

EBB-SF1-02

Sheep - Farm Flock Ewes on Pasture and Lambs on Drylot

Robert L. Smathers, Neil R. Rimbey, C. Wilson Gray, and Richard M. Garrard



Background and Assumptions

This budget presents both the average costs and returns per ewe and total costs and returns for a typical 100-head sheep farm flock pasture operation. The forage source is summer pasture; winter feeding is required. Lambs are weaned before ewes are moved out to summer pasture, fattened in drylot, and sold in June.

Livestock Investment

Livestock investment is 100 ewes and 3 rams. Ewes have a useful life of 7 years after they are placed into the breeding herd. The culling rate is 12 percent and the ewes have a 3 percent death loss. Ewe replacements are raised on the farm and have a 6 percent death loss rate and a 6 percent cull rate. The weaned lamb crop is 150 percent of ewes wintered and the lamb death loss rate in drylot is 1 percent.

Machinery and Equipment

Machinery and equipment investment is 30 percent use of a pickup, 5 percent use of a tractor and scraper, and 100 percent use of miscellaneous equipment and tools. Values on machinery and equipment are calculated at 50 percent of new replacement cost to reflect typically aged, but functional farm equipment.

Buildings and Improvements

Buildings and improvements are a lambing shed, lambing pens, holding pens, fencing, feed bunks, grain storage facilities, and watering tubs. The sheep enterprise uses about 15 percent of the farm water system.

Shed construction uses treated posts and 1-by 12-inch rough lumber with a treated canvas exterior. A total of 15 4- by 4-foot jugs are supplied with free-flowing water through notched aluminum pipe.

Pen facilities include five 16- by 16-foot pens that will house 10 ewes with singles or 6 ewes with twins, two 16- by 30-foot medium group pens, and two 48- by 120-foot pens for large groups of ewes and lambs. Each of the group pens is equipped with out-sheds, wood feeders, and creep feeders. Water is provided in large metal tubs. The out-sheds are 2-by 6-inch construction with galvanized metal roofing. Straw

is placed in the sheds to provide dry bedding for lambs and ewes. Buildings and improvements are valued at 80 percent of new replacement cost.

Management Practices

Lambing begins in late January and continues through February. Lambs are weaned in March and moved into drylot where they are fattened and then marketed in June. The animals are fed an average 1.5 pounds of hay and 2 pounds of grain per day for 120 days. Lambs are creep fed before starting on hay and grain ration in March.

On April 15, ewes are placed on irrigated or improved pasture until late November. On approximately December 1, ewes are gathered and placed in drylot until mid-April when they will again be placed on pasture. From December 1 through lambing, ewes are given a feed ration consisting of hay and barley. Free choice mineral salt with selenium is also available. During winter-feeding, ewes receive an average of 5 pounds of hay and 0.75 pound of barley per day. The price on all feed consumed is the purchase price plus transportation costs.

Marketing occurs in April and June. Cull animals are marketed primarily in April and lambs in June. The costs of marketing include 3 percent of gross value for sales commission and 2 percent for sales shrink and transportation to market.

Veterinary care is administered to maintain herd health. Generally, each ewe is given vibrio and multi-clostridial vaccinations before lambing season and is then wormed in August. Replacement ewes receive essentially the same treatment as the ewes plus an additional multi-clostridial vaccination in the fall. Lambs receive a vaccination for enterotoxemia at 4 and 6 weeks after birth. Treatment for coccidiosis for ewes, replacements, and lambs is administered through salt intake. In addition, selenium is included in the salt mixture the year round at about 30 parts-per-million (ppm).

Labor for this operation is provided by the operator and his family and valued at \$8.50 per hour.

Table1: Sheep - Farm Flock Budget
Ewes on Pasture
Lambs on Drylot

EBB-SF1-02

	Weight Each	Unit	Total Number of Head or Units	Price or Cost/Unit	Total Value	Value or Cost/Head	Your Value
1. Gross Receipts							
Fat lambs	130.00	lb	131	0.76	12,942.80	129.43	_____
Cull ewes	160.00	lb	12	0.29	556.80	5.57	_____
Cull rams	225.00	lb	1	0.23	51.75	0.52	_____
Cull Replacement Ewes	140.00	lb	1	0.76	106.40	1.06	_____
Wool - ram	11.00	lb	3	0.60	19.80	0.20	_____
Wool - ewe	10.00	lb	100	0.60	600.00	6.00	_____
Total Receipts					\$14,277.55	\$142.78	_____
2. Operating Costs							
Alfalfa hay		ton	48.40	85.00	4113.66	41.14	_____
Feed barley		cwt	307.84	5.50	1693.10	16.93	_____
Corn		cwt	153.60	5.60	860.13	8.60	_____
Selenium salt		lb	1503.00	0.12	180.36	1.80	_____
Pasture		AUM	154.50	12.00	1854.00	18.54	_____
Marketing		head	100.00	7.28	728.00	7.28	_____
Shearing - ewe		head	100.00	2.50	250.00	2.50	_____
Shearing - ram		head	3.00	4.50	13.50	0.14	_____
Sheep Commission		head	100.00	1.03	103.00	1.03	_____
Hauling		head	100.00	1.08	108.00	1.08	_____
Veterinary Medicine		\$	338.56	1.00	338.56	3.39	_____
Machinery (fuel, lubrication, repair)		\$	82.13	1.00	82.13	0.82	_____
Vehicles (fuel, repair)		\$	501.88	1.00	501.88	5.02	_____
Equipment (repair)		\$	40.00	1.00	40.00	0.40	_____
Housing and Improvements (repair)		\$	502.53	1.00	502.53	5.03	_____
Hired Labor		hour	540.00	8.50	4590.00	45.90	_____
Owner Labor		hour	96.00	8.50	816.00	8.16	_____
Interest on Operating Capital		\$	5733.05	0.06	358.32	3.58	_____
Total Operating Costs					\$17,133.17	\$171.33	_____
3. Income Above Operating Costs					-\$2855.62	-\$28.56	_____
4. Ownership Costs							
Capital Recovery:							
Purchased Livestock		\$	328.54	1.00	328.54	3.29	_____
Housing and Improvements		\$	1104.14	1.00	1104.14	11.04	_____
Machinery		\$	80.15	1.00	80.15	0.80	_____
Equipment		\$	274.15	1.00	274.15	2.74	_____
Vehicles		\$	450.66	1.00	450.66	4.51	_____
Interest on Retained Livestock		\$	8572.50	0.07	578.64	5.79	_____
Taxes and Insurance		\$	75.25	1.00	75.25	0.75	_____
Overhead		\$	380.00	1.00	380.00	3.80	_____
Total Ownership Costs					\$3271.53	\$32.72	_____
5. Total Costs					\$20,404.71	\$204.05	_____
6. Returns to Risk and Management					-\$6127.16	-\$61.27	_____

Table 2: Monthly Summary of Returns and Expenses.

EBB-SF1-02

	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Value
Production:													
Fat lambs												12943	12943
Cull ewes										557			557
Cull rams										52			52
Cull Replacement Ewes										106			106
Wool - ram										20			20
Wool - ewe										600			600
Total Receipts	0	0	0	0	0	0	0	0	0	1335	0	12943	14278
Operating Inputs:													
Alfalfa hay						683	663	663	929	604	286	286	4114
Feed barley	177					0	128	145	388	322	267	266	1693
Corn								19	210	210	210	210	860
Selenium salt	13	13	13	13	13	13	13	13	13	22	22	22	180
Pasture	247	247	247	247	247					124	247	247	1854
Marketing												728	728
Shearing - ewe										250			250
Shearing - ram										14			14
Sheep Commission			103										103
Hauling												108	108
Veterinary Medicine	180	94		9				28	28				339
Machinery (Fuel,Lube,Repair)	7	7	7	7	7	7	7	7	7	7	7	7	82
Vehicles (Fuel and Repair)	42	42	42	42	42	42	42	42	42	42	42	42	502
Equipment (Repair)	3	3	3	3	3	3	3	3	3	3	3	3	40
Housing, Improvements (Repair)	42	42	42	42	42	42	42	42	42	42	42	42	503
Taxes and Insurance							75						75
Hired Labor	255	255	510	510	255	510	510	510	510	255	255	255	4590
Total Costs	966	702	967	873	609	1300	1482	1471	2172	1895	1381	2217	16034
Net Returns	-966	-702	-967	-873	-609	-1300	-1482	-1471	-2172	-560	-1381	10726	-1757

Table 3: Monthly Feed Requirements.

Feed	Units	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Alfalfa hay													
Ewes	ton	0	0	0	0	0	8	8	8	8	4	0	0
Lambs	ton	0	0	0	0	0	0	0	0	3	3	3	3
Rams	ton	0	0	0	0	0	0	0	0	0	0	0	0
Feed barley													
Ewes	cwt	0	0	0	0	0	0	23	21	23	10	0	0
Ewe Replacements	cwt	0	0	0	0	0	0	0	1	2	2	3	3
Lambs	cwt	32	0	0	0	0	0	0	5	46	46	46	46
Corn													
Lambs	cwt	0	0	0	0	0	0	0	3	38	38	38	38
Selenium salt	lb	105	105	105	105	105	105	105	105	105	186	186	186
Pasture													
Ewes	AUM	20	20	20	20	20	0	0	0	0	10	20	20
Rams	AUM	1	1	1	1	1	0	0	0	0	0	1	1

Table 4: Investment Summary.**EBB-SF1-02**

	Purchase Price	Salvage/Cull Value	Livestock Share	Useful Life	Annual Taxes and Insurance	Annual Capital Recovery ¹
Buildings, Improvements and Equipment						
Lambing shed	\$3000.00	\$0.00	100	25	\$9.00	\$251.66
Water system	\$3550.00	\$0.00	15	20	\$1.60	\$49.29
Grain storage	\$4100.00	\$400.00	100	20	\$13.50	\$369.50
Electric fence	\$2000.00	\$0.00	100	20	\$6.00	\$185.13
Corral	\$2300.00	\$0.00	100	15	\$6.90	\$248.55
Miscellaneous	\$1200.00	\$0.00	100	10	\$3.60	\$168.88
Feeders	\$800.00	\$100.00	100	10	\$2.70	\$105.27
Total	\$16,950.00				\$43.30	\$1378.29
Purchased Livestock						
Rams	\$1200.00	\$105.00	100	4		\$328.54
Total	\$1200.00					\$328.54
Retained Livestock						
Ewes	\$10,000.00	\$4000.00	100			\$472.50 ²
Ewe replacements	\$2295.00	\$850.00	100			\$106.14 ²
Total	\$12,295.00					\$578.64²
Machinery and Vehicles						
Tractor - 30hp	\$9200.00	\$2000.00	10	20	\$3.36	\$80.15
Pickup 1/2 ton	\$12,500.00	\$2750.00	25	8	\$28.59	\$450.66
Total	\$21,700.00				\$31.95	\$530.81

¹ Annual capital recovery is the method of calculating depreciation and interest recommended by the National Task Force on Commodity Costs and Returns Measurement Methods.

² Interest on average investment.

The Authors - Robert L. Smathers is an Extension associate in the University of Idaho Department of Agricultural Economics and Rural Sociology, Moscow. Neil R. Rimbey is an Extension range economist in the UI Southwest Idaho Research and Extension Center, Caldwell. C. Wilson Gray is an Extension agricultural economist in the UI District III Extension Office, Twin Falls. Richard M. Garrard is Extension agricultural agent in Cassia County, Burley.

Issued in furtherance of cooperative extension work in agriculture and home economics, Acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, A. Larry Branen, Interim Director of Cooperative Extension System, University of Idaho, Moscow, Idaho 83843. The University of Idaho provides equal opportunity in education and employment on the basis of race, color, religion, national origin, gender, age, disability, or status as a Vietnam-era veteran, as required by state and federal laws.