Summer Grazing of Steers in Western 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 depends on many factors, including forage mix, pasture costs, type and weight of cattle, and price changes during the grazing season. 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 primarily reflect production variability due to weather and management. 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 two alternative performance levels for both 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 utilized for 5 months for the season-long and 2½ months for the early–intensive program. Each column includes interest on one–half of the operating costs added to the cost of the purchased 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 among 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 Western 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	1.50	1.20	1.90	1.50
Purchase weight	550	550	550	550
Purchase price	$195.09	$195.09	$195.09	$195.09
Sale weight, $/cwt	775	730	693	663
Sale price, $/cwt	$166.49	$167.96	$173.31	$175.00
Pasture charge, $/head	$72.67	$72.67	$60.24	$60.24
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 (years)	Salvage value, (%)	Interest rate, (%)	Insurance rate, (%)	Tax 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 WESTERN KANSAS

	Season-Long		Early-Intensive		
	Level 1	**Level 2**	**Level 1**	**Level 2**	**Your Farm**
RETURNS PER HEAD					
1. Market animal: (See Table 1)	$ 1,290.30	$ 1,226.11	$ 1,200.17	$ 1,159.38	
2. Less cost of animal: (See Table 1)	1073.00	1073.00	1073.00	1073.00	
3. Less death loss	19.35	18.39	18.00	17.39	
4. Other income					
A. GROSS RETURN PER HEAD	$ 197.95	$ 134.72	$ 109.17	$ 68.99	
COSTS PER HEAD					
5. Summer pasture	$ 72.67	$ 72.67	$ 60.24	$ 60.24	
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	$ 181.51	$ 181.51	$ 140.92	$ 140.92	
21. Interest on feeder and ½ Operating Costs	30.67	30.67	15.12	15.12	
C. TOTAL COSTS PER HEAD	$ 212.17	$ 212.17	$ 156.04	$ 156.04	
D. RETURNS OVER TOTAL COSTS (A – C)	$ -14.23	$ -77.45	$ -46.87	$ -87.05	
22. Hundredweight produced	2.13	1.69	1.32	1.03	
23. Feed cost per hundredweight	37.34	47.13	48.24	62.14	
E. BREAK-EVEN PRICE, $/cwt	$ 168.35	$ 178.73	$ 180.18	$ 188.34	
F. ASSET TURNOVER (A ÷ INVESTMENT)[1]	17.05%	11.60%	9.77%	6.18%	
G. NET RETURN ON INVESTMENT ((D + 19 + 21) ÷ INVESTMENT)[1]	1.91%	-3.54%	-2.59%	-6.18%	

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

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