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ON-FLOOR FEEDING OF HOUSED EWES

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INTRODUCTION

Feeding compounds in a trough to housed ewes poses difficulties in sheep house design, cost and in the practicalities of feeding. The object of this trial was to compare the performance of housed ewes given food either in troughs or on the floor during late pregnancy.

MATERIAL AND METHODS

The treatments were as follows: 32 ewes offered untreated barley straw plus a compound food, both given in a trough (control); 32 ewes offered untreated barley straw plus a compound food, both given on the floor. In each of the 3 years 1986 to 88, 64 Mule ewes were divided into two similar groups by age, weight and condition at housing, 8 weeks before lambing in mid March. Both groups were fed untreated barley straw *ad libitum* plus a compound food (Table 1). The compound food given to the control group was composed of (g/kg) whole grain wheat (775), soya-bean meal (200) and minerals (25). The same compound food was made into pellets measuring 14 mm diameter and 20 mm length, before it was offered to the floor-fed group. Ewes were weighed at housing in January, 4 weeks later and 12 h *post partum*. Lambs were weighed 12 h *post partum* and when their average age was 28 days.

TABLE 1
Amount of compound food given (kg per ewe per day)

Weeks before lambing	kg per head per day
8	0·43
7	0·61
6	0·69
5	0·78
4	0·86
3	0·95
2	1·02
1	1·08

TABLE 2
Ewe weights (kg)

	Trough	Floor	s.e.d.
At housing (January)	68·1	69·4	2·67
At mid housing (February)	73·8	74·1	3·00
At *post partum*	66·3	65·8	2·67

RESULTS

From housing initially to the mid point of the housing period, ewes fed in the trough gained 5·7 kg and ewes fed on the floor gained 4·7 kg (s.e.d. 1·38), and from the mid point of the housing period to *post partum* the trough-fed ewes lost 7·5 kg and the floor-fed ewes lost 8·3 kg (s.e.d. 1·43). During the trial from housing to *post partum*, the trough-fed and floor-fed ewes lost 1·8 kg and 3·6 kg respectively (s.e.d. 1·65; Table 2). The changes in ewe live weight were not significant ($P > 0·05$) but the trough-fed ewes tended to lose less weight than the ewes fed on the floor.

Both groups had a mean litter size of 1·83. The daily live-weight gain from birth to 28 days of single lambs from the trough-fed ewes was 353 g and from floor-fed ewes 368 (s.e.d. 28·8) g. The daily live-weight gain of twin lambs from the trough-fed and floor-fed ewes were 288 and 286 g respectively.

The whole grain wheat/soya compound and the pelleted compound cost £127 and £150 per t respectively. Ewes in both groups ate 44·9 kg compound and were offered 90 kg straw. This resulted in a food cost per ewe of £7·32 for the trough-fed group and £8·36 for the floor-fed group.

CONCLUSIONS

Floor feeding resulted in:

(1) easier feeding for the shepherd;
(2) less bullying at feeding;
(3) no health or behaviour problems;
(4) no significant change in ewe or lamb performance;
(5) a more expensive system only because the compound was pelleted;
(6) no initial cost or depreciation on troughs.