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The Performance of Lambs Weaned at Two Ages



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ABSTRACT

In 1969, 1970 and 1971 the male progeny of Columbia and Targhee ewes were castrated and allotted to 2 treatments one week later. Treatment 1 lambs were weaned and put into the feedlot while treatment 2 lambs remained with their dams for an additional 28 days before entering the feedlot. Treatment 1 lambs began the experiment averaging 2.9 pounds lighter than those in treatment 2. At the end of the experiment, treatment 2 lambs averaged 2.8 pounds lighter than lambs weaned early. During the experimental period, treatment 1 lambs gained significantly ($P < .01$) more weight. Dressing percent and USDA grades were similar between treatments.

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THE PERFORMANCE OF LAMBS WEANED AT TWO AGES

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INTRODUCTION

Under most farm flock systems of lamb management, lambs are allowed to stay with their dams until they are 130 days old. Ewe-lamb pairs are normally fed hay and a grain supplement early in the spring. Later, as pasture becomes available the pairs are moved to grass and feeding is discontinued. Lambs are then weaned at 130 days of age and put in the feedlot, sold as feeders or as milk fat lambs.

By weaning lambs earlier, ewes could be placed on a poorer quality diet or stocked at a heavier rate as grass becomes available. The burden of lactation would be removed and the ewe could be maintained more cheaply.

At younger ages, lambs should still be mature enough to accept a pelleted ration and make acceptable weight gains. In a drylot situation the quality of the diet can be controlled to insure proper weight gains. In a pasture situation, forage quality may vary and not be adequate to allow growth of the lambs. This would be especially pertinent in dry years or years when cold springs delay forage growth.

PROCEDURE

Columbia and Targhee lambs were castrated one week prior to the beginning of the experiment in 1969, 1970 and 1971. The lambs were allotted to two treatments; 1) weaned and put into the feedlot.

and 2) allowed to remain with their dams on pasture and weaned at a later date and then put in the feedlot. Lambs in treatment 1 were weaned and put on feed at an average of 102, 105 and 112 days of age in 1969, 1970 and 1971, respectively. Treatment 2 lambs averaged 103, 105 and 111 days of age at the onset of the experiment. They were put on feed 28 days later. Overall, 34 lambs per treatment were fed. During the three year period, both groups received the same ration in the feedlot. The ration used is listed in Table 1.

TABLE 1. Formulation of ration used

Constituent	% of the ration
Alfalfa, minimum 15% C.P., No. 1	20
Cull peas	26
Wheat flour screenings	30
Dry beet pulp	18
Molasses	5
Salt	1
Antibiotic (aureomycin or aurofac) 2 lb/ton	0.1

When the lambs were allotted to the treatments, they were drenched with Thibenzole and implanted with 3 mg. of Diethylstilbestrol. The lambs were weighed at the onset of the experiment and every two weeks thereafter and, when marketed, slaughter grade and dressing percent were recorded. A one factor analysis of variance was used to detect significant differences. The levels of significance used were .01 and .05.

RESULTS

A comparison of weights, gains, average daily gains and carcass data is found in Table 2. Data listed are three year averages. Treatment 1 lambs, those weaned early, weighed slightly less at the same age as treatment 2 lambs. However, after treatment 1 lambs were on feed for 28 days they averaged 3.9 pounds heavier than those lambs on pasture with their dams. The 28-day gain and the average daily gain were significantly different. Feedlot lambs gained 21.5 pounds while those on pasture gained only 14.7 pounds even though treatment 1 lambs were recovering from weaning.

Data presented in Table 2 for 14-day periods are cumulative from the beginning of the experiment. After treatment 2 lambs were weaned and put into the feedlot, their 14-day gain and average daily gain began to rise again despite the stress of weaning. However, the increase in gain was not enough to equal that in treatment 1. At the end of the experiment, treatment 1 lambs weighed 2.8 pounds more than those in treatment 2; had gained 5.7 pounds more during the experiment; and had a 0.09 pound per day advantage in gain.

Lambs in treatment 1 were slightly more efficient (Table 3). They required 5.3 pounds of pellets per day to average 0.72 pounds daily gain. Those in treatment 2 required 5.3 pounds to average 0.69 pounds per day. The difference amounted to one-third of a pound of feed per pound of gain.

TABLE 2. Comparison of weights, total gains, average daily gains and slaughter data between treatments 1 and 2

Variable	Treat. 1	Treat. 2	Sig.
In Weight	67.1	70.0	NS ²
28 Day Wt. ¹	88.6	84.7	NS
Gain	21.5	14.7	**
ADG	0.78	0.52	**
42 Day Wt.	96.1	94.7	NS
Gain	29.0	24.7	**
ADG	0.70	0.59	**
56 Day Wt.	108.8	106.1	NS
Gain	41.7	36.7	**
ADG	0.74	0.66	**
70 Day Wt.	117.3	114.5	NS
Gain	50.2	44.5	**
ADG	0.72	0.63	**
Warm Carcass Wt.	57.1	54.7	NS
USDA Grade ³	18.3	18.1	NS
Dressing %	48.7	47.8	NS

1. 1st weight on feed for treatment 2

2. NS = Not Significant

** Means differ significantly at the .01 level

3. 17 = Ave choice

20 = Ave prime

TABLE 3. Comparison of efficiency data between treatments

Treat- ment	Number of animals	Days on feed	Pellets con- sumed	Average daily gain on feed	Pellets consumed per animal per day	Pellets Consumed per pound of gain
1	33	72	3,922	0.72	5.3	7.36
2	33	44	2,554	0.69	5.3	7.68

Dressing percents were not very different between treatments. Lambs from treatment 1 showed a slight advantage. The carcasses were graded by a USDA grader. Carcass grades were quite similar, both groups averaged high choice.

SUMMARY

Over a three-year period, lambs were weaned and put into the feedlot at approximately 106 and 134 days of age. The lambs that entered the feedlot earlier gained significantly more weight than those that were allowed to remain on pasture with their dams 28 days longer. Even though the earlier weaned lambs were lighter when they entered the feedlot, they were heavier at market weight and produced a heavier carcass that dressed slightly higher than did later weaned lambs. Both groups averaged high choice when graded by a USDA grader, so the higher dressing percent of the earlier weaned lambs was not due to excessive fat.

It is evident that feedlot gains were greater than those of lambs left on pasture with their dams. Also, earlier weaning allows the ewe to be maintained on a less expensive ration because the physiological burden of lactation is removed.

Weaning lambs at younger ages may be a way to market heavier lambs at younger ages that still are acceptable to the packer. Research at the Eastern Oregon Experiment Station is exploring the possibility of weaning lambs as early as 30 to 45 days of age and marketing a 100-pound lamb (grading choice or prime) at an age of 135 to 150 days.