

## SHEEP PRODUCTION FROM PERENNIAL PASTURES IN THE NORTHERN AGRICULTURAL REGION OF WESTERN AUSTRALIA

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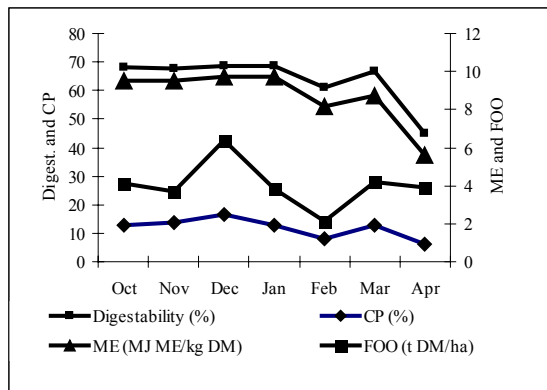
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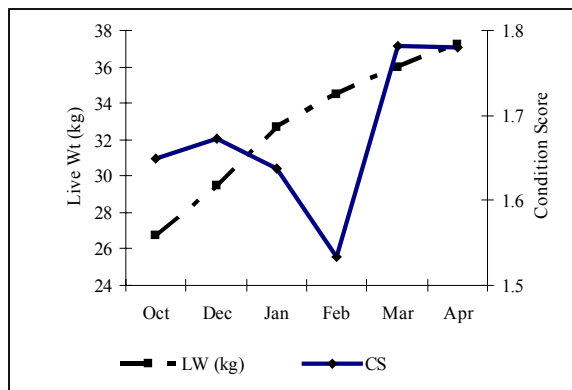
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A preliminary analysis of Western Australian soil types and environment indicates suitable land for the sowing of 1 million ha of perennial pasture. Perennial pastures extend the duration of the ‘green feed season’, and plant analysis indicates that they have the potential to reduce the reliance on supplementary feeding over the summer/autumn period. However, little information is available on the level of sheep production that can be achieved off these pastures. This paper discusses stocking density, liveweight and wool production, and animal health issues of sheep grazing perennial pastures.

Sixty tagged Merino wethers in a mob of 1613 grazed 30 ha of kikuyu, strawberry clover and annual grasses from October 2002 to April 2003. The weaners were monitored for liveweight, condition score, staple profile, faecal egg counts, and the pasture was monitored for quality and quantity at 6 week intervals.



**Figure 1. Feed on Offer (FOO), digestibility (Digest), crude protein (CP) and metabolisable energy (ME) of perennial pasture.**



**Figure 2. Liveweight (LW) and condition score (CS) of weaners.**

The feed on offer (FOO) was maintained at above 2 t DM/ha for the study period, and peaked at 6 t DM/ha. However, the pasture quality declined over the summer period (Figure 1) with the composition changing from 25 to 80% kikuyu and 32 to 15% strawberry clover, with the annual grasses comprising the remainder. The feed quantity decline was matched with a drop in condition score, a slowing in growth rate of the weaners (Figure 2) and a drop of almost 3 micron (19.4-16.8  $\mu\text{m}$ ) in the wool staple profile. To reduce this decline, all weaners were offered 240 g oats and 160 g lupin/hd/day from February through to April. The supplementary feeding resulted in the weaners being 15 kg heavier immediately off shears in 2003 (37 kg) compared with no supplementary feeding in 2002 (22 kg), allowing the stocking rate to be halved as the wethers were sold as light shippers. The faecal egg count (FEC) of weaners was monitored through the trial period. The first count was 3308 eggs/gram, but with constant monitoring and 3 strategic drenches, the FEC remained below 700 eggs/gram for the remainder of the 6-month study.

The perennial pasture studied supported moderate weaner growth until December, after which strategic supplementary feeding was necessary to maintain sheep productivity.

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