

Bell Pepper Planning Budget

Using this budget, farmers can estimate the costs and returns for raising bell peppers. Table 1 presents estimates for Missouri based on price forecasts in January 2025. The budget assumes bell peppers are grown on 1 acre with drip irrigation and sold wholesale. Capital investments and a sensitivity analysis are summarized in Tables 2 and 3. Use the “Your estimate” column to plan your bell pepper operation’s costs and returns.

Table 1. Missouri bell pepper budget.

	Unit	Quantity	Price per unit	Dollars per acre	Your estimate
Income					
Bell peppers	bushel (28–30 pounds)	1,200	20.13	24,156.00	
Total income				24,156.00	
Operating costs					
Plants	thousands	7	124.80	875.35	
Fertilizer and lime	pounds	1,485	0.16	241.00	
Herbicide	ounce	84.8	0.28	23.41	
Insecticide	ounce	23.2	2.67	61.92	
Fungicide	ounce	90.6	0.66	60.01	
Drip tape	roll	1.2	80.31	96.37	
Black plastic	roll	1.8	179.95	323.91	
Packaging boxes	each	1,200	1.35	1,620.00	
Labor	hour	350	18.00	6,306.08	
Machinery fuel/repair/maintenance	acre			207.15	
Irrigation water	acre inch				
Irrigation fuel and oil	hour	90	0.49	44.10	
Irrigation repair/maintenance	acre			271.16	
Marketing	percent of sales	24,156	10.00	2,415.60	
Interest on operating capital	percent	6	7.75	486.16	
Total operating costs				13,032.22	
Ownership costs					
Land	acre			185.00	
Machinery	acre			88.22	
Irrigation system	acre			251.16	
Total ownership costs				524.38	
Total costs				13,556.60	
Income over operating costs				11,123.78	
Return to land and labor				17,090.48	
Income over total costs				10,599.40	

Note: Totals may not sum due to rounding.

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Table 2. Capital machinery investments used in Missouri bell pepper budget.

Item	Power unit	Passes	Labor (hours per pass)	Operating costs (dollars per pass)	Ownership costs (dollars per pass)
Disk harrow (10-foot)	2WD 75 hp	2	0.20	12.02	3.68
Fert-cyclone spin (750-pound)	2WD 75 hp	1	0.08	1.93	0.83
Disk bed (4-row)	2WD 75 hp	2	0.14	3.67	1.69
BS, Lay/Tape (bed 6-foot center)	2WD 75 hp	1	1.08	31.00	15.25
Spray (Broadcast) (27-foot)	2WD 75 hp	7	0.06	1.23	0.52
Planter/Transplanter (1-row)	2WD 75 hp	1	1.59	42.57	22.94
Trailer utility (10-foot)	2WD 75 hp	2	0.60	8.11	3.09
Cultivate + App herb (4-row)	2WD 75 hp	7	0.19	5.35	2.53
Cultivate (4-row)	2WD 75 hp	1	0.19	5.41	2.58
Rotary cutter (7-foot)	2WD 75 hp	1	0.17	18.54	1.64
Take-up reel (mulch) (1-row)	2WD 75 hp	1	0.59	14.02	6.72
Total cost			7.34	207.15	88.22

Table 3 provides annual profitability expectations (returns over total costs) under varying yield and price scenarios in full production and holding all costs constant.

Table 3. Sensitivity analysis for Missouri bell pepper budget, income over total costs (dollars).

Percent change	Sale price per bushel	Yield per acre (bushels)						
		840	960	1,080	1,200	1,320	1,440	1,560
15% less	17.11	816	2,869	4,923	6,976	9,029	11,083	13,136
10% less	18.12	1,662	3,836	6,010	8,184	10,358	12,532	14,706
5% less	19.12	2,507	4,802	7,097	9,392	11,686	13,981	16,276
Base level	20.13	3,353	5,768	8,184	10,599	13,015	15,431	17,846
5% more	21.14	4,198	6,734	9,271	11,807	14,344	16,880	19,416
10% more	22.14	5,044	7,701	10,358	13,015	15,672	18,329	20,986
15% more	23.15	5,889	8,667	11,445	14,223	17,001	19,779	22,557

The budget presented here aggregates costs for some inputs. Farmers can find additional details and customize this budget to match their own operation by using the [Bell Pepper Planning Budget workbook \(XLSX\)](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/bellpepper-budget.xlsx) (extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/bellpepper-budget.xlsx).

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