

The Effect of Early Weaning On Creep-Fed Milk Lambs Grazing Wheat Pasture

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Lamb production in Oklahoma usually involves the production of milk fat lambs. This system is most profitable when one can produce lambs in the fall to utilize small grain pasture through the winter. The lambs are marketed in the spring about the time (or shortly after) livestock should be taken off small grain pastures and before hot weather begins. However, in some years small grain pasture (usually wheat) may not be too abundant due to adverse weather conditions. Therefore, a management method by which the available wheat pasture could be used more efficiently would certainly be of value to sheepmen.

One method by which available wheat pasture may be utilized more profitably is by weaning the lambs before market weight is reached and removing the ewes from pasture. This system, if feasible, should provide the following advantages:

- (1) Increase the available wheat pasture for lambs.
- (2) Keep ewes from getting too fat after the flow of milk decreases. Some evidence indicates that excessively fat ewes cannot be flushed and are less productive than thinner ewes.
- (3) More lambs can be produced if the number of lambs one can raise depends on the amount of wheat pasture available.
- (4) Ewes, after weaning, could be wintered on dry grass and alfalfa hay or protein supplement.

Figure 1 illustrates the amount of dry matter required by a ewe and lamb through lactation. This dry matter would primarily be obtained from the wheat pasture available with perhaps some grain during early stages of lactation.

The illustration also indicates the general trend of the amount of milk produced by the ewe during lactation. When the lamb is about two and one-half months old and weighs about 50 pounds, his feed requirement is less than one-half that of the ewe. Further, the milk of the ewe only meets about 20 percent of the lamb's feed requirement. Thus, the ewe is not making efficient use of the pasture in terms of feeding the lamb. However, if weaning is detrimental to the further development of the lamb, then it may not be practical or applicable to the type of lamb production most commonly practiced in Oklahoma.

Some recent work at other experiment stations indicates that early weaning of lambs has little effect on their further development. Therefore, since more available wheat pasture is frequently needed in Oklahoma, a trial was run at the Fort Reno station during the 1958-59 season to determine the effect of weaning on the further development of the lamb.

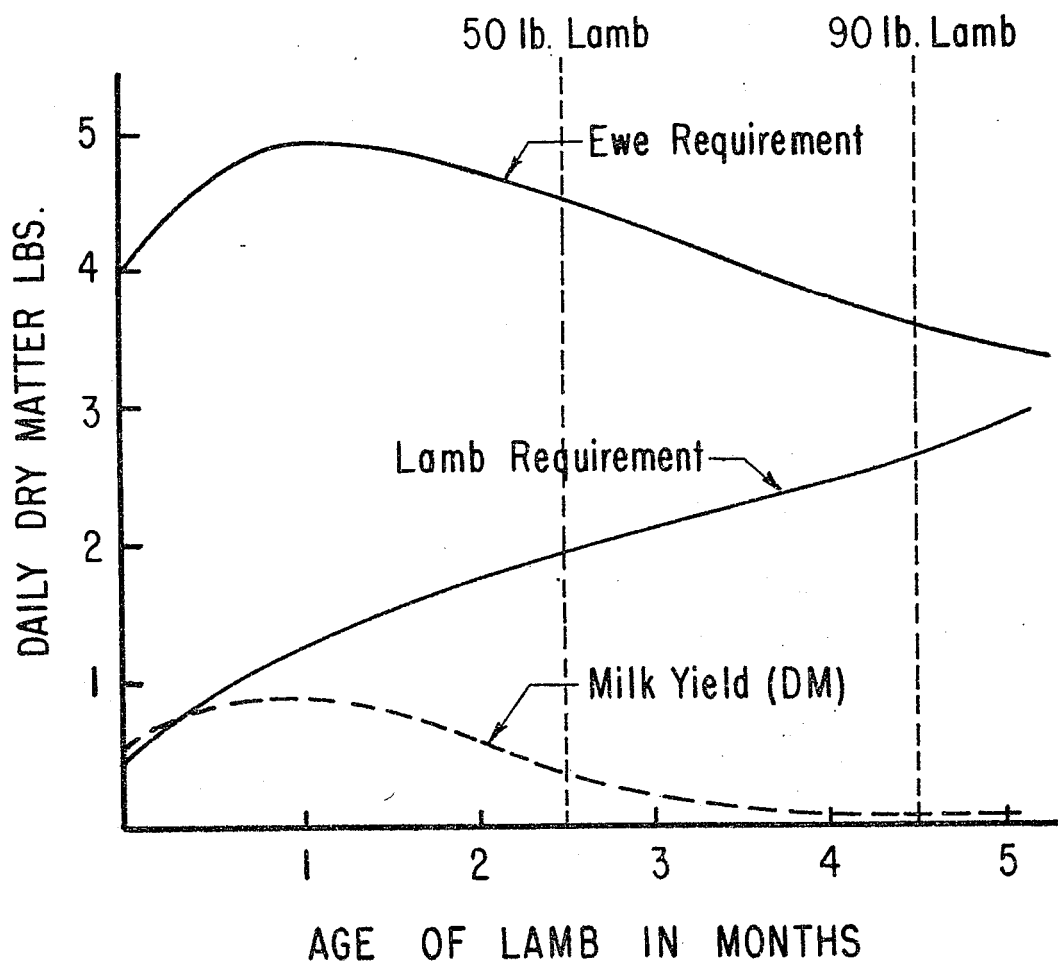


FIGURE 1. The daily feed (dry matter) requirement of an average ewe and lamb and the yield of dry matter in the ewe's milk.

Experimental Procedure

The lambs used in this experiment were born during the late fall of 1958. The dams of these lambs were western ewes purchased from Texas and New Mexico and Dorset-western cross bred ewes saved from the Fort Reno flock as replacements in previous seasons. The sires were Hampshire and Suffolk rams purchased from purebred breeders in Oklahoma.

Part of the lambs were from ewes producing their first lamb crop and part from ewes producing their second lamb crop. There were three separate breeds of ewes within each of these two ewe age groups. Fewer lambs were obtained from yearling than from two-year-old ewes.

The lambs were ear tagged and paint branded at birth to facilitate identification. When lambs were approximately one week old, the ewes and lambs were moved to a wheat pasture area where both had access to the pasture. The lambs were creep fed free choice a mixture of two

parts cracked milo grain and one part chopped good quality alfalfa hay.

Individual weighing of the lambs began in December when the older lambs were approximately two months old and continued throughout the season at two week intervals. One-half of the lambs in each breeding group were weaned when they reached 50 to 60 pounds, and the other half were left with their dams. Lambs were given an estimated live grade and marketed as they reached a 90 to 92 pound weight. Average daily gain and average live grade of the lambs were then computed so that a comparison could be made between the lambs weaned and those not weaned to see if weaning at approximately 50 pounds had an unfavorable effect on the further development of the lamb.

The supply of pasture became limited during late January. This was during the time that many of the lambs were being weaned. It was felt that this lack of pasture would hurt the weaned lambs more than those that were still getting milk. No allowance for the pasture shortage was made since it was felt that if the weaned lambs would perform adequately on poor pasture, they would certainly do so on good pasture.

Results of the Experiment

Table 1 gives the average daily gain of the lambs weaned and not weaned. The lambs from yearling ewes indicate little difference due to weaning. The largest difference that occurred was the increase in daily gain of .05 pound by the lambs not weaned from the half Dorset ewes. Other differences within breed of ewe were negligible. When all these lambs were grouped, the average daily gains of .48 pound vs. .50 pound for weaned and non-weaned lambs were similar.

The lambs from two-year-old ewes also indicated little difference in daily gain due to weaning. The greatest difference noted here was

TABLE 1. Average daily gain of lambs weaned and not weaned assembled according to breeding and age of ewe.

Age and Breed of Ewe	Number of Lambs Used	Average Daily Gain	
		Weaned	Not Weaned
Yearlings			
Half Dorset	16	.48	.53
Rambouillet	16	.49	.47
White-faced Western	15	.48	.51
Total	46	.48	.50
Two-year-olds			
Half Dorset	41	.51	.58
Panama	17	.57	.57
Fine Wool	17	.56	.51
Total	75	.53	.56
Total of all lambs used	122	.51	.54

the .07 pound faster gain by the non-weaned lambs from the half Dorset ewes. Other differences are rather minute and the overall difference in daily gain (.53 pound vs. .56 pound) between the weaned and non-weaned lambs was small.

It can be seen that the lambs from two-year-old ewes gained very slightly more than those from yearling ewes. This is expected to occur. When these two ewe groups were totaled, and all lambs weaned and not weaned were compared, the average daily gains of .51 pound and .54 pound for the weaned and not weaned lambs indicates that the difference may be too small to be noticeable.

Table 2 gives the average estimated live grades at marketing of lambs weaned and not weaned. It can be noted that fewer lambs were available for this part of the study since not all lambs used in the daily gain studies had reached 90 to 92 pounds. No grade estimate was made on those not marketed. There is a slight difference in grade occurring between the two groups. From the estimates made, it appears that the lambs not weaned were .7 of a third of a grade higher than the lambs that were weaned. Therefore, the difference would be about .2 of a grade higher in favor of lambs not weaned. The live grade estimates were used because the carcass grades were not available.

Summary and Discussion

The results of this experiment indicate only a small difference in average daily gain from about 50 pounds to market weight between lambs weaned at this weight and lambs not weaned. Also, the difference in live grade at marketing between the two groups was very small. These results suggest that removing the ewes from wheat pasture to increase its availability for the lambs may be a valuable practice for producers of "spring lambs." This increase in wheat pasture would far outweigh any detrimental effect to the lamb found in this experiment. This should especially be true in years when wheat pasture is scarce.

It is possible that weaning may reduce the lamb's gain and grade more than was found in this experiment. However, even if weaning does slow lambs down, it should not be discriminated against too much

TABLE 2. Average estimated live grade at marketing of lambs weaned and not weaned.

Treatment	Number of Lambs Used	Average Estimated* Live Market Grades
Weaned	49	11.9
Not weaned	51	12.6

*Average Choice=11.00
High Choice=12.00
Low Prime=13.00

because this experiment also indicated that: (1) Weaning fast gaining lambs slowed them down slightly so that they reached market weight later, and (2) weaning slow gaining lambs had little effect on their rate of gain. Therefore, weaning may cause more lambs to reach market together.

In general, this experiment strongly suggests that weaning lambs at approximately 50 pounds should be given consideration. This is especially true if the available wheat pasture for fall born lambs is not abundant. It should be remembered that the weaned lambs must have all of a *good* creep feed that they want and should also have good green pasture. Fine stemmed, leafy, green alfalfa hay is the best substitute for green pasture.

Stilbestrol Implants and Urea in Protein Supplements For Wintering Steer Calves and the Effect Of Stilbestrol Implants on Subsequent Summer Gains

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The use of stilbestrol (implanting and feeding) in various systems of beef production has increased considerably. Its use with fattening cattle is generally accepted as a means of increasing gain and feed efficiency. There are indications that the response from stilbestrol is less when the energy content of a ration is low, such as is the case with our usual wintering rations. Our interest in this particular report is the value of stilbestrol implants for steer calves wintered on dry range grass.

Cattle and sheep are able to utilize, to varying degrees, the nitrogen from urea. This utilization is possible because of the microorganisms in parts of the ruminant stomach. Efficient utilization of urea will result only when other nutrients are present in amounts needed by the microorganisms. There have been many studies which indicate that urea may satisfactorily replace part of the protein in the rations of fattening cattle. There is a lesser number of tests on the value of urea in wintering rations in which the quantity of concentrate feed offered as a supplement to grass hays or dry range is very limited.