

# Soybean (Double Crop) Planning Budget

Using this planning budget, soybean farmers may estimate their costs and returns for 2024. Table 1 presents estimates for double crop soybeans (after wheat) production in northern, central and southwest Missouri. Assumptions were based on price forecasts as of October 2023. 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 2024.

**Table 1. Missouri soybean (double crop) planning budget for 2024.**

	Dollars per acre <sup>1</sup>	Your estimate
<b>Income</b>		
Grain sales	391.65	
Other income	0.00	
Total income	391.65	
<b>Operating costs</b>		
Seed	72.00	
Fertilizer and soil amendments	38.89	
Crop protection chemicals	45.00	
Crop supplies, storage, and marketing	0.00 <sup>2</sup>	
Crop consulting and insurance	0.00	
Custom hire and rental	0.00 <sup>2</sup>	
Machinery fuel, drying, and irrigation energy	30.45	
Machinery repairs and maintenance	25.67	
Management	11.75	
Operating interest	10.06	
Total operating costs	233.83	
<b>Ownership costs</b>		
Farm business overhead	3.92	
Machinery ownership	51.98	
Real estate charge	0.00 <sup>2</sup>	
Total ownership costs	55.90	
Total costs	289.73	
<b>Income over operating costs</b>		
	<b>157.82</b>	
<b>Income over total costs</b>		
	<b>101.92</b>	
<b>Return to land and management</b>		
	<b>113.67</b>	
	Operating costs per bushel	6.68
	Ownership costs per bushel	1.60
	Total costs per bushel	8.28

<sup>1</sup> Totals may not sum due to rounding.

<sup>2</sup> These expenses were charged to wheat production since soybeans were planted in the same year wheat was harvested.

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Table 2 shows input assumptions for the double crop soybean 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 was not included but could be allocated between the soybean and wheat crops.

**Table 2. Input assumptions used in soybean (double crop) planning budget for 2024.**

Selected input quantities	Per acre	Selected input prices	Dollars per unit
Yield, bushels	35	Soybean market price, per bushel	11.19
Seeding rate, count	180,000	Seed, per 150,000 seed bag	60.00
Phosphorus rate, pounds P <sub>2</sub> O <sub>5</sub>	29	Phosphorus, per pound P <sub>2</sub> O <sub>5</sub>	0.62
Potassium rate, pounds K <sub>2</sub> O	51	Potassium, per pound K <sub>2</sub> O	0.41
Sum of allocated labor, hours	0.29	Skilled labor, per hour	25.00
		Farm diesel, per gallon	4.00

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 soybean (double crop) planning budget for 2024, on a per acre basis.**

Machine activity (not custom fieldwork)	Labor (hours)	Fuel (gallons)	Operating costs <sup>1</sup> (dollars)	Ownership costs <sup>2</sup> (dollars)	Total costs (dollars)	Trips across field
Row crop planter (16 row); 225 HP MFWD	0.08	0.78	7.82	17.10	24.92	1
Boom sprayer (90 feet); 130 HP MFWD	0.03	0.14	1.48	5.19	13.34	2
Combine, flexible grain head (30 feet); 275 HP	0.15	1.79	27.01	19.41	46.42	1
Grain auger (5,000 bushels per hour); 130 HP MFWD	0.03	0.19	1.81	1.36	3.17	
10-wheeler		1.50	7.56	1.98	9.54	
Semi, tractor and trailer		1.07	8.09	4.52	12.61	
Pickup truck		0.33	2.35	2.42	4.77	
<b>Total<sup>3</sup></b>	<b>0.29</b>	<b>5.80</b>	<b>56.12</b>	<b>51.98</b>	<b>114.77</b>	<b>4</b>

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

<sup>2</sup> Machinery ownership cost is the sum of machinery overhead and depreciation.

<sup>3</sup> 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 Tool](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/CropBudgets.xlsx) (extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/CropBudgets.xlsx). Download the spreadsheet tool to create an electronic copy of your cost and return estimates for soybeans and other crops in Missouri.