

RAPESEED MEAL OR FORTIFIED CEREAL GRAIN AS SUPPLEMENTS  
FOR LACTATING MERINO EWES

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Situations inevitably occur when lactating ewes must be fed on lower quality roughage. Supplementation will usually be necessary to obtain satisfactory production levels, but little information is available on the likely responses of Merino ewes and their lambs (Australian Agricultural Council 1990).

Thirty-four Merino ewes (45-65 kg liveweight, condition score 2-3) were synchronised before joining and lambed in two groups one oestrous cycle apart. The sheep were held in separate 0.3 ha paddocks for each supplement treatment group and fed grass pasture hay (12.7 g N and 542 g IVOMD/kg DM) ad libitum. The supplements were: T1, barley grain plus urea plus sodium sulphate; T2, rapeseed meal (RSM); and T3, finely ground RSM. The urea (64.4 g/kg air dry barley) and sodium sulphate (13.3 g/kg air dry barley) were mixed in aqueous solution with the barley immediately before feeding. Ground RSM was prepared by hammermilling RSM; 99% and 79% passed through 0.5 and 0.25 mm aperture screens respectively. The supplements (400 g air dry per ewe per day) were group-fed twice a week commencing 7-10 days post-lambing. Ewes and lambs were weighed each week. Wool growth of the ewes was measured on mid-side patches.

Table 1. Liveweight, liveweight changes and wool growth of ewes and lambs fed grass pasture hay ad libitum and supplements

Measurement	Barley grain + urea+S	Normal RSM	Ground RSM	sem	P
No. of ewes	13	11	10	-	-
Ewe LW d 12 (kg)#	61.6	59.8	61.0	1.91	NS
d 112 (kg)#	53.8	57.4	58.1	2.23	NS
Ewe LW change (g/d)	-60	-17	-31	12.6	NS
Ewe wool (mg/patch/d)	59	91	77	5.9	**
No. of single/twin lambs	6/14	5/12	6/8	-	-
Lamb LW d 12 (kg)#	6.0	5.9	6.4	0.22	NS
d 112 (kg)#	19.8	22.1	23.8	0.68	**
Lamb LW gain (g/d)	132	157	167	6.2	**

# Days after lambing.

There was no significant effect of fine grinding of RSM. Treatment x litter size interactions were not significant. When RSM replaced urea+S fortified barley grain as the supplement, lambs were 2.3 kg heavier at 112 days of age and the ewes grew 53% more wool. This suggests that lactating Merino ewes fed medium quality hay will respond to supplements containing undegraded dietary protein, although the relative importance for lamb growth of additional ewe milk output or direct consumption of supplement was not known.

AUSTRALIAN AGRICULTURAL COUNCIL (1990). Feeding Standards for Australian Livestock. Ruminants. (CSIRO:Melbourne).

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