



Iowa Fruit and Vegetable Production Budgets: Annual Crops

Introduction

An enterprise budget is an estimate of the costs and returns to produce a product (enterprise). For example, an Iowa corn and soybean producer would be interested in developing both a corn and soybean enterprise budget. Vegetable growers that may have 35 -40 different products may wish to develop budgets on their key products (those products that contribute the most to the attainment of producer goals).

Why use enterprise budgets? In economic terms, enterprise budgets help to allocate land, labor, and capital, which are limited, to the most appropriate use. The most appropriate use is defined by the person in control of the resources and may be used to maximize profits or minimize soil loss or any other goal.

The estimated costs illustrated in this publication are based on Extension professionals experience with a variety of growers in Iowa. The returns are based on common prices and yields received by farmers. Costs are those typically incurred related to ownership costs, crop inputs, and other expenses. The budgets were developed on a 4 foot by 100 foot bed basis to better represent small farm production.

Budget Format

Enterprise budget formats vary. Some are complex. Others are quite simple. Note that the budgets included in this publication are divided into five sections. The first section illustrates the total receipts the enterprise provides on a set unit(s). Records should be kept on both a sales unit (per lb.) and land unit (per bed) basis.

The second section is the costs of planting and growing the product. These costs are segmented for two reasons. First, these costs are incurred whether a product is

sold or not. Once the seed is planted or weeding is completed, it is a sunk cost and needs to be covered from some source. The second purpose is there is a time delay between pre-harvest expenses and the time the product is sold. These expenses may have to be covered by borrowing or savings or some other source. Therefore, interest on pre-harvest costs should be included as a production expense.

The third section is the harvest component. Note that packaging costs are included within the harvesting activity. Pre-harvest and harvest expenses are combined to equal total variable costs.

The fourth section relates to ownership costs. Each producer owns or controls assets that they use to produce income such as land, machinery, irrigation equipment, and other items. Ownership costs are an allocation to realize some return for the use of those assets. In this example, the land use is \$219 per acre. It is assumed that produce is grown on 70 beds per acre so the \$219 cost is shared by the 70 beds, or \$3.13 per bed. Machinery investment is assumed to be \$11.90 per bed or about \$833 per acre. Machinery is assumed to have a 3-year life so the total machinery investment for replacement purposes is \$2,500 per acre. Therefore, a 3-acre produce farm would have approximately \$7,500 worth of machinery investment that could be replaced every 3 years. The irrigation system is assumed to need replacement every 3 years for a total per acre investment of approximately \$500. Total ownership costs are estimated at \$17.41 per bed.

The last section is the summary of returns. Total costs would be variable and ownership costs combined. The return over variable costs would be total receipts minus total variable costs. The return over all costs would be total receipts minus combined variable and ownership costs.

Limitations

The illustrated budgets are to be used as an estimate of what a particular crop could average over time and location. Individual farm results will vary from these numbers based on soil types, location to markets, and managerial ability, among other considerations.

[Ag Decision Maker, Decision Tool Budgets, extension.iastate.edu/agdm/crops/html/a1-17.html](https://extension.iastate.edu/agdm/crops/html/a1-17.html), are available to enter individual farm results, or space is provided on each budget page in this publication.

Note the budgets include receipts as well as costs through harvest and handling. Marketing and/or transaction costs have been excluded. Marketing costs vary tremendously based on whether products are distributed through a community supported agriculture share, wholesaler, or direct through a farmers' market or other outlet.

For this reason, they have not been included in the budgets. Marketing costs should, however, be included to determine crop profitability because, in some cases, costs can shift annual returns from a positive to a negative number. See Iowa State University Extension and Outreach publication FFED 39: [Evaluating Market Outlets](https://store.extension.iastate.edu/product/1601), store.extension.iastate.edu/product/1601, to help aid in determining and comparing marketing (transaction) costs.

Basil: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Basil sales	20 pounds	\$20.00	\$400.00			
TOTAL RECEIPTS			\$400.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	2.0 packets	1.95	3.90			
Soil mix	0.1 3.5 ft ³ bale	19.00	1.90			
Fertilization	5.0 pounds	0.35	1.75			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	1.00 hour	14.75	14.75			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$63.42	5.8%	1.84			
TOTAL PRE-HARVEST COSTS			\$65.26			
HARVEST						
Bags (1 pound)	20 bags	\$0.04	0.80			
LABOR						
Harvest labor/packaging	2.50 hours	14.75	36.88			
TOTAL HARVEST COSTS			37.68			
TOTAL VARIABLE COSTS						
Per bed			\$102.94			
Per pound			5.15			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$120.35			
Per pound			6.02			
ANNUAL RETURNS OVER VARIABLE COSTS			\$297.06			
ANNUAL RETURNS OVER TOTAL COSTS			\$279.65			
Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up. Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed. Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed. Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.						

Beans, Specialty Green: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Bean sales	120 pounds	\$3.50	\$420.00			
TOTAL RECEIPTS			\$420.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	2.00 pounds	20.00	40.00			
Fertilization	6.00pounds	0.35	2.10			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	0.20 hours	14.75	2.95			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$86.17	5.8%	2.50			
TOTAL PRE-HARVEST COSTS			\$88.67			
HARVEST						
Bags (1 pound)	120 bags	\$0.04	\$4.80			
LABOR						
Harvest labor/packaging	12.00 hours	14.75	177.00			
TOTAL HARVEST COSTS			\$181.80			
TOTAL VARIABLE COSTS						
Per bed			\$270.47			
Per pound			2.25			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$287.88			
Per pound			2.40			
ANNUAL RETURNS OVER VARIABLE COSTS						
			\$149.53			
ANNUAL RETURNS OVER TOTAL COSTS						
			\$132.12			
Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.						
Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.						
Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.						
Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.						

Carrots: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Carrot sales	150 pounds	\$1.50	\$225.00			
TOTAL RECEIPTS			\$225.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	6,000 seeds	0.002	12.00			
Fertilization	10 pounds	0.35	3.50			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	0.20 hours	14.75	2.95			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$59.57	5.8%	1.73			
TOTAL PRE-HARVEST COSTS			\$61.30			
HARVEST						
Bags (1 pound)	150 bags	\$0.04	\$6.00			
LABOR						
Harvest labor/packaging	2.50 hours	14.75	36.88			
TOTAL HARVEST COSTS			\$42.68			
TOTAL VARIABLE COSTS						
Per bed			\$104.18			
Per pound			0.69			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$121.59			
Per pound			0.81			
ANNUAL RETURNS OVER VARIABLE COSTS			\$120.82			
ANNUAL RETURNS OVER TOTAL COSTS			\$103.41			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Eggplant: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Eggplant sales	200 each	\$2.00	\$400.00			
TOTAL RECEIPTS			\$400.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	2 packet	3.50	7.00			
Soil mix	0.05 3.5 ft ³ bale	19.00	0.95			
Fertilization	7 pounds	0.35	2.45			
Straw mulch	4 bales	4.50	18.00			
Pesticides		6.00	6.00			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	1.25 hours	14.75	18.44			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$93.96	5.8%	2.72			
TOTAL PRE-HARVEST COSTS			\$96.68			
HARVEST						
Bags (1 pound)	200 bags	\$0.04	\$8.00			
LABOR						
Harvest labor/packaging	2.50 hours	14.75	36.88			
TOTAL HARVEST COSTS			\$44.86			
TOTAL VARIABLE COSTS						
Per bed			\$141.56			
Per pound			0.71			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$158.97			
Per pound			0.79			
ANNUAL RETURNS OVER VARIABLE COSTS			\$258.44			
ANNUAL RETURNS OVER TOTAL COSTS			\$241.03			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Garlic: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Garlic sales	35 pounds	\$4.50	\$157.50			
TOTAL RECEIPTS			\$157.50			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	10 pounds	6.50	65.00			
Straw mulch	2 bales	4.50	9.00			
Fertilization	10 pounds	0.35	3.50			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	1.50 hours	14.75	22.13			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$140.75	5.8%	4.08			
TOTAL PRE-HARVEST COSTS			\$144.83			
HARVEST						
LABOR						
Harvest labor/packaging	5.00 hours	14.75	73.75			
TOTAL HARVEST COSTS			\$73.75			
TOTAL VARIABLE COSTS						
Per bed			\$218.58			
Per pound			6.25			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$235.99			
Per pound			6.74			
ANNUAL RETURNS OVER VARIABLE COSTS			-\$61.08			
ANNUAL RETURNS OVER TOTAL COSTS			-\$78.49			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Greens, Salad: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Greens sales	50 pounds	\$6.00	\$300.00			
TOTAL RECEIPTS			\$300.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	5 packets	4.50	22.50			
Fertilization	10 pounds	0.35	3.50			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	0.20 hours	14.75	2.95			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$70.07	5.8%	2.03			
TOTAL PRE-HARVEST COSTS			\$72.10			
HARVEST						
LABOR						
Bags (1 pound)	50 bags	\$0.04	\$2.00			
Harvest labor/packaging	1.50 hours	14.75	22.13			
TOTAL HARVEST COSTS			\$24.13			
TOTAL VARIABLE COSTS						
Per bed			\$96.23			
Per pound			1.92			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$113.64			
Per pound			2.27			
ANNUAL RETURNS OVER VARIABLE COSTS			\$203.77			
ANNUAL RETURNS OVER TOTAL COSTS			\$186.36			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Snow pea sales	50 pounds	\$8.00	\$400.00			
TOTAL RECEIPTS			\$400.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	2 pounds	11.00	22.00			
Fertilization	6 pounds	0.35	2.10			
Cages/trellis	7 trellis	3.50	24.50			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	0.75 hours	14.75	11.06			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$100.78	5.8%	2.92			
TOTAL PRE-HARVEST COSTS			\$103.70			
HARVEST						
LABOR						
Bags (1 pound)	50 bags	\$0.04	\$2.00			
Harvest labor/packaging	4.50 hours	14.75	66.38			
TOTAL HARVEST COSTS			\$68.38			
TOTAL VARIABLE COSTS						
Per bed			\$172.08			
Per pound			3.44			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$189.49			
Per pound			3.79			
ANNUAL RETURNS OVER VARIABLE COSTS			\$227.92			
ANNUAL RETURNS OVER TOTAL COSTS			\$210.51			
Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up. Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed. Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed. Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.						

Potatoes, Round Red: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Red potato sales	150 pounds	\$1.50	\$225.00			
TOTAL RECEIPTS			\$225.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed potatoes	20 pounds	3.00	60.00			
Fertilization	10 pounds	0.35	3.50			
Straw mulch	5 bales	4.50	22.50			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	1.50 hours	14.75	22.13			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$149.25	5.8%	4.33			
TOTAL PRE-HARVEST COSTS			\$153.58			
HARVEST						
LABOR						
Bags (5 pound)	30 bags	\$0.20	\$6.00			
Harvest labor/packaging	2.00 hours	14.75	29.50			
TOTAL HARVEST COSTS			\$35.50			
TOTAL VARIABLE COSTS						
Per bed			\$189.08			
Per pound			1.26			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$206.49			
Per pound			1.38			
ANNUAL RETURNS OVER VARIABLE COSTS			\$35.92			
ANNUAL RETURNS OVER TOTAL COSTS			\$18.51			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Potatoes, Sweet: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Sweet potato sales	150 pounds	\$1.75	\$262.50			
TOTAL RECEIPTS			\$262.50			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Slips	95 plants	0.50	47.50			
Fertilization	10 pounds	0.35	3.50			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	.20 hours	14.75	2.95			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$95.07	5.8%	2.76			
TOTAL PRE-HARVEST COSTS			\$97.83			
HARVEST						
LABOR						
Bags (5 pound)	150 bags	\$0.04	\$6.00			
Harvest labor/packaging	2.50 hours	14.75	36.88			
TOTAL HARVEST COSTS			\$42.88			
TOTAL VARIABLE COSTS						
Per bed			\$140.71			
Per pound			.94			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$158.12			
Per pound			1.05			
ANNUAL RETURNS OVER VARIABLE COSTS			\$121.79			
ANNUAL RETURNS OVER TOTAL COSTS			\$104.38			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Tomatoes, Cherry: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Cherry tomato sales	150 pounds	\$3.00	\$450.00			
TOTAL RECEIPTS			\$450.00			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	25 packet	4.00	1.00			
Soil mix	0.05 3.5 ft³ bale	19.00	0.95			
Fertilization	10 pounds	0.35	3.50			
Straw mulch	4 bales	4.50	18.00			
Cages	40 cages	2.50	100.00			
Pesticides		12.00	12.00			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	1.50 hours	14.75	22.13			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$198.70	5.8%	5.76			
TOTAL PRE-HARVEST COSTS			\$204.46			
HARVEST						
LABOR						
Bags (1 pound)	150 bags	\$0.04	\$6.00			
Harvest labor/packaging	6.50 hours	14.75	95.88			
TOTAL HARVEST COSTS			\$101.88			
TOTAL VARIABLE COSTS						
Per bed			\$306.34			
Per pound			2.04			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$323.75			
Per pound			2.16			
ANNUAL RETURNS OVER VARIABLE COSTS			\$143.66			
ANNUAL RETURNS OVER TOTAL COSTS			\$126.25			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Tomatoes, Heirloom, Sweet: 100' x 4' bed

	QUANTITY	COST PER UNIT	TOTAL	YOUR QUANTITY	YOUR COST PER UNIT	YOUR TOTAL
RECEIPTS						
Heirloom tomato sales	400 pounds	\$3.50	\$1,400.00			
TOTAL RECEIPTS			\$1,400			
PLANTING YEAR						
SUPPLIES						
Seed – cover crop	0.75 pounds	\$0.75	\$0.56			
Seed	0.25 packet	7.00	1.75			
Soil mix	0.05 3.5 ft³ bale	19.00	0.95			
Fertilization	12 pounds	0.35	4.20			
Straw mulch	4 bales	4.50	18.00			
Cages	40 cages	2.50	100.00			
Pesticides		12.00	12.00			
LABOR						
Pre-plant	0.75 hours	14.75	11.06			
Plant/transplant	2.00 hours	14.75	29.50			
Weed/pest management	2.00 hours	14.75	29.50			
Interest on pre-harvest costs (6 months)	\$207.52	5.8%	6.02			
TOTAL PRE-HARVEST COSTS			\$213.54			
HARVEST						
LABOR						
Bags (5 pound)	400 bags	\$0.04	\$16.00			
Harvest labor/packaging	6.50 hours	14.75	95.88			
TOTAL HARVEST COSTS			\$111.88			
TOTAL VARIABLE COSTS						
Per bed			\$325.42			
Per pound			.81			
OWNERSHIP COSTS (ANNUAL)						
Irrigation system			\$2.38			
Machinery			11.90			
Land			3.13			
TOTAL OWNERSHIP COSTS			\$17.41			
TOTAL COSTS (ANNUAL)						
Per bed			\$342.83			
Per pound			.86			
ANNUAL RETURNS OVER VARIABLE COSTS			\$1074.58			
ANNUAL RETURNS OVER TOTAL COSTS			\$1057.17			

Pre-plant labor includes cover crop planting, bed preparation, fertilizer spreading, and irrigation set-up.

Plant/transplant labor includes planting or transplanting, mulching, trellis or cage set-up if needed.

Weed/pest management labor includes weeding, applying pest management materials, and pruning if needed.

Harvest labor includes harvesting, packaging and removal of vines, cages, trellises or other materials from the bed if needed.

Acknowledgements

Prepared by Craig Chase, program manager, and Olivia Hanlon, extension educational specialist, Farm, Food and Enterprise Development, Iowa State University Extension and Outreach; original author Craig Chase.

Resources

[ISU Extension and Outreach Publication Store](https://store.extension.iastate.edu)

store.extension.iastate.edu

[Vegetables and Herbs Publications](https://store.extension.iastate.edu/Topic/Yard-and-Garden/Vegetables-and-Herbs?S=0&A=0&F=0)

store.extension.iastate.edu/Topic/Yard-and-Garden/Vegetables-and-Herbs?S=0&A=0&F=0

[Fruit Publications](https://store.extension.iastate.edu/Topic/Yard-and-Garden/Fruit?S=0&A=0&F=0)

store.extension.iastate.edu/Topic/Yard-and-Garden/Fruit?S=0&A=0&F=0

[Commercial Horticulture](https://store.extension.iastate.edu/Topic/Farm-Management/Commercial-Horticulture?S=0&A=0&F=0)

store.extension.iastate.edu/Topic/Farm-Management/Commercial-Horticulture?S=0&A=0&F=0

[Farm, Food, and Enterprise Development website](https://extension.iastate.edu/ffed)

extension.iastate.edu/ffed

[Farm, Food, and Enterprise Development publications](https://extension.iastate.edu/ffed/our-publications)

extension.iastate.edu/ffed/our-publications

[Sustainable Vegetable Productions website](https://extension.iastate.edu/vegetablelab)

extension.iastate.edu/vegetablelab

[Sustainable Vegetable Productions publications](https://extension.iastate.edu/vegetablelab/extension-publications)

extension.iastate.edu/vegetablelab/extension-publications

[Ag Decision Maker—Organic and Specialty Crops](https://extension.iastate.edu/agdm/cdothier.html)

extension.iastate.edu/agdm/cdothier.html

Ag Decision Maker—Fruit and Vegetable Production Budget Decision Tools:

[Basil](https://www.extension.iastate.edu/agdm/crops/xls/a1-17basil.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17basil.xlsx

[Specialty Green Beans](https://www.extension.iastate.edu/agdm/crops/xls/a1-17specialtygreenbeans.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17specialtygreenbeans.xlsx

[Carrots](https://www.extension.iastate.edu/agdm/crops/xls/a1-17carrots.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17carrots.xlsx

[Eggplant](https://www.extension.iastate.edu/agdm/crops/xls/a1-17eggplant.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17eggplant.xlsx

[Garlic](https://www.extension.iastate.edu/agdm/crops/xls/a1-17garlic.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17garlic.xlsx

[Salad Greens](https://www.extension.iastate.edu/agdm/crops/xls/a1-17saladgreens.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17saladgreens.xlsx

[Snow Peas](https://www.extension.iastate.edu/agdm/crops/xls/a1-17snowpeas.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17snowpeas.xlsx

[Potatoes](https://www.extension.iastate.edu/agdm/crops/xls/a1-17potatoes.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17potatoes.xlsx

[Sweet Potatoes](https://www.extension.iastate.edu/agdm/crops/xls/a1-17sweetpotatoes.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17sweetpotatoes.xlsx

[Cherry Tomatoes](https://www.extension.iastate.edu/agdm/crops/xls/a1-17cherrytomatoes.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17cherrytomatoes.xlsx

[Heirloom Tomatoes](https://www.extension.iastate.edu/agdm/crops/xls/a1-17tomatoes.xlsx)

www.extension.iastate.edu/agdm/crops/xls/a1-17tomatoes.xlsx

In accordance with Federal law and U.S. Department of Agriculture (USDA) civil rights regulations and policies, this institution is prohibited from discriminating on the basis of race, color, national origin, sex, age, disability, and reprisal or retaliation for prior civil rights activity. (Not all prohibited bases apply to all programs.) Program information may be made available in languages other than English. Persons with disabilities who require alternative means of communication for program information (e.g., Braille, large print, audiotape, and American Sign Language) should contact the responsible State or local Agency that administers the program or USDA's TARGET Center at 202-720-2600 (voice and TTY) or contact USDA through the Federal Relay Service at 800-877-8339. To file a program discrimination complaint, a complainant should complete a Form AD-3027, USDA Program Discrimination Complaint Form, which can be obtained online at <https://www.ocio.usda.gov/document/ad-3027>, from any USDA office, by calling 866-632-9992, or by writing a letter addressed to USDA. The letter must contain the complainant's name, address, telephone number, and a written description of the alleged discriminatory action in sufficient detail to inform the Assistant Secretary for Civil Rights (ASCR) about the nature and date of an alleged civil rights violation. The completed AD-3027 form or letter must be submitted to USDA by: (1) Mail: U.S. Department of Agriculture Office of the Assistant Secretary for Civil Rights, 1400 Independence Avenue, SW Washington, D.C. 20250-9410; or (2) Fax: 833-256-1665 or 202-690-7442; or (3) Email: program.intake@usda.gov. This institution is an equal opportunity provider.

For the full non-discrimination statement or accommodation inquiries, go to www.extension.iastate.edu/diversity/ext.