Summer Grazing of Steers in Western Kansas

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Cost–Return Budget

This budget estimates costs and returns for a season-long and an early-intensive grazing system. Five year average input and ouput prices are used for illustrative purposes. Producers should use their own prices 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. Because of this, 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 in 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 such as livestock quality/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.

Variable and Fixed Costs

Variable 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 five months for the season-long and 2.5 months for the early–intensive program. Each column includes interest on one–half the variable costs plus 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. Cwt. produced is adjusted for death loss and shrink. Farm Management Association Summary Reports are used as a basis for estimating variable costs such as labor, veterinary, drugs, repairs, fuel, oil, and utilities. These cost items may vary considerably among individual producers.

Fixed 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. In each column, interest is calculated on one–half the original cost of buildings and equipment.

Table 1. Factors Used for Cost–Return Budget

	Season-Long		Early-Intensive	
Performance level	**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
Sale Weight	775	730	693	663
Sale Price ($/cwt.)	80.63	81.90	82.65	83.25

	Value per head	
Investment in Buildings	$20.00	$10.00
Life of Buildings	20 yrs	20 yrs
Investment in Equipment	$10.00	$5.00
Life of Equipment	10 yrs	10 yrs
Interest Rate on Buildings–Equipment	10.00%	10.00%
Insurance Rate on Buildings–Equipment	.25%	.25%
Tax Rate on Buildings–Equipment	1.50%	1.50%
Interest Rate on Variable Costs and Purchased Livestock	10.00%	10.00%
Labor Hours	.6	.4
Labor Price per Hour	$9.00	$9.00

COST-RETURN PROJECTION—SUMMER GRAZING STEERS IN WESTERN KANSAS

	Season-Long		Early-Intensive		
	Level 1	**Level 2**	**Level 1**	**Level 2**	**Your Farm**
VARIABLE COSTS PER HEAD					
1. Pasture (___ months @ ___ per mo.)	$ 51.00	$ 51.00	$ 36.75	$ 36.75	$
2. Silage (___ lbs. @ ___ per ton)					
3. Hay (___ lbs. @ ___ per ton)					
4. Grain (___ lbs. @ ___ per bu.)					
5. Supplement (___ lbs. @ ___ per ton)					
6. Mineral—Salt (___ lbs. @ $0.16 per lb.)	3.20	3.20	1.60	1.60	
7. Feed Processing					
8. Labor (___ hrs. @ $9.00 per hr.)	5.40	5.40	3.60	3.60	
9. Veterinary, Drugs, Supplies	10.00	10.00	8.00	8.00	
10. Marketing Costs	4.00	4.00	4.00	4.00	
11. Hauling					
12. Utilities, Fuel, Oil	5.00	5.00	3.00	3.00	
13. Buildings—Equipment Repairs	6.50	6.50	4.30	4.30	
14. Miscellaneous	4.00	4.00	3.00	3.00	
15. Interest on Purchased Livestock + 1/2 Variable Costs @ 10%	22.60	22.60	11.04	11.04	
A. TOTAL VARIABLE COSTS	$111.70	$111.70	$ 75.29	$ 75.29	
FIXED COSTS PER HEAD					
16. Depreciation on Buildings and Equip.	$ 2.00	$ 2.00	$ 1.00	$ 1.00	
17. Interest on Buildings and Equip.[1] @ 10%	1.50	1.50	0.75	0.75	
18. Insurance and Taxes on Buildings and Facilities @ 1.75%	0.08	0.08	0.04	0.04	
B. TOTAL FIXED COSTS	$ 3.58	$ 3.58	$ 1.79	$ 1.79	
C. TOTAL COSTS PER HEAD (A+B)	$115.27	$115.27	$ 77.08	$ 77.08	
RETURNS PER HEAD					
19. Market Animal: Steers: (See Table 1.)	$624.84	$597.87	$572.35	$551.53	
20. Less Cost of Animal: Steers: 550 lbs. @ $90.50 cwt.	–497.75	–497.75	–497.75	–497.75	
21. Less Death Loss: 1.5% of line 19	–9.37	–8.97	–8.59	–8.27	
D. GROSS RETURN PER HEAD	$117.72	$ 91.15	$ 66.02	$ 45.51	
E. RETURNS OVER VARIABLE COSTS (D – A)	$ 6.03	$–20.54	$ –9.27	$–29.78	
F. RETURNS OVER TOTAL COSTS (D – C)	$ 2.45	$–24.12	$–11.06	$–31.57	
G. AVERAGE SELLING PRICE NEEDED:					
22. To Cover Variable Cost and Feeder (A + 20) ÷ (net selling weight)[2]	$ 79.84	$ 84.76	$ 84.01	$ 87.81	
23. To Cover Total Cost and Feeder (C + 20) ÷ (net selling weight)[2]	$ 80.30	$ 85.25	$ 84.27	$ 88.09	
H. TOTAL FEED COST (Lines 1 through 7)	$ 54.20	$ 54.20	$ 38.35	$ 38.35	
24. Cwt. Produced:	2.13	1.69	1.32	1.03	
25. Feed Cost Per Cwt. (H ÷ 24)	$ 25.40	$ 32.06	$ 29.03	$ 37.39	
I. ASSET TURNOVER (D ÷ INVESTMENT)[3]	22.31%	17.27%	12.51%	8.62%	
J. NET RETURN ON INVESTMENT ((F + 15 + 17) ÷ INVESTMENT)[3]	5.03%	0.00%	0.14%	–3.75%	

[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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