

Corn (Dryland) Planning Budget

Using this planning budget, corn farmers may estimate their costs and returns for 2022. Table 1 presents estimates for dryland corn grain production in northern, central and southwest Missouri. Assumptions were based on price forecasts as of October 2021. Detailed prices and practices are summarized in Tables 2 and 3. The production practices used to develop these cost estimates are common for Missouri farms. Use the “Your estimate” column to plan your operation’s costs and returns for 2022.

Table 1. Missouri corn (dryland) planning budget for 2022.

	Dollars per acre	Your estimate
Income		
Grain sales	782.00	
Other income	0.00	
Total income	782.00	
Operating costs		
Seed	103.13	
Fertilizer and soil amendments	178.47	
Crop protection chemicals	49.00	
Crop supplies, storage, and marketing	2.50	
Crop consulting and insurance	26.00	
Custom hire and rental	6.00	
Machinery fuel, drying, and irrigation energy	50.65	
Machinery repairs and maintenance	27.08	
Operator and hired labor	18.80	
Operating interest	11.31	
Total operating costs	472.94	
Ownership costs		
Farm business overhead	4.00	
Machinery overhead	25.51	
Machinery depreciation	40.04	
Real estate charge	168.00	
Total ownership costs	237.55	
Total costs	710.48	
Income over operating costs	309.06	
Income over total costs	71.52	
	Operating costs per bushel	2.78
	Ownership costs per bushel	1.40
	Total costs per bushel	4.18

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Table 2 shows input assumptions for the dryland corn budget. Price estimates reflect harvest time prices. Costs or returns from storage or other marketing methods are not included. No income from government programs are added. Farm business overhead includes liability insurance, utilities, accounting, etc. Real estate charge is an estimated rental rate for above average land.

Table 2. Input assumptions used in corn (dryland) planning budget for 2022.

Selected input quantities	Per acre	Selected input prices	Dollars per unit
Yield, bushels	170	Corn market price, per bushel	4.60
Seeding rate, count	30,000	Seed, per 80,000 seed bag	275.00
Nitrogen rate, pounds	170	Nitrogen, per pound N	0.50
Phosphorus rate, pounds P ₂ O ₅	77	Phosphorus, per pound P ₂ O ₅	0.65
Potassium rate, pounds K ₂ O	49	Potassium, per pound K ₂ O	0.58
Lime rate, tons	0.60	Lime, per ton	25.00
Sum of allocated labor, hours	0.97	Skilled labor, per hour	23.00
		Farm diesel, per gallon	2.91

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.

Table 3. Machinery assumptions used in corn (dryland) planning budget for 2022, on a per acre basis.

Machine activity (not custom fieldwork)	Labor (hours)	Fuel (gallons)	Operating costs ¹ (dollars)	Ownership costs ² (dollars)	Total costs (dollars)	Trips across field
V-ripper 30-inch (17 feet); 360 4WD	0.03	0.45	2.39	5.75	8.15	0.3
Row crop planter (16 row); 225 MFWD	0.05	0.53	5.69	12.48	18.17	1.0
Boom sprayer (90 feet); 130 MFWD	0.04	0.25	3.00	4.67	7.67	2.0
Anhydrous applicator (21 feet); 225 MFWD	0.09	0.88	5.87	7.23	13.10	1.0
Combine, corn head (8 row); 275 HP	0.15	1.78	22.66	17.74	40.40	1.0
Grain cart (500 bushel); 225 MFWD	0.07	0.73	5.17	8.19	13.36	
Grain auger (5,000 bushels per hour); 130 MFWD	0.03	0.19	1.49	1.36	2.84	
Semi, tractor and trailer		2.57	12.13	6.07	18.20	
Pickup truck		0.33	1.71	2.05	3.76	
Total³	0.47	7.72	60.11	65.55	125.66	5.3

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; MFWD = mechanical front-wheel drive tractor; HP = horsepower

Farmers can also customize this budget to fit their own operations by using the [Missouri Crop Budget Generator](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/CropBudgetGenerator.xlsm) (<https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/CropBudgetGenerator.xlsm>). Download the spreadsheet tool to create an electronic copy of your cost and return estimates for corn and other crops in Missouri.