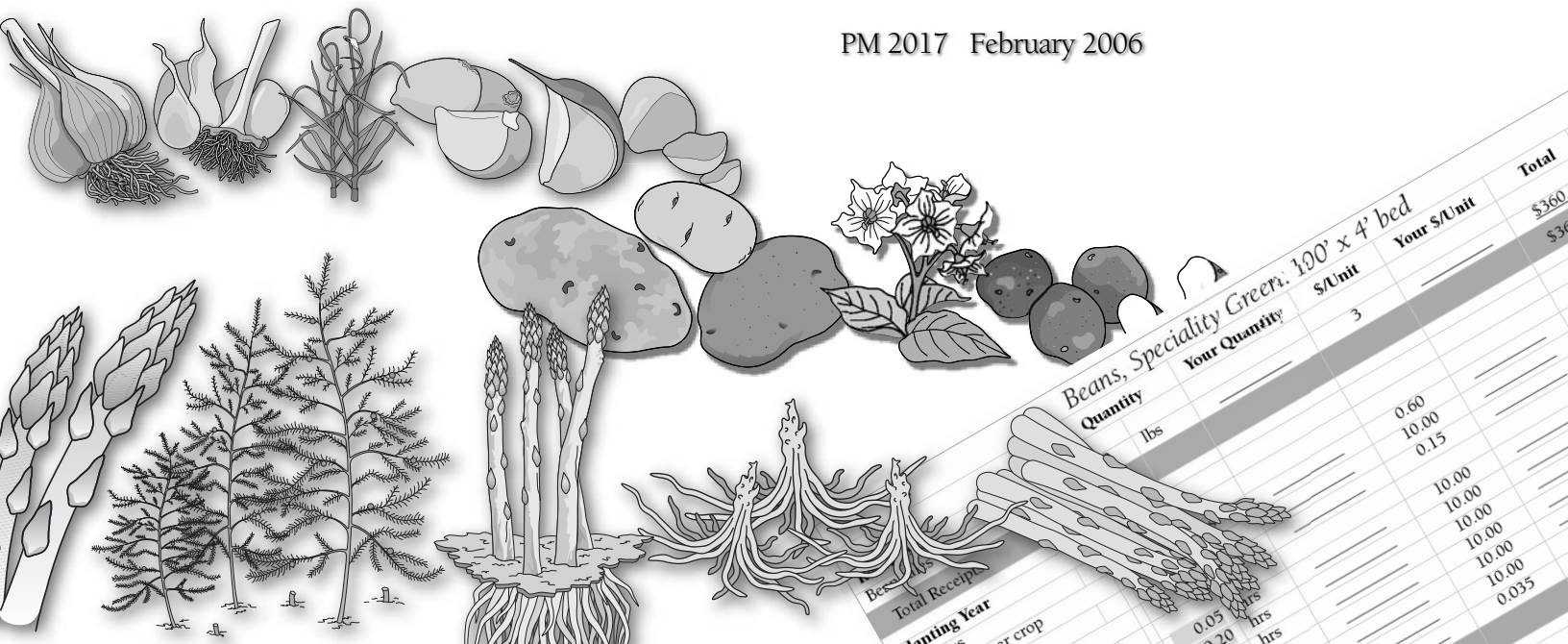


Iowa Vegetable Production Budgets

IOWA STATE UNIVERSITY
University Extension

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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 and returns illustrated in this publication are based on farm data received from three small farms over a three year period. Not all crops were grown on each farm each year. The original farm-derived budgets were adjusted slightly to make them more uniform regarding ownership costs, fertilization cost and amounts of inputs, and other expenses. The budgets were developed on a 4 ft by 100 ft bed basis to better represent small farm production. The exception is strawberries, which is on a per acre basis.

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 with 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 \$160 per acre. It is assumed that produce is grown on 70 beds per acre so the \$160 cost is shared by the 70 beds, or \$2.29 per bed. Machinery investment is assumed to be \$7.14 per bed or about \$500 per acre. Machinery is assumed to have a 3-year life so the total machinery investment for replacement purposes is \$1,500 per acre. Therefore, a 3-acre produce farm would have approximately \$4,500 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 \$240. Total ownership costs are estimated at \$10.57 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 indication 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.

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. A method to determine and compare marketing (transaction) costs will be described in a future publication.

Asparagus: 100' x 4' bed

	Quantity	Your Quantity	\$/Unit	Your Unit	Total	Your Total
Receipts						
Asparagus sales - Years 3-15	35 lbs	_____	2.50	_____	\$87.50	_____
Avg. Production Year Annual Receipts					\$87.50	_____
Planting Year						
Seed - cover crop	0.75 lbs	_____	0.60	_____	\$0.45	_____
Fertilization	6.00 lbs	_____	0.15	_____	0.90	_____
Crowns	30.00 plant	_____	0.25	_____	7.50	_____
Straw mulch	6.00 bales	_____	2.50	_____	15.00	_____
Labor						
Cover crop	0.05 hrs	_____	10.00	_____	0.50	_____
Land preparation - trench	0.10 hrs	_____	10.00	_____	1.00	_____
Fertilizer spreading	0.10 hrs	_____	10.00	_____	1.00	_____
Planting	0.50 hrs	_____	10.00	_____	5.00	_____
Hand hoeing	1.00 hrs	_____	10.00	_____	10.00	_____
Mulching	0.50 hrs	_____	10.00	_____	5.00	_____
Irrigation set up	0.25 hrs	_____	10.00	_____	2.50	_____
Interest on planting year costs	\$48.85	_____	0.07	_____	3.42	_____
Total Planting Year Costs					\$52.27	_____
Pre-Production Year						
Fertilization	6.00 lbs	_____	0.15	_____	\$0.90	_____
Labor						
Fertilizer spreading	0.10 hrs	_____	10.00	_____	1.00	_____
Hand hoeing	0.50 hrs	_____	10.00	_____	5.00	_____
Cutting and raking	0.30 hrs	_____	10.00	_____	3.00	_____
Interest on planting year costs	\$62.17	_____	0.07	_____	4.35	_____
Total Pre-Production Costs					\$66.52	_____
Production Year						
Pre-harvest						
Fertilization	6.00 lbs	_____	0.15	_____	\$0.90	_____
Straw mulch	2.00 bales	_____	2.50	_____	5.00	_____
Labor						
Fertilizer spreading	0.10 hrs	_____	10.00	_____	1.00	_____
Hand hoeing	0.50 hrs	_____	10.00	_____	5.00	_____
Mulching	0.25 hrs	_____	10.00	_____	2.50	_____
Cutting and raking	0.30 hrs	_____	10.00	_____	3.00	_____
Interest on pre-harvest costs	\$83.92	_____	0.035	_____	2.94	_____
Total Pre-Harvest Costs					\$20.34	_____
Harvest (Average production / year- lbs)						
Bags (1 lb)	35 bags	_____	0.03	_____	\$1.19	_____
Labor						
Harvest	1.25 hrs	_____	10.00	_____	12.50	_____
Packaging	0.30 hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs					\$16.69	_____
Total Variable Costs						
Per acre					\$37.03	_____
Per lb					1.06	_____
Ownership Costs (Annual)						
Irrigation system					\$1.14	_____
Machinery					7.14	_____
Land					2.29	_____
Total Ownership Costs					\$10.57	_____
Pre-Production Costs						
Amortized over 15 years					\$4.43	_____
Total Costs (Annual)						
Per acre					\$52.03	_____
Per lb					1.49	_____
Annual Returns Over Variable Costs					\$50.47	_____
Annual Returns Over Total Costs					\$35.47	_____

Basil: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Basil sales	25	lbs	_____	10.00	_____	\$250.00	_____
Total Receipts						\$250.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	1	packet	_____	1.00	_____	1.00	_____
Soil mix	0.1	bag	_____	5.00	_____	0.50	_____
Fertilization	12	lbs	_____	0.15	_____	1.80	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Soil mix	1.00	hrs	_____	10.00	_____	10.00	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Transplanting	1.00	hrs	_____	10.00	_____	10.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Weeding	2.00	hrs	_____	10.00	_____	20.00	_____
Interest on pre-harvest costs	\$49.75		_____	0.035	_____	1.74	_____
Total Pre-Harvest Costs						\$51.49	_____
Harvest							
Bags (1 lb)	25	bags	_____	0.03	_____	\$0.75	_____
Labor							
Harvest labor	2.00	hrs	_____	10.00	_____	20.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$23.75	_____
Total Variable Costs							
Per crop year						\$75.24	_____
Per lb						3.01	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$85.81	_____
Per lb						3.43	_____
Annual Returns Over Variable Costs						\$174.76	_____
Annual Returns Over Total Costs						\$164.19	_____

Beans, Speciality Green: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Bean sales	120	lbs	_____	3	_____	\$360.00	_____
Total Receipts						\$360.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	2	lbs	_____	10.00	_____	20.00	_____
Fertilization	6	lbs	_____	0.15	_____	0.90	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting	0.15	hrs	_____	10.00	_____	1.50	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Weeding	2.00	hrs	_____	10.00	_____	20.00	_____
Interest on pre-harvest costs	\$48.85		_____	0.035	_____	1.71	_____
Total Pre-harvest Costs						\$50.56	_____
Harvest							
Bags (1 lb)	120	bags	_____	0.03	_____	\$3.60	_____
Labor							
Harvest labor	15.00	hrs	_____	10.00	_____	150.00	_____
Packaging	0.50	hrs	_____	10.00	_____	5.00	_____
Total Harvest Costs						\$158.60	_____
Total Variable Costs							
bed						\$209.16	_____
Per lb						1.74	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$219.73	_____
Per lb						1.83	_____
Annual Returns Over Variable Costs						\$150.84	_____
Annual Returns Over Total Costs						\$140.27	_____

Carrots: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Carrot sales	170	lbs	_____	0.80	_____	\$136.00	_____
Total Receipts						\$136.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	3	packets	_____	1.50	_____	4.50	_____
Burlap	3	bags	_____	1.80	_____	5.40	_____
Fertilization	10	lbs	_____	0.15	_____	1.50	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting, laying burlap	0.20	hrs	_____	10.00	_____	2.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Weeding	0.75	hrs	_____	10.00	_____	7.50	_____
Interest on pre-harvest costs	\$27.35		_____	0.035	_____	0.96	_____
Total Pre-Harvest Costs						\$28.31	_____
Harvest							
Bags (1 lb)	170	bags	_____	0.03	_____	\$5.10	_____
Labor							
Harvest labor	3.50	hrs	_____	10.00	_____	35.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$43.10	_____
Total Variable Costs							
Per bed						\$71.41	_____
Per lb						0.42	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$81.98	_____
Per lb						0.48	_____
Annual Returns Over Variable Costs						\$64.59	_____
Annual Returns Over Total Costs						\$54.02	_____

Eggplant: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Eggplant sales	130	lbs	_____	1.40	_____	\$182.00	_____
Total Receipts						\$182.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	2	packet	_____	1.00	_____	2.00	_____
Soil mix	0.5	bag	_____	5.00	_____	2.50	_____
Fertilization	7	lbs	_____	0.15	_____	1.05	_____
Straw mulch	4	bales	_____	2.50	_____	10.00	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Soil mix	1.00	hrs	_____	10.00	_____	10.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Transplanting	1.30	hrs	_____	10.00	_____	13.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Mulching	0.50	hrs	_____	10.00	_____	5.00	_____
Weeding	0.75	hrs	_____	10.00	_____	7.50	_____
Interest on pre-harvest costs	\$57.50		_____	0.035	_____	2.01	_____
Total Pre-Harvest Costs						\$59.51	_____
Harvest							
Bags (1 lb)	130	bags	_____	0.03	_____	\$3.90	_____
Labor							
Harvest labor	2.00	hrs	_____	10.00	_____	20.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$26.90	_____
Total Variable Costs							
Per bed						\$86.41	_____
Per lb						0.66	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$96.98	_____
Per lb						0.75	_____
Annual Returns Over Variable Costs						\$95.59	_____
Annual Returns Over Total Costs						\$85.02	_____

Garlic: 100' x 4' bed

	Quantity	Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts						
Garlic sales	35 lbs	_____	5.75	_____	\$201.25	_____
Total Receipts					\$201.25	_____
Planting Year						
Supplies						
Seed - cover crop	0.75 lbs	_____	0.60	_____	\$0.45	_____
Seed	10 lbs	_____	6.50	_____	65.00	_____
Straw mulch	2 bales	_____	2.50	_____	5.00	_____
Fertilization	10 lbs	_____	0.15	_____	1.50	_____
Labor						
Cover crop	0.05 hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.20 hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10 hrs	_____	10.00	_____	1.00	_____
Planting	1.25 hrs	_____	10.00	_____	12.50	_____
Mulching	0.25 hrs	_____	10.00	_____	2.50	_____
Irrigation set up	0.25 hrs	_____	10.00	_____	2.50	_____
Weeding	0.25 hrs	_____	10.00	_____	2.50	_____
Interest on pre-harvest costs	\$95.45	_____	0.035	_____	3.34	_____
Total Pre-Harvest Costs					\$98.79	_____
Harvest						
Labor						
Harvest Labor	4.50 hrs	_____	10.00	_____	\$45.00	_____
Packaging	0.30 hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs					\$48.00	_____
Total Variable Costs						
Per bed					\$146.79	_____
Per lb					4.19	_____
Ownership Costs (Annual)						
Irrigation system					\$1.14	_____
Machinery					7.14	_____
Land					2.29	_____
Total Ownership Costs					\$10.57	_____
Total Costs (Annual)						
Per bed					\$157.36	_____
Per lb					4.50	_____
Annual Returns Over Variable Costs					\$54.46	_____
Annual Returns Over Total Costs					\$43.89	_____

Greens, Salad: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Greens sales	30	lbs	_____	5.00	_____	\$150.00	_____
Total Receipts						\$150.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	5	packets	_____	1.00	_____	5.00	_____
Fertilization	10	lbs	_____	0.15	_____	1.50	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting	0.15	hrs	_____	10.00	_____	1.50	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Weeding	0.50	hrs	_____	10.00	_____	5.00	_____
Interest on pre-harvest costs	\$19.45		_____	0.035	_____	0.68	_____
Total Pre-Harvest Costs						\$20.13	_____
Harvest							
Bags (1 lb)	30	bags	_____	0.03	_____	\$0.90	_____
Labor							
Harvest	1.25	hrs	_____	10.00	_____	12.50	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$16.40	_____
Total Variable Costs							
Per bed						\$36.53	_____
Per lb						1.22	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$47.10	_____
Per lb						1.57	_____
Annual Returns Over Variable Costs						\$113.47	_____
Annual Returns Over Total Costs						\$102.90	_____

Peas, Snow: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Snow pea sales	50	lbs	_____	3.50	_____	\$175.00	_____
Total Receipts						\$175.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	2	lbs	_____	10.00	_____	20.00	_____
Fertilization	6	lbs	_____	0.15	_____	0.90	_____
Cages	7	cages	_____	0.65	_____	4.55	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting	0.25	hrs	_____	10.00	_____	2.50	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Set cages	0.50	hrs	_____	10.00	_____	5.00	_____
Weeding	2.00	hrs	_____	10.00	_____	20.00	_____
Interest on pre-harvest costs	\$59.40		_____	0.035	_____	2.08	_____
Total Pre-Harvest Costs						\$61.48	_____
Harvest							
Bags (1 lb)	50	bags	_____	0.03	_____	\$1.50	_____
Labor							
Harvest labor	4.00	hrs	_____	10.00	_____	40.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$44.50	_____
Total Variable Costs							
Per bed						\$105.98	_____
Per lb						2.12	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$116.55	_____
Per lb						2.33	_____
Annual Returns Over Variable Costs						\$69.02	_____
Annual Returns Over Total Costs						\$58.45	_____

Potatoes: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Potato sales	120	lbs	_____	1.25	_____	\$150.00	_____
Total Receipts						\$150.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	20	lbs	_____	.35	_____	7.00	_____
Straw mulch	5	bales	_____	2.50	_____	12.50	_____
Fertilization	10	lbs	_____	0.15	_____	1.50	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.50	hrs	_____	10.00	_____	5.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting	1.00	hrs	_____	10.00	_____	10.00	_____
Mulching	0.50	hrs	_____	10.00	_____	5.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Weeding	0.40	hrs	_____	10.00	_____	4.00	_____
Interest on pre-harvest costs	\$49.45		_____	0.035	_____	1.73	_____
Total Pre-Harvest Costs						\$51.18	_____
Harvest							
Bags (5 lb)	24	bags	_____	0.15	_____	\$3.60	_____
Labor							
Harvest labor	2.00	hrs	_____	10.00	_____	20.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$26.60	_____
Total Variable Costs							
Per bed						\$77.78	_____
Per lb						0.65	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$88.35	_____
Per lb						0.74	_____
Annual Returns Over Variable Costs						\$72.22	_____
Annual Returns Over Total Costs						\$61.65	_____

Potatoes, Sweet: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Potato sales	80	lbs	_____	1.20	_____	\$96.00	_____
Total Receipts						\$96.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Plants	95	plants	_____	0.10	_____	9.50	_____
Fertilization	10	lbs	_____	0.15	_____	1.50	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation	0.20	hrs	_____	10.00	_____	2.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting	0.20	hrs	_____	10.00	_____	10.00	_____
Mulching	0.50	hrs	_____	10.00	_____	2.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Weeding	1.20	hrs	_____	10.00	_____	12.00	_____
Interest on pre-harvest costs	\$31.45		_____	0.035	_____	1.10	_____
Total Pre-Harvest Costs						\$32.55	_____
Harvest							
Bags (1 lb)	80	bags	_____	0.03	_____	\$2.40	_____
Labor							
Harvest labor	2.00	hrs	_____	10.00	_____	20.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Total Harvest Costs						\$25.40	_____
Total Variable Costs							
Per crop year						\$57.95	_____
Per lb						0.72	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$68.52	_____
Per lb						0.86	_____
Annual Returns Over Variable Costs						\$38.05	_____
Annual Returns Over Total Costs						\$27.48	_____

Raspberries, Red: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Raspberry sales							
Year one of production	10	qts	_____	8.00	_____	\$80.00	_____
Year two through ten	30	qts	_____	8.00	_____	<u>240.00</u>	_____
Average Receipts	28		_____			\$224.00	_____
Planting Year							
Supplies							
Seed- cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Fertilization	6.00	lbs	_____	0.15	_____	0.90	_____
Plants	35.00	plants	_____	1.60	_____	56.00	_____
Straw mulch	6.00	bales	_____	2.50	_____	15.00	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Bed preparation - trench	0.10	hrs	_____	10.00	_____	1.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Planting	0.50	hrs	_____	10.00	_____	5.00	_____
Hand hoeing	1.00	hrs	_____	10.00	_____	10.00	_____
Mulching	0.50	hrs	_____	10.00	_____	5.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Interest on planting year costs	\$97.35		_____	0.07	_____	<u>6.81</u>	_____
Total Planting Year Costs						\$104.16	_____
First Year of Production							
Pre-Harvest							
Fertilization	6.00	lbs	_____	0.15	_____	\$0.90	_____
Straw mulch	2.00	bales	_____	3.00	_____	6.00	_____
Labor							
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Hand hoeing	0.50	hrs	_____	10.00	_____	5.00	_____
Mulching	0.25	hrs	_____	10.00	_____	2.50	_____
Cutting and raking	0.30	hrs	_____	10.00	_____	3.00	_____
Interest on pre-harvest costs	\$18.40		_____	0.035	_____	<u>0.64</u>	_____
Total Pre-Harvest Costs						\$19.04	_____
Harvest (Ave. production / year - qts) 10							
Containers (qts)	10		_____	0.10	_____	\$1.00	_____
Labor							
Harvest	1.67	hrs	_____	10.00	_____	16.70	_____
Packaging	0.30	hrs	_____	10.00	_____	<u>3.00</u>	_____
Total Harvest Costs						\$20.70	_____
Total Pre-Harvest and Harvest Costs - Year 1						\$39.74	_____
Second Year of Production							
Total Pre-Harvest Costs (Same as first year of production)						\$19.04	_____
Harvest (Ave. production / year - qts) 30							
Containers (qts)	30		_____	0.10	_____	\$3.00	_____
Labor							
Harvest	5	hrs	_____	10.00	_____	50.00	_____
Packaging	0.30	hrs	_____	10.00	_____	<u>3.00</u>	_____
Total Harvest Costs						\$56.00	_____
Total Pre-Harvest and Harvest Costs - Year 2						\$75.04	_____
Average Total Variable Costs							

Raspberries, Red: 100' x 4' bed (cont.)

	Quantity	Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Per acre					\$71.51	_____
Per qt					2.55	_____
Ownership Costs (Annual)						
Irrigation system					\$1.14	_____
Machinery					7.14	_____
Land					<u>2.29</u>	_____
Total Ownership Costs					\$10.57	_____
Pre-Production Costs						
Amortized over 10 years					\$10.42	_____
Total Costs (Annual)						
Per acre					\$92.50	_____
Per qt					3.30	_____
Annual Returns Over Variable Costs					\$152.49	_____
Annual Returns Over Total Costs					\$131.50	_____

Strawberries: One Acre

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Strawberry Sales							
First Production Year	4,000	qts	_____	2.25	_____	\$9,000.00	_____
Second Production Year	3,000	qts	_____	2.50	_____	7,500.00	_____
Third Production Year	2,000	qts	_____	3.00	_____	6,000.00	_____
Average Receipts	3,000		_____		_____	\$7,500.00	_____
Establishment Year							
Supplies							
Seed- cover crop	75.00	lbs 1000	_____	0.60	_____	\$45.00	_____
Plants	5.00	plants	_____	100.00	_____	500.00	_____
Fertilization	300.00	lbs lg	_____	0.15	_____	45.00	_____
Straw mulch	7.00	round bales	_____	45.00	_____	315.00	_____
Labor							
Cover crop	3.00	hrs	_____	10.00	_____	30.00	_____
Land preparation - trench	1.00	hrs	_____	10.00	_____	10.00	_____
Fertilizer spreading	1.00	hrs	_____	10.00	_____	10.00	_____
Transplanting	18.00	hrs	_____	10.00	_____	180.00	_____
Hand hoeing	90.00	hrs	_____	10.00	_____	900.00	_____
Pull off blossoms	2.00	hrs	_____	10.00	_____	20.00	_____
Mulching	16.00	hrs	_____	10.00	_____	160.00	_____
Irrigation set up	4.00	hrs	_____	10.00	_____	40.00	_____
Interest on Establishment Yr Costs	\$2,255.00		_____	0.07	_____	157.85	_____
Total Establishment Year Costs						\$2,412.85	_____
First Year of Production							
Fertilization	300.00	lbs lg	_____	0.15	_____	\$45.00	_____
Straw Mulch	7.00	round bales	_____	45.00	_____	315.00	_____
Labor							
Remove mulch	8.00	hrs	_____	10.00	_____	80.00	_____
Fertilizer spreading	1.00	hrs	_____	10.00	_____	10.00	_____
Hand hoeing	30.00	hrs	_____	10.00	_____	300.00	_____
Mowing	1.00	hrs	_____	10.00	_____	10.00	_____
Renovation	4.00	hrs	_____	10.00	_____	40.00	_____
Mulching	16.00	hrs	_____	10.00	_____	160.00	_____
Irrigation tear down & set up	2.00	hrs	_____	10.00	_____	20.00	_____
Interest on Est. and 1st Year Costs	\$3,392.85		_____	0.035	_____	118.75	_____
Total Pre-Harvest Costs						\$1,098.75	_____
Harvest (Production - qts)	4,000		_____				
Containers	1,000		_____	0.15	_____	\$150.00	_____
Trays for u-pick	100	tray	_____	1.00	_____	100.00	_____
Labor							
Pickers	1,000	qt	_____	0.75	_____	750.00	_____
Total Harvest Costs						\$1,000.00	_____
Total pre-harvest and harvest costs - Year 1						\$2,098.75	_____
Second Year of Production							
Total Pre-Harvest Costs (Same as First Year of Production)						\$1,098.75	_____

Strawberries: One Acre (cont.)

	Quantity	Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Harvest (Production - qts)	3,000	_____				
Containers	1,000	_____	0.15	_____	\$150.00	_____
Trays for u-pick	75.00 tray	_____	1.00	_____	75.00	_____
Labor						
Pickers	1,000 qt	_____	0.75	_____	750.00	_____
Total Harvest Costs					\$975.00	_____
Total Pre-Harvest and Harvest Costs - Year 2					\$2,073.75	_____
Third Year of Production						
Total Pre-Harvest Costs (Same as First Year of Production)					\$1,098.75	_____
Harvest (Production - qts)	2,000	_____				
Containers	1,000	_____	0.15	_____	\$150.00	_____
Trays for u-pick	50.00 tray	_____	1.00	_____	50.00	_____
Labor						
Pickers	1,000 qt	_____	0.75	_____	750.00	_____
Total Harvest Costs					\$950.00	_____
Total Pre-Harvest and Harvest Costs - Year 3					\$2,048.75	_____
Average Total Variable Costs						
Per acre					\$2,073.75	_____
Per qt					0.69	_____
Ownership Costs (Annual)						
Irrigation System					\$80.00	_____
Machinery (cycle mower and tractor)					500.00	_____
Land					160.00	_____
Total Ownership Costs					\$740.00	_____
Preproduction Costs						
Amortized over 3 years					\$804.28	_____
Total Costs (Annual)						
Per acre					\$3,618.03	_____
Per qt					1.21	_____
Annual Returns Over Variable Costs						
					\$5,426.25	_____
Annual Returns Over Total Costs						
					\$3,881.97	_____

Tomatoes, Cherry: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Cherry tomato sales	145	lbs	_____	2.25	_____	\$326.25	_____
Total Receipts						\$326.25	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	0.25	packet	_____	3.00	_____	0.75	_____
Soil mix	0.25	bag	_____	5.00	_____	1.25	_____
Fertilization	10	lbs	_____	0.15	_____	1.50	_____
Straw mulch	4	bales	_____	2.50	_____	10.00	_____
Cages	20	cages	_____	0.10	_____	2.00	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Soil mix	1.00	hrs	_____	10.00	_____	10.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Transplanting	1.50	hrs	_____	10.00	_____	15.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Mulch, set cages	2.00	hrs	_____	10.00	_____	20.00	_____
Interest on pre-harvest costs	\$64.95		_____	0.035	_____	2.27	_____
Total Pre-Harvest Costs						\$67.22	_____
Harvest							
Bags (1 lb)	145	bags	_____	0.03	_____	\$4.35	_____
Labor							
Harvest labor	4.00	hrs	_____	10.00	_____	40.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Removing cages/vines	2.00	hrs	_____	10.00	_____	20.00	_____
Total Harvest Costs						\$67.35	_____
Total Variable Costs							
Per bed						\$134.57	_____
Per lb						0.93	_____
Ownership Costs (Annual)							
Irrigation system						1.14	_____
Machinery						7.14	_____
Ownership costs (approx. 10% of gross sales)						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$145.14	_____
Per lb						1.00	_____
Annual Returns Over Variable Costs						\$191.68	_____
Annual Returns Over Total Costs						\$181.11	_____

Tomatoes, Heirloom: 100' x 4' bed

	Quantity		Your Quantity	\$/Unit	Your \$/Unit	Total	Your Total
Receipts							
Heirloom tomato sales	400	lbs	_____	1.75	_____	\$700.00	_____
Total Receipts						\$700.00	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	_____	0.60	_____	\$0.45	_____
Seed	0.25	packet	_____	3.00	_____	0.75	_____
Soil mix	0.25	bag	_____	5.00	_____	1.25	_____
Fertilization	10	lbs	_____	0.15	_____	1.50	_____
Straw mulch	4	bales	_____	2.50	_____	10.00	_____
Cages	20	cages	_____	0.10	_____	2.00	_____
Labor							
Cover crop	0.05	hrs	_____	10.00	_____	0.50	_____
Soil mix	1.00	hrs	_____	10.00	_____	10.00	_____
Fertilizer spreading	0.10	hrs	_____	10.00	_____	1.00	_____
Transplanting	1.50	hrs	_____	10.00	_____	15.00	_____
Irrigation set up	0.25	hrs	_____	10.00	_____	2.50	_____
Mulch, set cages	2.00	hrs	_____	10.00	_____	20.00	_____
Interest on pre-harvest costs	\$64.95		_____	0.035	_____	2.27	_____
Total Pre-Harvest Costs						\$67.22	_____
Harvest							
Bags (1 lb)	400	bags	_____	0.03	_____	\$12.00	_____
Labor							
Harvest labor	4.00	hrs	_____	10.00	_____	40.00	_____
Packaging	0.30	hrs	_____	10.00	_____	3.00	_____
Removing cages/vines	2.00	hrs	_____	10.00	_____	20.00	_____
Total Harvest Costs						\$75.00	_____
Total Variable Costs							
Per bed						\$142.22	_____
Per lb						0.36	_____
Ownership Costs (Annual)							
Irrigation system						\$1.14	_____
Machinery						7.14	_____
Land						2.29	_____
Total Ownership Costs						\$10.57	_____
Total Costs (Annual)							
Per bed						\$152.79	_____
Per lb						0.38	_____
Annual Returns Over Variable Costs						\$557.78	_____
Annual Returns Over Total Costs						\$547.21	_____

Iowa State University Extension Publications

Check out these other fruit and vegetable production publications from Iowa State University Extension. These publications are available through any ISU Extension county office, online at <https://www.extension.iastate.edu/store/> or by calling (515) 294-5247.

B 0861	Midwest Small Fruit Pest Management Handbook
FG 0601	Annual Fruit/Vegetable Progress Report
IDEA 0002	Small Fruits - Insect and Disease Management for Backyard Fruit Growers in the Midwest
IDEA 0003	Tree Fruits - Insect and Disease Management for Backyard Fruit Growers in the Midwest
NRAES 0022	Refrigeration and Controlled Atmosphere for Horticulture Crop
NRAES 0033	Greenhouse Engineering
NRAES 0043	Composting to Reduce the Waste Stream
NRAES 0072	Greenhouse Systems - Automation, Culture, and Environment
PD 0031	Plant Disease Identification Form
PM 0230	Insect and Disease Management in the Vegetable Garden
PM 0534	Planting and Harvesting Times for Garden Vegetables
PM 0608	Tomatoes
PM 0666	Weed Management in the Home Garden
PM 0672D	Production Guide for Commercial Strawberries
PM 0683	Composting Yard Waste
PM 0717	Growing Strawberries at Home
PM 0719	Rhubarb in the Home Garden
PM 0820	Garden Soil Management
PM 1204	Morels, False Morels and Other Cup Fungi
PM 1239	Growing and Drying Herbs
PM 1295A	Strawberries - Alternative Ag Enter
PM 1375	Midwest Commercial Small Fruit and Grape Spray Guide 2006
PM 1502	Reducing Insecticide Use in the Home Garden
PM 1536A	Calling ISU About Plant and Insect Problems
PM 1542	Tips for Providing Plant and Insect Samples to ISU
PM 1692	Local Food Systems for Iowa
PM 1693	Iowa CSA Farms, 2003 Statewide List of Iowa CSA Farms, Producers, and Organizers
PM 1694	Iowa Community Supported Agriculture Resource Guide for Producers and Organizers
PM 1706	Growing Raspberries in the Home Garden
PM 1788	Growing Fruit in Iowa
PM 1887	Selling Fruits and Vegetables
RG 201	Integrated Pest Management for Vegetable Gardens
RG 0204	Apply Pesticides Safely
RG 0205	Store Pesticides Safely
RG 0206	Questions About Composting
RG 0207	Nonchemical Pest Control for the Home Lawn and Garden
RG 0208	Botanical Insecticides in the Home Garden
RG 0209	Organic Mulches
RG 0501	Pruning Raspberries
ST 0011	Soil Sample Information Sheet for Horticulture Crops

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