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Brief communication

EFFECT OF NUTRITION ON OVULATION RATE AND LITTER SIZE IN BOOROOLA-MERINO CROSS AND MERINO EWES

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Two groups of ewes each containing 50 Booroola-Merino cross (BM \times) and 50 Merino (M) ewes were assigned to either a high (HP) or a low (LP) plane of nutrition on pasture for 12 weeks until the end of the first 17 days of mating. All ewes were then laparoscoped to determine ovulation rates. There was an 8 kg difference in mean liveweight between HP and LP ewes at laparoscopy. Ovulation rate, the proportion of ewes with multiple ovulations, and litter size (lambs born/ewes lambing) were all higher in BM \times ewes than in M ewes ($P < 0.05$).

TABLE 1: EFFECT OF PLANE OF NUTRITION ON BM \times AND M EWES

	BM \times		M	
	HP	LP	HP	LP
Liveweight at laparoscopy (kg)	52.1	44.8	53.3	44.0
Ovulation rate	2.33	1.93	1.53	1.20
Proportion with multiple ovulations	0.83	0.67	0.50	0.19
Litter size	1.90	1.65	1.37	1.19

There were significant effects of nutrition on the proportions of multiple ovulations and litter size but no significant breed by plane of nutrition interactions. The HP BM \times group had more ewes with three and four ovulations and fewer with single ovulations than the LP BM \times group.

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