Finishing Feeder Lambs

Department of Agricultural Economics — www.agmanager.info

Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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Cost-Return Projection

This cost-return projection for feeder lambs is an estimate of cost and returns that might be expected in the production of feeder lambs in Kansas. For the budget, feeder lambs will be started at a weight of 60 pounds and sold weighing 120 pounds for a weight gain of 60 pounds in 90 days. Lambs will receive a ration of about 2.25 pounds of corn and 1.4 pounds of alfalfa hay per day.

Some commercial feedlots are using whole-corn rations. In these cases, lambs will receive a ration of whole corn, alfalfa hay, and supplement. When a whole-corn ration is used for feeder lambs, they are gradually worked up on corn. The lambs are fed a ration with a small amount of corn, then the amount of corn is increased gradually until corn comprises a major part of the ration. In total, each lamb will receive about 200 pounds of whole corn, 125 pounds of alfalfa hay, 13 pounds of soybean oil meal, 2.5 pounds of salt and 2.5 pounds of limestone to gain 60 pounds in 90 days. Feed conversion rates vary from 4 to 6 pounds of feed per pound of gain.

Variable and Fixed Costs

Variable costs vary with the number of feeder lambs being handled. Interest is computed on one-half the variable costs plus the cost of the purchased animal for the length of time the animal is being fed.

Fixed costs do not vary with the number of lambs handled, and they are incurred by virtue of owning equipment and facilities. Building requirements consist primarily of lamb shelter and feed storage, while equipment includes feeding facilities and chore equipment. For the budget, capital investment per lamb is estimated to be $115 for buildings and equipment.

One turnover of lambs per year is assumed when calculating fixed costs.

Profit and Return Factors

Net return on investment is the percentage return on investment. This measure enables comparisons to be made among other enterprises and investment alternatives. Asset turnover is the percentage of investment recovered by total returns. Inverting this measure allows different enterprises to be compared on the basis of capital required to generate a dollar of gross income.

Table 1. *Factors Used in Budget*

Item	Value
Days on feed	90
Feed:	
Pasture, aums	0.0
Sorghum silage, lbs	0.0
Alfalfa hay, lbs.	125.0
Corn, lbs	200.0
Protein, lbs.	13.0
Vitamins-minerals, lbs.	3.0

	Value per head
Investment in buildings and improvements	$65
Life of buildings	20 yrs
Investment in equipment	$50
Life of equipment	10 yrs
Interest rate on buildings and equipment	8.5%
Insurance rate on buildings and equipment	0.25%
Tax rate on buildings and equipment	1.50%
Interest rate on variable costs and purchased livestock	8.5%
Labor hours	0.75
Labor price per hour	$10.80

COST-RETURN PROJECTION — FEEDER LAMBS

	Examples Total	Your Farm Total
VARIABLE COSTS PER HEAD		
1. Pasture	$	
2. Silage		
3. Hay (125 lbs @ $111.33 per ton)	6.96	
4. Grain (3.57 bu @ $3.85 per bu)	13.75	
5. Protein (13 lbs @ $281.42 per ton)	1.83	
6. Vitamins-minerals (3 lbs @ $0.25 per lb)	0.75	
7. Feed processing	1.08	
8. Labor (0.75 hrs × $10.80 per hour)	8.10	
9. Veterinary, drugs, and supplies	4.00	
10. Marketing costs	2.50	
11. Hauling	1.00	
12. Shearing	2.00	
13. Utilities, fuel, oil	2.50	
14. Building and equipment repairs	0.86	
15. Miscellaneous	0.50	
16. Interest on purchased livestock and ½ variable costs @8.5%	1.76	
A. TOTAL VARIABLE COSTS	$ 47.59	
FIXED COSTS PER HEAD		
17. Depreciation on buildings and feed storage	$ 3.25	
18. Depreciation on equipment	5.00	
19. Interest on buildings and equipment[1]	4.89	
20. Insurance and taxes on building and equipment	2.01	
B. TOTAL FIXED COSTS	$ 15.15	
C. TOTAL COSTS (A + B)	$ 62.74	
RETURNS PER HEAD		
21. Market animal: 120 lbs × $90 cwt	$ 108.00	
22. Wool: 5 lbs × $1.00/lb	5.00	
23. Less cost of animal: 60 lbs × $102 cwt	-61.20	
24. Less death loss: (2% of line 21)	-2.16	
D. GROSS RETURN/HEAD	$ 49.64	
E. RETURN OVER VARIABLE COST (D – A)	$ 2.05	
F. RETURN OVER TOTAL COSTS (D – C)	$ –13.10	
G. AVERAGE SELLING PRICE NEEDED PER HUNDREDWEIGHT		
25. To cover variable costs and feeder [(A – 22 – 23) ÷ (net selling weight[2])] × 100	$ 88.26	
26. To cover total cost and feeder [(C – 22 – 23) ÷ (net selling weight[2])] × 100	$ 101.14	
H. TOTAL FEED COSTS (lines 1 - 7)	$ 24.37	
27. Hundredweight produced	0.576	
28. Feed cost per hundredweight (H ÷ 27)	$ 42.30	
I. ASSET TURNOV ER ((21-24) ÷ INVESTMENT)[3]	62.5%	
J. NET RETURN ON INVESTMENT [(F + 16 + 19) ÷ INVESTMENT][3]	-3.7%	

[1] *One–half the investment in buildings and equipment at the interest rate shown in Table 1.*
[2] *Net selling weight equals selling weight minus (death loss % times selling weight).*
[3] *Investment equals total cost of purchased animal and value of buildings and equipment.*

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