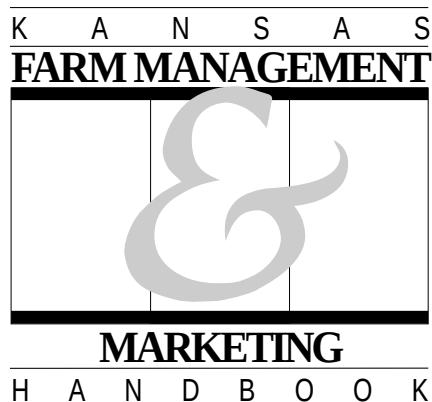




Cotton Cost-Return Budget in Central Kansas

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Cost-Return Projections

The cost-return projection estimates the cost of producing dryland cotton in central Kansas. Its purpose is to provide estimated costs and returns for forward farm planning. Production costs for individual farmers will vary considerably due to the amounts of fertilizer and chemicals applied, the type and amount of farm machinery owned, and land costs. Producers with cotton production history and farm program base acres may qualify for deficiency payments. None are shown on this budget guide.

Yield Level

Cost per hundredweight (cwt) 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 including soil type or land quality, weather, input levels, and management. The three yield levels reflect variability due to input levels and management as opposed to land quality since 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.

Stripping and ginning expenses are based upon production levels. Revenue from sales of cottonseed is included in this budget. Cotton gins often keep the cottonseed, giving the producer credit for the market value of this co-product by charging a smaller per pound ginning fee. In some years, the cottonseed market value is sufficient to pay all ginning expenses.

Variable and Fixed Costs

Variable costs, such as fertilizer, repairs, and fuel-oil, are costs that vary with the level of production. Labor requirements include time for management and marketing, whether operator or hired labor. Interest on variable costs is estimated by using one-half of the accumulated variable costs for the year.

Fixed costs do not vary with the level of production and are incurred by virtue of owning assets such as land and machinery. If land is cash rented, the cost of the rent per acre should be listed on line 18 and no taxes or interest shown on lines 16 and 17.

The original cost of machinery was based on the estimated value of tractors, tillage equipment, and planters for average-sized farms. Harvesting equipment is custom-hired. 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].

Profit and Return Factors

Net return on investment is the percentage return on investment. This measure enables comparisons to be made among other enterprises and 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 (lint/seed, lb)			
	300/525	400/700	500/875	
Fertilizer:				
N (Anhy.)	45	45	60	\$0.17/lb
N (Dry)	0	0	0	\$0.30/lb
P	25	25	25	\$0.28/lb
K	0	0	0	\$0.13/lb
Lime	500	500	500	\$0.005/lb
Seed, lbs	12.0	12.0	12.0	
Seed price, \$/lb	\$0.75	\$0.75	\$0.75	
Labor hours	2.00	2.00	2.00	
Labor price/hour				\$9.00
Land value/acre				\$675
Land interest rate				6.00%
Land real estate tax rate				0.50%
Machinery investment				\$210
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 — COTTON — CENTRAL KANSAS

		Yield Level (lint/seed, lb)			Your Farm
		300/525	400/700	500/875	
VARIABLE COSTS PER ACRE: ¹					
1. Labor		\$ 18.00	\$ 18.00	\$ 18.00	
2. Seed		9.00	9.00	9.00	
3. Herbicide		16.75	16.75	16.75	
4. Insecticide					
5. Fertilizer and Lime		17.15	17.15	19.70	
6. Fuel and Oil		10.00	10.00	10.00	
7. Stripping and Ginning		75.38	100.50	125.63	
8. Machinery and Equipment Repairs		12.50	12.50	12.50	
9. Trucking to Gin		13.50	18.00	22.50	
10. Crop Insurance					
11. Drying					
12. Custom Hire					
13. Crop Consulting					
14. Miscellaneous		15.00	15.00	15.00	
15. Interest on 1/2 Variable Costs		9.36	10.85	12.45	
A. TOTAL VARIABLE COSTS		\$ 196.64	\$ 227.75	\$ 261.53	
FIXED COSTS PER ACRE: ¹					
16. Real Estate Taxes		3.38	3.38	3.38	
17. Interest on Land ²		40.50	40.50	40.50	
18. Rent for Rented Land					
19. Depreciation on Crop Machinery		13.65	13.65	13.65	
20. Interest on Crop Machinery ³		14.18	14.18	14.18	
21.					
22.					
23. Insurance on Machinery		0.53	0.53	0.53	
B. TOTAL FIXED COSTS		\$ 72.23	\$ 72.23	\$ 72.23	
C. TOTAL COSTS (A + B)		\$ 268.86	\$ 299.97	\$ 333.75	
D. YIELD PER ACRE:					
	Lint Cotton	300	400	500	
	Seed	525	700	875	
E. PRICE PER POUND:					
	Lint Cotton ⁴	\$ 0.70	\$ 0.70	\$ 0.70	
	Seed ⁴	\$ 0.055	\$ 0.055	\$ 0.055	
F. NET GOVERNMENT PAYMENT ⁴		\$ 14.98	\$ 14.98	\$ 14.98	
G. RETURNS PER ACRE [(D × E) + F]		\$ 253.86	\$ 333.48	\$ 413.11	
H. RETURNS OVER VARIABLE COSTS (G-A)		\$ 57.22	\$ 105.74	\$ 151.58	
I. RETURNS OVER TOTAL COSTS (G-C)		\$ -15.01	\$ 33.51	\$ 79.35	
J. VARIABLE COSTS PER CWT (A ÷ D)		\$ 65.55	\$ 56.94	\$ 52.31	
K. FIXED COSTS PER CWT (B ÷ D)		\$ 24.08	\$ 18.06	\$ 14.45	
L. TOTAL COSTS PER CWT (C ÷ D)		\$ 89.62	\$ 74.99	\$ 66.75	
M. ASSET TURNOVER (G ÷ INVESTMENT) ⁵		28.68%	37.68%	46.68%	
N. NET RETURN ON INVESTMENT					
[(I+15+17+20) ÷ INVESTMENT] ⁵		5.54%	11.19%	16.55%	

¹Totals were derived using information listed in Table 1.²Assumes interest rate shown in Table 1.³Assumes one-half the average investment [(initial investment + salvage value) ÷ 2] at the interest rate shown in Table 1.⁴See MF-1013 "Prices for Crop and Livestock Cost-Return Budgets" and MF-2236 "Government Program Payments for Crop Cost Return Budgets" for additional information on crop prices and program payments.⁵Investment equals total value of all fixed assets shown in Table 1.**COOPERATIVE EXTENSION SERVICE, MANHATTAN, KANSAS**

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