

Aggregation into marketable quantities by groups of producers with sound management standards and similar wool specifications can be a cost effective way of addressing this problem.

The uniformity of wool specification both within and between the flocks included in a marketing group depends to a large extent upon genetic background and therefore the ram suppliers selection policy.
To illustrate this point Table 1 provides data obtained from a trial conducted by a commercial wool producer who wished to compare three potential ram sources. He purchased a number of rams from each and from comparable sale grades. He mated these ram groups to randomly selected groups of ewes drafted from a flock unrelated to all three ram sources. The comparison of results reveals substantial differences in uniformity.

Table 1. Variation in commercial wool production of progeny of rams from three bloodlines.

<table>
<thead>
<tr>
<th>Bloodline</th>
<th>GFW(kg)</th>
<th>FD(mm)</th>
<th>Yield(%)</th>
<th>Wool Classers Lines By Weight</th>
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</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AAAM</td>
</tr>
<tr>
<td>1</td>
<td>4.90</td>
<td>21.1</td>
<td>69.0</td>
<td>80%</td>
</tr>
<tr>
<td>2</td>
<td>4.77</td>
<td>21.8</td>
<td>70.8</td>
<td>65%</td>
</tr>
<tr>
<td>3</td>
<td>4.36</td>
<td>22.0</td>
<td>68.5</td>
<td>60%</td>
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</table>

PROGENY TESTING FOR WOOL PROCESSING TRAITS

Last year we extended our sire progeny testing program to include estimates of comparative wool processing performance. See Table 2.

This was achieved from measurements recorded from midside samples collected from all the ewe portion of each of seven sire progeny groups. At the time of sampling the progeny were 17 months of age and carried 9 months wool growth.

Table 2. Wool processing performance for progeny of seven sires.

<table>
<thead>
<tr>
<th>Sire Code</th>
<th>Number Progeny</th>
<th>Fibre Diameter</th>
<th>Yield</th>
<th>Mean Stp Length</th>
<th>Mean Stp Strength</th>
<th>Hauteur</th>
<th>Est Top Value</th>
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<td></td>
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<td></td>
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</tr>
<tr>
<td>1</td>
<td>28</td>
<td>19.2</td>
<td>69.6</td>
<td>79.4</td>
<td>32.4</td>
<td>62.7</td>
<td>$15.72</td>
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<td>2</td>
<td>33</td>
<td>18.5</td>
<td>60.3</td>
<td>78.9</td>
<td>44.0</td>
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<td>19.2</td>
<td>71.0</td>
<td>77.5</td>
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<td>62.3</td>
<td>$15.61</td>
</tr>
<tr>
<td>4</td>
<td>41</td>
<td>19.4</td>
<td>72.3</td>
<td>82.2</td>
<td>38.6</td>
<td>67.2</td>
<td>$16.26</td>
</tr>
<tr>
<td>5</td>
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<td>19.9</td>
<td>72.2</td>
<td>82.4</td>
<td>39.3</td>
<td>65.0</td>
<td>$14.38</td>
</tr>
<tr>
<td>6</td>
<td>27</td>
<td>20.0</td>
<td>70.3</td>
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<td>37.6</td>
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<tr>
<td>7</td>
<td>33</td>
<td>20.1</td>
<td>69.1</td>
<td>77.4</td>
<td>33.9</td>
<td>63.2</td>
<td>$15.53</td>
</tr>
</tbody>
</table>

PROGENY TEST PROCEDURE

Ewes with recorded sire pedigree would have a larger 80 gram midside sample taken relative to non-pedigree recorded ewes which are only to be fibre diameter tested and require a 15 gram sample.

Ewes with recorded sire pedigree will have their midside sample of 80 grams divided and sent to:

i) AWTA (60 grams) for Guidance Reports, and
ii) AFT (the remaining 15 or more grams) for micron (mean and CV).
In the case of AWTA Guidance Reports a pooled progeny evaluation sample of all progeny of each sire would be made up at Hazeldean. Each progeny sample would be accurately weighed to 60 grams to ensure each progeny provided an equal contribution to the sire evaluation sample and the tag number of the progeny recorded. The pooled sire sample would be identified by the sires code (Year. Tag, eg. 84.139) and forwarded to AWTA along with instructions on the Guidance Report request form. The Sire progeny pool tag lists would be forwarded to Advanced Breeding Services.

Sire Length/Strength and Yield/FD/VM evaluations would be obtained by Guidance Reports from the pooled sires progeny sample. Length/Strength (60 staple evaluation) on a pooled sire sample where each progeny contributes two staples (on average) to the evaluation (that is one Guidance Report per 30 progeny).

A single Length/Strength Guidance Report would be requested for each sire with between 20 and 40 progeny contributing to the sires pooled sample. In the cases where there are more than 40 progeny then another Length/Strength Guidance Report would be requested. A sires progeny would be divided equally into two pools and identified as, for example, sire 84.139 (A) and sire 84.139 (B).

As well as the normal Length/Strength Guidance Report results a print out of individual staple results should be requested to be sent to Advanced Breeding Services to allow continued research of the on-farm application of the system.

A single Yield/FD/VM Guidance Report would be requested for each sire. The evaluation would be carried out on the pooled sample that remains after the length/strength staples have been drawn by AWTA. In the case where there are two pool samples per sire (ie where there is more than 40 progeny) the two pools would be combined after the length/strength staples have been drawn by AWTA.