

LAMB GROWTH After Early Weaning

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Early weaning results in lower lamb weaning weights and grades. However, the differences are not large and might be compensated for by the increased total weight of lamb produced per acre by increasing the number of ewes on the ranch. Better use of pastures by the weanlings while ewes are carried on less desirable range land is possible with early weaning.

A MORE EFFICIENT use of nutritious forage in better pastures might result from early weaning of lambs—utilizing the good pastures for weanlings while carrying the ewes on less desirable range-land, according to tests at Hopland Field Station. Previously, investigators have shown that a ewe produces little milk by the time the lamb has reached nine weeks of age. The lamb's intake of milk decreases and the quantity of forage consumed increases. The ewe and lamb then compete for the most palatable plants in the pasture. The lamb may be on a sub-maximum diet while the ewe is acquiring a fat reserve which may not be of any advantage to subsequent production. The area ordinarily used to graze one ewe and her lamb will support three lambs, thus tripling the pounds of lamb produced—provided the weaned lambs gain at the same rate as those left with the ewes.

The purpose of the study reported here was to compare gains of weaned and non-weaned lambs from 13 to 20 weeks of age. During 1963, 24 ewe and wether single Corriedale lambs averaging 13 weeks of age were weaned at shearing, April 26, while 24 similar lambs of matching ages remained with their mothers until June 4. The weaned lambs grazed the same pasture as the non-weaned lambs. To determine whether the weaned lambs would "steal" milk from the mothers of the non-weaned lambs, branding fluid was applied to the heads of the weaned lambs. If they had tried to nurse, smudges of paint would have been left on the flanks and udders of the ewes. The flock was checked daily for a week after weaning and there was no indication that any had tried to steal milk.

Because of bad weather in 1963, shearing and early weaning were delayed until April 26; however, weights taken April

23 were used in calculating average gain and average daily gain because of the more uniform weighing conditions. The average lamb wool weight of three pounds per head was added to get the total body weight gain during the final period.

Improved pasture was grazed both years, subclover and Hardinggrass predominating. Before and after this experiment, the pasture was grazed by other groups for a total year long grazing use of six sheep days per acre.

Previous researchers found that if a single lamb weighs at least 50 pounds, is at least 70 days old, and has good creep feed, weaning early does not influence subsequent gain or market grade.

The weaned lambs in this experiment gained significantly less than the non-weaned lambs. They also graded lower. In the non-weaned group, the average daily gain remained approximately the same before and after shearing while the weaned group gained at a slower rate post-weaning.

When a monetary value was placed on the live condition score, the weaned lambs, being lighter in weight and grading lower, returned approximately 6% less income per lamb. The major objective of early weaning is to increase the number of ewes carried on a ranch. If, by early weaning, the ewes can be placed on rough pasture or stocked at a heavier rate (to exceed 6% in this case) on good pasture, early weaning would be economical. In this experiment, 1.5 ewes would have to be added to the flock of 24 to balance the lower weight gain and grade of the early weaned lambs.

If a high quality pasture of subclover and Hardinggrass is normally grazed by three ewes plus three lambs per acre and the lambs gain 20 pounds each from April 20 to June 1, the pasture will produce 60 pounds of lamb per acre. If, on the other hand, the lambs are weaned, one acre can be grazed by nine lambs. If these lambs gain 17 pounds each during the same period, the pasture is now producing 153 pounds of lamb per acre. The ewes from these nine lambs can be placed on poor rough pasture or stocked at a heavier rate on good pasture and the overall productivity of the ranch is increased. In this experiment it would have required five additional days for the weaned lambs to attain the same weight as the nonweaned lambs.

The nematode eggs found per gram of feces in previous experiments (Mansfield, 1959) totaled 38 for the weaned lambs on pasture and 3600 for ewes and lambs on pasture. Since the weaned lambs ran with the nonweaned lambs in the Hopland experiment, the parasite load should be the same in each group, thus there is no advantage in weight gain to the weaned group (which might be expected with a low parasite infestation if these lambs were grazing by themselves). Early-weaned lambs probably would not suffer as much stress if shipped to a feedlot as those newly weaned.

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TABLE 1. LAMB DATA FROM APRIL 23 TO JUNE 4, 1963, HOPLAND FIELD STATION

Treatment	No. lambs	Initial wt.	Final wt.	Avg. ¹ gain	Avg. daily gain birth to early weaning	Early weaning to June 4	Grade ²
Weaned	24	63.4	80.8	20.4	.54	.49	2.33
Non-weaned	24	63.5	83.6	23.1	.55	.55	2.00

¹ Lambs were sheared several days after the April 23 date, so 3 lbs./head were added to each lamb gain.

² 1 = Choice, 2 = Top Good, 3 = Low Good, and 4 = Utility

TABLE 2. LIVE CONDITION SCORES FOR BOTH GROUPS, WEIGHT OF LAMBS IN EACH CLASSIFICATION AND AN ARBITRARY PRICE ASSIGNED TO EACH CLASSIFICATION

	Weaned			Non-weaned		
	Choice	Top Good	Low Good	Choice	Top Good	Low Good
Number of lambs	0	16	8	3	18	3
Total lamb weight	0	1317	621	270	1494	243
Value/pound		.20	.18	.21	.20	.18
Lamb value		375.18			399.24	
Average lamb value		15.63			16.63	
Per cent difference in value				1.00		
				6.4		