

UTILIZATION OF LUCERNE PASTURES IN THE UPPER SOUTH EAST OF SOUTH AUSTRALIA

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Pitlochry and Kendal stations are situated in the Upper South East of South Australia in the area previously known as the 90 mile desert. They comprise 9,000 hectares of improved pasture with Hunter River lucerne being the chief component of the pasture together with subterranean clover and either Currie Cocksfoot or *Phalaris Tuberosa*. Stock comprise Merino breeding ewes and wethers for wool production, Border Leicester x Merino breeding ewes for prime lamb production, plus replacement sheep (up to 30,000) and Poll Hereford cattle for yearling beef production (up to 4,000).

Because of the lucerne based pastures, management is based on a rotational grazing system, using a combination of sheep and cattle in each rotation. The two main objectives are:-

- 1) To maintain a productive lucerne based pasture.
 - 2) To obtain maximum livestock production from that pasture.
- To achieve these objectives the nutritional requirements of each class of stock are considered at all times of the year. The various classes of stock are run in different combinations and at varying stocking rates within the rotational grazing system to match these requirements to feed available.

Each rotation area consists of eight or nine paddocks of similar size (55ha) and pasture type. A combination of one mob of cattle and two mobs of sheep are grazed in each area at a stocking rate of 5.5 D.S.E./ha in the autumn to 7.5 D.S.E./ha in the spring. Stock are moved at regular weekly intervals. Pasture is grazed for periods up to 17 days and spelled for a minimum of 39 days. I believe lucerne can be grazed for periods as long as 2-3 weeks providing the interval between grazing is correspondingly long, 6-7 weeks.

The general principle is that stock which require the best feed are moved into spelled paddocks first and are then moved on before the paddocks are eaten out, other stock not requiring such a high plane of nutrition at that particular time are then moved in after the first mob and clean up what is left in the paddocks. To give an added boost to cattle, these are moved a few days ahead of the sheep e.g. cattle are moved on Fridays and sheep Mondays with weekly movements.

This system largely overcomes one of the main disadvantages of Rotational Grazing, namely digestive upsets in young stock due to sudden changes of feed, and it allows scope for fitting the changing nutritional needs of each class of stock to the pasture available. On Pitlochry and Kendal it results in a high proportion of prime yearling steers and prime lambs being turned off, high lambing percentages (Merino over 100%, X-Bred over 130%) and satisfactory wool cuts. In addition productive lucerne pastures are being maintained.

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