

COPRA MEAL SUPPLEMENTATION OF LAMBING EWES IN NORTH WEST QUEENSLAND

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When ewes in western Queensland graze mature grass pastures, low birth weight and survival of their lambs is due in part to poor maternal nutrition. Strategic use of protein supplements during late pregnancy has proved useful in enhancing lamb birth weight (Stephenson and Bird 1987). This paper describes an experiment evaluating the use of copra meal to improve lamb birth weight and survival.

Forty-two pregnant (day 110 \pm 2) Merino ewes were selected from an autumn-joined experimental flock on Toorak Research Station, Julia Creek. They were allocated to six equal groups based on live weight and each group placed in a large outside pen. Between day 115 of pregnancy and day 21 post-partum, three groups were fed daily a copra meal (pelleted; 20% CP, 8% lipid) supplement at 150 g/ewe. Basal diet consisted of Mitchell grass hay (4% CP, 39% *in vitro* dry matter digestibility (IVDMD)) *ad libitum*. Urea was provided in the drinking water (2 g/l for all groups).

Ewes and lambs were weighed regularly. Milk production was determined on day 1 and 7 post-partum (McCance 1959).

Table 1 Effect of a copra meal supplement on live weight of ewes and birth weight and survival of their lambs

Treatment	Lamb birth weight (kg)		Lamb survival (%) ⁺	Ewe live weight (kg) [#]		
	Single	Twin		d-20	d-7	d+21
Control	3.83	2.27	92	44.2	43.9	33.1
Copra meal	3.84	3.00	100	45.0	45.6	36.2
Ave s.e.	0.10	0.10		0.5	0.4	0.6
Significance	n.s.	P<0.01	n.s.	n.s.	P<0.05	P<0.05

⁺ single lambs to 3 weeks of age; [#] days from parturition (d)

Copra meal significantly (P<0.01) increased birth weight of twin lambs only (Table 1), increased ewe milk production (786 vs 1009 ml/d; P<0.01) and ewe live weight post-partum.

The results of this study indicate that copra meal could be a beneficial supplement for ewes with twins to enhance birth weights. Under industry conditions, a 30% increase in birth weight will ensure >80% survival (Alexander 1974). Copra meal is comparable in price with other protein meals.

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