

Iowa Fruit and Vegetable Production Budgets

Ag Decision Maker

File A1-17



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 either USDA NASS Retail Market Report or farmer's market survey. Multiple farm budgets were used to make the budgets 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 \$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 \$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 \$11.41 per bed. The last section is the summary of returns. Total costs would be variable

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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. Ag Decision Maker, [Decision Tool Budgets](http://www.extension.iastate.edu/agdm/crops/html/a1-17.html), www.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. [Evaluating Market Outlets Using Whole-Farm Records](#) can aid in determining and comparing marketing (transaction) costs, www.extension.iastate.edu/agdm/wholefarm/pdf/c5-32.pdf.



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Asparagus: 100' x 4' bed

	Quantity	\$/Unit	Total	Your Quantity	Your Unit	Your Total
Receipts						
Asparagus sales - Years 3-15	35 lbs	\$5.00	\$175.00			
Avg. Production Year Annual Receipts			\$175.00			
Planting Year						
Seed - cover crop	0.75 lbs	\$0.60	\$0.45			
Fertilization	6.00 lbs	0.15	0.90			
Crowns	55.00 plants	0.25	13.81			
Straw mulch	4.00 bales	4.50	18.00			
Labor						
Cover crop	0.05 hrs	14.25	0.71			
Land preparation - trench	0.10 hrs	14.25	1.43			
Fertilizer spreading	0.10 hrs	14.25	1.43			
Planting	0.50 hrs	14.25	7.13			
Hand hoeing	1.00 hrs	14.25	14.25			
Mulching	0.50 hrs	14.25	7.13			
Irrigation set up	0.25 hrs	14.25	3.56			
Interest on planting year costs	\$68.78	7.0%	4.81			
Total Planting Year Costs			\$73.59			
Pre-Production Year						
Fertilization	6.00 lbs	\$0.15	\$0.90			
Labor						
Fertilizer spreading	0.10 hrs	14.25	1.43			
Hand hoeing	0.50 hrs	14.25	7.13			
Cutting and raking	0.30 hrs	14.25	4.28			
Interest on planting year costs	\$87.32	7.0%	6.11			
Total Pre-Production Costs			\$93.43			
Production Year						
Pre-harvest						
Fertilization	6.00 lbs	\$0.15	\$0.90			
Straw mulch	2.00 bales	3.50	7.00			
Labor						
Fertilizer spreading	0.10 hrs	14.25	1.43			
Hand hoeing	0.50 hrs	14.25	7.13			
Mulching	0.25 hrs	14.25	3.56			
Cutting and raking	0.30 hrs	14.25	4.28			
Banding	1.0 hrs	14.25	14.25			
Interest on pre-harvest costs	\$131.97	3.5%	4.62			
Total Pre-Harvest Costs			\$43.16			
Harvest (Average production / year- 35 lbs)						
Bags (1 lb)	35 bags	\$0.03	\$1.19			
Labor						
Harvest	1.25 hrs	14.25	17.81			
Packaging	0.30 hrs	14.25	4.28			
Total Harvest Costs			\$23.28			
Total Variable Costs						
Per bed			\$66.43			
Per lb			1.90			
Ownership Costs (Annual)						
Irrigation system			\$1.14			
Machinery			7.14			
Land			3.13			
Total Ownership Costs			\$11.41			
Pre-Production Costs						
Amortized over 15 years			\$6.23			
Total Costs (Annual)						
Per bed			\$84.07			
Per lb			2.40			
Annual Returns Over Variable Costs						
			\$108.57			
Annual Returns Over Total Costs						
			\$90.93			

Basil: 100' x 4' bed

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Basil sales	25 lbs		\$20.00	\$500.00	_____	_____	_____
Total Receipts				\$500.00			_____
Planting Year							
Supplies							
Seed - cover crop	0.75 lbs		\$0.60	\$0.60	_____	_____	_____
Seed	2.0 400 seeds		1.00	4.10	_____	_____	_____
Soil mix	0.1 3.5 ft ³ bale		5.00	5.00	_____	_____	_____
Fertilization	5.0 lbs		0.15	0.17	_____	_____	_____
Labor							
Cover crop	0.05 hrs		14.25	0.71	_____	_____	_____
Soil mix	1.00 hrs		14.25	14.25	_____	_____	_____
Bed preparation	0.50 hrs		14.25	7.13	_____	_____	_____
Fertilizer spreading	0.10 hrs		14.25	1.43	_____	_____	_____
Transplanting	1.00 hrs		14.25	14.25	_____	_____	_____
Irrigation set up	1.00 hrs		14.25	14.25	_____	_____	_____
Weeding	2.00 hrs		14.25	28.50	_____	_____	_____
Interest on pre-harvest costs	\$90.51		3.5%	3.17	_____	_____	_____
Total Pre-Harvest Costs				\$93.68			_____
Harvest							
Bags (1 lb)	25 bags		\$0.03	\$0.75	_____	_____	_____
Labor							
Harvest labor	2.00 hrs		14.25	28.50	_____	_____	_____
Packaging	0.30 hrs		14.25	4.28	_____	_____	_____
Total Harvest Costs				\$33.53			_____
Total Variable Costs							
Per bed				\$127.21			_____
Per lb				5.09			_____
Ownership Costs (Annual)							
Irrigation system				\$1.14			_____
Machinery				7.14			_____
Land				3.13			_____
Total Ownership Costs				\$11.41			_____
Total Costs (Annual)							
Per bed				\$138.62			_____
Per lb				5.54			_____
Annual Returns Over Variable Costs							
				\$372.79			_____
Annual Returns Over Total Costs							
				\$361.38			_____

Beans, Specialty Green: 100' x 4' bed

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Bean sales	120	lbs	\$3.00	\$360.00	_____	_____	_____
Total Receipts				\$360.00			_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	\$0.60	\$0.45	_____	_____	_____
Seed	2	lbs	15.51	31.02	_____	_____	_____
Fertilization	6	lbs	0.17	1.02	_____	_____	_____
Labor							
Cover crop	0.05	hrs	14.25	0.71	_____	_____	_____
Bed preparation	0.20	hrs	14.25	2.85	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Planting	0.15	hrs	14.25	2.14	_____	_____	_____
Irrigation set up	0.25	hrs	14.25	3.56	_____	_____	_____
Weeding	2.00	hrs	14.25	28.50	_____	_____	_____
Interest on pre-harvest costs	\$71.68		3.5%	2.51	_____	_____	_____
Total Pre-harvest Costs				\$74.19			_____
Harvest							
Bags (1 lb)	120	bags	\$0.03	\$3.60	_____	_____	_____
Labor							
Harvest labor	15.00	hrs	14.25	213.75	_____	_____	_____
Packaging	0.50	hrs	14.25	7.13	_____	_____	_____
Total Harvest Costs				\$224.48			_____
Total Variable Costs							
Per bed				\$298.66			_____
Per lb				2.49			_____
Ownership Costs (Annual)							
Irrigation system				\$1.14			_____
Machinery				7.14			_____
Land				3.13			_____
Total Ownership Costs				\$11.41			_____
Total Costs (Annual)							
Per bed				\$310.07			_____
Per lb				2.58			_____
Annual Returns Over Variable Costs							
				\$61.34			_____
Annual Returns Over Total Costs							
				\$49.93			_____

Carrots: 100' x 4' bed

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Carrot sales	170	lbs	\$1.50	\$255.00	_____	_____	_____
Total Receipts				\$255.00			_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	\$0.60	\$0.45	_____	_____	_____
Seed	6,000	seeds	0.003	18.00	_____	_____	_____
Burlap	3	bags	1.15	3.45	_____	_____	_____
Fertilization	10	lbs	0.17	1.70	_____	_____	_____
Labor							
Cover crop	0.05	hrs	14.25	0.71	_____	_____	_____
Bed preparation	0.20	hrs	14.25	2.85	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Planting, laying burlap	0.20	hrs	14.25	2.85	_____	_____	_____
Irrigation set up	0.50	hrs	14.25	7.13	_____	_____	_____
Weeding	0.75	hrs	14.25	10.69	_____	_____	_____
Interest on pre-harvest costs	\$49.25		3.5%	1.72	_____	_____	_____
Total Pre-Harvest Costs				\$50.97			_____
Harvest							
Bags (1 lb)	170	bags	0.03	\$5.10	_____	_____	_____
Labor							
Harvest labor	2.00	hrs	\$14.25	\$28.50	_____	_____	_____
Packaging	0.30	hrs	14.25	4.28	_____	_____	_____
Total Harvest Costs				\$37.88			_____
Total Variable Costs							
Per bed				\$88.85			_____
Per lb				0.52			_____
Ownership Costs (Annual)							
Irrigation system				\$1.14			_____
Machinery				7.14			_____
Land				3.13			_____
Total Ownership Costs				\$11.41			_____
Total Costs (Annual)							
Per bed				\$100.26			_____
Per lb				0.59			_____
Annual Returns Over Variable Costs							
				\$166.15			_____
Annual Returns Over Total Costs							
				\$154.74			_____

Eggplant: 100' x 4' bed

	Quantity	\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts						
Eggplant sales	200 each	\$2.00	\$400.00	_____	_____	_____
Total Receipts			\$400.00			_____
Planting Year						
Supplies						
Seed - cover crop	0.75 lbs	\$0.60	\$0.45	_____	_____	_____
Seed	2 packet	3.25	6.50	_____	_____	_____
Soil mix	0.05 3.5 ft ³ bale	18.75	0.94	_____	_____	_____
Fertilization	7 lbs	0.17	1.19	_____	_____	_____
Straw mulch	4 bales	3.50	14.00	_____	_____	_____
Pesticides	0.5 oz	11.58	5.79	_____	_____	_____
Labor						
Cover crop - planting/tilling	0.05 hrs	14.25	0.71	_____	_____	_____
Soil preparation	0.50 hrs	14.25	7.13	_____	_____	_____
Fertilizer spreading	0.10 hrs	14.25	1.43	_____	_____	_____
Transplanting - 1st and to field	1.50 hrs	14.25	21.38	_____	_____	_____
Irrigation set up	0.25 hrs	14.25	3.56	_____	_____	_____
Mulching	0.50 hrs	14.25	7.13	_____	_____	_____
Weeding	0.75 hrs	14.25	10.69	_____	_____	_____
Pest management	1.00 hrs	14.25	14.25	_____	_____	_____
Interest on pre-harvest costs	\$95.13	3.5%	3.33	_____	_____	_____
Total Pre-Harvest Costs			\$98.46			_____
Harvest						
Bags (1 lb)	200 bags	0.03	\$6.00	_____	_____	_____
Labor						
Harvest labor	2.00 hrs	14.25	28.50	_____	_____	_____
Packaging	0.30 hrs	14.25	4.28	_____	_____	_____
Total Harvest Costs			\$38.78			_____
Total Variable Costs						
Per bed			\$137.23			_____
Per lb			0.69			_____
Ownership Costs (Annual)						
Irrigation system			\$1.14			_____
Machinery			\$7.14			_____
Land			\$3.13			_____
Total Ownership Costs			\$11.41			_____
Total Costs (Annual)						
Per bed			\$148.65			_____
Per lb			0.74			_____
Annual Returns Over Variable Costs						
			\$262.77			_____
Annual Returns Over Total Costs						
			\$251.35			_____

Garlic: 100' x 4' bed

	Quantity	\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts						
Garlic sales	35 lbs	\$4.40	\$154.00	_____	_____	_____
Total Receipts			\$154.00			_____
Planting Year						
Supplies						
Seed - cover crop	0.75 lbs	\$0.60	\$0.45	_____	_____	_____
Seed	10 lbs	6.30	63.00	_____	_____	_____
Straw mulch	2 bales	4.50	9.00	_____	_____	_____
Fertilization	10 lbs	0.17	1.70	_____	_____	_____
Labor						
Cover crop	0.25 hrs	14.25	3.56	_____	_____	_____
Bed preparation	0.25 hrs	14.25	3.56	_____	_____	_____
Fertilizer spreading	0.10 hrs	14.25	1.43	_____	_____	_____
Planting	1.25 hrs	14.25	17.81	_____	_____	_____
Mulching	0.25 hrs	14.25	3.56	_____	_____	_____
Irrigation set up	0.50 hrs	14.25	7.13	_____	_____	_____
Weeding	0.25 hrs	14.25	3.56	_____	_____	_____
Interest on pre-harvest costs	\$114.76	3.5%	4.02	_____	_____	_____
Total Pre-Harvest Costs			\$118.78			_____
Harvest						
Labor						
Harvest Labor	4.50 hrs	14.25	\$64.13	_____	_____	_____
Packaging	0.50 hrs	14.25	7.13	_____	_____	_____
Total Harvest Costs			\$71.25			_____
Total Variable Costs						
Per bed			\$190.03			_____
Per lb			5.43			_____
Ownership Costs (Annual)						
Irrigation system			\$1.14			_____
Machinery			7.14			_____
Land			3.13			_____
Total Ownership Costs			\$11.41			_____
Total Costs (Annual)						
Per bed			\$201.44			_____
Per lb			5.76			_____
Annual Returns Over Variable Costs			-\$36.03			_____
Annual Returns Over Total Costs			-\$47.44			_____

Greens, Salad: 100' x 4' bed

	Quantity	\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts						
Greens sales	30 lbs	\$4.00	\$120.00	_____	_____	_____
Total Receipts			\$120.00			_____
Planting Year						
Supplies						
Seed - cover crop	0.75 lbs	\$0.60	\$0.45	_____	_____	_____
Seed	5 packets	4.35	21.75	_____	_____	_____
Fertilization	10 lbs	0.17	1.70	_____	_____	_____
Labor						
Cover crop	0.05 hrs	14.25	0.71	_____	_____	_____
Bed preparation	0.20 hrs	14.25	2.85	_____	_____	_____
Fertilizer spreading	0.10 hrs	14.25	1.43	_____	_____	_____
Planting	0.15 hrs	14.25	2.14	_____	_____	_____
Irrigation set up	0.25 hrs	14.25	3.56	_____	_____	_____
Weeding	0.50 hrs	14.25	7.13	_____	_____	_____
Interest on pre-harvest costs	\$41.71	3.5%	1.46	_____	_____	_____
Total Pre-Harvest Costs			\$43.17			_____
Harvest						
Bags (1 lb)	30 bags	\$0.03	\$0.90	_____	_____	_____
Labor						
Harvest	1.25 hrs	14.25	17.81	_____	_____	_____
Packaging	0.30 hrs	14.25	4.28	_____	_____	_____
Total Harvest Costs			\$22.99			_____
Total Variable Costs						
Per bed			\$66.16			_____
Per lb			2.21			_____
Ownership Costs (Annual)						
Irrigation system			\$1.14			_____
Machinery			7.14			_____
Land			3.13			_____
Total Ownership Costs			\$11.41			_____
Total Costs (Annual)						
Per bed			\$77.57			_____
Per lb			2.59			_____
Annual Returns Over Variable Costs						
			\$53.84			_____
Annual Returns Over Total Costs						
			\$42.43			_____

Peas, Snow: 100' x 4' bed							
	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Snow pea sales	50	lbs	\$8.00	\$400.00	_____	_____	_____
Total Receipts				\$400.00			_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	\$0.60	\$0.45	_____	_____	_____
Seed	2	lbs	10.80	21.60	_____	_____	_____
Fertilization	6	lbs	0.17	1.02	_____	_____	_____
Cages/trellis	7	cages	3.50	24.50	_____	_____	_____
Labor							
Cover crop	0.05	hrs	\$14.25	0.71	_____	_____	_____
Bed preparation	0.20	hrs	14.25	2.85	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Planting	0.25	hrs	14.25	3.56	_____	_____	_____
Irrigation set up	0.25	hrs	14.25	3.56	_____	_____	_____
Set cages	0.50	hrs	14.25	7.13	_____	_____	_____
Weeding	2.00	hrs	14.25	28.50	_____	_____	_____
Interest on pre-harvest costs	\$95.31		3.5%	3.34	_____	_____	_____
Total Pre-Harvest Costs				\$98.64			_____
Harvest							
Bags (1 lb)	50	bags	\$0.03	\$1.50	_____	_____	_____
Labor							
Harvest labor	4.00	hrs	14.25	57.00	_____	_____	_____
Packaging	0.30	hrs	14.25	4.28	_____	_____	_____
Total Harvest Costs				\$62.78			_____
Total Variable Costs							
Per bed				\$161.42			_____
Per lb				3.23			_____
Ownership Costs (Annual)							
Irrigation system				\$1.14			_____
Machinery				7.14			_____
Land				3.13			_____
Total Ownership Costs				\$11.41			_____
Total Costs (Annual)							
Per bed				\$172.83			_____
Per lb				3.46			_____
Annual Returns Over Variable Costs				\$238.58			_____
Annual Returns Over Total Costs				\$227.17			_____

Potatoes, Round Red: 100' x 4' bed							
	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	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 potatoes	20	lbs	5.00	100.00	_____	_____	_____
Straw mulch	5	bales	3.50	17.50	_____	_____	_____
Fertilization	10	lbs	0.17	1.70	_____	_____	_____
Labor							
Cover crop	0.05	hrs	14.25	0.71	_____	_____	_____
Bed preparation	0.50	hrs	14.25	7.13	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Planting	1.00	hrs	14.25	14.25	_____	_____	_____
Mulching	0.50	hrs	14.25	7.13	_____	_____	_____
Irrigation set up	0.25	hrs	14.25	3.56	_____	_____	_____
Weeding	0.50	hrs	14.25	7.13	_____	_____	_____
Interest on pre-harvest costs	\$160.98		3.5%	5.63	_____	_____	_____
Total Pre-Harvest Costs				\$166.61			_____
Harvest							
Bags (5 lb)	24	bags	\$0.18	\$4.32	_____	_____	_____
Labor							
Harvest labor	1.50	hrs	14.25	21.38	_____	_____	_____
Packaging	0.50	hrs	14.25	7.13	_____	_____	_____
Total Harvest Costs				\$32.82			_____
Total Variable Costs							
Per bed				\$199.43			_____
Per lb				1.66			_____
Ownership Costs (Annual)							
Irrigation system				\$1.14			_____
Machinery				7.14			_____
Land				3.13			_____
Total Ownership Costs				\$11.41			_____
Total Costs (Annual)							
Per bed				\$210.84			_____
Per lb				1.76			_____
Annual Returns Over Variable Costs							
				-\$49.43			_____
Annual Returns Over Total Costs							
				-\$60.84			_____

Potatoes, Sweet: 100' x 4' bed							
	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Sweet potato sales	80	lbs	\$1.50	<u>\$120.00</u>	_____	_____	_____
Total Receipts				\$120.00			_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	\$0.60	\$0.45	_____	_____	_____
Slips	95	plants	0.39	37.05	_____	_____	_____
Fertilization	10	lbs	0.17	1.70	_____	_____	_____
Labor							
Cover crop	0.05	hrs	14.25	0.71	_____	_____	_____
Bed preparation	0.20	hrs	14.25	2.85	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Planting	0.20	hrs	14.25	2.85	_____	_____	_____
Irrigation set up	0.25	hrs	14.25	3.56	_____	_____	_____
Weeding	1.20	hrs	14.25	17.10	_____	_____	_____
Interest on pre-harvest costs	\$67.70		3.5%	<u>2.37</u>	_____	_____	_____
Total Pre-Harvest Costs				\$70.07			_____
Harvest							
Bags (1 lb)	80	bags	0.03	\$2.40	_____	_____	_____
Labor							
Harvest labor	2.00	hrs	14.25	28.50	_____	_____	_____
Packaging	0.50	hrs	14.25	<u>7.13</u>	_____	_____	_____
Total Harvest Costs				\$38.03			_____
Total Variable Costs							
Per bed				\$108.09			_____
Per lb				1.35			_____
Ownership Costs (Annual)							
Irrigation system				\$1.14			_____
Machinery				7.14			_____
Land				<u>3.13</u>			_____
Total Ownership Costs				\$11.41			_____
Total Costs (Annual)							
Per bed				\$119.51			_____
Per lb				1.49			_____
Annual Returns Over Variable Costs							
				\$11.91			_____
Annual Returns Over Total Costs							
				\$0.49			_____

Raspberries, Red: 100' x 4' bed

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Raspberry sales							
Year one of production	10	qts	\$14.00	\$140.00	_____	_____	_____
Years two through ten	<u>30</u>	qts	14.00	<u>420.00</u>	_____	_____	_____
Average Receipts	28			\$392.00	_____	_____	_____
Planting Year							
Supplies							
Seed- cover crop	0.75	lbs	\$0.60	\$0.45	_____	_____	_____
Fertilization	6.00	lbs	0.17	1.02	_____	_____	_____
Plants	35.00	plants	2.25	78.75	_____	_____	_____
Straw mulch	6.00	bales	3.50	21.00	_____	_____	_____
Labor							
Cover crop	0.05	hrs	14.25	0.71	_____	_____	_____
Bed preparation - trench	0.10	hrs	14.25	1.43	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Planting	0.50	hrs	14.25	7.13	_____	_____	_____
Hand hoeing	1.00	hrs	14.25	14.25	_____	_____	_____
Mulching	0.50	hrs	14.25	7.13	_____	_____	_____
Irrigation set up	0.25	hrs	14.25	3.56	_____	_____	_____
Interest on planting year costs	\$136.85		7.0%	<u>9.58</u>	_____	_____	_____
Total Planting Year Costs				\$146.42	_____	_____	_____
First Year of Production							
Pre-Harvest							
Fertilization	6.00	lbs	\$0.17	\$1.02	_____	_____	_____
Straw mulch	2.00	bales	3.50	7.00	_____	_____	_____
Labor							
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Hand hoeing	0.50	hrs	14.25	7.13	_____	_____	_____
Mulching	0.25	hrs	14.25	3.56	_____	_____	_____
Cutting and raking	0.30	hrs	14.25	4.28	_____	_____	_____
Interest on pre-harvest costs	\$170.83		3.5%	<u>5.98</u>	_____	_____	_____
Total Pre-Harvest Costs				\$30.39	_____	_____	_____
Harvest (Avg. production / year - 10 qts)							
Containers (qts)	10		\$0.10	\$1.00	_____	_____	_____
Labor							
Harvest	1.67	hrs	14.25	23.80	_____	_____	_____
Packaging	0.30	hrs	14.25	<u>4.28</u>	_____	_____	_____
Total Harvest Costs				\$29.07	_____	_____	_____
Total Pre-Harvest and Harvest Costs - Year 1				\$59.46	_____	_____	_____
Second Year of Production							
Total Pre-Harvest Costs (Same as first year of production)				\$30.39	_____	_____	_____
Harvest (Avg. production / year - 30 qts)							
Containers (qts)	30		\$0.10	\$3.00	_____	_____	_____
Labor							
Harvest	5	hrs	14.25	71.25	_____	_____	_____
Packaging	0.30	hrs	14.25	4.28	_____	_____	_____
Total Harvest Costs				\$78.53	_____	_____	_____
Total Pre-Harvest and Harvest Costs - Year 2				\$108.91	_____	_____	_____

Raspberries, Red: 100' x 4' bed						
	Quantity	\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Average Total Variable Costs						
Per bed			\$103.97			_____
Per qt			3.71			_____
Ownership Costs (Annual)						
Irrigation system			\$1.14			_____
Machinery			7.14			_____
Land			3.13			_____
Total Ownership Costs			\$11.41			_____
Pre-Production Costs						
Amortized over 10 years			\$14.64			_____
Total Costs (Annual)						
Per bed			\$130.02			_____
Per qt			4.64			_____
Annual Returns Over Variable Costs						
			\$288.03			_____
Annual Returns Over Total Costs						
			\$261.98			_____

Strawberries: One Acre

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Strawberry Sales							
First Production Year	4,000	qts	\$4.00	\$16,000.00	_____	_____	_____
Second Production Year	3,000	qts	6.00	18,000.00	_____	_____	_____
Third Production Year	2,000	qts	6.00	12,000.00	_____	_____	_____
Average Receipts	3,000			\$15,333.33	_____	_____	_____
Establishment Year							
Supplies							
Seed- cover crop	75.00	lbs	0.60	\$45.00	_____	_____	_____
Plants	5.00	1000 plants	140.00	700.00	_____	_____	_____
Fertilization	150.00	lbs	0.52	78.00	_____	_____	_____
Straw mulch	7.00	lg round bales	55.00	385.00	_____	_____	_____
Irrigation supplies	1.00	drip and overhead	1,500.00	1,500.00	_____	_____	_____
Labor							
Cover crop	3.00	hrs	\$14.25	42.75	_____	_____	_____
Land preparation - trench	1.00	hrs	14.25	14.25	_____	_____	_____
Fertilizer spreading	1.00	hrs	14.25	14.25	_____	_____	_____
Transplanting	18.00	hrs	14.25	256.50	_____	_____	_____
Hand hoeing	90.00	hrs	14.25	1,282.50	_____	_____	_____
Remove blossoms	4.00	hrs	14.25	57.00	_____	_____	_____
Mulching	16.00	hrs	14.25	228.00	_____	_____	_____
Irrigation set up - drip/overhead	20.00	hrs	14.25	285.00	_____	_____	_____
Interest on Establishment Yr Costs	\$4,888.25		7.0%	342.18	_____	_____	_____
Total Establishment Year Costs				\$5,230.43	_____	_____	_____
First Year of Production							
Fertilization	300.00	lbs	\$0.20	\$60.00	_____	_____	_____
Pest management	1.00		100.00	100.00	_____	_____	_____
Straw mulch	7.00	lg round bales	55.00	385.00	_____	_____	_____
Labor							
Remove mulch	8.00	hrs	14.25	114.00	_____	_____	_____
Fertilizer spreading	1.00	hrs	14.25	14.25	_____	_____	_____
Hand hoeing	30.00	hrs	14.25	427.50	_____	_____	_____
Mowing	1.00	hrs	14.25	14.25	_____	_____	_____
Renovation	4.00	hrs	14.25	57.00	_____	_____	_____
Mulching	16.00	hrs	14.25	228.00	_____	_____	_____
Irrigation tear down & set up	2.00	hrs	14.25	28.50	_____	_____	_____
Pest management	4.00	hrs	14.25	57.00	_____	_____	_____
Interest on Est. and 1st Year Costs	\$6,765.93		3.5%	236.81	_____	_____	_____
Total Pre-Harvest Costs				\$1,772.31	_____	_____	_____
Harvest (Production - 4,000 qts)							
Containers	1,000	containers	\$0.17	\$170.00	_____	_____	_____
Trays for u-pick	100	trays	1.25	125.00	_____	_____	_____
Labor							
Pickers	1,000	qt	\$1.00	1,000.00	_____	_____	_____
Total Harvest Costs				\$1,295.00	_____	_____	_____
Total pre-harvest and harvest costs - Year 1				\$3,067.31	_____	_____	_____

Strawberries: One Acre

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Second Year of Production							
Total Pre-Harvest Costs (Same as First Year of Production)				\$1,772.31			_____
Harvest (Production - 3,000 qts)							
Containers	1,000	containers	\$0.17	\$170.00	_____		_____
Trays for u-pick	75.00	trays	1.25	93.75	_____		_____
Labor							
Pickers	1,000	qt	1.00	1,000.00	_____		_____
Extra weed control	10.00	hrs	14.25	142.50	_____		_____
Total Harvest Costs				\$1,406.25			_____
Total Pre-Harvest and Harvest Costs - Year 2				\$3,178.56			_____
Third Year of Production							
Total Pre-Harvest Costs (Same as First Year of Production)				\$1,772.31			_____
Harvest (Production - 2,000 qts)							
Containers	1,000	containers	\$0.17	\$170.00	_____		_____
Trays for u-pick	50.00	trays	1.25	62.50	_____		_____
Labor							
Pickers	1,000	qt	1.00	1,000.00	_____		_____
Extra weed control	15.00	hrs	14.25	213.75	_____		_____
Total Harvest Costs				\$1,446.25			_____
Total Pre-Harvest and Harvest Costs - Year 3				\$3,218.56			_____
Average Total Variable Costs							
Per acre				\$3,154.81			_____
Per qt				1.05			_____
Ownership Costs (Annual)							
Irrigation System				\$500.00			_____
Machinery				500.00			_____
Land				219.00			_____
Total Ownership Costs				\$1,219.00			_____
Preproduction Costs							
Amortized over 3 years				\$1,743.48			_____
Total Costs (Annual)							
Per acre				\$6,117.28			_____
Per qt				2.04			_____
Annual Returns Over Variable Costs				\$12,178.53			_____
Annual Returns Over Total Costs				\$9,216.05			_____

Tomatoes, Cherry: 100' x 4' bed

	Quantity	\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts						
Cherry tomato sales	150 lbs	\$3.00	\$450.00	_____	_____	_____
Total Receipts			\$450.00			_____
Planting Year						
Supplies						
Seed - cover crop	0.75 lbs	\$0.60	\$0.45	_____	_____	_____
Seed	0.25 packet	3.25	0.81	_____	_____	_____
Soil mix	0.05 3.5 ft ³ bale	18.75	0.94	_____	_____	_____
Fertilization	10 lbs	0.17	1.70	_____	_____	_____
Straw mulch	4 bales	3.50	14.00	_____	_____	_____
Cages	40 cages	1.75	70.00	_____	_____	_____
Pesticides	1.0 oz, ml, lb, pt	11.58	11.58	_____	_____	_____
Labor						
Cover crop	0.05 hrs	14.25	0.71	_____	_____	_____
Transplanting 1st round	0.50 hrs	14.25	7.13	_____	_____	_____
Fertilizer spreading	0.10 hrs	14.25	1.43	_____	_____	_____
Transplanting	1.00 hrs	14.25	14.25	_____	_____	_____
Irrigation set up	0.25 hrs	14.25	3.56	_____	_____	_____
Pest management	2.00 hrs	14.25	28.50	_____	_____	_____
Trellis and prune	1.00 hrs	14.25	14.25	_____	_____	_____
Interest on pre-harvest costs	\$169.31	3.5%	5.93	_____	_____	_____
Total Pre-Harvest Costs			\$175.23			_____
Harvest						
Bags (1 lb)	150 bags	\$0.03	\$4.50	_____	_____	_____
Labor						
Harvest labor	4.00 hrs	14.25	57.00	_____	_____	_____
Packaging	0.30 hrs	14.25	4.28	_____	_____	_____
Removing cages/vines	2.00 hrs	14.25	28.50	_____	_____	_____
Total Harvest Costs			\$94.28			_____
Total Variable Costs						
Per bed			\$269.51			_____
Per lb			1.80			_____
Ownership Costs (Annual)						
Irrigation system			\$1.14			_____
Machinery			7.14			_____
Land			3.13			_____
Total Ownership Costs			\$11.41			_____
Total Costs (Annual)						
Per bed			\$280.92			_____
Per lb			1.87			_____
Annual Returns Over Variable Costs						
			\$180.49			_____
Annual Returns Over Total Costs						
			\$169.08			_____

Tomatoes, Heirloom: 100' x 4' bed

	Quantity		\$/Unit	Total	Your Quantity	Your \$/Unit	Your Total
Receipts							
Heirloom tomato sales	400	lbs	\$3.50	<u>\$1,400.00</u>	_____	_____	_____
Total Receipts				<u>\$1,400.00</u>	_____	_____	_____
Planting Year							
Supplies							
Seed - cover crop	0.75	lbs	\$0.75	\$0.56	_____	_____	_____
Seed	0.25	packet	6.25	1.56	_____	_____	_____
Soil mix	0.05	3.5 ft ³ bale	18.75	0.94	_____	_____	_____
Fertilization	11.5	lbs	0.17	1.96	_____	_____	_____
Straw mulch	4	bales	3.50	14.00	_____	_____	_____
Cages	40	cages	1.75	70.00	_____	_____	_____
Pesticides	1.0	oz, ml, lb, pt	11.58	11.58	_____	_____	_____
Labor							
Cover crop - planting/tilling	0.05	hrs	14.25	0.71	_____	_____	_____
Soil preparation	0.50	hrs	14.25	7.13	_____	_____	_____
Transplanting-1st round	0.50	hrs	14.25	7.13	_____	_____	_____
Fertilizer spreading	0.10	hrs	14.25	1.43	_____	_____	_____
Transplanting-to field	1.00	hrs	14.25	14.25	_____	_____	_____
Irrigation set up	0.25	hrs	14.25	3.56	_____	_____	_____
Pest management	2.00	hrs	14.25	28.50	_____	_____	_____
Weeding	0.75	hrs	14.25	10.69	_____	_____	_____
Trellis and/or prune	0.50	hrs	14.25	7.13	_____	_____	_____
Interest on pre-harvest costs	\$181.11		3.5%	<u>6.34</u>	_____	_____	_____
Total Pre-Harvest Costs				<u>\$187.45</u>	_____	_____	_____
Harvest							
Bags (1 lb)	400	bags	\$0.03	\$12.00	_____	_____	_____
Labor							
Harvest labor	4.00	hrs	14.25	57.00	_____	_____	_____
Packaging	0.30	hrs	14.25	4.28	_____	_____	_____
Removing cages/vines	2.00	hrs	14.25	<u>28.50</u>	_____	_____	_____
Total Harvest Costs				<u>\$101.78</u>	_____	_____	_____
Total Variable Costs							
Per bed				\$289.22	_____	_____	_____
Per lb				0.72	_____	_____	_____
Ownership Costs (Annual)							
Irrigation system				\$1.14	_____	_____	_____
Machinery				7.14	_____	_____	_____
Land				<u>3.13</u>	_____	_____	_____
Total Ownership Costs				<u>\$11.41</u>	_____	_____	_____
Total Costs (Annual)							
Per bed				\$300.64	_____	_____	_____
Per lb				0.75	_____	_____	_____
Annual Returns Over Variable Costs				\$1,110.78	_____	_____	_____
Annual Returns Over Total Costs				\$1,099.36	_____	_____	_____

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- Fruit and Vegetable Production Budget Decision Tools
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 - [Heirloom Tomatoes](http://www.extension.iastate.edu/agdm/crops/xls/a1-17tomatoes.xlsx), www.extension.iastate.edu/agdm/crops/xls/a1-17tomatoes.xlsx

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