Previous research has shown that the seed shed by many common grasses in the Central West, have a substantial negative effect on lamb health and production (Campbell et al. 1972). Previous work has displayed the benefits of shearing to reduce wool length prior to the main period of grass seed pickup (Campbell et al. 1972, Warr & Thompson, 1976). To date no research has examined the effect of using the Bioclip™ method of wool harvesting to reduce grass seed contamination in weaner sheep. This paper reports on a trial which compared the biological effectiveness of the Bioclip™ method to conventional shearing and not shearing in reducing the impact of grass seed contamination on wool and meat production in weaners.
Using Bioclip™ to Manage the Impact of Grass Seed Contamination on Lamb Production

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On a commercial property near Yeoval, NSW, 158 Dohne x Merino weaner lambs of mixed sex were randomly allocated to three treatment groups being unshorn (US), conventionally shorn (CS) and Bioclip™ harvested wool (BC). Lambs were crutched prior to treatment on day zero. Bioclip™ nets were removed and wool harvested from treatments CS and BC on day 30. Post treatment, lambs were moved into a naturalised pasture paddock containing problematic species such as barley grass (Hordeum spp.), spear grass (Austrostipa spp.), crow foot (Erodium spp.) and silver grass (Vulpia spp.) where they remained set stocked until day 154. After this they were grazed on Lucerne pasture and, for one week prior to slaughter (day 185), offered hay supplements. Fasted lamb liveweight (at days 0 and 176) and fat score (day 30 and 176) were recorded. The effects of treatments on carcass and skin attributes measured at slaughter are shown in Table 1. Seed measurements were made on the skins and carcasses in four regions and converted to a score. Scores given were 0 (no seeds), 1 (light 1 to 5 seeds), 2 (moderate 6 to 10 seeds) and 3 (heavy >11 seeds) per region.

### Table 1. Effect of grass seeds on weaner sheep production under three shearing treatments.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Skin score (0 to 3)</th>
<th>Skin value ($)</th>
<th>Carcass score (0 to 3)</th>
<th>GR Fat depth (mm)</th>
<th>Trimmed cold carcass weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>US</td>
<td>1.95a</td>
<td>16.83a</td>
<td>0.96a</td>
<td>5.1a</td>
<td>17.5a</td>
</tr>
<tr>
<td>CS</td>
<td>1.58b</td>
<td>13.43b</td>
<td>0.60b</td>
<td>6.0ab</td>
<td>17.8ab</td>
</tr>
<tr>
<td>BC</td>
<td>1.35c</td>
<td>9.94c</td>
<td>0.66b</td>
<td>6.5b</td>
<td>18.7b</td>
</tr>
</tbody>
</table>

Results indicate there was no significant difference in carcass contamination between BC and CS lambs, although BC lambs had significantly lower skin contamination scores than either CS or US lambs. However there were significant differences between all treatments for the skin value, with highest returns from US skins (Table 1). This was likely due to the greater staple length of the US skins and the processing system into which the skins were sold, where fellmongering is a processing option. Carcass weight and GR (fat depth) of the BC lambs was significantly higher than US lambs, although not significantly higher than that of CS lambs. These results are consistent with findings of Campbell et al. (1972) and Warr & Thompson (1976) in that reducing wool length reduces seed contamination, thus boosting lamb production.

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