

Southeast Missouri Rice Planning Budget

Using this budget, rice producers may estimate their costs and returns for 2025. Table 1 presents estimates for flood-irrigated production of conventional and hybrid rice in southeast Missouri. Assumptions were based on price forecasts as of October 2024. Detailed input and machinery assumptions are summarized in Tables 2 and 3. Use the “Your estimate” column to plan your operation’s costs and returns for 2025.

Table 1. Southeast Missouri rice planning budgets for 2025, in dollars per acre.¹

	Conventional rice	Hybrid rice	Your estimate
Income			
Rice	980.00	1,190.00	
Other income	20.00	20.00	
Total income	1,000.00	1,210.00	
Operating costs			
Seed	24.70	176.87	
Fertilizer	164.10	171.70	
Crop protection	135.00	156.00	
Irrigation ²	231.15	231.15	
Crop supplies, storage and marketing	8.00	8.00	
Crop consulting and insurance	32.00	32.00	
Custom hire and rental	32.62	32.62	
Operator labor and management	45.54	51.84	
Machinery fuel and grain drying energy	61.07	69.41	
Machinery repairs and maintenance	85.27	85.27	
Operating interest	31.75	39.33	
Total operating costs	851.20	1,054.18	
Ownership costs			
Farm business overhead	10.00	12.10	
Machinery ownership	97.12	97.12	
Real estate charge	225.00	225.00	
Total ownership costs	332.12	334.22	
Total costs	1,183.32	1,388.40	
Income over operating costs	148.80	155.82	
Income over total costs	-183.32	-178.40	
Return to land and management	71.68	82.90	

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 rice budget. Commodity 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 rice planning budgets for 2025.

Selected input quantities	Conventional rice per acre	Hybrid rice per acre	Selected input prices	Dollars per unit
Rice yield, hundredweight (cwt)	70.0	85.0	Rice market price, per cwt.	14.00
Seeding rate, pounds	65.0	23.0	Conventional rice seed price, per pound	0.38
Nitrogen rate, pounds	150.0	150.0	Hybrid rice seed price, per pound	7.69
Phosphorus rate, pounds P ₂ O ₅	50.0	50.0	Nitrogen, per pound N	0.60
Potassium rate, pounds K ₂ O	70.0	90.0	Phosphorus, per pound P ₂ O ₅	0.45
Zinc rate, pounds Zn	10.0	10.0	Potassium, per pound K ₂ O	0.38
Labor, hours	0.78	0.78	Zinc, per pound Zn	2.50
Irrigation, acre-inches	30.0	30.0	Skilled labor, per hour	20.00
Irrigation, cost per acre-inch	7.71	7.71	Farm diesel, per gallon	3.25

Table 3. Machinery assumptions used in the rice 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)
Tandem disk (32 feet), 340 HP MFWD	2	0.11	1.61	13.84	26.39	40.23
Field Cultivator (42 feet), 340 HP MFWD	1	0.03	0.49	3.97	7.32	11.29
Air drill (52 feet), 340 HP MFWD	1	0.05	0.68	10.64	22.66	33.30
SP boom sprayer (120 feet), 275 HP	3	0.03	0.33	16.74	4.33	21.08
Draper head (35 feet), 440 HP Combine	1	0.07	1.25	18.90	17.82	36.72
Grain cart (1,000 bushel), 280 HP MFWD		0.06	0.62	5.72	8.08	13.80
Grain trailer (1,000 bushel), 475 HP road tractor		0.14	0.93	8.65	4.24	12.89
Grain auger (13 inch), 130 HP MFWD		0.04	0.17	1.97	1.97	3.94
Pickup (1 ton), 4WD		0.25	0.75	8.09	4.30	12.39
Total³		0.78	6.83	88.53	97.12	185.65

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. Totals may not sum due to rounding.

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



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