

Corn Cost-Return Budget in Western Kansas

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Dryland no-till corn acreage has increased in western Kansas in recent years as producers have increased the intensity of their cropping systems. Dryland corn harvested acreage in western Kansas increased from 108,000 acres in 1995 to 517,000 in 2000 and 512,000 in 2001. Research by K-State Research and Extension shows that increased returns and reduced financial risk can occur by increasing cropping intensity beyond the traditional dryland wheat-fallow rotation. Increased moisture conservation from no-till corn production practices in a wheat-corn-fallow (W-C-F) rotation can increase yields and returns over conventional-till and reduced-till corn in western Kansas. Following is a cost-return budget for no-till corn in a W-C-F rotation in western Kansas.

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. Producers can compare the profitability of crop enterprises on farmland tracts with varying yield potential by considering alternative expected yield scenarios. Land values and government payments have been adjusted for alternative yield levels in this budget. In customizing a budget to your farm, attention should be given

Table 1. Production Inputs — Wheat-Corn-Fallow

Item	Yield Level (bu)			
	65	80	95	
Seed, 1,000/ac*	20	20	22	\$1.44/1,000
Fertilizer:				
N (anhydrous)	0	0	0	\$0.13/lb
N	88	108	128	\$0.22/lb
P	28	34	41	\$0.22/lb
K	0	0	0	\$0.14/lb
Lime	0	0	0	\$0.01/lb
Herbicide				
RT Master + 2,4-D + Atrazine 90DF				
1.0	1.0	1.0	1.0	\$9.15/ac
RT Master + Additives				
1.0	1.0	1.0	1.0	\$5.50/ac
RT Master + Biceplite II Magnum				
1.0	1.0	1.0	1.0	\$22.40/ac
Insecticide / Fungicide				
Seed treatment	1.0	1.0	1.0	\$1.00/ac

* Bt seed

to using land values representative of your farm's productive capacity and local farmland market conditions.

Price per bushel represents an expected harvest price in Scott City, Kan. Producers in other regions of western Kansas

Table 2. Machinery and Land Resources — Wheat-Corn-Fallow

ITEM	Yield Level (bu)			
	65	80	95	
Tillage/Planting/Chemical Applications:				
Sweep	0	0	0	\$5.49/ac
Disk	0	0	0	\$5.74/ac
Field cultivate	0	0	0	\$5.49/ac
No-till plant	1	1	1	\$9.34/ac
Anhydrous application	0	0	0	\$5.58/ac
Fertilizer application	1	1	1	\$3.66/ac
Herbicide application	3	3	3	\$3.66/ac
Insecticide application	0	0	0	\$3.74/ac
Harvest				
Base charge	1	1	1	\$18.35/ac
Extra charge for yields exceeding	52	52	52	\$0.133/bu
Hauling	65	80	95	\$0.112/bu
Non-machinery labor	0.50	0.50	0.50	\$10.00/hr
Irrigation labor	0.00	0.00	0.00	\$10.00/hr
Land value/acre	\$409	\$511	\$613	5.75%
Interest on capital				8.0%

should account for local basis (cash price – futures price) when making their own price forecasts.

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, than an expected value for indemnity payments should be included in the returns section. Historically, crop insurance indemnity payments have exceeded premiums due to government subsidies.

Costs Per Acre

Production costs at the three production levels are shown on lines 1-13. Kansas Custom Rates for specific field operations are used to represent fuel and labor costs as well as machinery repair, depreciation, and interest expenses in these budgets. Table 1 identifies the typical seed, fertilizer, herbicide, and insecticide requirements (rate and cost/unit) for no-till corn. Herbicide requirements include both pre-crop and in-crop treatments. Table 2 outlines the machinery and land resources used for no-till corn in a wheat-corn-fallow rotation. Each tillage, planting, and harvest operation is identified.

COST-RETURN PROJECTION — CORN (W-C-F ROTATION) — WESTERN KANSAS

	Yield Level (bu)			Your
	65	80	95	Farm
INCOME PER ACRE				
A. Yield per acre	65	80	95	
B. Price per bushel	\$ 2.35	\$ 2.35	\$ 2.35	
C. Net government payment	\$ 11.26	\$ 12.24	\$ 13.22	
D. Indemnity payments	\$	\$	\$	
E. Miscellaneous income	\$	\$	\$	
F. Returns/acre ((A × B) + C + D + E)	\$164.01	\$200.24	\$236.47	
COSTS PER ACRE				
1. Seed	\$ 28.80	\$ 28.80	\$ 31.68	
2. Herbicide	37.05	37.05	37.05	
3. Insecticide / Fungicide	1.00	1.00	1.00	
4. Fertilizer and Lime	25.52	31.24	37.18	
5. Crop Consulting				
6. Crop Insurance				
7. Drying				
8. Miscellaneous	5.50	5.50	5.50	
9. Custom Hire / Machinery Expense	51.34	55.01	58.69	
10. Non-machinery Labor	5.00	5.00	5.00	
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	35.28	44.07	52.87	
G. SUB TOTAL	\$189.48	\$207.67	\$228.97	
13. Interest on 1/2 Nonland Costs	6.17	6.54	7.04	
H. TOTAL COSTS	\$195.65	\$214.22	\$236.01	
I. RETURNS OVER COSTS (F - H)	\$ -31.64	\$ -13.97	\$ 0.46	
J. TOTAL COSTS/BUSHEL (H ÷ A)	\$ 3.01	\$ 2.68	\$ 2.48	
K. RETURN TO ANNUAL COST (I + 13) ÷ G	-13.44%	-3.58%	3.28%	

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