

Summer Grazing of Steers in Eastern Kansas



K-STATE
Research and Extension

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Cost-Return Budget

This budget estimates costs and returns for a season-long and an early-intensive grazing system. Projected 2014 input and output prices are used for illustrative purposes (see MF1013 for details of projected prices). Producers should use their own prices and costs, and adjust production factors to match their individual situations when using the budget. Break-even prices are particularly sensitive to changes in average daily gain, pasture rental charge, and feeder cost. The profitability of each system is dependent on many factors including forage mix, pasture costs, type and weight of cattle, and price changes during the grazing season. Therefore, it is important to analyze the feasibility of both systems at the beginning of each grazing season.

Production Level

Costs per unit and net returns to livestock production are highly dependent on production levels. The following estimated budget includes two different production levels. Production levels vary for a number of reasons including livestock quality or genetics, weather, input levels, and management. The two production levels included in this estimated budget reflect production variability due to weather and management as opposed to the quality of the livestock, since livestock values are held constant. Budgeting at multiple production levels can help producers examine the financial risk of a livestock enterprise that is directly related to production risk.

This summer grazing budget includes columns for both below-average and above-average performance for season-long and early-intensive grazing systems. Performance

varies due to differences in average daily gain. The values assumed are included in Table 1 and are deviations from long-term averages.

Costs

Operating costs are costs that vary in the short run and can differ on a per head basis from one grazing cycle to the next. Feed requirements for summer grazing systems are minimal. The budgets assume that pasture will be used for 5 months for the season-long and 2½ months for the early-intensive program. Each column includes interest on one-half the variable costs plus the cost of the purchase animal for the length of time the animal is being grazed. Producers who do not rely on borrowed funds should consider the interest charge as an opportunity cost of their own capital. An allowance for shrink is included in the average daily gain estimates. Hundredweight produced is adjusted for death loss and shrink. Kansas Farm Management Association summary reports are used as a basis for estimating variable costs such as labor, veterinary, repairs, fuel, oil, and utilities. These cost items may vary considerably between individual producers.

Ownership costs do not vary from one grazing period to the next and are incurred by virtue of owning equipment and facilities. These capital requirements are minimal for a grazing system. Interest cost on facilities and equipment is based on the average investment times an interest rate of 6.5 percent. Depreciation is based on a remaining life of 10 and 8 years for equipment and machinery, respectively, and it is assumed there is no salvage value at the end of the remaining life of facilities and equipment.

Table 1. *Factors Used for Summer Grazing in Eastern Kansas Cost-Return Budget*

	Season-Long		Early-Intensive		
	Level 1	Level 2	Level 1	Level 2	
Days on pasture	150	150	75	75	
Average daily gain	1.75	1.45	2.20	1.80	
Purchase weight	550	550	550	550	
Purchase price	\$195.09	\$195.09	\$195.09	\$195.09	
Sale weight, \$/cwt	813	768	715	685	
Sale price, \$/cwt	\$164.82	\$166.75	\$172.11	\$173.76	
Pasture charge, \$/head	\$80.75	\$80.75	\$66.93	\$66.93	
Mineral and salt, lbs/day @ \$700/ton	0.133	0.133	0.133	0.133	
Labor, hours @ \$15/hr	1.50	1.50	1.13	1.13	
Investment in facilities, \$/head	\$19.00	\$19.00	\$9.50	\$9.50	
Investment in equipment, \$/head	\$69.00	\$69.00	\$34.50	\$34.50	
	Useful life	Salvage	Interest	Insurance	Tax rate
	(years)	value, (%)	rate, (%)	rate, (%)	(%)
Facilities	10	0%	6.50%	0.25%	1.50%
Equipment	8	0%	6.50%	0.25%	0.00%
Interest rate on operating costs and purchased cattle					6.5%

COST-RETURN PROJECTION — SUMMER GRAZING STEERS IN EASTERN KANSAS

	Season-Long		Early-Intensive		Your Farm
	Level I	Level II	Level I	Level II	
RETURNS PER HEAD					
1. Market animal: (See Table 1)	\$ 1,339.16	\$ 1,279.81	\$ 1,230.59	\$ 1,190.26	_____
2. Less cost of animal: (See Table 1)	1073.00	1073.00	1073.00	1073.00	_____
3. Less death loss	20.09	19.20	18.46	17.85	_____
4. Other income.....	_____	_____	_____	_____	_____
A. GROSS RETURNS PER HEAD	\$ 246.08	\$ 187.61	\$ 139.13	\$ 99.41	_____
COSTS PER HEAD					
5. Summer pasture.....	\$ 80.75	\$ 80.75	\$ 66.93	\$ 66.93	_____
6. Harvested forage	_____	_____	_____	_____	_____
7. Grain	_____	_____	_____	_____	_____
8. Supplement, mineral, and salt	7.00	7.00	3.50	3.50	_____
9. Other feed	_____	_____	_____	_____	_____
10. Labor	22.50	22.50	16.88	16.88	_____
11. Veterinary, drugs, and supplies	11.50	11.50	10.50	10.50	_____
12. Marketing costs	15.00	15.00	15.00	15.00	_____
13. Hauling.....	_____	_____	_____	_____	_____
14. Utilities, fuel, and oil.....	11.58	11.58	8.69	8.69	_____
15. Facilities and equipment repairs	14.00	14.00	10.50	10.50	_____
16. Professional fees (legal, accounting, etc.).....	2.50	2.50	1.25	1.25	_____
17. Miscellaneous	8.00	8.00	6.00	6.00	_____
18. Depreciation on facilities and equipment	10.53	10.53	5.26	5.26	_____
19. Interest on facilities and equipment.....	5.72	5.72	2.86	2.86	_____
20. Insurance and taxes on facilities and equipment....	0.51	0.51	0.25	0.25	_____
B. SUBTOTAL	\$ 189.58	\$ 189.58	\$ 147.62	\$ 147.62	_____
21. Interest on feeder and ½ Operating Costs	30.78	30.78	15.16	15.16	_____
C. TOTAL COSTS	\$ 220.36	\$ 220.36	\$ 162.78	\$ 162.78	_____
D. RETURNS OVER TOTAL COSTS (A – C)	\$ 25.72	\$ -32.74	\$ -23.65	\$ -63.37	_____
22. Hundredweight produced.....	2.50	2.06	1.54	1.25	_____
23. Feed cost per hundredweight.....	35.05	42.60	45.65	56.47	_____
E. BREAK-EVEN PRICE, \$/cwt	\$ 161.61	\$ 171.08	\$ 175.47	\$ 183.15	_____
F. ASSET TURNOVER (A ÷ INVESTMENT)¹	21.20%	16.16%	12.46%	8.90%	_____
G. NET RETURN ON INVESTMENT					
((D + 19 + 21) ÷ INVESTMENT)¹	5.36%	0.32%	-0.50%	-4.06%	_____

¹ Investment equals total value of feeder calf, facilities, and equipment

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