

# Business Considerations for Cut Flower Growers

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# Overview

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- Estimating Production Costs
- Creating Crop Budget
- Using Cash Flow

# Estimating Production Costs

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- Itemize the receipts (income) received for a crop – Yield and Price
- List the inputs and production practices required by a crop
- Evaluate the efficiency of farm enterprises
- Estimate benefits and costs for major changes in production practices
- Not an exact science it is an estimate – drought, disease etc

# Budget

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- Determine profitability of one enterprise versus another.
- Understand breakeven cost and pricing points for that enterprise
- Understand input structure such as labor inputs, chemical inputs, fixed equipment cost per dollar returned.
- Plan crop rotation schedules and product mix

# What are enterprise budgets?

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## Traditional Crops

- Very detailed, more accurate

## Livestock

- Dairy
- Beef

## Forages

## Specialty crops

- Less detailed, less accurate

# 6 Parts of a Budget

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- Investment/Establishment
- Gross Income – Yield and Price
- Variable Costs – Cost to Produce
- Fixed Costs – Cost of Overhead
- Net Income - + or -

# EXAMPLE

## Sample Lisianthus Budget

Summary of estimated costs per 1,000 sq.ft. production of Lisianthus.

Item	Quantity	Your Quantity	Unit	Price	Your Price	Total	Calculated Estimate
<b>Receipts</b>							
Lisianthus	900	<input type="text"/>	bunches	\$ 4.00	<input type="text"/>	\$ 3,600.00	\$ 0.00
<b>Variable Costs</b>							
Lime	660	<input type="text"/>	lb.	\$ 0.01	<input type="text"/>	\$ 6.60	\$ 0.00
Fertilizer							
Nitrogen	65	<input type="text"/>	lb.	\$ 0.85	<input type="text"/>	\$ 55.25	\$ 0.00
Phosphorus	200	<input type="text"/>	lb.	\$ 0.62	<input type="text"/>	\$ 124.00	\$ 0.00
Potassium	300	<input type="text"/>	lb.	\$ 0.55	<input type="text"/>	\$ 165.00	\$ 0.00
Pesticides	1	<input type="text"/>	1,000 sq.ft.	\$ 26.67	<input type="text"/>	\$ 26.67	\$ 0.00
Soil test	1	<input type="text"/>	kit	\$ 10.00	<input type="text"/>	\$ 10.00	\$ 0.00
Black Plastic mulch	250	<input type="text"/>	ft.	\$ 0.03	<input type="text"/>	\$ 7.50	\$ 0.00
Dripline	500	<input type="text"/>	ft.	\$ 0.02	<input type="text"/>	\$ 10.00	\$ 0.00
Drip irrigation operation	12	<input type="text"/>	in.	\$ 18.00	<input type="text"/>	\$ 192.00	\$ 0.00
Transplants	1500	<input type="text"/>	plugs	\$ 0.15	<input type="text"/>	\$ 225.00	\$ 0.00
Transplanting labor	8	<input type="text"/>	hr.	\$ 12.00	<input type="text"/>	\$ 96.00	\$ 0.00
Hand weed control	1	<input type="text"/>	hr.	\$ 12.00	<input type="text"/>	\$ 12.00	\$ 0.00
Trellis labor (staking & training)	1	<input type="text"/>	hr.	\$ 12.00	<input type="text"/>	\$ 12.00	\$ 0.00
Stakes	100	<input type="text"/>	stakes	\$ 0.53	<input type="text"/>	\$ 53.00	\$ 0.00
Flower netting	1,000	<input type="text"/>	sq.ft.	\$ 0.01	<input type="text"/>	\$ 10.00	\$ 0.00
Machinery repair and maintenance	1	<input type="text"/>	ea.	\$ 26.18	<input type="text"/>	\$ 26.18	\$ 0.00
Machinery operator labor	5.7	<input type="text"/>	hr.	\$ 15.00	<input type="text"/>	\$ 85.50	\$ 0.00
Fuel	10	<input type="text"/>	gal.	\$ 3.75	<input type="text"/>	\$ 37.50	\$ 0.00
Harvest labor	51	<input type="text"/>	hr.	\$ 12.00	<input type="text"/>	\$ 612.00	\$ 0.00
Harvest containers	50	<input type="text"/>	ea.	\$ 2.00	<input type="text"/>	\$ 100.00	\$ 0.00
<b>Marketing</b>							
Grading/packaging labor	30	<input type="text"/>	hr.	\$ 12.00	<input type="text"/>	\$ 360.00	\$ 0.00
Flower sleeves	900	<input type="text"/>	bunch	\$ 0.11	<input type="text"/>	\$ 99.00	\$ 0.00
Flower bands	900	<input type="text"/>	bunch	\$ 0.06	<input type="text"/>	\$ 54.00	\$ 0.00
Plastic clean up labor	5	<input type="text"/>	hr.	\$ 12.00	<input type="text"/>	\$ 60.00	\$ 0.00
Additional inputs	1	<input type="text"/>	1,000 sq.ft.		<input type="text"/>		\$ 0.00
Additional inputs	1	<input type="text"/>	1,000 sq.ft.		<input type="text"/>		\$ 0.00
Interest on operating capital						\$ 20.88	\$ 0.00
<b>Total variable costs</b>						<b>\$2,460.08</b>	<b>\$ 0.00</b>
<b>Fixed Costs</b>							
Machinery and equipment	1	<input type="text"/>	1,000 sq.ft.	\$ 15.52	<input type="text"/>	\$ 15.52	\$ 0.00
Land	1	<input type="text"/>	1,000 sq.ft.	\$ 25.00	<input type="text"/>	\$ 25.00	\$ 0.00
Irrigation system	1	<input type="text"/>	1,000 sq.ft.	\$ 63.65	<input type="text"/>	\$ 63.65	\$ 0.00
Additional inputs	1	<input type="text"/>	1,000 sq.ft.		<input type="text"/>		\$ 0.00
<b>Total fixed costs</b>						<b>\$ 104.17</b>	<b>\$ 0.00</b>
<b>Total costs</b>						<b>\$ 2,564.25</b>	<b>\$ 0.00</b>
<b>Returns</b>							
Net returns over variable costs						\$ 1,139.92	\$ 0.00
Net returns						\$ 1,035.75	\$ 0.00

[http://extension.psu.edu/business/ag-alternatives/horticulture/specialty-crops/cut-flower-production/extension\\_publication\\_file](http://extension.psu.edu/business/ag-alternatives/horticulture/specialty-crops/cut-flower-production/extension_publication_file)

You should monitor local markets and contact suppliers to determine current prices for all items contained in this sample budget.



### Methods of Analyzing the Enterprise Budget

The enterprise budget can provide a producer with much more information than just net income. The budget can help determine sales needed to cover variable cost, fixed cost, and total costs per unit. This information can be utilized to determine pricing points, to identify efficiencies within the enterprise, and for the continuation of an enterprise. The chart below describes various analysis methods.

Break-Even Analysis		
Enterprise Analysis Methods	Formula	Comments
Variable Costs per Unit Sold	Total Variable Cost/Output in Units	You must make at least the variable cost per unit sold, or the enterprise should be discontinued.
Fixed (overhead cost) Costs per Unit Sold	Fixed Cost/Output in Units	In order to be profitable over the long run, you must be able to cover the fixed cost as well as variable cost. Knowing the fixed cost per unit enables you to better understand cost structure.
Break-even Price	Fixed Cost + Variable Cost/Output in Units	This is your break-even price. A pricing point above the break-even point will be needed to generate profit.
Break-Even Output	Fixed Cost + Variable Cost/Price per Unit	This is the output needed at a given price to reach the break-even point. At the given price, output will need to be increased to net income.
Net Income per Unit Sold	Net Income/Output in Units	This is the net income per unit produced.

### Lisianthus Example (per bunch)

Variable Costs per unit	$\$2462.08/900 = \$2.73$
Fixed Costs per unit	$\$104.17/900 = \$0.12^*$
Break even price	$(\$2462.08 + \$104.17)/900 = \$2.85$
Break even output	$(\$2462.08 + \$104.17)/4.00 = 641$
Net income per unit	$\$1035.75/900 = \$1.15$

\* Other fixed costs that are not included.

# Financial Plan

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## Balance Sheet

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## Income Statement

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## Cash Flow

BALANCE SHEET		Name	Date	
ASSETS		LIABILITIES AND NET WORTH		
Current Farm Assets	Value	Current Farm Liabilities	Value	
Cash, checking, savings		Accounts payable and accrued expenses		
Prepaid expenses & supplies		Fuel		
Accounts receivable		Accrued interest—operating		
Crops held for sale or feed	Quantity	Accrued interest—machinery		
		Accrued interest—mortgage		
		Current farm notes payable		
		Operating loan		
Livestock held for sale		Intermediate and long-term principal due within 12 months		
Other current farm assets		Other current farm liabilities		
		Contingency income tax		
Total current farm assets		Total current farm liabilities		
<b>Intermediate Farm Assets</b>		<b>Intermediate Farm Liabilities (amount due beyond 12 months)</b>		
Breeding livestock				
Machinery and Equipment				
Other intermediate assets				
Total intermediate assets		Total intermediate farm liabilities		
<b>Long-term Farm Assets</b>		<b>Long-term Farm Liabilities (amount due beyond 12 months)</b>		
Total long-term farm assets		Total long-term farm liabilities		
Total farm assets		Total farm liabilities		
Non-farm assets		Non-farm liabilities		
Total non-farm assets		Total non-farm liabilities		
Total assets		Total liabilities		
		Net Worth		

Inventory Adjusted Income Statement		Period covered					
Cash Farm Income		Cash Farm Expenses					
Crop sales							
Livestock & LS product							
Government payments							
Other farm income							
Total cash farm income		Total cash operating expense					
		Net cash farm income					
<b>Inventory charge</b>							
	Crops & Feed	Market Livestock	Receivables	Supplies	Payables (beg-end)		
Ending inventory							
Beginning inventory							
Inventory charge							
Net operating profit							
<b>Depreciation and Other Capital Adjustments</b>							
	Breeding Livestock	Machinery Equipment	Buildings Improvements	Other	Land		
Ending inventory							
Capital sales							
Ending inv. & sales							
Beginning inventory							
Capital purchases							
Deprec. & cap. adjust.							
Profit or Loss							

Cash Flow Budget		Name					
	Last year	Year 1 or 1st quarter	Year 2 or 2nd quarter	Year 3 or 3rd quarter	Year 4 or 4th quarter	Total	
<b>Cash inflow</b>							
1. Beginning cash balance							
2. Crop sales							
3. Livestock sales							
4. Other farm income							
5. Capital sales							
6. Non-farm receipts							
7. Total cash inflow (total 1 to 6)							
<b>Cash outflow</b>							
8. Chemicals							
9. Custom hire							
10. Feed purchased							
11. Fertilizer and lime							
12. Freight and trucking							
13. Gasoline, fuel, and oil							
14. Insurance							
15. Labor hired							
16. Rent or lease							
17. Repairs and maintenance							
18. Seeds and plants purchased							
19. Supplies purchased							
20. Taxes							
21. Utilities							
22. Vet., breeding, medicine							
23. Other farm expenses							
24. Capital purchases							
25. Family living or withdrawals							
26. Term loan payments							
27. Total cash outflow (total 8 to 26)							
<b>Cash flow summary</b>							
28. Inflow minus outflow (lines 7-27)							
29. New borrowing term							
30. New borrowing credit line							
31. Credit line payments							
32. Ending cash balance (28+29+30-31)							
Comments:							

# Financial Plan

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- Very important and necessary component of the business plan
  - Balance Sheet – Solvency
  - Income Statement – Profitability
  - Cash Flow – Liquidity
  - Pro Forma Statements

# Cash Flow

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- Summarizes all cash in-flows and out-flows for a period of time
- Checkbook Accounting
  - In-Flows – product sales, receipts, sale of capital assets, borrowed money
  - Out-Flows – production, capital expenditures, loan payments, living expenses
- Important because of seasonality. It will help you plan your income and expenses over a year.
- Does not take inventory or depreciation into account
- Projected and Actual Cash Flow

**Cash Flow Budget**

Name>

	Last year	Year 1 or 1st quarter	Year 2 or 2nd quarter	Year 3 or 3rd quarter	Year 4 or 4th quarter	Total
<b>Cash inflow</b>						
1. Beginning cash balance		0	0	0	0	0
2. Crop sales						0
3. Livestock sales						0
4. Other farm income						0
5. Capital sales						0
6. Non-farm receipts						0
7. Total cash inflow (total 1 to 6)	0.00	0.00	0.00	0.00	0.00	0.00
<b>Cash outflow</b>						
8. Chemicals						0
9. Custom hire						0
10. Feed purchased						0
11. Fertilizer and lime						0
12. Freight and trucking						0
13. Gasoline, fuel, and oil						0
14. Insurance						0
15. Labor hired						0
16. Rent or lease						0
17. Repairs and maintenance						0
18. Seeds and plants purchased						0
19. Supplies purchased						0
20. Taxes						0
21. Utilities						0
22. Vet., breeding, medicine						0
23. Other farm expenses						0
24. Capital purchases						0
25. Family living or withdrawals						0
26. Term loan payments						0
27 Total cash outflow (total 8 to 26)	0.00	0.00	0.00	0.00	0.00	0.00
<b>Cash flow summary</b>						
28. Inflow minus outflow (lines 7-27)	0.00	0.00	0.00	0.00	0.00	0.00
29. New borrowing: term						
30. New borrowing: credit line						
31. Credit line payments						
32. Ending cash balance (28+29+30-31)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

**Comments:**

# Tracking Enterprise Costs

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- It is important to know the cost of each enterprise you have
- Keep detailed records on activities for each enterprise
  - Include variable inputs
  - Include machinery time and labor
- Make it manageable
- This can easily be tracked in record keeping software

# Resources

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- Penn State
- [http://extension.psu.edu/business/agalternatives/horticulture/specialty-crops/cut-flower-production/extension\\_publication\\_file](http://extension.psu.edu/business/agalternatives/horticulture/specialty-crops/cut-flower-production/extension_publication_file)
  - Organic Budgets
  - Interactive Budget
  - <http://www.agnr.umd.edu>
  - FS-545 - Enterprise Budgets in Farm Management
  - [WWW.newfarm.org](http://WWW.newfarm.org)
  - Organic price index