

Business Management for Organic Vegetable, Seed & Grain Producers



Business Management



Managerial Accounting

“Accounting that stresses concepts and procedures relevant to preparing reports for internal users of accounting information. It focuses on information that is useful in planning, control, and decision making.”

James Jiambalvo, Managerial Accounting, 5th Edition John Wiley and Sons, Inc., 2013

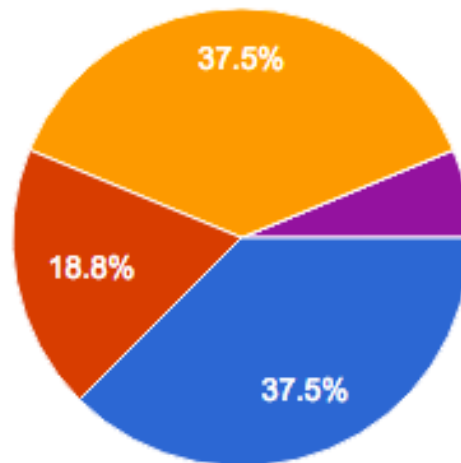
Who is here?

Willamette Valley, OR
Chimacum, WA
Myrtle Creek, OR
Santa Cruz, CA
Olympia WA
Paterson, WA
Albuquerque, NM
Mexico
Mcminnville, OR
Milwaukie, OR
Ashland, OR
Sweet Home, OR
Accord, NY
Polson, MT
Sagle, ID
Sandpoint, ID

Crops: Annual Vegetables, Seed Crops, Grains,
Dry Edible Beans, Tree Fruits and Nuts,
Perennial Fruits, Native Plants

Acres .5 to 500

Total Years Farming Experience 79.25
Average Years Farming 4.6



- Little to no experience. I might keep a few records for tax purposes, but I don't use them.
- Some experience. I look at my Profit and Loss/Income Statement at the...
- Experienced. I definitely use my Profit and Loss/Income Statement to eval...
- Very experienced. I use enterprise budgets as part of my crop planning...
- Other

Agenda

Income Statement Tour
Balance Sheet Tour
Profitability Assessment
Improving Profitability
Profitability Analysis Exercise
Coffee Break
Crop Specific Costs Analysis
Lunch
Crop Specific Costs Exercise
Partial Budgeting
Partial Budgeting Exercise
Lender Perspective
Wrap Up

Income Statement

Farm Income Statement for 2016	
INCOME	
CSA Share Sales	\$ 226,109.90
Restaurant Sales	\$ 92,025.89
TOTAL OPERATING INCOME	\$ 318,135.79
EXPENSES	
Depreciation Expense	\$ 18,705.19
Fertilizers	\$ 17,282.50
Gas, Fuel, Oil	\$ 6,985.58
Insurance	\$ 1,599.00
Other Expenses	\$ 17,299.29
Payroll & Payroll Tax	\$ 163,774.33
Property Tax	\$ 237.53
Rent Equipment	\$ 2,522.89
Rent Land	\$ 7,525.00
Repairs and Maintenance	\$ 14,194.77
Seeds and Plants	\$ 10,268.74
Supplies	\$ 14,476.83
Utilities	\$ 10,360.95
TOTAL OPERATING EXPENSES	\$ 285,232.60
INCOME FROM OPERATIONS	\$ 32,903.19
NET FARM INCOME	\$ 32,903.19

Income Statement Considerations

Cash Versus Accrual

✧ Cash

- + Simpler to use and allows for managing tax liability
- Not good at matching revenues and expense

✧ Accrual

- + Better at matching
- More complicate to use

Income Statement Considerations

Economic Depreciation versus Tax Depreciation

Economic depreciation example using 10 year useful life:

	Tractor Purchase	\$ 25,000.00
	Annual Expense	Accumulated Expense
2017	\$ (2,500.00)	\$ (2,500.00)
2018	\$ (2,500.00)	\$ (5,000.00)
2019	\$ (2,500.00)	\$ (7,500.00)
2020	\$ (2,500.00)	\$ (10,000.00)
2021	\$ (2,500.00)	\$ (12,500.00)
2022	\$ (2,500.00)	\$ (15,000.00)
2023	\$ (2,500.00)	\$ (17,500.00)
2024	\$ (2,500.00)	\$ (20,000.00)
2025	\$ (2,500.00)	\$ (22,500.00)
2026	\$ (2,500.00)	\$ (25,000.00)



Income Statement Considerations

Income Statement

Expenses \neq Cash Flows

Cash Flows \neq Expenses

Depreciation - Expense with no cash outflow

Cash Inflows & Outflows Versus Revenues & Expenses

Cash Inflows - Not Revenues

- ✓ Owner Contributions
- ✓ Loan Funds

Cash Outflows –Not Expenses

- ✓ Owner Draws
- ✓ Payments on Loan Principals

Balance Sheet Tour

Farm Balance Sheet for December 31st 2016	
ASSETS	
Current Assets	
Cash and Cash Equivalents	\$ 8,019.00
Accounts Receivable	\$ 2,018.02
Total Current Assets	\$ 10,037.02
Fixed Assets	
Farm Equipment and Infrastructure	\$ 71,930.23
Total Fixed Assests	\$ 71,930.23
TOTAL ASSETS	\$ 81,967.25
LIABILITIES AND EQUITY	
LIABILITIES	
Accounts Payable	\$ 1,928.00
TOTAL LIABILITIES	\$ 1,928.00
EQUITY	
Owner's Equity	\$ 80,039.25
TOTAL EQUITY	\$ 80,039.25
LIABILITIES AND EQUITY	\$ 81,967.25

Assessing Profitability

Income from Operations

TOTAL OPERATING REVENUES	\$318,135.79
TOTAL OPERATING EXPENSES	\$285,232.60
INCOME FROM OPERATIONS	\$32,903.19

Good or Bad?

Enough?

- Payments on loan principals (and interest due).
- Expansion or additional equipment/infrastructure.
- Owner salary

Assessing Profitability

Operating Profit Margin

Income from Operations

minus

Unpaid Labor & Management

divided by

Revenues

$$\$32,903 - \$25,000 = \$7,903$$

$$7,903 \div \$318,135 = 2.5\%$$

Assessing Profitability

Rate of Return on Assets or Return on Assets (ROA)

Income from Operations *minus* Unpaid Labor & Management
divided by

Average Total Farm Assets

$$\$32,903 - \$25,000 = \$7,903$$

$$\$7,903 \div \$136,639 = 5.7\%$$

Return on Assets

Deconstructing ROA

Return on Assets = Operating Profit Margin x Asset Turnover Ratio

Operating Income*
Average Assets

=

Operating Income*
Revenues

x

Revenues
Average Assets

\$7,903
\$136,639

5.7%

=

\$7,903
\$318,135

2.5%

x

\$318,135
\$136,639

2.3

Types of Costs

Variable Costs

Change in proportion to production volume or activity.

Per unit costs are fixed.

Fixed Costs

Stay the same in proportion to production volume or activity.

Per unit costs go up/down with less/more units.

Mixed Cost

Costs that have a variable and a fixed component.

Step Costs

Costs that are constant over a certain range.

Improving Asset Turnover Ratio

➤ Increase Revenues, Same Assets

- ✧ Improve utilization of current assets – machinery, infrastructure, land
 - Grow more or improve yields
 - Rent out to other farmers
- ✧ Increase prices

➤ Reduce Assets, Same Revenues

- ✧ Get rid of under-utilized assets and rent only capacity needed

Revenues
Average Assets

Improving Operating Profit Margin

➤ Decrease Costs

✧ Decrease per unit variable costs

- Focus on improving technique and timing
- Increase mechanization
- Outsource

✧ Decrease fixed costs by distributing across more units

- Fixed Assets
- Fixed Labor
- Overhead Costs

➤ Increase Prices

$$\frac{\text{Operating Income}^*}{\text{Revenues}}$$

What Costs?

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Labor Costs for diversified
veg farms can make up
65-75% of production costs.
Iowa State Study

<https://www.extension.iastate.edu/agdm/wholefarm/html/c3-65.html>

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fixed/step

variable

variable

fixed

fixed/step

mixed

fixed

variable

fixed/step

variable

variable

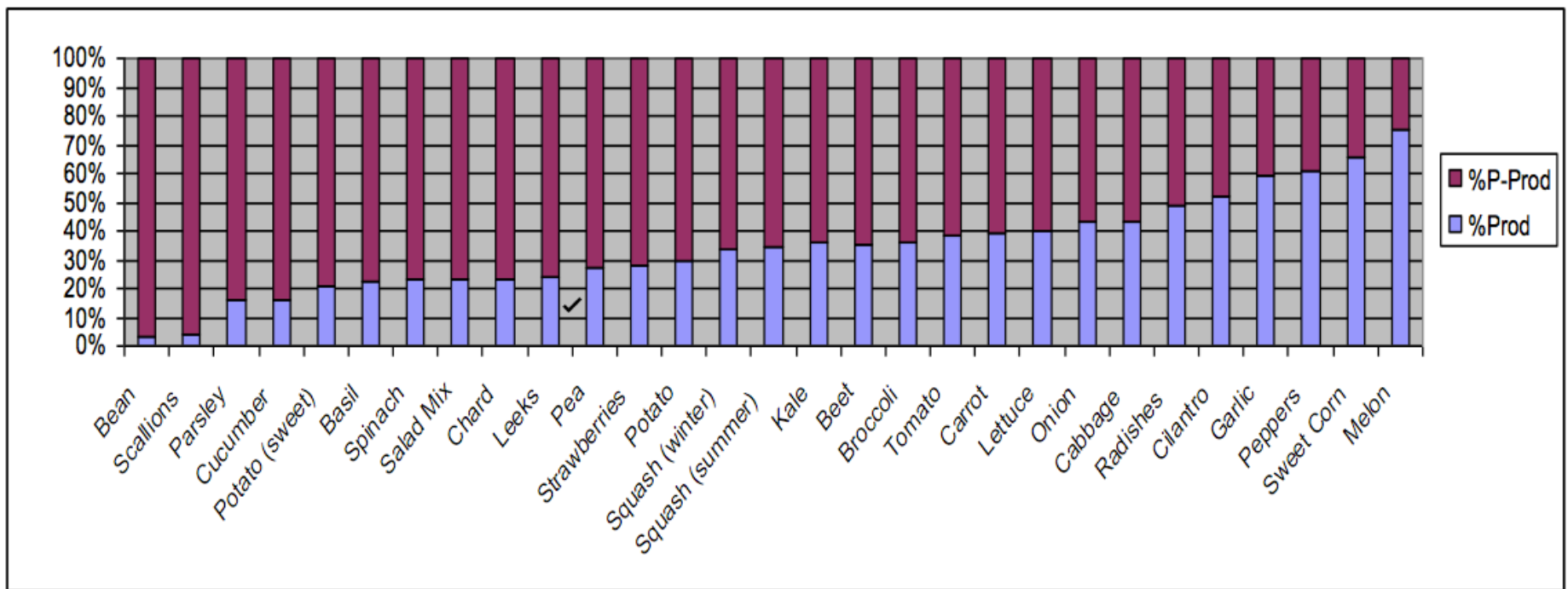
?

mixed

100%

What Costs?

Production vs. Post-Production Labor



From John Hendrickson, Center for Integrated Agricultural Systems, UW Madison

<http://www.cias.wisc.edu/john-hendrickson/>

Enterprise Budgets

CARROTS

Ag Decision Maker -- Iowa State University Extension

For more information on this budget, see the information file [Iowa Vegetable Production Budgets](#).

Enter your input values in shaded cells.

Assumptions:

100' x 4' bed

	Quantity	Unit	\$/Unit	Total
Receipts				
Carrot sales	170	lbs	2.00	\$340.00
Total Receipts				\$340.00
Planting Year Costs				
Supplies				
Seed - cover crop	0.75	lbs	0.60	\$0.45
Seed	3	packet	1.50	4.50
Burlap	3	bags	1.80	5.40
Fertilization	10	lbs	0.15	1.50
Other	0	lbs	0.00	0.00
Labor Costs				
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
Other	0	lbs	0.00	0.00
Interest on Preplant Costs	27.35	dollars	0.035	0.96
Total Pre-Harvest Costs				\$28.31
Harvest	Quantity	Unit	\$/Unit	Total
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
Other	0.00	hrs	0.00	0.00
Total Harvest Costs				\$43.10
Total Variable Costs				
Per bed				\$71.41
Per lb				0.42

Record Keeping for Enterprise Budgets

➤ Labor Records

- Most Challenging
- Use Times Studies and Extrapolate
- Be okay with averages
- Time Study Benefits
 - Planning Tool
 - Crew Management Tools
 - Immediate Feedback – Rate
 - Highlights Variable vs. Fixed
 - Not Tied to Single Planting

➤ Other Key Records

- Days to Maturity
- Number of Times – Weeded, Watered, etc.
- Yields (Field and Sellable)
- Qty Sold per Channel



Summary

Assess profitability using income from operations.
Evaluate against other financial needs.

Assess profitability using profitability ratios
Benchmark against your own ratios year to year. Notice trends.

Start keeping records for developing enterprise budgets to assess
crop specific costs of production.

Use partial budgeting as a systematic way to assess and compare changes to
production systems.

Improve profitability via optimizing asset utilization, decreasing costs and/or
raising prices.

And remember your personal measures of success for your farm business
that go beyond profits....

Business Success Beyond Profits: Wordle from Intensive Participants

