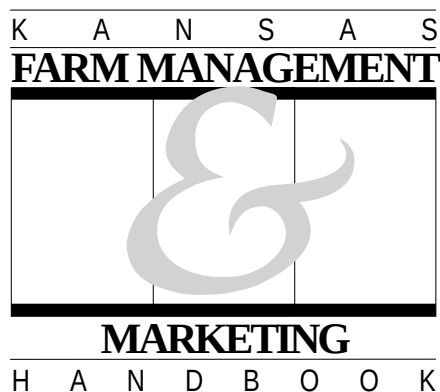




Dryland Sunflowers In Western Kansas— Confectionary, W-S-F Rotation

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Dryland sunflowers, both confectionary and oil-type, are becoming more popular as a rotational crop in Western Kansas. Sunflower and grain sorghum production are similar in many respects such as in tillage practices, crop water requirements and fertility needs. Sunflower moth is a problem in sunflower production, but can be controlled with management practices such as planting date selection and timely application of insecticides.

Cost Return Projections

This budget estimates the costs and returns of confectionary dryland sunflowers based on average costs of production in Western Kansas. Production costs for individual farms will vary considerable due to the amounts of fertilizer and chemicals applied, the type and amount of farm machinery owned, and land costs.

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. Yield levels vary for a number of reasons such as soil type/ land quality, weather, input levels, and management. Budgeting at multiple yield levels can help producers examine the financial risk of a crop enterprise that is directly related to production risk as well as to compare the profitability of crop enterprises on farmland tracts with varying yield potentials.

Variable and Fixed Costs

Variable costs are costs that vary with level of production such as fertilizer, repairs, and fuel-oil. The cost columns show the interest on the variable costs (Lines 1 through 13) 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. If the land is rented, the cost of the rent per acre should be listed on Line 17 and no taxes or interest shown on Lines 15 and 16.

Machinery investment was estimated for an average size farm to meet tillage, planting and harvest requirements. Interest on crop machinery was calculated on one-half the original cost of machinery plus the salvage value (35 percent of original cost).

Profit and Return Factors

Net return on investment is the percentage return on investment. This measure enables comparisons to be made between enterprises as well as other investment alternatives. Asset turnover is the percentage of investment recovered by total returns. Inverting this measure allows different enterprises to be compared on the basis of capital required to generate a dollar of gross income.

Table 1. Factors Used for Cost-Return Budget

Item	Yield Level (Cwt.)			
	11.5	13.5	15.50	
Fertilizer:				
N (Anhy.)	40	40	50	\$0.19 /lb
N (Dry)	0	0	0	\$0.29/lb
P	0	0	0	\$0.27/lb
K	0	0	0	\$0.13/lb
Lime	0	0	0	\$0.01/lb
Seed				
(1,000 seeds/Acre)	13.0	13.0	13.0	
Seed price,				
\$/1,000 seeds	\$0.90	\$0.90	\$0.90	
Labor Hours	1.35	1.35	1.35	
Labor Price/Hour				\$9.00
Land Value/Acre*				\$490.00
Land Interest Rate				6.00%
Machinery Investment**				\$190.00
Machinery Life				10 yrs
Salvage value				35.00%
Interest Rate on Machinery				10.00%
Insurance Rate on Machinery				0.25%
Interest on Variable Costs				10.00%

*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—DRYLAND SUNFLOWERS (W-S-F ROTATION)—WESTERN KANSAS— CONFECTIONARY

	Yield Level (cwt)			Your Farm
	11.5	13.5	15.5	
VARIABLE COSTS PER ACRE:				
1. Labor (1.35 hrs × \$9.00 pr hr)	\$12.15	\$12.15	\$12.15	
2. Seed (13,000 seeds × \$0.90 per 1,00 seeds)	11.70	11.70	11.70	
3. Herbicide (\$11.43) and Insecticide (\$24.53)	35.96	35.96	35.96	
4. Fertilizer and Lime	7.60	7.60	9.50	
5. Fuel and Oil	5.14	5.14	5.14	
6.				
7. Machinery and Equipment Repairs	12.63	12.63	12.63	
8.				
9. Crop Insurance				
10. Drying				
11. Custom Hire				
12. Crop Consulting				
13. Miscellaneous	5.00	5.00	5.00	
14. Interest on 1/2 Variable Costs @ 10%	4.51	4.51	4.60	
A. TOTAL VARIABLE COSTS	\$ 94.69	\$ 94.69	\$ 96.69	
FIXED COSTS PER ACRE:				
15. Real Estate Taxes @ .5%	3.68	3.68	3.68	
16. Interest on Land(\$490/A × 1.5 × 6%) ¹	44.10	44.10	44.10	
17. Rent for Rented Land				
18. Depreciation on Crop Machinery	12.32	12.32	12.32	
19. Interest on Crop Machinery ² @ 10%	12.79	12.79	12.79	
20.				
21.				
22. Insurance on Machinery @ .25%	0.47	0.47	0.47	
B. TOTAL FIXED COSTS	\$ 73.36	\$ 73.36	\$ 73.36	
C. TOTAL COSTS (A + B)	\$168.06	\$168.06	\$170.05	
D. YIELD PER ACRE	11.50	13.50	15.50	
E. PRICE PER CWT. ³	\$ 13.25	\$ 13.25	\$ 13.25	
F. NET GOVERNMENT PAYMENTS ⁴				
G. RETURNS PER ACRE ((D × E) +F)	\$152.38	\$178.88	\$205.38	
H. RETURNS OVER VARIABLE COSTS (G-A)	\$ 57.68	\$ 84.18	\$108.69	
I. RETURNS OVER TOTAL COSTS (G-C)	\$-15.68	\$ 10.82	\$ 35.32	
J. VARIABLE COSTS PER CWT. (A ÷ D)	\$ 8.23	\$ 7.01	\$ 6.24	
K FIXED COSTS PER CWT. (B ÷ D)	\$ 6.38	\$ 5.43	\$ 4.73	
L. TOTAL COSTS PER CWT. (C ÷ D)	\$ 14.61	\$ 12.45	\$ 10.97	
M. ASSET TURNOVER (G ÷ INVESTMENT) ⁵	22.42%	26.32%	30.22%	
N. NET RETURN ON INVESTMENT ((I+14+16+19) ÷ INVESTMENT) ⁵	0.24%	4.14%	7.76%	

¹Assumes interest rate shown in Table 1. ²Assumes one-half the (original cost plus salvage value) at the interest rate shown in Table 1. ³The Confectionary price used is a weighted average price assuming 40% of the seeds are large. Typically, confectionary seed prices are quoted on a dual scale: one price for large seeds (sizing over a 20/64 round hole sieve) and another, lower price for small seeds (sizing through a 20/64 round hole sieve). ⁴Net government payment equals yield per acre (D) times expected deficiency payment minus prorated cost of set-aside acres. Based on 15% flex acres and 5% ARP. The price used was a five-year average price. The twelve month national average price for the crop year. The 1995 farm program may have major changes.

⁵Investment equals total value of all fixed assets shown in Table 1.



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