Farm Management Guide MF-939

Cotton Cost-Return Budget in Central Kansas

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While Kansas has not historically been known for its cotton production, the acres planted to cotton in the state have increased sharply in the last several years. An advantage of including cotton in a rotation is that it provides crop diversity that helps break weed and insect cycles associated with more conventional crops in the region. As with many crops in south central and southeast Kansas, cotton is produced using various crop rotation and tillage systems. This budget is based on planting Roundup Ready cotton with minimum tillage.

Income Per Acre

Crop production costs per unit and net returns are dependent on yields. The following estimated budget includes three yield levels, which are intended to represent expected yields for land of varying quality for a given level of management. Comparing alternative expected yields can help producers analyze the profitability of crop enterprises on farmland tracts with varying yield potential. 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 to using land values representative of your farm's productive capacity as well farm-specific government payments.

Price per pound of lint represents an expected harvest price in south central Kansas, accounting for government

Table 1. *Production Inputs — Cotton*

Item	Yield Level (Lint lbs) 300	400	500	
Seed, 1,000/ac	52	52	68	$0.30/1,000
Fertilizer:				
N (anhydrous)	0	0	0	$0.16/lb
N	30	40	50	$0.23/lb
P	15	15	20	$0.21/lb
K	0	0	0	$0.14/lb
Lime	500	500	500	$0.01/lb
Herbicide				
Treflan	2.0	2.0	2.0	$3.62/pt
Staple	0.6	0.6	0.6	$24.00/oz
Roundup Ultra (1.5 applications)	2.25	2.25	2.25	$5.26/pt
+ 2% Ammonium Sulfate (1.5 applications)	2.25	2.25	2.25	$0.26/lb
Insecticide / Fungicide				
Seed treatment	1	1	1	$8.00/ac
Post-emergence for thrips/fleahoppers	1	1	1	$3.00/ac

Table 2. *Machinery and Land Resources — Cotton*

ITEM	Yield Level (lint lbs) 300	400	500	
Tillage/Planting/Chemical Applications:				
Disk	0	0	0	$6.28/ac
Harrow	1	1	1	$5.30/ac
Field cultivate	0	0	0	$5.80/ac
Plant	1	1	1	$7.61/ac
Anhydrous application	0	0	0	$6.03/ac
Fertilizer application	1	1	1	$3.36/ac
Herbicide application	2.5	2.5	2.5	$3.58/ac
Insecticide / fungicide application	1	1	1	$3.66/ac
Harvest				
Base charge for stripping and module building	1	1	1	$20.00/ac
Extra charge for yields exceeding	200	200	200	$0.15/lb
Hauling to gin and ginning*	300	400	500	$0.03/lb
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	$583	$729	$875	6.00%
Interest on capital				8.0%

* *Assumes 50-mile haul.*

marketing loan price support levels. Producers in other areas of Kansas should use an expected price representative of their location. Because cotton is still a "new" crop in Kansas with little publicly reported price information, it is important for producers to understand how and where they will need to market their crop before planting cotton.

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

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 requirements (rate and cost/unit) for cotton. Table 2 outlines the machinery and land resources used for cotton produced in a minimum tillage system.

COST-RETURN PROJECTION — COTTON — CENTRAL KANSAS

	Yield Level (lint, lbs)			Your
	300	**400**	**500**	**Farm**
INCOME PER ACRE				
A. Yield per acre: Lint cotton	300	400	500	
B. Price per pound: Lint cotton	$ 0.515	$ 0.515	$ 0.515	
C. Net government payment	$ 12.80	$ 13.91	$ 15.03	
D. Indemnity payments	$	$	$	
E. Miscellaneous income	$	$	$	
F. Returns/acre ((A × B) + C + D + E)	$ 167.30	$ 219.91	$ 272.53	
COSTS PER ACRE				
1. Seed	$ 15.60	$ 15.60	$ 20.40	
2. Herbicide	34.08	34.08	34.08	
3. Insecticide / Fungicide	11.00	11.00	11.00	
4. Fertilizer and Lime	15.05	17.35	20.70	
5. Crop Consulting				
6. Crop Insurance				
7. Drying				
8. Miscellaneous	6.38	6.38	6.38	
9. Custom Hire / Machinery Expense	71.53	89.08	106.63	
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	34.98	43.74	52.50	
G. SUB TOTAL	$ 193.61	$ 222.22	$ 256.68	
13. Interest on 1/2 Nonland Costs	6.35	7.14	8.17	
H. TOTAL COSTS	$ 199.96	$ 229.36	$ 264.85	
I. RETURNS OVER COSTS (F - H)	$ –32.66	$ –9.45	$ 7.68	
J. TOTAL COSTS/POUND (H ÷ A)	$ 0.667	$ 0.573	$ 0.530	
K. RETURN TO ANNUAL COST (I + 13) ÷ G	–13.59%	–1.04%	6.17%	

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Kansas State University Agricultural Experiment Station and Cooperative Extension Service

MF-939 October 2001

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