

# CHOP CEREAL SILAGE IS MORE PROFITABLE THAN CEREAL HAY WHEN FED TO EWES WITH LUPINS FOR PRODUCTION OF SUCKER LAMBS

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Cost-effective feeding systems are required to encourage off-season production of prime lambs in WA. This paper compares the economics of feeding cereal silage or cereal hay, both with lupin seed, to autumn lambing ewes for off-season production of sucker prime lambs.

The chop silage and hay made in 1993 and 1994 (Milton *et al.* 1996) was fed in this study in 1994 and 1995. Each year in early March, 2 groups of Merino ewes pregnant to Poll Dorset rams and with the same ratio of single to multiple fetuses were fed the chop silage or hay *ad libitum* plus lupins twice each week. Table 1 shows the cost, dry matter (DM), crude protein (CP) and metabolisable energy (ME) content of the feeds. Stocking rates were adjusted subjectively (Table 2) to reduce the perceived variation in available feed in the 2 paddocks. We aimed to provide both groups of ewes with similar, but increasing, quantities of CP and ME during late pregnancy and early lactation. We assumed a similar DM intake for both conserved fodders and because the hay contained less CP and ME than silage we fed more lupins to ewes on hay. Feeding ceased about 2 weeks before lamb marking and at marking 40% of lactating ewes in each group were condition scored and the lambs from each group were fitted with a different coloured ear tag. After marking, all ewes and lambs were run together until the lambs were sold as suckers in 2 drafts.

**Table 1. Cost and nutrient content of chop cereal silage, cereal hay and lupins fed to autumn lambing ewes in 1994 and 1995**

Attribute	1994			1995		
	Silage	Hay	Lupins	Silage	Hay	Lupins
Cost of feed (c/kg DM) <sup>a</sup>	4.5	4.3	21.2	4.2	5.0	21.2
Dry matter (%)	23.9	92.0	92.3	38.9	87.0	92.2
CP (% in DM)	10.8	7.7	37.4	11.9	8.2	36.9
ME (MJ/kg DM)	9.7	8.5	13.7	10.1	9.6	13.7

<sup>a</sup> Cost of silage/hay includes cost to grow, cut and windrow the crop plus chop and cover (silage) or bale (hay) and the cost to feed-out. Regrowth valued at \$20/T DM is deducted from the crop growing costs.

**Table 2. Feeds fed with costs and returns for autumn lambing ewes fed lupins with chop cereal silage or cereal hay for 88 days in 1994 and 75 days in 1995**

Attribute	1994		1995	
	Silage	Hay	Silage	Hay
Number of pregnant ewes fed	290	290	216	315
Conserved feed fed (g DM/ewe.day)	720	880	800	835
Lupins fed (g DM/ewe.day)	150	405	195	380
Feed costs/ewe fed (\$)	5.63	10.91	5.63	9.15
Lambs unsold/sold	69/169	27/220	13/201	25/273
Lamb value/ewe fed (\$)	22.48	24.74	34.06	32.12
Net return/ewe fed (\$)	16.85	13.83	28.43	22.97

The nutrient intake from the feeds fed to each group was probably similar since the condition of both groups of lactating ewes at lamb marking was similar. The cost of the hay and silage differed only marginally in both years, but the net return per ewe fed chop silage was \$3.02 and \$5.46 higher than ewes fed hay in 1994 and 1995. These differences were mainly due to the ewes on chop silage being fed fewer lupins than ewes fed the lower nutritive value hay. This study shows that feeding chop cereal silage plus lupins to produce early sucker lambs in WA is more cost-effective than feeding cereal hay plus lupins. The Meat Research Corporation funded this on-farm research.

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