

# Double-Crop Sunflower Cost-Return Budget in Central and Eastern Kansas



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## Kansas State University Agricultural Experiment Station and Cooperative Extension Service

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Oil-type sunflowers are an important crop in many areas of Kansas. Double-crop production systems can expand the opportunities to include sunflowers among the viable cropping choices in central and eastern Kansas. As with many central and eastern Kansas crops, double crop oil-type sunflowers can be produced using various cropping and tillage systems. This budget is based on double crop oil-type sunflower production using a no-till system.

### Income Per Acre

Crop production costs per unit and net returns are highly dependent on yields. The following estimated budgets include three different yield levels, which are intended to represent expected yields for land of varying quality for a given level of management. Yield levels are assumed to be less under the double-crop production system than would be expected for full-season oil-type sunflower production. Land values and government payments are excluded from the budget because of the double crop production system. The land values and government payments should be accounted for in the primary crop, thus the double crop oil-type sunflowers can be analyzed simply on the basis of crop income minus non-land production costs.

Price per hundredweight represents an expected harvest price at the processing plant in Goodland, accounting for government marketing loan price support levels. The Goodland price is adjusted to north central and northeast Kansas to account for transportation costs of \$1.25 per mile for an estimated 300-mile trip to Goodland. Oil-type sunflower

**Table 1. Production Inputs — Double-Crop Sunflower**

Item	Yield Level (lbs)			
	800	1,000	1,200	
Seed, 1,000/a	22	22	22	\$2.14/1,000
Fertilizer:				
N (anhydrous)	0	0	0	\$0.44/lb
N	38	47	57	\$0.68/lb
P	15	19	22	\$0.80/lb
K	0	0	0	\$0.55/lb
Lime	0	0	0	\$0.01/lb
Herbicide				
Glyphosate	24.0	24.0	24.0	\$0.09/oz
+ Ammonium Sulfate	1.5	1.5	1.5	\$0.34/lb
Prowl H2O	3.0	3.0	3.0	\$5.12/pt
Insecticide / Fungicide				
Warrior 1EC	0.025	0.025	0.025	\$248.20/gal

producers in other areas of north central and northeast Kansas should use an expected price that is representative for their location and transportation costs to Goodland

Crop insurance was not included as an input expense in this budget because yields reflect an average of all years (good and bad). If crop insurance is included as an input expense,

**Table 2. Machinery and Land Resources — Double-Crop Sunflower**

Item	Yield Level (lbs)			Custom Rate
	800	1,000	1,200	
Tillage/Planting/Chemical Applications:				
Chisel	0	0	0	\$11.56/a
Disk	0	0	0	\$9.89/a
Field cultivate	0	0	0	\$9.49/a
No-till plant	1	1	1	\$15.64/a
Anhydrous application	0	0	0	\$10.89/a
Fertilizer application	1	1	1	\$5.36/a
Herbicide application	1	1	1	\$5.47/a
Insecticide / fungicide application	1	1	1	\$5.54/a
Harvest				
Base charge	1	1	1	\$26.09/a
Extra charge for yields exceeding	1300	1300	1300	\$0.003/lb
Hauling	800	1000	1200	\$0.003/lb
Non-machinery labor	0.53	0.53	0.54	\$13.00/hr
Land charge/rent	\$0.00	\$0.00	\$0.00	
Interest on capital				6.5%

then an expected value for indemnity payments should be included in the returns section.

### Costs Per Acre

Production costs at the three yield levels are shown on lines 1 through 13. Kansas Custom Rates for specific field operations are used to represent fuel and labor costs as well as machinery repair, depreciation, and interest expenses. Table 1 identifies seed, fertilizer, herbicide, and insecticide require-

ments (rate and cost/unit) for oil-type sunflowers. Herbicide requirements include both pre-crop and in-crop treatments. Insecticide requirements include one in-crop treatment as compared to two in full-season sunflower production. The later planting date generally will allow producers to avoid one insecticide treatment. Table 2 outlines the machinery and land resources (although no land charges are realized) used for double crop oil-type sunflowers in a no-till system.

## COST-RETURN PROJECTION — DOUBLE-CROP SUNFLOWERS — CENTRAL AND EASTERN KANSAS

	Yield Level (lbs)			Your Farm
	800	1,000	1,200	
<b>INCOME PER ACRE</b>				
A. Yield per acre.....	800	1,000	1,200	_____
B. Price per hundred weight.....	\$ 27.70	\$ 27.70	\$ 27.70	_____
C. Net government payment.....	\$ _____	\$ _____	\$ _____	_____
D. Indemnity payments.....	\$ _____	\$ _____	\$ _____	_____
E. Miscellaneous income.....	\$ _____	\$ _____	\$ _____	_____
F. Returns/acre ((A × B) + C + D + E).....	\$ 221.60	\$ 277.00	\$ 332.40	_____
<b>COSTS PER ACRE</b>				
1. Seed.....	\$ 47.08	\$ 47.08	\$ 47.08	_____
2. Herbicide.....	18.03	18.03	18.03	_____
3. Insecticide / Fungicide.....	6.21	6.21	6.21	_____
4. Fertilizer and Lime.....	37.84	47.16	56.36	_____
5. Crop Consulting.....	_____	_____	_____	_____
6. Crop Insurance.....	_____	_____	_____	_____
7. Drying.....	3.12	3.90	4.68	_____
8. Miscellaneous.....	6.81	6.81	6.81	_____
9. Custom Hire / Machinery Expense.....	60.50	61.10	61.70	_____
10. Non-machinery Labor.....	6.84	6.90	6.97	_____
11. Irrigation.....	_____	_____	_____	_____
a. Labor.....	_____	_____	_____	_____
b. Fuel and Oil.....	_____	_____	_____	_____
c. Repairs and Maintenance.....	_____	_____	_____	_____
d. Depreciation on Equipment and Well.....	_____	_____	_____	_____
e. Interest on Equipment.....	_____	_____	_____	_____
12. Land Charge / Rent.....	_____	_____	_____	_____
G. SUB TOTAL.....	\$ 186.42	\$ 197.19	\$ 207.84	_____
13. Interest on ½ Nonland Costs.....	5.96	6.28	6.60	_____
H. TOTAL COSTS.....	\$ 192.38	\$ 203.47	\$ 214.44	_____
I. RETURNS OVER COSTS (F - H).....	\$ 29.22	\$ 73.53	\$ 117.96	_____
J. TOTAL COSTS/CWT ((H ÷ A) × 100).....	\$ 14.42	\$ 20.35	\$ 17.87	_____
K. RETURN TO ANNUAL COST (I + 13) ÷ G.....	18.87%	40.47%	59.93%	_____

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