

Tomato (High Tunnel) Planning Budget

Using this budget, farmers can estimate the costs and returns for raising tomatoes in a high tunnel. Table 1 presents estimates for Missouri based on price forecasts in January 2025. The budget assumes tomatoes 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 tomato operation’s costs and returns.

Table 1. Missouri high tunnel tomato budget.

	Unit	Quantity	Price per unit	Dollars per 2,000 square feet	Dollars per square foot	Your estimate
Income						
Tomatoes	pound	2,926	2.81	8,222.06	4.11	
Total income				8,222.06	4.11	
Operating costs						
Transplants	each	266	0.27	71.82	0.04	
Soil test	each	1	15.00	15.00	0.01	
Fertilizer	ounce	360	0.17	61.20	0.03	
Insecticide	ounce	30	0.22	6.60	0.00	
Fungicide	ounce					
Drip tape	feet	400	0.06	24.00	0.01	
Plastic mulch	feet	400	0.06	24.00	0.01	
Vertical support	each	83	1.40	116.20	0.06	
Labor	hour	111	18.00	1,998.00	1.00	
Boxes and other supplies	each	117	3.31	387.27	0.19	
Marketing	percent of sales	8,222	10.00	822.21	0.41	
Miscellaneous	total			0.00	0.00	
Operating interest	percent	7.75		136.64	0.07	
Total operating costs				3,662.94	1.83	
Ownership costs						
High tunnel building use	month	6	145.46	872.78	0.44	
Total ownership costs				872.78	0.44	
Total costs				4,535.72	2.27	
Income over operating costs				4,559.12	2.28	
Income over total costs				3,686.34	1.84	

Note: Totals may not sum due to rounding.

Table 2. Capital investments used in Missouri high tunnel tomato 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 tomato budget, income over total costs (dollars).

Percent change	Sale price per pound	Yield per 2,000 square feet (pounds)						
		2,048	2,341	2,633	2,926	3,219	3,511	3,804
15% less	2.39	356	1,055	1,754	2,453	3,152	3,851	4,550
10% less	2.53	644	1,384	2,124	2,864	3,604	4,344	5,084
5% less	2.67	932	1,713	2,494	3,275	4,056	4,837	5,619
Base level	2.81	1,220	2,042	2,864	3,686	4,509	5,331	6,153
5% more	2.95	1,507	2,371	3,234	4,097	4,961	5,824	6,687
10% more	3.09	1,795	2,700	3,604	4,509	5,413	6,317	7,222
15% more	3.23	2,083	3,029	3,974	4,920	5,865	6,811	7,756

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

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