KANSAS FARM MANAGEMENT & MARKETING HANDBOOK

KSU Farm Management Guide MF-2144

Sunflower Production in North Central and Northeast Kansas

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Cost–Return Projections

Sunflowers are becoming a popular cash crop in North Central and Northeast Kansas. This purpose of this projection is to provide estimated costs and returns for forward farm planning.

Costs and returns are estimated for full–season sunflowers (for double–crop sunflowers see MF–2145). In Eastern and especially Southeastern Kansas, full–season sunflowers are not recommended because of insect problems. Another important factor in sunflower production is the limited markets available for selling sunflowers. Marketing arrangements should be made before planting.

Yield Level

Costs per cwt and net returns in crop production are highly dependent on yields. The following estimated budgets include three yield levels. Some of the reasons yield levels vary are soil type/land quality, weather, input levels, and management. The three yield levels included in the estimated budgets reflect yield variability due to input level, management, etc. as opposed to land quality (land values are held constant). Budgeting at multiple yield levels can help producers examine the financial risk of a crop enterprise that is directly related to production risk.

Variable and Fixed Costs

Table 1 shows some of the assumptions used to develop this budget. Note the lime amount assumes that one ton of ECC is applied every five years. See MF–942, *Cost–Return Budgets—Dryland Crops* for herbicide, insecticide, and seed usage.

Variable costs are costs that vary with level of production such as fertilizer, repairs, and fuel and oil. Fixed costs are costs that do not vary with the level of production, and are incurred by virtue of owning assets such as land and machinery.

Machinery investment was estimated for an average size farm to meet tillage, planting, and harvest requirements in a timely manner. Salvage value of machinery was assumed to be 35 percent of the initial investment. Interest on machinery was calculated on one–half the average investment [(initial investment + salvage value) ÷ 2]. Land costs are based on owned land. If land is cash rented, the rent per acre should be listed on Line 17 and no taxes or interest should be shown on Lines 15 and 16.

Profit and Return Factors

Net return on investment is the percentage return on investment. This measure enables comparisons to be made between other 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

	Yield Level (lb)			
Item	**1,200**	**1,500**	**1,800**	
Fertilizer:				
N (Anhy.)	60	60	60	$0.19/lb
N (Dry)	0	0	0	$0.29/lb
P	30	30	30	$0.27/lb
K	0	0	0	$0.13/lb
Lime	400	400	400	$0.01/lb
Planting pop.	23,400	23,400	23,400	
Seed price, $/1,000 seeds	$0.55	$0.55	$0.55	
Labor Hours	2.00	2.00	2.00	
Labor Price/Hour				$9.00
Land Value/Acre				$660.00
Land Interest Rate				6.00%
Machinery Investment				$241.00
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%

COST-RETURN PROJECTION—SUNFLOWERS—NORTH CENTRAL NORTHEAST KANSAS

	Yield Level (lb) 1,200	1,500	1,800	Your Farm
VARIABLE COSTS PER ACRE:				
1. Labor (2 hrs × $9.00/hr)	$18.00	$18.00	$18.00	
2. Seed (23,400 seeds × $.55/1,000)	12.87	12.87	12.87	
3. Herbicide ($11.43) and Insecticide ($24.53)	35.96	35.96	35.96	
4. Fertilizer and Lime	21.50	21.50	21.50	
5. Fuel and Oil	7.74	7.74	7.74	
6.				
7. Machinery & Equipment Repairs	14.36	14.36	14.36	
8.				
9. Crop Insurance				
10. Drying ($.30/cwt)	3.60	4.50	5.40	
11. Custom Hire				
12. Crop Consulting				
13. Miscellaneous	5.25	5.25	5.25	
14. Interest on 1/2 Variable Costs @ 10%	5.96	6.01	6.05	
A. TOTAL VARIABLE COSTS	$125.24	$126.19	$127.13	
FIXED COSTS PER ACRE:				
15. Real Estate Taxes @ .5%	3.30	3.30	3.30	
16. Interest on Land ($660/a × 6%)[1]	39.60	39.60	39.60	
17. Rent for Rented Land				
18. Depreciation on Crop Machinery	15.67	15.67	15.67	
19. Interest on Crop Machinery[2] @ 10%	16.27	16.27	16.27	
20.				
21.				
22. Insurance on Machinery @ .25%	0.60	0.60	0.60	
B. TOTAL FIXED COSTS	$75.44	$75.44	$75.44	
C. TOTAL COSTS (A + B)	$200.68	$201.62	$202.57	
D. YIELD PER ACRE	1,200	1,500	1,800	
E. PRICE PER CWT	$9.35	$9.35	$9.35	
F. NET GOVERNMENT PAYMENT[3]				
G. RETURNS PER ACRE ((D × E) + F)	$112.20	$140.25	$168.30	
H. RETURNS OVER VARIABLE COSTS (G-A)	$ -13.04	$14.06	$41.17	
I. RETURNS OVER TOTAL COSTS (G-C)	$ -88.48	$ -61.37	$ -34.27	
J. VARIABLE COSTS PER CWT (A ÷ D)	$10.44	$8.41	$7.06	
K. FIXED COSTS PER CWT(B ÷ D)	$6.29	$5.03	$4.19	
L. TOTAL COSTS PER CWT (C ÷ D)	$16.72	$13.44	$11.25	
M. ASSET TURNOVER (G ÷ INVESTMENT)[4]	12.45%	15.57%	18.68%	
N. NET RETURN ON INVESTMENT ((I+14+16+19) ÷ INVESTMENT)[4]	-2.96%	0.06%	3.07%	

[1]*Assumes interest rate shown in Table 1.*
[2]*Assumes one-half the (original cost plus salvage value) at the interest rate shown in Table 1.*
[3]*Net 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.*
[4]*Investment equals total value of all fixed assets shown in Table 1.*

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