KANSAS FARM MANAGEMENT & MARKETING HANDBOOK

KSU Farm Management Guide MF-1010

Winter Wheat Graze Out

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Kansas is known as the number one wheat producing state. Wheat is an excellent grazing crop, so producers may want to look at income from forage as well as the grain. Producers can consider three basic wheat grain and forage strategies: harvest the wheat as grain only, as forage and grain, or as forage only (graze out). This guide looks at the graze out option, which generally follows a spring grazing program. The budget focusses on the last 60 days of grazing since the decision to graze out wheat should be made independent of previous decisions.

The graze out period is from jointing until the cattle are removed. That time varies depending on moisture, stocking rate, etc. The government program may also dictate when the cattle have to be removed. The stocking rate is about twice that of fall and winter wheat grazing, or enough cattle to assure uniform grazing. The cattle should be implanted. During lush growth, cattle are susceptible to bloat, so management is important. Including an ionophore with supplemental feed can improve daily gains and reduce bloat.

There are a number of alternative arrangements for wheat pasture leasing: 1) $ per cwt. per month; 2) $ per pound of gain; 3) $ per head per day; or 4) $ per acre. The lease may dictate the amount and type of supplemental feed. Producers who graze their own cattle on their own wheat should consider the lease charge as an opportunity cost of their forage.

Cost–Return Budget

This budget estimates short run costs and returns for both a steer and heifer wheat grazing program. Five year average input and output prices are used for illustrative purposes. Farm Management Association Summary Reports are used as a basis for estimating other variable costs. Producers should use their own prices and costs when using the budget. Break–even prices are particularly sensitive to changes in average daily gain, pasture rental charge, and feeder cost. Because of this sensitivity, it is important to analyze the feasibility of alternative programs 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 wheat graze out budget includes columns for two alternative performance levels for both steer and heifer 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.

Table 1. Factors Used for Cost–Return Budget

	Steers		Heifers	
Performance level	**Level 1**	**Level 2**	**Level 1**	**Level 2**
Days on Feed	60	60	60	60
Average Daily Gain	2.2	1.8	2.0	1.6
Purchase Weight	450	450	525	525
Sale Weight	582	558	545	521
Sale Price ($/cwt.)	88.26	89.94	83.23	84.31
Feed				
Pasture (mos.)	2	2	2	2
Grain Sorghum (lbs)	120	120	120	120
Mineral–Salt (lbs)	15	15	15	15
	Value per head			
Investment in Fence	$2.00		$2.00	
Life of Fence	5 yrs		5 yrs	
Investment in Equipment	$ 31.00		$ 31.00	
Life of Equipment	10 yrs		10 yrs	
Interest Rate on Fence—Equipment	10.00%		10.00%	
Insurance Rate on Fence—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	.35		.35	
Labor Price per Hour	$9.00		$9.00	

COST-RETURN PROJECTION—WINTER WHEAT GRAZE OUT

	Steers		Heifers		
	Level 1	**Level 2**	**Level 1**	**Level 2**	**Your Farm**
VARIABLE COSTS PER HEAD					
1. Pasture ($2.25/cwt. per month)	$ 20.25	$ 20.25	$ 19.13	$ 19.13	$
2. Silage (___ lbs @ $20/ton)					
3. Hay (___ lbs @ ___ per ton)					
4. Grain (1.20 cwt. @$4.20/cwt)	5.04	5.04	5.04	5.04	
5. Supplement (___ lbs @ ___ per lb)					
6. Mineral—Salt (15 lbs @ $0.18/lb)	2.70	2.70	2.70	2.70	
7. Feed Processing(___ bu @ ___ per bu)					
8. Labor (.35 hr @ $9.00 per hr)	3.15	3.15	3.15	3.15	
9. Veterinary, Drugs, Supplies	7.00	7.00	7.00	7.00	
10. Marketing Costs	3.50	3.50	3.50	3.50	
11. Hauling/Yardage	5.00	5.00	5.00	5.00	
12. Utilities, Fuel, Oil					
13. Buildings—Equipment Repairs	4.00	4.00	4.00	4.00	
14. Miscellaneous	2.00	2.00	2.00	2.00	
15. Interest on Purchased Livestock + ½ Variable Costs @ 10%	7.84	7.84	6.66	6.66	
A. TOTAL VARIABLE COSTS	$ 60.48	$ 60.48	$ 58.18	$ 58.18	
FIXED COSTS PER HEAD					
16. Depreciation on Equipment	$ 3.50	$ 3.50	$ 3.50	$ 3.50	
17. Interest on Equipment @ 10%	1.65	1.65	1.65	1.65	
18. Insurance and Taxes on Equipment and Facilities @ 1.75%	0.58	0.58	0.58	0.58	
B. TOTAL FIXED COSTS	$ 5.73	$ 5.73	$ 5.73	$ 5.73	
C. TOTAL COSTS PER HEAD (A+B)	$ 66.21	$ 66.21	$ 63.91	$ 63.91	
RETURNS PER HEAD					
19. Market Animal: (See Table 1.)	$513.67	$501.87	$453.58	$439.23	
20. Less Cost of Animal:					
Steers: 450 lbs @ $98.75 cwt.	–444.38	–444.38			
Heifers: 425 lbs @ $88.00 cwt.			–374.00	–374.00	
21. Less Death Loss: 2% of line 19	–10.27	–10.04	–9.07	–8.78	
D. GROSS RETURN PER HEAD	$ 59.02	$ 47.45	$ 70.50	$ 56.44	
E. RETURNS OVER VARIABLE COSTS (D – A)	$ –1.46	$–13.03	$ 12.33	$ –1.73	
F. RETURNS OVER TOTAL COSTS (D – C)	$ –7.19	$–18.76	$ 6.60	$ –7.46	
G. AVERAGE SELLING PRICE NEEDED:					
22. To Cover Variable Cost and Feeder (A + 20) ÷ (net selling weight)[2]	$ 88.52	$ 92.32	$ 80.92	$ 84.64	
23. To Cover Total Cost and Feeder (C + 20) ÷ (net selling weight)[2]	$ 89.52	$ 93.37	$ 81.99	$ 85.77	
H. TOTAL FEED COST (Lines 1 through 7)	$ 27.99	$ 27.99	$ 26.87	$ 26.87	
24. Cwt. Produced:	1.20	0.97	1.09	0.86	
25. Feed Cost Per Cwt. (H ÷ 24)	$ 23.26	$ 28.90	$ 24.62	$ 31.39	
I. ASSET TURNOVER (D ÷ INVESTMENT)[3]	11.59%	9.32%	16.06%	12.86%	
J. NET RETURN ON INVESTMENT ((F + 15 + 17) ÷ INVESTMENT)[3]	0.45%	–1.82%	3.40%	0.19%	

[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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