

WELCOME TO EVALUATING PROFITABLE AGRICULTURAL ENTERPRISES

A PROFESSIONAL DEVELOPMENT WEBINAR SERIES



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WEBINAR SCHEDULE

Date	Session Title
Wednesday December 1	Introduction to Economic Feasibility Assessment
Wednesday December 15	Market Feasibility Assessment
Wednesday January 12	Financial Feasibility Assessment – Budget and Profit Basics
Wednesday January 26	Financial Feasibility Assessment – Budgets
Wednesday February 9	Financial Feasibility Assessment – Financial Analysis
Wednesday February 23	Enterprise Financing: Federal Grant and Loan Programs
Wednesday March 30	Enterprise Assessment Example – Drought Management
Wednesday April 13	Conducting Client Needs Assessments
Wednesday April 27	Evaluating Extension Programming
Wednesday May 11	Participant Project Presentations

We may add a webinar if topic requested. If you have questions or comments, please email kynda.curtis@usu.edu.



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TODAY

- Financial feasibility assessment - Dr. Ruby Ward
 - Basic budgeting and profit estimation
- Resources
- Guest speaker

- Thanks to WSARE for funding this webinar series - Western Sustainable Agriculture Research and Education



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FINANCIAL FEASIBILITY ASSESSMENT: BUDGET & PROFIT BASICS

DR. RUBY WARD, RUBY.WARD@USU.EDU



This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under award number 2020-38640-31523 through the Western Sustainable Agriculture Research and Education program under project number WPP21-012. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.



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HOBBY VS. BUSINESS

You **WANT** to have **FUN**

Profit is not main concern

Other reasons:

- Teach skills to children or community members
- Produce food in a certain way
- Fun

You **WANT** to make a **PROFIT**

Profit is the main concern

How can I effectively run a food business to provide income?



Sheriden Hansen, Utah State University



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WATER LEVEL

Money flows in



Money flows out

What is left in the tank?



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WATER LEVEL

Money flows in

What is left in the tank?



Money flows out

What flows in less what flows out



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HOW CAN THE WATER LEVEL GO UP?

Money flows in

Water level



Money flows out



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WHAT IS THE BOTTOM LINE USED FOR?



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WHAT IS THE BOTTOM LINE USED FOR?



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TYPES OF COST

- **Variable** – When I make another unit my total cost will increase
 - Package, ingredients, etc.
 - Seeds, fertilizer, feed
- **Fixed** – Stays the same whether I make another unit or not
 - Depreciation on equipment
 - Building rent
 - Insurance and property tax



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PRICE AND PROFIT

$$\text{Profit} = (\text{price} - \text{variable cost}) \text{ quantity} - \text{fixed cost}$$

Margin Per Unit

Funds left to cover
fixed cost & profit

Price needs to be large enough to

- Have positive margin
- Cover fixed costs
- Make profit



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ANALYZE MARGINS

$$\text{Margin} = (\text{Price} - \text{Variable Cost}) * \text{Quantity}$$

- Do you have a low margin?
- Is price greater than variable costs?
- What happens if cost increases by 10%? 20%?
- What happens if price drops by 10%? 20%?



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HOW CAN THE WATER LEVEL GO UP?

Price
Money
flows in

Water
level



Money
flows out Variable cost

- More flow in
- Less flow out
- Change with more flow in than flows out



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ANALYZE FIXED COSTS

Margin = (Price – Variable Cost) * Quantity

- Are fixed costs too high?
- How many units to cover fixed costs (fixed cost / margin)?
- Do you have equipment that sits idle for long periods of time?
- How many bulls per cow do you have?
- Is your horse trailer or truck the envy of your neighbors?
- Is your Hobart mixer the envy of bakers everywhere?



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Analyze Fixed Cost

Profit = (price – Variable Cost) quantity – fixed cost

- Are fixed costs too high?
- How many units to cover fixed costs (fixed cost / margin)?
- Do you have equipment that sits idle for long periods of time?
- How many bulls per cow do you have?
- Is your horse trailer or truck the envy of your neighbors?



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Situation	Strategy	Examples
Negative Margin	Quit and do something else	Other crops or livestock, other markets
Low Margin	Increase Price Decrease Variable Costs	Pool livestock, Charge more Use pasture longer, less labor, EQIP for better range Source ingredients with lower cost, be more efficient.
Sufficient Margin	Look at Fixed Costs	
High Fixed Costs	Decrease Fixed Costs Increase Revenue from FC Increase Volume	Sell equipment Do custom work Plant more acres, increase herd size, sell more product
Average Fixed Costs	Increase Volume	Plant more acres, increase herd size, sell more product
Low Fixed Costs	Good Job!	

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ENTERPRISE BUDGET

- The physical and financial planning for a specific enterprise (jam, salsa, alfalfa, cattle, etc.)
- Estimates the receipts and expenses for a set period of time

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BASIC PARTS OF AN ENTERPRISE BUDGET

- A section of quantity price and sales
- A section of variable costs
- A section of fixed/overhead costs
- An estimate of profit or net income
 - Can be per unit or some other variable



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Example of an Enterprise Budget

Enterprise Budget for 14' x 100' Tomato Bed

Revenue Product	Quantity	Unit	Price	Total	% of Revenue
Individual product	number sold	size of unit	price per unit	Total revenue	
Tomatoes Average Price	450	lbs	\$ 1.50	\$ 675.00	100%
Total Revenue				\$ 675.00	100%
Expenses					
Materials				\$ 129.00	
Labor				\$ 530.00	
Marketing				\$ 20.00	
Ownership Expenses (Fixed Costs)				\$ 125.00	
Total Expenses				\$ 804.00	119%
Net income before taxes (revenue minus expenses)				\$ (129.00)	-19%
Income and self employment taxes				\$ (19.35)	-3%

Revenue from an individual product is totaled on top.

Expenses for the individual product are broken down into different sections.

Variable expenses were broken down by

- Materials Needed
- Labor
- Marketing

This is not the only way to lay out the variable expenses, as long as all expenses are included for the individual product.



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Analyze Profit – CSA

Budget for .5 ac Small Farm Full Cost

<u>Revenue</u>	<u>Unit</u>	<u>Price</u>	<u>Quantity</u>	<u>Total</u>	<u>% of Revenue</u>
Product					
<i>Individual product</i>	<i>size of unit</i>	<i>\$/unit</i>	<i>number sold</i>	<i>Total revenue</i>	
CSA 18 week shares	share	583.2	10	5832	100%
				0	0%
Total Revenue				5832	100%
Expenses	Unit	Price	Quantity	Total	
Total Inputs				1145	20%
Total Labor Costs				4460	76%
Total Fixed costs				550	9%
Total Expenses				6155	106%
Net income before taxes (revenue minus expenses)				-323	-6%
Income and self employment taxes			30%	-96.9	-2%
Net profit				-226.1	-4%

Price per Unit = \$583.20
 Total Variable Cost = \$5,605
 Variable Cost per Unit = \$560.50
 Margin per unit = \$22.70

Will increasing quantity increase profit?

What could be done to increase margin?

What about fixed cost?

But adjustment can be made on paper!!

Note: Net profit must be used to pay principal part of loans, purchase new equipment, add to working capital, and withdrawals for owners.

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RESOURCES

- USU Extension Small Business Start Up Guides - <https://diverseag.org/microentrepreneurs>
- USU Extension Business Management - <https://diverseag.org/business-management>
- USU Applied Econ Extension - <https://extension.usu.edu/apec/>
- Starting and Running Your Own Small Farm Business, Chapters 1 and 3 – Book: <https://www.amazon.com/Starting-Running-Your-Small-Business-ebook/dp/B0081J0JO4>
- Cooperative Extension Service, available in each state – Utah State University (<https://extension.usu.edu/>), University of Nevada, Reno (<https://extension.unr.edu/default.aspx>) University of Arizona (<https://extension.arizona.edu/>), and Oregon State University (<http://extension.oregonstate.edu/>)
- National Sustainable Agriculture Assistance Program (ATTRA) - <https://attra.ncat.org/index.php>

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WORKSHEETS PROVIDED

- Food Product Enterprise Budget
- Farm Product Enterprise Budget
- Enterprise Breakeven Analysis
- Partial Budgets

<https://extension.usu.edu/apec/extensionagentproject>



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QUESTIONS SO FAR?



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GUEST SPEAKER – ADAM BUNKER

- Adam Bunker is the operation's manager at Papa Joe's Produce, a grower of fresh vegetables and maker of value-added food products in northeast Wyoming. The operation uses high tunnels and vertical growing systems to raise lettuce, kale, basil, peppers and tomatoes. In addition, they create homemade foods like pesto, salad dressings, hummus, and infused olive oils. Adam came to the business with a background in marketing, strategic planning, and financial modeling, all of which he has relentlessly applied to improving Papa Joe's.



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ADAM BUNKER– PAPA JOE'S PRODUCE, SHERIDAN, WY

- Producer of fresh vegetables (leafy greens) and value-added products (jams, oils, pesto, hummus, salad dressings)
- Products sold direct (at a farmer's markets), through own website, and local partners
- Established in 2016

Papa Joe's
Produce

HOME OUR PRODUCTS GROWTH METHODS VIRTUAL M



Vertical Hydroponic Greenhouse

papajoesproduce.com



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NEXT WEBINAR: WEDNESDAY JANUARY 26

- Budgets and Financial Statements– Drs. Ruby Ward and Ryan Larsen
- Guest speaker on budgeting basics



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THANK YOU!

QUESTIONS?



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