

## Finishing Lambs on Pasture

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### Introduction

In an effort to reduce cost and increase profits many shepherds are investigating alternatives for low cost finishing lambs on pasture. We wanted to develop low cost and minimal labor input system for growing lambs outside. At the same time we needed to find out what concentrates would complement our grass pastures best.

At the Eastern Ohio Resource Development Center, during 2001, 2002, 2003 and 2004 we evaluated animal performance, carcass merit, and cost per pound of gain, using two different supplement rations for finishing lambs on pasture,

### Methods

The two self-feeder systems evaluated included: pasture with corn/soybean meal supplementation and pasture with soy hulls supplementation (Table 1). Three replications of each feeding system were used each year in this trial with lambs randomly assigned to groups. Lambs born in early May were weaned in August, vaccinated, de-wormed, grazed and started on feed, then randomly sorted into separate sex and breed groups of four. Distribution by weight ranges were made across the groups. The pasture consisted of stockpiled fescue and clover. In 2001 the lambs were set stocked in half-acre paddocks for the duration of the trial. In 2002 due to dry weather and lack of forage growth the paddocks were one acre in size subdivided in half with the lambs rotating back and forth to allow time for regrowth.

During both years the lambs were on test for 63 days from late September to late November. The ending date was based on the OSU Meat Lab availability. At the end of the trial the lambs were shipped to the OSU meat lab for carcass measurements. All groups received free choice trace mineral salt with selenium.

**Table 1: Supplement formulation**

Ingredient	Corn/Soybean Meal	Soy Hulls
Corn	92%	16%
Soybean Meal	7%	
Soy Hulls		80%
Limestone	1%	4%

## Results

Lambs were weighed at the beginning and end of the trial (Table 2). At the end of the trial the lambs were shipped to the OSU Meat Lab for slaughter and carcass evaluation (Table 3). For the lamb feeding trial statistical analysis using (CRD) completely randomized design was used. None of the measured parameters was significantly different for the two treatments at 5% level of probability.

**Table 2: Effects of supplementation on lamb performance**

Item	Corn/Soybean Meal			Soy Hulls		
	2001	2002	Average	2001	2002	Average
Number of lambs (pens)	12 (3)	12 (3)	24 (6)	12 (3)	12(3)	24 (6)
Initial weight (lb)	68.8	63.75	66.25	71.8	63.58	67.71
Final Weight (lb)	99.4	93.25	96.3	105.5	93.92	99.71
Avg Gain	30.6	29.5	30.08	33.7	30.33	32
ADG	.51	.47	.48	.56	.48	.51

**Table 3: Effects of supplementation on lamb carcass**

Item	Corn/Soybean Meal			Soy Hulls		
	2001	2002	Average	2001	2002	Average
Number of lambs (pens)	12 (3)	12 (3)	24 (6)	12 (3)	12 (3)	24 (6)
Carcass weight (lb)	50.3	49.92	50.13	55.42	51.08	53.25
REA	2.28	2.35	2.41	2.49	2.28	2.39
Back Fat	.17	.18	.18	.2	.19	.19
Avg Quality Grade	Pr-	Ch+	Ch+	Pr-	Ch	Ch+

**Table 4: Feed Cost for the Treatments**

Item	Corn/Soybean Meal			Soy Hulls		
	2001	2002	Average	2001	2002	Average
Feed Consumed (lb)	1728	1364	1546	2538	1761	2149.5

Pounds feed per head per day	2.28	1.80	2.04	3.36	2.32	2.84
Pounds feed per lb gain	4.7	3.85	4.28	6.28	4.83	5.60
Feed Cost	\$62.10	\$49.02	\$55.56	\$81.80	\$56.75	\$69.28
Cost per lb of Gain	\$0.17	\$0.14	\$0.15	\$0.20	\$0.16	\$0.18

### **Discussion**

Animal performance and carcass characteristics were not different for the two treatments. The cost of the two treatments did show some differences (Table 4). One thing that added to the cost difference was the significant difference in feed consumed, but that total included feed wastage. Our lambs would refuse the soy hull pellets if they had gotten wet. A covered self-feeder was used in 2002 to alleviate this problem. Using this system the lambs consumed enough feed to meet their dry matter requirements. The pasture was selectively grazed.

At the beginning of these trials we decided to use soy hulls because they were competitively priced on an energy basis with corn. We have seen no animal performance or carcass benefits to using the soy hulls verses corn/soybean meal. As with most by-product feeds, prices fluctuate and they are not always a bargain. The cost of feed supplements varies from year to year and producers must compare feed prices locally for the best deal.

This system of finishing lambs worked well for us and we would recommend it to others who are looking for a system that requires minimal investment in facilities and labor. In addition, all manure is left on the field. We do recommend that your concentrate ration be evaluated by a knowledgeable animal scientist and formulated to complement your pasture. Start lambs slowly on feed so by the end of a ten to fourteen day period they are up to full feed, i.e. all they want to eat.