

Bell Pepper (High Tunnel) Planning Budget

Using this budget, farmers can estimate the costs and returns for raising bell peppers in a high tunnel. Table 1 presents estimates for Missouri based on price forecasts in January 2025. The budget assumes bell peppers are grown in a 2,000-square-foot high tunnel with trickle 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 high tunnel bell pepper operation’s costs and returns.

Table 1. Missouri high tunnel bell pepper budget.

	Unit	Quantity	Price per unit	Dollars per 2,000 square feet	Dollars per square foot	Your estimate
Income						
Bell peppers	pound	3,072	1.61	4,945.92	2.47	
Total income				4,945.92	2.47	
Operating costs						
Transplants	each	512	0.32	163.84	0.08	
Soil test	each	1	15.00	15.00	0.01	
Fertilizer	total	7	11.06	77.45	0.04	
Insecticide	total	1	129.14	129.14	0.06	
Drip tape	feet	400	0.06	24.00	0.01	
Plastic mulch	feet	400	0.06	24.00	0.01	
Stakes	each	512	0.24	122.88	0.06	
Labor	hour	140	18.00	2,520.00	1.26	
Boxes and other supplies	each	154	2.20	338.80	0.17	
Marketing	percent of sales	4,945	10.00	494.59	0.25	
Miscellaneous	total					
Operating interest	percent	7.75		151.50	0.08	
Total operating costs				4,061.20	2.03	
Ownership costs						
High tunnel building use	month	4	145.46	581.86	0.29	
Total ownership costs				581.86	0.29	
Total costs				4,643.06	2.32	
Income over operating costs				884.72	0.44	
Income over total costs				302.86	0.15	

Note: Totals may not sum due to rounding.

Table 2. Capital investments used in Missouri high tunnel bell pepper budget.

Component	Labor (dollars)	Machinery (dollars)	Materials (dollars)	Total (dollars)	Useful life (years)	10–year cost (dollars)
Site evaluation and soil preparation	393.30	86.06	0.00	479.36	10	479.36
Trenching and laying water pipes	17.85	0.00	133.35	151.19	10	151.19
Inserting poles and setting posts	356.89	196.20	281.62	834.72	10	834.72
Assembling the frame	356.89	0.00	9,399.23	9,756.12	10	9,756.12
Treating and setting baseboards	118.96	0.00	159.53	278.50	10	278.50
End and sidewall installation	594.82	0.00	449.37	1,044.20	10	1,044.20
Pulling plastic	118.96	0.00	874.74	993.71	3	3,312.36
Channel lock installation	29.74	0.00	0.00	29.74	10	29.74
Shutter vents	0.00	0.00	816.07	816.07	10	816.07
Trellis purlin installation	178.45	0.00	295.09	473.54	10	473.54
Electrical	146.52	0.00	0.00	146.52	10	146.52
Miscellaneous hardware and tools	0.00	0.00	133.35	133.35	10	133.35
Total cost	2,312.40	282.27	12,542.36	15,137.03		17,455.68
Cost per square foot	1.16	0.14	6.27	7.57		8.73

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 high tunnel bell pepper budget, income over total costs (dollars).

Percent change	Sale price per pound	Yield per 2,000 square feet (pounds)						
		2,150	2,458	2,765	3,072	3,379	3,686	3,994
15% less	1.37	–1,700	–1,280	–859	–439	–19	402	822
10% less	1.45	–1,527	–1,082	–637	–192	253	699	1,144
5% less	1.53	–1,354	–884	–414	56	525	995	1,465
Base level	1.61	–1,181	–686	–192	303	797	1,292	1,787
5% more	1.69	–1,008	–488	31	550	1,069	1,589	2,108
10% more	1.77	–835	–291	253	797	1,342	1,886	2,430
15% more	1.85	–662	–93	476	1,045	1,614	2,182	2,751

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 High Tunnel Planning Budget workbook \(XLSX\)](https://extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/ht-bellpepper-budget.xlsx) (extension.missouri.edu/media/wysiwyg/Extensiondata/Pro/AgBusinessPolicyExtension/Docs/ht-bellpepper-budget.xlsx).

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