

End of Project Reports: Sheep Series No.
19

FEEDING PROLIFIC EWES IN LATE PREGNANCY AND REARING TRIPLET LAMBS



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Feeding Prolific Ewes in Late Pregnancy and Rearing Triplet Lambs

by

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Teagasc acknowledges the support of the European Union Structural Funds (EAGGF) in the financing of this project

ISBN 1 84170 294 3

June 2002

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ACKNOWLEDGEMENTS

The author wish to acknowledge assistance and helpful discussions with Dr. J.P. Hanrahan. Thanks are conveyed to H. Walsh for technical assistance, P. Connolly and T. Whelan for care of animals and A. Curley for help with data processing.

SUMMARY

In prolific flocks a significant proportion of ewes give birth to 3 or more lambs. It was considered that the birth weight of triplet lambs, and also of twins, could be increased by offering ewes a higher than normal level of concentrate supplementation in late pregnancy. Trials for the evaluation of rates of supplementation were conducted during the years 2000 and 2001.

In-wintered ewes were offered silage *ad libitum*. Based on scanning results groups of twin-bearing (twins) and triplet-bearing (triplets) mature ewes were offered one of three rates of supplementation in late pregnancy. The lower rate in each case was set at a level considered appropriate for twins or triplets. Two groups of twin-bearing hoggets were offered either a low or high rate of supplementation.

Average silage intake over the last 6 weeks of pregnancy was 0.8 to 0.9 kg dry matter per day. Intake by triplets was about 95 percent of that by twins, while intake by triplets at the high rate of supplementation was 90 percent of that at the low rate. Total dry matter and metabolisable energy intakes were increased by supplementation.

Triplets had significantly lower condition score than twins at lambing but the rate of supplementation did not affect condition score. Average condition score of all ewes decreased by 0.6 units between mid pregnancy and lambing, a decline that is considered acceptable

for ewes in good body condition at mating.

Average birth weight of triplet lambs was about 1 kg lower than for twins from mature ewes. The high rate of supplementation increased the birth weight of twins by 0.51 kg and triplets by 0.26 kg. Birth weight of twins from hoggets was not affected by the rates of supplementation offered.

The rearing of triplet lambs by their dam, rather than cross fostering or artificial rearing the third lamb, may be a useful option in prolific flocks. Previous research findings showed that triplets were reared successfully by selected ewes when the ewes were offered concentrate supplementation for 4 to 6 weeks at pasture post lambing, and the lambs received creep feed from birth to sale. Trials were carried out over two years to assess the response to concentrate supplementation of ewes at pasture post lambing and creep feeding lambs with a view to reducing the quantity and cost of concentrates for rearing triplet lambs.

Concentrates at 1 kg/ewe/day were offered to ewes at pasture for 3 or 6 weeks post lambing. Creep feed was available to lambs from week 1 and offered at one of three rates : 300g/day to age 10 weeks: 300 g/day to sale, or 600 g/day to sale. Lambs were drafted for sale by weight and condition and carcasses were classified according to MLC standards.

There was no response to feeding concentrates to ewes for 6 weeks rather than 3 weeks in this situation when grass supply was considered adequate. Weaning weight was increased by offering

creep feed to lambs to 14 rather than 10 weeks.

All lambs were finished to acceptable carcass weights and grades. The main effect of continuing creep feeding lambs to sale was to reduce the average age at sale. The medium and high levels of creep reduced the average age at sale by 20 and 45 days respectively compared with the low rate. However the total quantity of concentrates offered per ewe plus 3 lambs was about 60, 120 and 180 kg for the

low, medium and high rates of creep respectively, including 21 kg concentrates for the ewes post lambing.

INTRODUCTION

The feeding of housed ewes in late pregnancy is generally based on hay or silage, supplemented with concentrates in the last 6 to 8 weeks of pregnancy. When ewes are scanned they may be grouped according to expected litter size and fed differentially in relation to the quantity of concentrate supplement offered (Sheep Production, 1984). Guidelines are available on the energy and protein requirements of ewes in late pregnancy (Meat and Livestock Commission, 1983; Robinson, 1986). Rates of concentrate supplementation are suggested depending on roughage quality, ewes bodyweight and condition, and litter size.

In prolific flocks such as Belclare-cross ewes, 20 to 30 percent of ewes give birth to 3 or more lambs. These ewes may require a higher level of supplementation than twin-bearing ewes, partly to compensate for any reduction in silage intake, and to ensure that ewes are in satisfactory body condition at lambing, and give birth to lambs of good weight and vigour. Birth weight of triplet lambs is normally lower than for twins. A high birth weight is desirable both for lamb survival and subsequent growth rate to weaning. Condition score of ewes at lambing may affect milk yield, depending on the level of nutrition in lactation (Gibb and Treacher, 1980).

Trials were carried out over 2 years to assess the effect of different rates of concentrate supplementation in late pregnancy on feed intake, ewe condition score and birth weight of twin and triplet lambs.

A cost-effective method of rearing triplet lambs also assumes greater importance in prolific flocks. On well managed lowland pasture a ewe can normally rear two lambs without the need to offer concentrates to ewes at pasture, or creep feed to lambs. The small number of triplet lambs may be cross-fostered to single-bearing ewes, artificially reared, sold for cross-fostering or reared as triplets if the dams milk supply is considered adequate. In prolific flocks with average litter size around two, a reliable and economic method of rearing triplets by their dams is necessary where (a) the number of triplets exceeds the number of ewes with singles and suitable for cross-fostering, or (b) labour shortage at lambing or outdoor lambing may make cross-fostering difficult.

Not all ewes are capable of rearing 3 lambs. The critical determinant is the milk yield of the ewe and this can vary greatly between individuals within a flock. The number of lambs suckled has a large effect on ewe's milk yield. Ewes suckling twins produce, on average, 40 percent more milk than ewes fed at a similar level but suckling single lambs. A ewe with triplets will yield about 10 percent more milk than one suckling twins (Meat and Livestock Commission, 1983). Thus the relative milk yields are in the range 100, 140 and 154 for single, twin and triplet rearing ewes and the relative quantity of milk available per lamb are about 100, 70 and 51 respectively. Lambs receiving little milk can partially compensate by increasing their intake of solid feed at a younger age.

The growth rate of lambs, particularly to about 5 weeks, is closely related to milk yield. Data from sire-breed evaluation trials indicate relative growth rates to 5 weeks of about 100, 79 and 70 for lambs

born and reared as singles, twins and triplets respectively (Hanrahan, 1994). Later, as intake of solid feed increases and the contribution of milk to the diet decreases, the difference in growth rate between these 3 groups decreases. Relative weaning weights are about 100, 84 and 76 respectively, depending on non-differential management.

Since the first 5 weeks is the critical period in the rearing of triplets, it is important to maximise the milk yield of the ewe. Ewes selected to rear triplets should be in good body condition at lambing (i.e. a score of 2.5 or above). Ewe nutrition post lambing is also important. The feed requirements in early lactation of ewes with twins is about 25% higher than that of ewes with singles, while ewes with triplets require an extra 10 percent, assuming normal milk yields. Ewes rearing triplets may be grazed separately from the main flock to ensure an adequate supply of grass. Concentrates may be offered to ewes for some weeks after lambing. To help compensate for the reduced milk supply creep feed may be offered to lambs.

Records from a group of 24 lambs reared as triplets at Athenry in 1999 showed that good lamb growth rates can be achieved and lambs were drafted at acceptable carcass weights (Table 1). Ewes were offered 0.75 kg of concentrates per day at pasture for 4 weeks post lambing. Creep feed was available to lambs from about 10 days of age and continued until lambs were drafted. Total intake of creep was not recorded for these lambs.

In the course of separate studies over 2 years at Knockbeg 188 lambs were reared as triplets by selected ewes considered to have a good milk supply. Ewes were offered concentrate supplement at 1

kg/ewe/day for 6 weeks post lambing (total 42 kg). Creep feed was offered to lambs from 10 days of age, gradually increased to 300 g/day and continued at this rate until lambs were drafted (Flanagan, 2001). Performance of triplet lambs is shown in Table 2, together with that of twins that received creep feed at 300 g/day from 8 week of age until drafted.

Growth rate of triplets to 5 weeks was lower, as expected, than for twins, but from 5 to 14 weeks growth rates were similar. Triplets were finished to suitable carcass weights but required an extra 14 days to reach sale weight. However the total quantity of concentrates offered per ewe plus 3 lambs was relatively high at about 162 kg (42 kg to ewes and 40 kg to each lamb). Since a ewe on good pasture can normally rear 2 lambs without concentrate supplement to the ewe or creep feed to lambs, the cost of the concentrates can be attributed to the cost of rearing the third lamb as a triplet rather than cross-fostering to a ewe with a single lamb.

Trials were carried out over 2 years to determine the response to concentrate supplementation of ewes at pasture post-lambing, and creep feeding lambs with a view to reducing the quantity and cost of concentrates for rearing triplet lambs.

Table 1: Performance of lambs reared as triplets at Athenry (1999)

Birth wt. (kg)	3.6
Weaning wt. (kg)	30.6
Growth rate (g/day)	
Birth to 5 weeks	260
5 to 14 weeks	285
Sale wt. (kg)	41.6

Carcass wt. (kg)	18.0
Age at sale (days)	162

Table 2: Comparison of twin and triplet lambs at Knockbeg (1999-2000)

Trait	Twins	Triplets
Birth wt. (kg)	4.6	3.6
Growth rate (g/day):		
Birth to 5 weeks	271	237
5 to 14 weeks	245	244
Weaning wt. (kg)	29.1	26.6
Carcass wt. (kg)	18.5	18.9
Age at sale (days)	153	167

FEEDING EWES IN LATE PREGNANCY

The objectives of this trial were:

1. To determine the effect of different rates of concentrate supplementation, in late pregnancy, to mature ewes carrying either twin or triplet lambs on feed intake, ewe body condition and lamb birth weight.
2. To determine the effects of concentrate supplementation of hogget ewes, carrying twin lambs, on ewe body condition and lamb birth weight.

Flock management

The flock consisted of Belclare x Scottish Blackface ewes mated to Suffolk rams. Ewes were housed in December, shorn and offered silage, easy fed, *ad libitum*. Ewes were scanned in mid January. In year one three groups, each of about 20 ewes, with twins and three groups with triplets were selected. In year two, from a smaller flock, similar three groups with twins and groups of 13 ewes with triplets were used. In addition two groups of 20 hoggets carrying twins were selected in year two only.

Concentrate supplement was offered to mature ewes at 3 rates. Rates for twins started at 0.1, 0.2 and 0.3 kg, increasing in weekly increments of 0.1 kg to 0.7, 0.8 and 0.9 pre-lambing. Rates for triplets were 0.2, 0.3 and 0.4 kg initially and were increased weekly

by 0.1 kg to 0.8, 0.9 and 1.0 kg. The two groups of hoggets were offered either the low or high rates as for the mature twin-bearing ewes. Concentrate feeding of mature ewes started about 7 weeks before start of lambing in year one and 8 weeks in year two, and continued until each ewe lambled. Due to the spread of lambing the average duration of meal feeding was 56 days in year one and 61 days in year two. Hoggets lambled about a week later than the mature ewes and were offered supplementation over an average of 71 days. The concentrate offered was a commercial ewe/lamb nut containing 18 percent crude protein, increasing to 20 percent in the last 3 to 4 weeks of pregnancy. At the higher rate of supplementation the concentrate was offered in two feeds to avoid any digestive upsets. The rates offered were intended to ensure that the low rate was about normal for twin or triplet bearing ewes while avoiding extremes in rates of supplementation.

Silage was easy fed on a group basis. Intake was measured over the last 6 weeks of pregnancy, on 3 days per week, by recording silage offered and refused on a daily basis. Dry matter was assessed daily on silage offered and refused

Feed intake by ewes in late pregnancy

The total amounts of concentrate offered to ewes are shown in Table 3. Rates were higher in year 2 due the earlier start to meal feeding. Average rates were about 5 kg higher than that offered up to the

commencement of lambing due to the spread of lambing dates in the groups.

Table 3: Total amount of concentrate (kg) offered to ewes pre-lambing

Year	Ewe category	Low	Medium	High
1	Twin-bearing	25.2	30.6	35.9
	Triplet-bearing	30.5	35.4	40.0
2	Twin-bearing	28.7	33.6	39.4
	Triplet-bearing	34.4	39.4	43.7
	Hoggets (twins)	34.2	-	48.1

Table 4 shows the analysis of silage offered to ewes each year. Sample A in year one was double chop while the other 3 samples were precision chop silage.

Table 4: Analysis of silage for ewes

	Year 1		Year 2	
	A ¹	B ²	A ¹	B ²
Dry matter (DM g/kg)	188	302	178	217
pH	4.4	4.2	4.4	4.0
Crude protein (g/ kg DM)	144	136	124	124
DMD (g/kg DM)	741	722	703	694
ME (MJ/kg DM)	10.7	10.4	10.1	10.0

¹Silage offered in early pregnancy

²Silage offered during last 2 to 3 weeks of pregnancy

Silage dry matter, total dry matter, crude protein and metabolisable energy (ME) intakes are shown in Figures 1 and 2. Silage intake was in the range 0.8 to 0.9 kg/ewe/day. Average intake by triplet bearing ewes was somewhat lower than by twin-bearing ewes (829 vs 876 g/day). Intake by triplets tended to be lower at the high rate of concentrate supplementation (781 vs 864 g/day).

Total dry matter intake by twin and triplet-bearing ewes was, as expected, increased by supplementation, which more than compensated for any reduction in silage intake. Intake by triplet-bearing ewes was higher than by twin-bearing ewes except at the high rate of supplementation where intakes were similar.

Intake of crude protein followed a similar trend and is

considered adequate in late pregnancy even at the low rate of supplementation based on published standards (MLC, 1983).

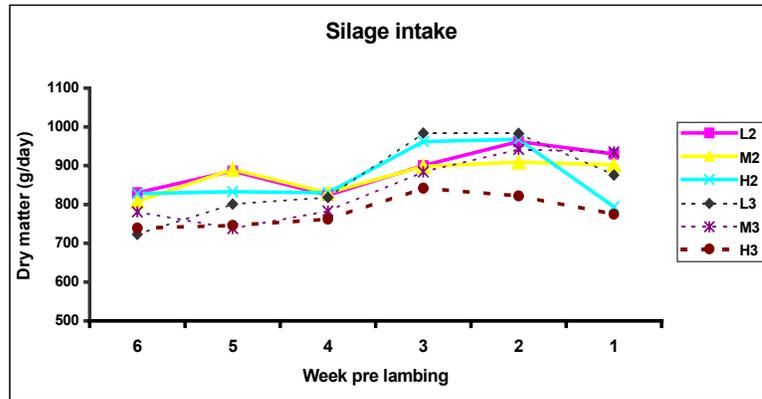
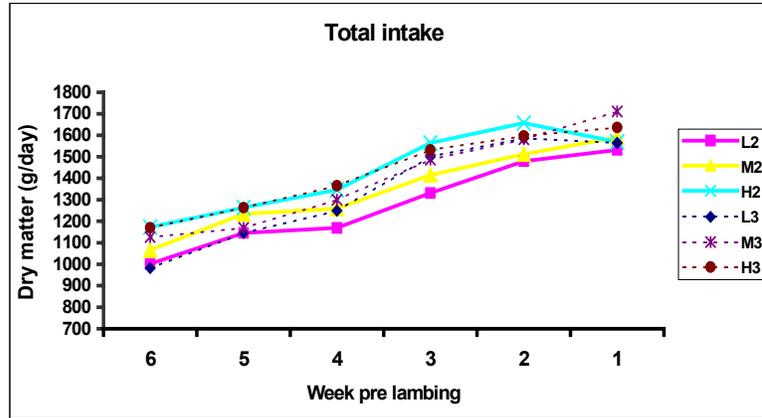


Figure 1: Silage and total dry matter intake by ewes in late pregnancy.

L = Low rate of concentrate supplementation

M = Medium rate of concentrate supplementation

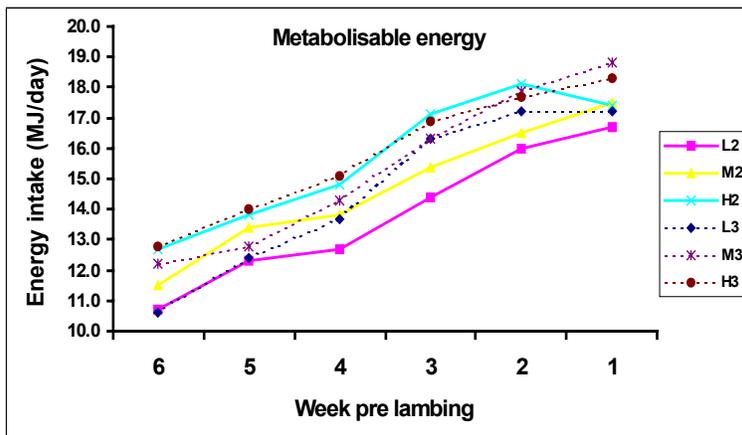
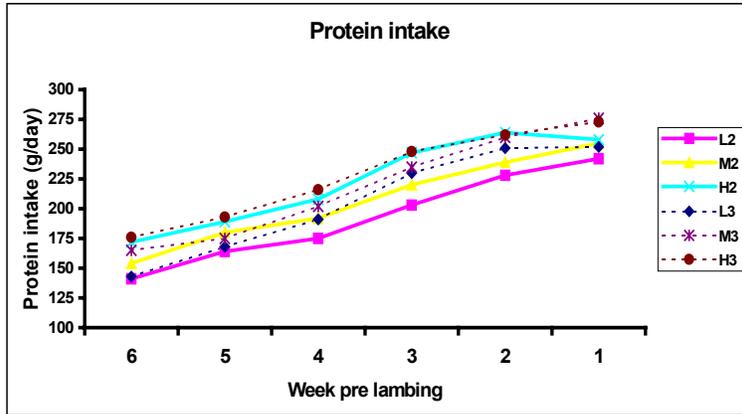


Figure 2: Protein and metabolisable energy intake by ewes in late pregnancy. See footnote Figure 1.

Intake of ME increased with increasing rates of supplementation, in line with the increases in dry matter intake. Average ME intake per day over the last 6 weeks of pregnancy at low and high rates of supplementation was 13.8 and 15.7 for twin-bearing and 14.6 and 15.8 MJ for triplet-bearing ewes. The intakes in late pregnancy at the low rate of supplementation are broadly in line with the requirements of a 65 kg ewe with twin lambs.

Ewe weight and condition

Average weight of mature ewes in mid pregnancy was 66.6 kg compared with 60.6 kg for hoggets. Corresponding weights 5 weeks post lambing were 65.8 and 61.0 kg. There was no significant difference in weight between mature ewes carrying twins or those carrying triplets.

Table 5: Effect of concentrate feeding level (low, medium, high) on the condition score of mature and hogget ewes

Time	Year	Twin-bearing ewes			Triplet-bearing ewes		
		Low	Medium	High	Low	Medium	High
Mid preg.	1	3.1	3.1	3.3	3.1	2.9	2.9
	2	3.0	3.1	3.2	3.2	3.1	3.1
	2 ^a	3.1	-	3.1	-	-	-

Lambing	1	2.5	2.5	2.7	2.4	2.4	2.2
	2	2.6	2.9	2.6	2.6	2.6	2.6
	2 ^a	2.5	-	2.6	-	-	-

^aHoggets

Condition score (CS) of ewes is shown in Table 5. Average CS of all ewes in mid pregnancy was 3.1 and 2.5 at lambing, a decrease of 0.6 units. The decrease was similar for mature ewes and hoggets. A decrease of 0.5 units in the last 6 weeks is acceptable for ewes that were in good condition at mating (MLC, 1983). This indicates that the overall level of feed intake in late pregnancy was satisfactory.

In mid pregnancy the CS of ewes with triplets was slightly lower than for ewes with twins (0.1 units – not significant). At lambing this difference increased to 0.2 units (significant). The level of concentrate feeding did not affect the CS at lambing of the mature ewes with twins or triplets, or of the hoggets.

Lamb birth weight

The average birth weight of twin and triplet lambs for each year is shown in Table 6. As expected twins were, on average, almost 1 kg heavier than triplets born to mature ewes, despite the higher rate of concentrate supplementation offered to triplet-bearing ewes. The higher rate of supplementation increased the birth weight of twin and triplet lambs from mature ewes. The average increase was 0.51 kg for twins and 0.26 kg for triplets. Birth weights were higher in year two when feed intake in

late pregnancy was also higher. Average silage intakes in years 1 and 2 were 791 and 914 g respectively. Concentrate intake in year 2 was also higher (Table 3), resulting in average ME intakes each year of 14.6 and 15.4 MJ. Birth weights of twin lambs from hoggets were surprisingly high and probably reflect the level of concentrates offered over the extended period of 71 days pre-lambing.

In other studies, lamb birth weight of twins was not affected by feeding regimes that resulted in CS loss in the range 0.15 to 0.48 units in late pregnancy but more severe undernutrition resulting in CS loss of 1.0 units reduced lamb birth weight, colostrum yield and lamb growth from 0 to 3 weeks (Crosby, 1994). Flanagan (2001) noted that the birth weights of the progeny of ewes on extended grazing were significantly higher than those born to ewes managed indoor for a full 100-day winter. In other studies lamb birth weight was higher in ewes on easy-care outdoor lambing system compared with those lambing indoors on silage-based diets (Carson et al, 2002).

Table 6: Effect of level (Low, Medium, High) of concentrate supplementation to ewes on lamb birth weight

Year	Twin lambs			Triplet lambs		
	Low	Medium	High	Low	Medium	High
1	4.4	4.7	4.9	3.5	3.5	3.8
2	4.7	4.8	5.2	3.9	3.9	4.2
2 ^a	5.1	-	5.1	-	-	-

^aHoggets

It is concluded from these results that: (1) the CS of ewes with triplets was lower at lambing than that of ewes with twins: (2) within the relatively narrow range of concentrates offered to ewes in late pregnancy increasing the allowance of concentrates did not significantly increase ewe body condition at lambing: (3) increasing the concentrate allowance did increase birth weight of twin or triplet lambs from mature ewes but did not affect birth weight of twin lambs from hoggets. The high birth weight of twin lambs from hoggets may, perhaps, reflect the extended period of supplementation of 71 days pre-lambing compared with 56 and 61 days for mature ewes in years 1 and 2 respectively. This extended period of supplementation may be beneficial, particularly when intake of roughage is low.

REARING TRIPLET LAMBS

The objective of this trial was to determine the effects of concentrate supplementation of ewes at pasture post lambing and creep feeding lambs on lamb growth rate, drafting pattern and concentrate intake.

Flock management

A flock consisting of mature Belclare x Scottish Blackface ewes, mated to Suffolk rams, and lambing in late March was used. Ewes lambed indoor and were turned out to pasture within a few days of lambing. In year 1 a group of 36 ewes with triplets and considered to have a good milk supply was selected. Two groups of 18 ewes were allocated to treatments as follows:

1. 1 kg of concentrates/ewe/day for 3 weeks
2. 1 kg of concentrate/ewe/day for 6 weeks

In year two 16 ewes were available and allocated to these same treatments (8 ewes/treatment). Creep feed was available to lambs from week 1 and offered *ad libitum* up to 6 weeks of age. At 6 weeks post-lambing ewes and lambs were re-grouped. In year one 3 groups of 12 ewes plus lambs were offered one of these treatments:

1. 300 g creep per day to lambs to age 10 weeks only.

2. 300 g creep per day to lambs until drafted for sale.
3. 600 g creep per day to lambs until drafted for sale.

In year two, 2 groups of 8 ewes with lambs were allocated to either treatment 1 or 2 above. Ewes and lambs were set-stocked at pasture up to weaning at 14 weeks of age. The aim of grassland management was to provide pasture at a suitable sward height so that grass supply was not limiting and measure the response to supplementation of ewes and lambs under these conditions.

After weaning the triplet lambs were combined with other lambs from the spring lambing flock that were receiving a similar rate of supplementation. They grazed silage aftermath for about 3 weeks post weaning and then moved to pasture that had been grazed by ewes and lambs up to weaning.

Lambs were drafted for sale based on live weight and body condition; final live-weight, carcass weight and classification were recorded. Concentrate intake by ewes and creep intake by lambs were recorded.

Sward height

From turn-out ewes had access to a reasonable supply of grass with sward heights from lambing to weaning generally within the range of 5 to 7 cm (Table 7) which has been found suitable for sheep set-stocked (Grennan, 1999). While sward heights from 0 to 6 weeks were

lower in year 2, they are considered satisfactory for that time of year. Heights of about 6 cm from 6 to 10 weeks were suitable in May, but height decreasing to below 6 cm from 10 to 14 weeks (June) in year 1 are considered too low to ensure maximum lamb growth in the month pre-weaning.

Table 7: Average sward heights (cm) up to weaning

Period	Year	Group		
		A	B	C
Turn-out to 6 weeks ¹	1	6.9	7.2	-
	2	5.6	5.7	-
6 to 10 weeks ²	1	6.3	6.4	6.3
	2	6.1	6.3	-
10 to 14 weeks ³	1	5.8	5.8	6.0
	2	6.6	6.6	-

¹ From turnout to 6 weeks: A = Concentrates to ewes up to 3 weeks and B = up to 6 weeks

^{2, 3} From 6 weeks to weaning

A = 300 g creep/day to lambs to age 10 weeks

B = 300 g creep/day to lambs to sale

C = 600 g creep/day to lambs to sale

Effect of feeding concentrate to ewes at pasture

The effect of concentrate supplementation of ewes at pasture for 3 or 6 weeks post lambing on lamb weight at 6 weeks is shown in Table 8. It is evident that there was no response to feeding concentrates to ewes for 6 weeks

in this situation where there was adequate grass for ewes and lambs were offered creep feed. It may be that concentrates could be phased out earlier than 3 weeks under these conditions. However if grass is scarce (sward height less than about 5 cm) concentrates should be offered to ewes rearing triplets.

Table 8: Effect of duration of post-lambing supplementation period for ewes on lamb weight and ewe condition score

Trait	Supplementation period (weeks)			
	Year 1		Year 2	
	0 to 3	0 to 6	0 to 3	0 to 6
Lamb weight				
At birth (kg)	3.8	3.7	4.2	4.2
At 6 weeks (kg)	17.0	16.2	16.7	17.0
Ewe condition score				
Mid pregnancy	2.9	2.7	3.1	3.1
At lambing	2.0	2.3	2.7	2.8
At 6 weeks post lambing	2.5	2.4	2.8	2.8

Ewe body condition at lambing is also important in relation to the milk yield of the ewe and her ability to rear triplets (MLC 1983). While ewes were in better condition at lambing in year 2 this was not reflected in higher lamb growth to 6 weeks. The fact that ewes maintained or improved body condition in the first 6 weeks of lactation suggests that their feed intake was adequate.

Effect of creep feeding lambs

The effect of creep feeding lambs on lamb growth, weaning weight and creep intake to weaning are shown in Table 9. While creep feeding at 300 g/day to 10 weeks of age resulted in acceptable weaning weights there was a response to the higher rates and to feeding up to 14 weeks. Weaning weights were particularly high in year 2, a fact also observed in twin lambs in the same year. Growth rates from 10 to 14 weeks in year 1 were low and may be due to grass heights at that time which, as indicated earlier, were considered below optimum. However the response to creep feeding in that period was also lower than expected.

Table 9: Lamb growth rate, weaning weight and intake of creep feed from birth to weaning

Creep feed regime	Growth rate (g/day)		Weaning wt. (kg)	Intake of creep (kg/lamb)
	0 to 10 wks	10 to 14 wks		
<i>Year 1</i>				
300 g/day to 10 weeks	288	195	29.6	12.5
300 g/day to 14 weeks	282	221	29.7	20.9
600 g/day to 14 weeks	306	238	32.0	35.8
<i>Year 2</i>				
300 g/day to 10 weeks	324	237	34.3	13.0
300 g/day to 14 weeks	329	308	36.1	21.4

Lamb drafting

Results in relation to lamb drafting and total creep intake are shown in Table 10. Lambs were drafted at weights that yielded carcasses of acceptable weight, conformation and fat score. The main effect of feeding the higher rates of concentrate to lambs was to reduce the average age at sale. Feeding 300 g/day to sale rather than to 10 weeks of age reduced the age at sale by about 20 days each year, while the 600 g/day rate to sale in year one reduced the age at sale by an additional 25 days. The economic benefit of earlier drafting will largely depend on the seasonal pattern of lamb prices.

Table 10: Lamb drafting and intake of creep feed from birth to sale

Trait	Year 1			Year 2	
	A	B	C	A	B
Sale wt. (kg)	43.5	41.4	40.6	41.8	41.6
Carcass wt. (kg)	18.4	18.1	18.6	18.8	18.4
Fat Score ¹	3.2	3.3	3.3	3.3	3.1
Conformation Score ²	3.0	3.1	3.3	3.2	3.3
Kill-out %	42.3	43.8	45.8	44.8	44.3
Age at sale (days)	171	152	127	145	125
Creep intake (kg)	12.5	36.5	52.8	13.0	29.5

A = 300 g/day of creep to age 10 weeks; B = 300 g day of creep to sale; C = 600 g day of creep to sale

¹Fat score on scale 1 to 5 (fattest)

²Conformation score on scale 1 to 5 (best)

The primary objective of this study was to define the response to concentrate supplementation regimes for rearing triplet lambs. There was no advantage in feeding concentrates to ewes at pasture for 6 weeks rather than 3 weeks where grass supply was adequate and perhaps this could be reduced further. Lambs were reared successfully at the low rate of creep feeding. Total concentrates input per ewe plus 3 lambs was 60 kg (21 kg to ewes and 13 kg to each lamb). At the medium level of creep feeding total concentrate input was 120 kg (21 kg to ewes and 33 kg average to each lamb), while at the high level of creep feeding, input was almost 180 kg (21 kg to ewe and 52.8 kg to each lamb). High levels of creep feeding resulted in earlier drafting of lambs.

CONCLUSIONS

- Increasing the rate of concentrate supplementation in late pregnancy resulted in higher dry matter and energy intake by ewes carrying twin or triplet lambs.
- Condition score of these ewes at lambing was not affected by the rates of concentrate offered, but was lower in ewes giving birth to triplets.
- The birth weight of twin and triplet lambs born to mature ewes was increased by the higher rates of supplementation. Birth weights of twins born to hoggets was not increased by the rates of concentrate offered.
- The growth rate of lambs, reared as triplets, to 6 weeks of age was not increased by offering concentrates to the ewes at pasture for 6 rather than 3 weeks post lambing when grass supply was considered adequate.
- Weaning weight was increased by offering creep feed to lambs to 14 rather than 10 weeks. The main benefit of offering creep feed to sale rather than to 10 weeks was to reduce the average age at sale.
- Triplets were reared successfully with a total concentrate input per ewe plus 3 lambs, of 60 kg, i.e. 21 kg to the ewe and 13 kg to each lamb. Increasing the total concentrate input to 120 or 180 kg reduced the average age at sale by about 20 and 44 days respectively.

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