Management of Annual Pastures for Wool Production: Autumn Deferment

Produced for the CRC for Premium Quality Wool undergraduate program by; Dr. Brad Crook, The University of New England.
Autumn deferment vs continuous grazing: pasture availability

- low - cont.
- low - def.
- medium - cont.
- medium - def.
- high - cont.
- high - def.

kg DM per ha

July  Aug  Sept  Oct  Nov  
1970

June  July  Aug  Oct  Nov  
1971

End of deferment

Source: Brown (1976)
Autumn deferment vs continuous grazing: botanical composition

<table>
<thead>
<tr>
<th>% composition of pasture DM</th>
<th>1970</th>
<th>1971</th>
</tr>
</thead>
<tbody>
<tr>
<td>low - cont</td>
<td>low - def</td>
<td>medium - cont</td>
</tr>
<tr>
<td>Others</td>
<td>Clover</td>
<td>Grass</td>
</tr>
</tbody>
</table>

Brad Crook
Source: Brown (1976)
Autumn deferment vs continuous grazing: grass component

Source: Brown (1976)
Autumn deferment vs continuous grazing: clean wool production per hectare

kg clean per ha


Source: Brown (1976)
Autumn deferment vs continuous grazing: fibre diameter

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Source: Brown (1976)
Autumn deferment vs continuous grazing: Supplementary feed requirements

Stocking rate (wethers per ha)

kg per head

Deferred
Continuous

1967-68
1968-69
1969-70
1970-71

Brad Crook
Source: Brown (1976)
Conclusions

• Sheep production:
  – autumn: liveweight and wool growth rate lower with deferred grazing
  – winter: liveweight and wool growth rate higher with deferred grazing
  – deferred grazing: slight advantage in wool production per hectare but also slight increase in fibre diameter

• up to 22.2 wethers per ha:
  – continuous grazing: required little/no supplementary feeding
  – deferred grazing: supplementary feeding required, cost could outweigh benefits in wool production

• > 22.2 wethers per ha:
  – high levels of supplementary feeding needed for both strategies
  – pasture degeneration under both grazing strategies

autumn deferred grazing did not enable stocking rates to be increased (for wethers)
Autumn deferment and breeding ewes: Kybybolite, SA

- Merino ewes, joined in January
  - stocking rates: 4.9 to 19.8 ewes per hectare
  - continuous grazing vs autumn deferment for 6 weeks
- up to 17.3 ewes per ha:
  - continuous grazing: required little/no supplementary feeding
  - deferred grazing: large supplementary feed requirements, to avoid high incidence of pregnancy toxaemia
- deferment gave little or no advantage in sheep production (e.g. ewe live weight, wool production, reproduction rate, lamb growth rate)

autumn deferred grazing did not enable stocking rates to be increased for breeding ewes and their lambs