

## DIFFERENTIAL FEEDING OF EWES TREATED WITH FECUNDIN<sup>TM</sup> CAN INCREASE PROFITABILITY FROM PRIME LAMBS

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This paper reports an on-farm trial conducted in Western Australia to determine the change in margin per ewe when prime lamb dams treated with Fecundin<sup>TM</sup> to increase fecundity are differentially fed in late pregnancy and early lactation. Mature Merino ewes (955) were treated with Fecundin<sup>TM</sup> and joined for six weeks with 3% of South Suffolk rams in December/January. After joining until the treatments were imposed the flock was maintained at condition scores (CS) between 2 and 2.5 by transferring ewes in lower condition to paddocks with better feed as necessary. Six weeks after joining finished all ewes were scanned to determine foetal number.

Five weeks before lambing the ewes were separated (balanced for no, one or two foetuses) into treatment (480) and control groups (475). All control ewes were offered two kg of lupins/ewe/week as is normal practice for this farm. Treatment ewes were separated into dry, single and twin bearing ewes and dry ewes were not supplemented. Ewes with one or two foetuses were offered increasing quantities of lupins estimated to meet their respective requirements as gestation progressed (SCA 1990). The single bearing ewes were fed for only four weeks before there was sufficient paddock feed, but the twin bearing ewes and the control ewes were fed for 12 weeks.

Ultrasound scanning indicated that 20.4, 49.6 & 30.0% of ewes had no, one and two foetuses, respectively; a potential lambing percentage of 109.7%. Scanning of treatment ewes was costed at 50 c/ewe and lupins were valued at 17 c/Kg. The control ewes and single and twin bearing treatment ewes were fed 24, 11.5 & 40.5 Kg of lupins/ewe, respectively. The combined cost to feed and scan all treatment ewes was \$3.59/ewe and feeding the control ewes cost \$4.08/ewe.

Lamb survival was calculated as the difference between foetuses scanned and lambs counted six weeks after lambing finished. At this latter time mean CS were 2.02, 2.31 and 1.88 for control ewes and single & twin bearing treatment ewes, respectively. A sample of twin bearing control ewes had a mean CS of 1.55. Sixteen control ewes and 3 treatment ewes died between scanning and counting the lambs. The 475 control ewes produced 386 lambs from a potential 521; a survival rate of 74.1% and 81.3% lambing. The 480 treatment ewes produced 437 lambs from a potential 533, a survival rate of 82% and 91.0% lambing. The lamb survival rate in the single bearing ewes was 91.9% and in the twin bearers it was 73.4%. Lambs from all groups were progressively sold up to October 2. Lambs unsold at this date were weighed and their current market value was calculated. The margin/ewe for the control and treatment groups is shown below.

Twins	Control	Treatment (T)	T Singles	T Twins
Lambs sold to 2/10	236	308	194	114
Unsold lambs at 2/10	150	129	33	96
Total value of lambs	\$6,384	\$7,333		
Lamb value/ewe mated	\$13.44	\$15.28		
Cost/ewe mated	\$4.08	\$3.59		
Margin/ewe mated	\$9.36	\$11.69		

If the survival rate for control and treatment singles were both around 90%, only about 45% of the control twin lambs must have survived. The control ewes with twin lambs had the lowest CS (1.55) and the three treatment ewes that died were twin bearers. Thus the control ewes that died may have been mostly twin bearers. The control group had more unsold lambs and, like the treatment lambs, these were probably mostly twins. The saving in the treatment group was from feeding less to the singles in a better paddock and not feeding dry ewes. Had the single ewes been fed the same as the controls from weeks five to 12, the costs for the treatment group would rise to \$4.96/ewe and the difference in margin would decrease from 25 to 10%. Seasonal conditions affect the economics of the strategy used in this trial.

SCA (1990). 'Feeding Standards for Australian Livestock, Ruminants' (Standing Committee on Agriculture: East Melbourne).