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The economic potential of cashmere production

A T. Kelly

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Although the cashmere industry has developed rapidly in eastern Australia, development in Western Australia has lagged behind because of local restrictions on the use of feral goats. However, recently the Agriculture Protection Board has eased these restrictions.

In Western Australia there are about 30 to 40 producers with commercial cashmere flocks, involving a total of 7500 to 10,000 goats. In most agricultural areas where sheep production occurs, cashmere production is also possible.

In the following article, A. T. Kelly, an adviser with the Marketing and Economics Branch, discusses the economic potential of cashmere production in this State and compares it with Merino wool production.

**Upgrading from feral goats**

Any doe can be used as foundation stock but if the industry is to expand rapidly selected feral does would have to be used.

A minimum of 200 feral does would be needed to obtain enough offspring to ensure that only the better quality does are retained for breeding. High production cashmere bucks would have to be bought to mate with this flock.

Table 1 indicates the estimated improvement in cashmere production with each generation. Production figures are estimates based on limited published information. The feral production relates to a selected herd representing the top 30 per cent of the feral doe population. An F1 flock refers to the first generation flock which results from crossing feral does to a cashmere buck. An F2 flock refers to the second generation flock from crossing F1 does to a cashmere buck. F3 and F4 flocks refer to the third and fourth generation crosses respectively. It will take five generations to upgrade to the F4 flock.

Kinross Cashmere Co. has established a large commercial cashmere goat stud in New South Wales. It is part of Joseph Dawson International, a major cashmere processor in Scotland.

**Cashmere production budget**

Cashmere prices used in the example budget in Table 2 are the 1984 Kinross Cashmere Co. quotations for 17 to 18 micron cashmere with white fibre valued at $95 per kilogram and coloured fibre at $53.40/kg. The coloured price is based on two-thirds of the coloured cashmere being light grey ($60/kg) and one-third brown ($40/kg).

Cashmere prices have increased in recent years and given the current level of demand prices are expected to remain firm. Current Australian production is 15 to 20 tonnes a year and Kinross forecast that Australian production could reach 100 tonnes by 1990. The total world trade in cashmere is about 3500 tonnes a year.

The goat meat price quoted is the October 1984 price in Western Australia which does not necessarily reflect long-term price prospects. At present the price is firm, but a large increase in goat numbers could lead to a decline in meat price. This would influence income in future budgets.
Goats, especially the doe kids from F2 to F4 flocks, could be sold live. This alternative has not been included in the production budget and could offer a higher return.

The production budget in Table 2 is based on an F2 doe flock consisting of 300 does. The goats are sold for meat only.

Excluded from the budget are set-up costs associated with yards and modifications required to fences. The addition of two strands of barbed wire to a conventional 1.2 m sheep fence would cost about $230 per kilometre for wire only.

Table 3 is a budget for a comparable Merino ewe flock. The prices quoted are those prevailing in October 1984.

The two budgets compare the returns and costs associated with an F2 cashmere goat flock and an equivalent Merino ewe flock. In terms of stocking rates, one doe is equivalent to one ewe. Sheep and goats can run together. This is preferable on a farm because it maintains a balance in the pasture. The amount of labour needed to manage goats is less than that required with sheep.

The gross margins from the production budgets for the F2 doe flock and the Merino ewe flock are $21.08 per doe and $19.45 per ewe respectively. Based on the prices prevailing in October 1984, the gross margin for the F2 cashmere flock is greater by $1.63 per doe.

**Conclusion**

The cashmere industry within Western Australia is likely to expand. It offers the primary producer the prospect of another enterprise that could complement a sheep operation and provide both increased returns and the opportunity to improve pasture quality.

<table>
<thead>
<tr>
<th>Generation</th>
<th>Colour</th>
<th>Total fibre production for herd (down &amp; guard hair) (g/head)</th>
<th>Diameter of down (microns)</th>
<th>% cashmere (by weight) of total fleece</th>
<th>Weight of cashmere (g/head)</th>
<th>Price of cashmere ($/kg)</th>
<th>Average cashmere value/head ($/head)</th>
<th>% White or coloured cashmere types</th>
<th>Average value of fibre per head for mixed flock ($/head)†</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selected feral does</td>
<td>White</td>
<td>300</td>
<td>17.5</td>
<td>30</td>
<td>90</td>
<td>95</td>
<td>53.40</td>
<td>8.55</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Coloured*</td>
<td>300</td>
<td>17.5</td>
<td>30</td>
<td>90</td>
<td>95</td>
<td>53.40</td>
<td>8.55</td>
<td>30</td>
</tr>
<tr>
<td>F1</td>
<td>White</td>
<td>320</td>
<td>17.5</td>
<td>40</td>
<td>128</td>
<td>95</td>
<td>53.40</td>
<td>12.16</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td>Coloured</td>
<td>320</td>
<td>17.5</td>
<td>40</td>
<td>128</td>
<td>95</td>
<td>53.40</td>
<td>12.16</td>
<td>40</td>
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<tr>
<td>F2</td>
<td>White</td>
<td>340</td>
<td>17.5</td>
<td>45</td>
<td>153</td>
<td>95</td>
<td>53.40</td>
<td>14.53</td>
<td>70</td>
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<tr>
<td></td>
<td>Coloured</td>
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<td>17.5</td>
<td>45</td>
<td>153</td>
<td>95</td>
<td>53.40</td>
<td>14.53</td>
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<td>White</td>
<td>360</td>
<td>17.5</td>
<td>50</td>
<td>180</td>
<td>95</td>
<td>19.00</td>
<td>17.10</td>
<td>100</td>
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<tr>
<td>F4</td>
<td>White</td>
<td>365</td>
<td>17.5</td>
<td>55</td>
<td>200</td>
<td>95</td>
<td>19.00</td>
<td>17.10</td>
<td>100</td>
</tr>
</tbody>
</table>

* Coloured is assumed to be 2/3 grey and 1/3 brown.
† This average value is determined from the percentage of the flock with white or coloured cashmere. For example with the F2 generation, 70 per cent have white fibre and 30 per cent coloured. The average value is 0.7 x $14.53 + 0.3 x $8.17 = $12.62.