

Supplementation of lambs on lucerne pasture with oaten hay

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In at least 50% of years, available green herbage from grass/clover pastures at Cowra is less than 350 kg/ha (DM) from December through to May, and in 90% of years it is below 800 kg (Moore *et al.* 1993). Consequently to ensure that lambs meet a marketable liveweight (47 kg) and acceptable depth of fat over summer they have to be supplemented unless a summer forage or lucerne pasture is available. However, only small areas of lucerne are available for grazing at this time. Thus, we examined the role of oat grain as a means of extending the period lucerne pasture is available.

Methods

A 10 ha dryland lucerne pasture was subdivided into four uniform plots for the following treatments: no supplement, 250 g oats, 425 g oats and 600 g oats supplement/lamb/day fed three times weekly in troughs. Thirty two second-cross lambs (average weight 30 kg) were allocated to each plot on November 28 after an introductory period to oaten grain. Lambs were slaughtered on 27 January at an average weight of 47 kg. The plots were strip-grazed. When the DM lucerne yield declined to less than 1.0 t/ha DM the animals were moved to another strip.

Results and Discussion

When lambs were offered either 0, 250, 425 or 600 g of oats supplement on 'ad lib' lucerne pasture unsupplemented lambs gained 308 g/day, 250 g/day

oats gained 320 g/day, 425 g/day oats gained 299 g/day and 600 g/day gained 300g/day. There was no significant difference between treatments. Estimates of feed intake were made using chromic oxide as a marker. There appears to be no difference in mean feed intake between groups. This suggests that when a supplement of oaten grain was offered there was a reduction in lucerne intake. One implication of this finding is that supplementation with oaten grain would enable higher stocking rates to be carried on a lucerne pasture over the summer. Fat depth was similar in all groups.

In this study substitution occurred but the stocking rate was not increased and the 'saved' herbage was largely wasted as the quality deteriorated in the summer environment. The level of oaten supplement should therefore be related to the projected animal demand for pasture.

We have shown that supplementation extends grazing on lucerne pasture which should allow a greater off-pasture supply of lambs for the heavy-lamb market. Alternatively, as the recent drought has shown, it can be used as part of a drought strategy.

Reference

Moore, A.D., J.R. Donnelly and M. Freer (1993). Evaluating proposed management systems for Elite lamb production in south-eastern Australia by computer simulation. Report to MRC: Project CS149, Sydney.