Summer Grazing of Steers in Western Kansas

Department of Agricultural Economics — *www.agmanager.info*

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Cost–Return Budget

This budget estimates costs and returns for a season-long and an early-intensive grazing system. Projected 2006 input and output 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 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 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 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 2.5 months for the early–intensive program. Each column includes interest on one–half the variable 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. 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.

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. A salvage value of 35 percent is assumed at the end of useful life for facilities and equipment. In each column, interest is calculated on one–half the original cost of facilities 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	1.5	1.2	1.9	1.5
Purchase weight	550	550	550	550
Purchase Price ($/cwt.)	119.60	119.60	119.60	119.60
Sale weight	775	730	693	663
Sale price ($/cwt.)	101.83	104.84	107.58	109.81
Pasture rate ($/head)	53.64	53.64	42.14	42.14
Mineral / Salt ($/head)	5.00	5.00	2.50	2.50

	Value per head	
Investment in facilities	$20.00	$10.00
Life of facilities	20 yrs	20 yrs
Investment in equipment	$10.00	$5.00
Life of equipment	10 yrs	10 yrs
Salvage value on facilities and equipment	35%	35%
Interest rate on facilities and equipment	8.00%	8.00%
Insurance rate on facilities and equipment	0.25%	0.25%
Tax rate on facilities and equipment	1.50%	1.50%
Interest rate on variable costs and purchased livestock	8.00%	8.00%
Labor hours	0.6	0.4
Labor price per hour	$10.00	$10.00

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)	$ 789.14	$ 765.35	$ 745.56	$ 728.02	
2. Less cost of animal: (See Table 1)	657.80	657.80	657.80	657.80	
3. Less death loss (1.5 percent of line 1)	11.84	11.48	11.18	10.92	
4. Other income					
A. GROSS RETURN PER HEAD	$ 119.51	$ 96.07	$ 76.57	$ 59.30	
COSTS PER HEAD					
5. Pasture	$ 53.64	$ 53.64	$ 42.14	$ 42.14	
6. Sorghum silage					
7. Hay					
8. Grain sorghum					
9. Corn					
10. Supplement					
11. Mineral and salt	5.00	5.00	2.50	2.50	
12. Labor	6.00	6.00	4.00	4.00	
13. Veterinary, drugs, supplies	12.00	12.00	9.00	9.00	
14. Marketing costs	5.00	5.00	5.00	5.00	
15. Hauling/Yardage					
16. Utilities, fuel, oil	6.00	6.00	5.00	5.00	
17. Facilities and equipment repairs	7.00	7.00	5.00	5.00	
18. Professional fees (legal, accounting, etc.)	1.20	1.20	0.60	0.60	
19. Miscellaneous	6.00	6.00	5.00	5.00	
20. Depreciation on facilities and equipment	1.30	1.30	0.65	0.00	
21. Interest on facilities and equipment[1]	1.62	1.62	0.81	0.81	
22. Insurance and taxes on facilities and equipment	0.53	0.53	0.26	0.26	
B. SUBTOTAL	$	$	$	$	
23. Interest on purchased livestock + ½ Operating Costs	23.62	23.62	11.62	11.62	
C. TOTAL COSTS PER HEAD	$ 128.90	$ 128.90	$ 91.58	$ 90.93	
D. RETURNS OVER VARIABLE COSTS (A – C)	$ -9.40	$ -32.84	$ -15.01	$ -31.63	
24. Hundredweight produced	2.13	1.69	1.33	1.03	
25. Feed cost per hundredweight	27.48	34.69	33.67	43.32	
E. AVERAGE SELLING PRICE NEEDED PER CWT: (C + 2) ÷ (net selling weight)[2]	$ 103.06	$ 109.41	$ 109.78	$ 114.65	
F. ASSET TURNOV ER ((1 + 4 – 3)) ÷ INVESTMENT)[3]	113.01%	109.61%	106.77%	104.26%	
G. NET RETURN ON INVESTMENT [(D + 21 + 23) ÷ INVESTMENT][3]	2.30%	-1.10%	-0.38%	-2.79%	

[1] *Original cost of facilities and equipment plus salvage value divided by 2, times an interest rate of 8 percent.*
[2] *Net selling weight = selling weight - (death loss% × selling weight).*
[3] *Investment equals total cost of purchased animal and value of facilities and equipment.*

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