

Leafy Greens (High Tunnel) Planning Budget

Using this budget, farmers can estimate the costs and returns for raising leafy greens in a high tunnel. Table 1 presents estimates for Missouri based on price forecasts in January 2025. The budget assumes leafy greens are grown in a 2,000-square-foot high tunnel with trickle irrigation and sold retail.. Capital investments and a sensitivity analysis are summarized in Tables 2 and 3. Use the “Your estimate” column to plan your high tunnel leafy greens operation’s costs and returns.

Table 1. Missouri high tunnel leafy greens budget.

	Unit	Quantity	Price per unit	Dollars per 2,000 square feet	Dollars per square foot	Your estimate
Income						
Leafy greens	pound	600	14.00	8,400.00	4.20	
Total income				8,400.00	4.20	
Operating costs						
Seeds	each	1	168.81	168.81	0.08	
Soil test	each					
Fertilizer	cubic yard	6	5.78	34.68	0.02	
Lady bugs	box	1	45.66	45.66	0.02	
Insecticide	total	1	27.13	27.13	0.01	
Drip Tape	feet	1,300	0.06	78.00	0.04	
Row cover	each	2,000	0.06	120.00	0.06	
Hoops	each	75	0.49	36.75	0.02	
Labor	hour	62	18.00	1,116.00	0.56	
Packaging	each	600	2.48	1,487.90	0.74	
Marketing	percent of sales	8,400	10.00	840.00	0.42	
Miscellaneous	total			0.00	0.00	
Operating interest	percent	7.75		51.08	0.03	
Total operating costs				4,006.01	2.00	
Ownership costs						
High tunnel building use	month	2	145.46	290.93	0.15	
Total ownership costs				290.93	0.15	
Total costs				4,296.94	2.15	
Income over operating costs				4,393.99	2.20	
Income over total costs				4,103.06	2.05	

Note: Totals may not sum due to rounding.

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

Percent change	Sale price per pound	Yield per 2,000 square feet (pounds)						
		420	480	540	600	660	720	780
15% less	11.90	701	1,415	2,129	2,843	3,557	4,271	4,985
10% less	12.60	995	1,751	2,507	3,263	4,019	4,775	5,531
5% less	13.30	1,289	2,087	2,885	3,683	4,481	5,279	6,077
Base level	14.00	1,583	2,423	3,263	4,103	4,943	5,783	6,623
5% more	14.70	1,877	2,759	3,641	4,523	5,405	6,287	7,169
10% more	15.40	2,171	3,095	4,019	4,943	5,867	6,791	7,715
15% more	16.10	2,465	3,431	4,397	5,363	6,329	7,295	8,261

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

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