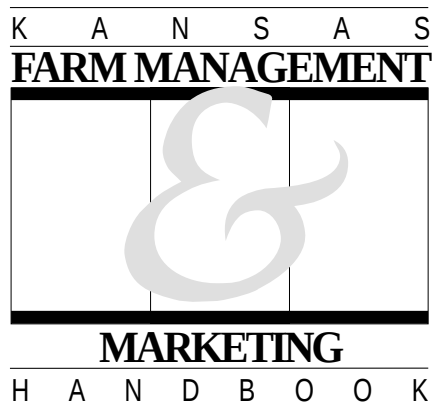




Soybean Cost-Return Budget (W-SB-F Rotation) in Western Kansas

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The 1996 Federal Agricultural Improvement and Reform Act has given Western Kansas grain producers near-complete planting flexibility. In an intensified dryland cropping system, soybeans are a viable summer crop alternative in a wheat-summer crop-fallow rotation. The primary advantage of including soybeans in a dryland cropping system is that they are less input intensive in relation to some alternative summer crops. Also, the addition of soybean processing plants in Western Kansas offers producers a market for their soybeans.

Yield Level

Cost per bushel and net returns in crop production are highly dependent on yields. The following estimated budget includes three different yield levels. The three yield levels represent expected yields associated with variations in land quality, weather, input levels, and management. Budgeting for alternative expected yields can help producers compare the profitability of crop enterprises on farmland tracts with varying yield potentials. Crop insurance was not included as an input expense because yields reflect an average of all years (good and bad). If crop insurance is included as an input expense, then an expected value for indemnity payments should be included in the returns section. Historically, MPCI indemnity payments have exceeded premiums due to government subsidies.

Variable and Fixed Costs, Return Factors

Variable costs, such as fertilizer, repairs and fuel-oil, are costs that may vary with level of production. The cost columns show the interest on the variable costs (lines 1 through 15) for one-half year. Fixed costs do not vary with level of production and are incurred by virtue of owning

assets such as land and machinery. Land values have been adjusted for alternative yield levels. In customizing this budget to fit your farm, attention should be given to using land values representative of your farm's productive capacity. Projections of net percentage return on investment permit comparisons to be made among alternative enterprises or other investments.

Table 1. Factors Used for Cost-Return Budget

Item	Yield Level (bu)			
	22	28	34	
Fertilizer:				
N (Anhy.)	0	0	0	\$0.11/lb
N (Dry)	0	0	0	\$0.20/lb
P	20	20	30	\$0.22/lb
K	0	0	0	\$0.14/lb
Lime	0	0	0	\$0.01/lb
Seed, lbs.	40	40	45	
Seed price, \$/lb.*	\$0.49	\$0.49	\$0.49	
Labor hours	1.15	1.20	1.25	
Labor price/hour				\$10.80
Land value/acre**	\$393	\$492	\$590	
Land interest rate				6.00%
Land real estate tax rate				0.50%
Machinery investment***				\$191
Machinery life				10 yrs
Salvage value				35%
Interest rate on machinery				9.00%
Insurance rate on machinery				0.25%
Interest on variable costs				9.00%

*Includes technology fee of \$0.14/lb for Roundup Ready seed.

**All land costs were computed and then multiplied by a factor of 1.5 to account for fallow land.

***Investment required per crop and fallow acres.

COST-RETURN PROJECTION — SOYBEANS (W-SB-F ROTATION) — WESTERN KANSAS

	Yield Level (bu)			Your Farm
	22	28	34	
VARIABLE COSTS PER ACRE: ¹				
1. Labor	\$ 12.38	\$ 12.96	\$ 13.54	
2. Seed	19.60	19.60	22.05	
3. Herbicide	25.44	25.44	25.44	
4. Insecticide				
5. Fertilizer and Lime	4.40	4.40	6.60	
6. Fuel and Oil	5.80	6.07	6.35	
7.				
8. Machinery and Equipment Repairs	12.01	12.58	13.15	
9.				
10. Crop Insurance				
11. Drying				
12. Custom Hire				
13. Crop Consulting				
14. Miscellaneous	5.00	5.00	5.00	
15. Interest on 1/2 Variable Costs	3.81	3.87	4.15	
A. TOTAL VARIABLE COSTS	\$ 88.44	\$ 89.93	\$ 96.27	
FIXED COSTS PER ACRE: ¹				
16. Real Estate Taxes	2.95	3.69	4.43	
17 Interest on Land ²	35.37	44.28	53.10	
18. Rent for Rented Land				
19. Depreciation on Crop Machinery	12.42	12.42	12.42	
20. Interest on Crop Machinery ³	11.60	11.60	11.60	
21.				
22.				
23. Insurance on Machinery	0.48	0.48	0.48	
B. TOTAL FIXED COSTS	\$ 62.81	\$ 72.47	\$ 82.02	
C. TOTAL COSTS (A + B)	\$ 151.25	\$ 162.39	\$ 178.29	
D. YIELD PER ACRE	22	28	34	
E. PRICE PER BUSHEL ⁴	\$ 5.00	\$ 5.00	\$ 5.00	
F. NET GOVERNMENT PAYMENT ⁴	\$ 10.72	\$ 11.65	\$ 12.58	
G. INDEMNITY PAYMENTS	\$	\$	\$	
H. MISCELLANEOUS INCOME	\$	\$	\$	
I. RETURNS PER ACRE [(D × E) + F + G + H]	\$ 120.72	\$ 151.65	\$ 182.58	
J. RETURNS OVER VARIABLE COSTS (I – A)	\$ 32.28	\$ 61.72	\$ 86.31	
K. RETURNS OVER TOTAL COSTS (I – C)	\$ -30.53	\$ -10.74	\$ 4.29	
L. VARIABLE COSTS PER BUSHEL (A ÷ D)	\$ 4.02	\$ 3.21	\$ 2.83	
M. TOTAL COSTS PER BUSHEL (C ÷ D)	\$ 6.88	\$ 5.80	\$ 5.24	
N. NET RETURN ON INVESTMENT				
[(K+15+17+20) ÷ INVESTMENT] ⁵	2.59%	5.28%	6.80%	

¹Totals were derived using information listed in Table 1. ²Assumes interest rate shown in Table 1. ³Assumes one-half the average investment [(initial investment + salvage value) ÷ 2] at the interest rate shown in Table 1. ⁴See MF-1013 "Prices for Crop and Livestock Cost-Return Budgets" and MF-2236 "Government Program Payments for Crop Cost Return Budgets" for additional information on crop prices and program payments. ⁵Investment equals total value of all fixed assets shown in Table 1.

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