

Southeast Missouri Cotton Planning Budget

Using this planning budget, cotton producers may estimate their costs and returns for 2025. Table 1 presents estimates for GMO furrow-irrigated cotton production in southeast Missouri. Assumptions were based on price forecasts as of October 2024. Detailed prices and practices are summarized in Tables 2 and 3. The production practices used to develop these cost estimates are common for southeast Missouri farms. Use the “Your estimate” column to plan your operation’s costs and returns for 2025.

Table 1. Southeast Missouri cotton (furrow-irrigated) planning budget for 2025.

	Dollars per acre ¹	Your estimate
Income		
Cotton lint and seed	945.00	
Government payments	20.00	
Ginning and hauling	–135.00	
Total income	830.00	
Operating costs		
Seed	84.91	
Fertilizer and soil amendments	149.30	
Crop protection chemicals	207.00	
Irrigation ²	88.96	
Crop supplies, storage, and marketing	8.00	
Crop consulting and insurance	36.00	
Custom hire and rental	38.04	
Operator labor and management	42.97	
Machinery fuel	32.43	
Machinery repairs and maintenance	65.89	
Operating interest	29.20	
Total operating costs	782.70	
Ownership costs		
Farm business overhead	8.30	
Machinery ownership	130.14	
Real estate charge	225.00	
Total ownership costs	363.44	
Total costs	1,146.14	
Income over operating costs	47.30	
Income over total costs	–316.14	
Return to land and management	–66.24	
Operating costs per pound	0.58	
Ownership costs per pound	0.27	
Total costs per pound	0.85	

1. Totals may not sum due to rounding.

2. Irrigation costs are explained in detail on page 2.

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Irrigation costs in Table 1 include fuel, labor and any leveling, ditching or leveeing required for irrigation; and ownership costs for the pumping engine and aboveground irrigation systems.

Table 2 shows input assumptions for the cotton budget. Price estimates reflect harvest time prices. Costs or returns from storage or other marketing methods are not included. Farm business overhead includes liability insurance, utilities, accounting, etc. Real estate charge is an estimated rental rate for above average land.

Table 3 details the field activities assumed in this budget and their machinery costs. Machinery costs were estimated using typical life (years), use (hours) and performance (fuel and labor) factors for each power unit and implement used.

Producers can customize this budget using the Southeast Missouri Crop Budget spreadsheet, which can be downloaded from the [Missouri Crop and Livestock Enterprise Budgets webpage](https://extension.missouri.edu/programs/agricultural-business-and-policy-extension/missouri-crop-and-livestock-enterprise-budgets) (extension.missouri.edu/programs/agricultural-business-and-policy-extension/missouri-crop-and-livestock-enterprise-budgets).

Table 2. Input assumptions used in Southeast Missouri cotton (furrow-irrigated) planning budget for 2025.

Selected input quantities	Per acre	Selected input prices	Dollars per unit
Cotton yield, pounds	1,350	Cotton market price, per pound	0.70
Seeding rate, count	42,000	Seed, per 230,000 seed bag	465.00
Nitrogen rate (urea), pounds	100	Nitrogen (urea), per pound N	0.60
Phosphorus rate, pounds P ₂ O ₅	80	Phosphorus, per pound P ₂ O ₅	0.45
Potassium rate, pounds K ₂ O	60	Potassium, per pound K ₂ O	0.38
Other nutrients, pounds (S, Z, B)	17.5	Other nutrients, average price per pound	0.89
Lime, tons	0.5	Lime, per ton	30.00
Sum of allocated labor, hours	0.9	Skilled labor, per hour	20.00
Irrigation water, acre-inches applied	12.0	Irrigation water applied, cost per acre-inch	7.41
Operating interest, annual percentage	7.75	Farm diesel, per gallon	3.25

Table 3. Machinery assumptions used in Southeast Missouri cotton (furrow-irrigated) planning budget for 2025, on a per acre basis.

Machine activity (not custom fieldwork)	Trips across field	Labor (hours)	Fuel (gallons)	Operating costs ¹ (dollars)	Ownership costs ² (dollars)	Total costs (dollars)
Subsoiler (20 feet), 340 HP MFWD	1/3 ³	0.04	0.54	3.35	4.46	7.81
Disk bedder (36 feet), 280 HP MFWD	1	0.06	0.74	4.88	6.65	11.53
Bed leveler (36 feet), 340 HP MFWD	1	0.06	0.90	5.56	7.48	13.05
Row crop planter (40 feet), 280 HP MFWD	1	0.05	0.66	8.71	16.60	25.31
Self-propelled boom sprayer (120 feet), 275 HP	8	0.08	0.88	44.65	11.56	56.21
Cotton picker with baler (18 feet), 500 HP	1	0.23	4.37	31.42	63.11	94.53
Pickup (1 ton), 4WD		0.25	0.75	8.09	4.30	12.39
Stalk shredder (20 feet), 200 HP MFWD	1	0.13	1.13	9.71	15.98	25.70
Aerially apply chemicals, custom charge	3					24.00
Dry fertilizer application, custom charge	2					14.04
Total ³		0.90	9.98	116.39	130.14	284.57

1. Machinery operating cost is the sum of fuel, repairs, maintenance, and the value of labor.

2. Machinery ownership cost is the sum of machinery overhead and depreciation.

3. One pass every three years.

4. Totals may not sum due to rounding.

Abbreviations: 4WD = 4-wheel drive tractor or truck; HP = horsepower; MFWD = mechanical front-wheel drive tractor