

REPRODUCTIVE WASTAGE IN BORDER LEICESTER EWES

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The poor reproductive performance of some Border Leicester, (BL) ewes in Australian flocks has been reported (McGuirk 1967; Trounson and Roberts 1970; Fogarty et al. 1976). These authors attributed the performance to a high proportion of dry ewes and perinatal lamb loss. More recently, D.G. Hall (pers. comm.) has observed that many BL ewes fail to mate even though laparoscopy reveals the presence of corpora lutea.

A study of this subfertility was conducted at the Agricultural Research Station, Temora, in April 1983. One hundred and forty four mixed aged BL ewes were joined to either 12 eighteen month old BL or 12 eighteen month old Dorset x Merino (D x M) rams. One half of the ewes in each group had been previously treated with intravaginal progestagen pessaries. The D x M rams had been tested for mating dexterity. The BL rams were not tested for dexterity until after the experiment, at which time they were all successful.

The ewes were sacrificed at 43 days after ram introduction and reproductive tracts examined at the laboratory. Curved crown rump measurement was obtained for each foetus which enabled some small foetuses within a litter to be classified as abnormal (Moore and Rowson 1960). Table 1 presents some results.

Table 1 Reproductive performance of Border Leicester ewes

	Days	Border Leicester rams		Dorset x Merino rams	
		No progestagen	Progestagen	No progestagen	Progestagen
Number of ewes		41	28	35	40
Ewes raddled (%)	0-8	61.0	75.0	74.3	85.0
	0-21	85.4	89.3	97.1	90.0
Returns to service (%)	0-8	24.0	42.8	50.0	29.4
	0-21	22.8	40.0	44.1	30.5
Corpora lutea per	0-8	2.21	2.00	2.30	2.12
conceiving ewe	0-21	2.00	2.06	2.15	2.12
Foetuses as % of					
(i) total ewes	-	97.6	92.8	102.8	107.5
(ii) ewes conceived	0-21	148.1	173.3	189.5	172.0

The mean ovulation rate for the nil progestagen treated ewes in the BL ram group was 2.00, yet the number of foetuses classified as viable was only 0.98 per ewe joined and 1.48 per ewe raddled and pregnant. Over all groups, 37% of the pregnant ewes at slaughter had their potential litter size reduced by prenatal losses. The losses due to ewes failing to mate, returning to service, losing a portion of their litter, together with an anticipated perinatal loss further demonstrates the poor reproductive performance of Border Leicester ewes.

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