



Value-Added Dairy - 101

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CENTER FOR
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A UNIVERSITY OF TENNESSEE - FARM BUREAU PARTNERSHIP



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What is value-added?

- Allow producers to earn a greater portion of consumer expenditures by processing, packaging or marketing crops, livestock or farm resources.



What is direct marketing?



- Any marketing method whereby farmers sell their products directly to consumers
- Examples of direct marketing channels include
 - Roadside Stands
 - On-farm Stands
 - U-Pick/Pick-Your-Own Operations
 - Community Supported Agriculture (CSA)
 - Farmers Markets

Agritourism is farm product purchases to ...



...farm fun!



Why?

- Opportunities to increase financial returns
 - Remove middlemen from supply chain
 - Take advantage of demand for fresh/local products and experiences
 - Market small quantities



Direct Marketing is Growing

Census of Agriculture Data



Change in Direct Sales from 2007 to 2012	North Carolina	United States
Number of farms	20.6% 3,712 to 4,475	5.6%
Value of products sold	9.3% \$29.1 m to \$31.8 m	8.1%
Average sales per farm	-9.4% \$7,851 to \$7,112	2.4%

Number of Farms Adding Value Increasing

Census of Agriculture Data



Change in Value-Added Products from 2007 to 2012	North Carolina	United States
Number of farms	79.1% 1,429 to 2,559	20.9%

Agritourism is Growing

Census of Agriculture Data



Change in Agritourism 2007 to 2012	North Carolina	United States
Number of farms	88.5% 602 to 1,135 farms	42.0%
Agritourism and recreational sales	38.6% \$12.7 m to \$17.6 m	24.23%
Average sales per farm	-26.2% \$21,031 to \$15,528	-12.5%

Value-added, direct marketing
and agritourism are in...

but they are not



If we build (grow, produce, offer) it, will they come (and buy)? And will we be profitable?



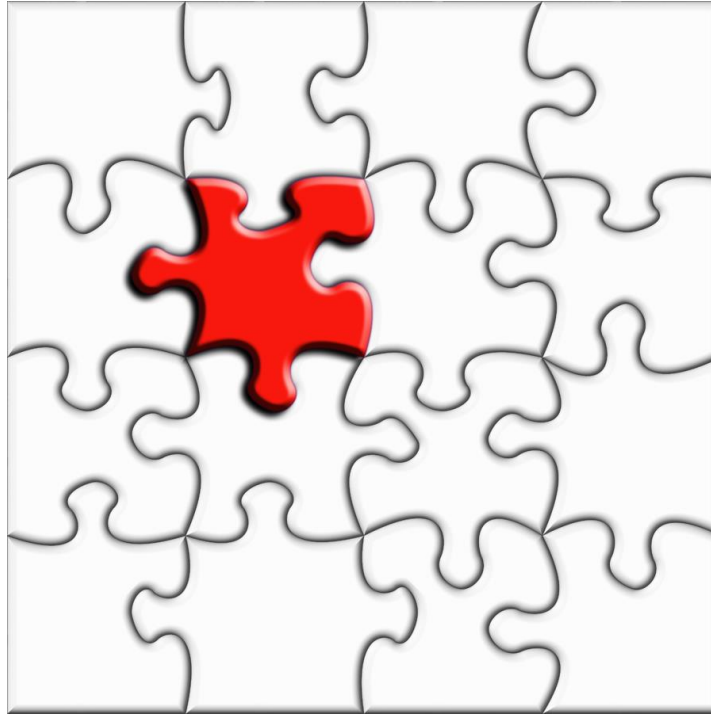
It depends!

Successful Products



Unsuccessful Products

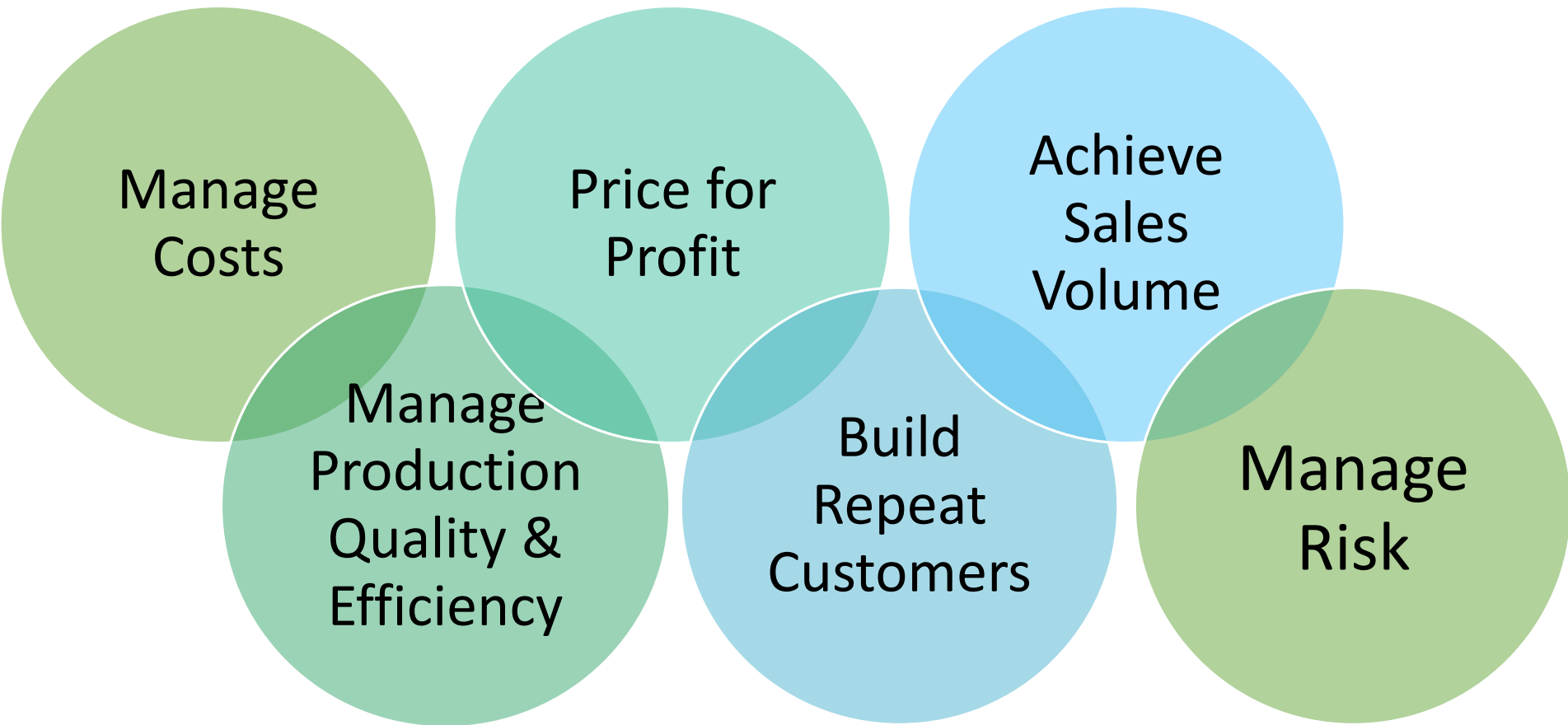




**Product is only one
piece of the puzzle.**

How achieve profitability?

Profit/Loss = Income – Expenses



Challenges to Value-Added

Production

- Input Selection and Purchase
- Soil Fertility
- Disease Control
- Weed/Insect/Wildlife Control
- Fertilization
- Irrigation
- Planting
- Cultivating
- Harvesting
- Field Sanitation
- Labor
- Records Keeping
- Farm Inspection/Certification
- Marketing



Challenges to Value-Added



Value-added enterprises add another dimension to management and operations

Direct Marketing/Value-Added

- All Production Issues
- Processing
- Packaging
- Storage
- Regulations
- Marketing
- Distribution
- Customer Service
- Additional labor

Why Businesses Fail (The 3 Ms)



Money

Capital &
Cash Flow



Management

Skills &
Experience



Marketing

Knowing &
Accessing
Customer

Why Businesses Fail (The 4th M)



Magic

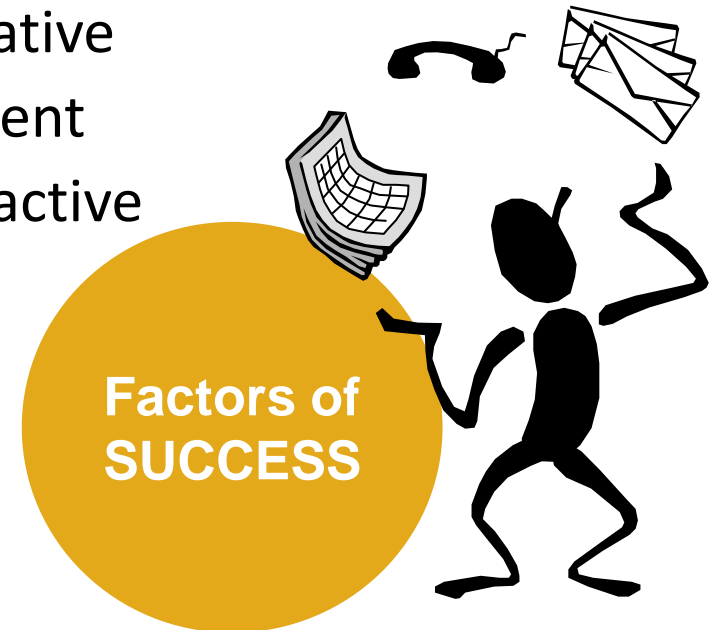
Passion, Energy,
Drive

Personal Assessment

Do you have what it takes?

- Self-starter
- Responsible
- Leader
- Hard worker
- Effective communicator
- Adapt well to change
- Accepts risk
- Decision-maker
- Family support
- Healthy

- Ambitious
- Competitive
- Lifetime learner
- Goal-oriented
- Creative
- Patient
- Proactive





Idea

Where to Start

**Personal
Assessment**

Business Plan

**Marketing
Plan**

**Implement, Evaluate &
Adjust**



- 80% of Americans have no goals
- 16% have goals in mind but don't write down
- 4% write them down and make 9x more money



Dr. David Kohl
Business Planning Lite



- Farm businesses that developed a business plan were 2x more profitable!
- Producers who communicate were 21% more profitable!

Dr. David Kohl
Business Planning Lite

Entrepreneurs often ask

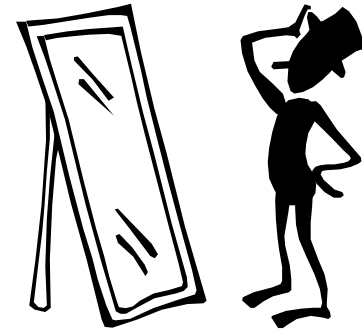


- What to offer?
- What to add?
- When to offer?
- What to charge?
- How to promote?
- How to get new customers?
- How to keep existing customers?

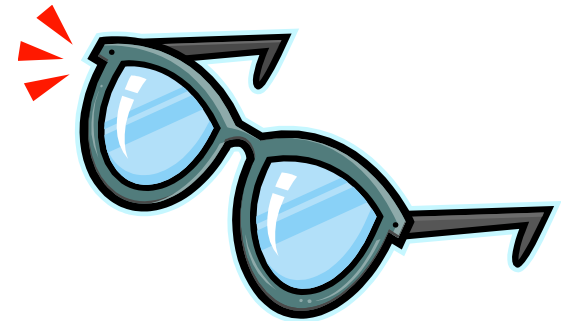
Where to Start



1. Assess your resources,
mission and goals



2. Take on a customer state of
mind



Take a Market Driven Approach

Is there a need/want your business can fulfill?

- What and how much is needed or desired?, What is valued?, What competition exists?

Who is the target market?

- Demographics & Psychographics
- Customer Values (Customer Benefit, Cost, Convenience, Communication)

Does a profitable market exist?

- Is there adequate market size and potential share?, Able to produce at a cost low enough and sell at a price high enough to generate a profit?

How do I reach the target market?

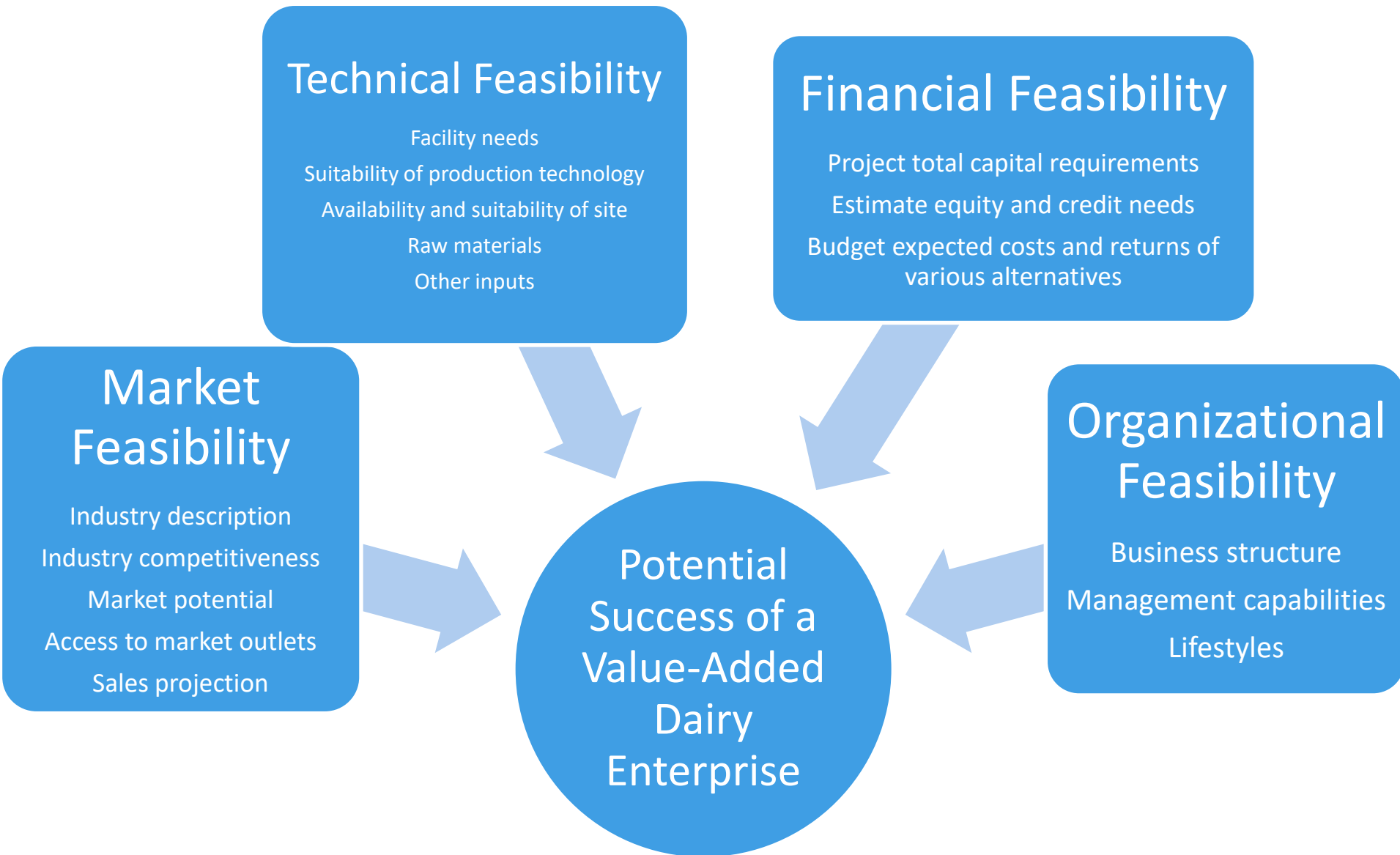
- Develop, implement and evaluate marketing strategies. (Product, Positioning, Price, Place, Promotion, People)



Prospects for Value-Added Dairy Products



Assess Feasibility



Prospects for Value-Added Dairy Products

- Results from prior dairy products consumer survey studies:
 - Consumers with moderate to higher incomes, with higher education, and in their mid-30's to early 50's will be most interested in purchasing specialty dairy products (locally grown, organic, grass-fed, animal welfare).
 - Gender differences-male, locally grown, grass fed; female-organic, animal welfare.

Target Market- is a group of customers that the business has decided to aim its marketing efforts and ultimately its product.

Market segment-a group of potential consumers which share like preferences.

Value-Added Considerations

- Require significant capital outlays
- Many additional regulations
- Extra management effort required
- Additional marketing costs
- Additional start-up and year-to-year costs

Costs Associated with On-Farm Milk Processing

- Start-up Costs
 - Land (cost not included in budget projections).
 - Buildings.
 - Equipment.

Consider the necessity of having money on hand to cover operating expenses, salaries and wages, and loan payments.

One of the leading causes of business failure is insufficient start-up capital.

Costs Associated with On-Farm Milk Processing

- Start-up Costs--Buildings
 - Cow Dairy 14,400 sq ft processing facility with room to expand (\$1.5 million estimated).
 - Milk receiving bay, raw milk storage, raw milk blending, mixing and separation.
 - Pasteurized processing area.
 - Chemical storage.
 - Mechanical room.
 - Finished product storage cooler.
 - Casing area, empty jug storage, dry storage, loading docks, lab, locker rooms, break room, offices.
 - Sales room with public restrooms.

Costs Associated with On-Farm Milk Processing

- Start-up Costs--Buildings
 - Meet with local utility system to see how much power is in location of plant.
 - Plant will need 3 phase power and either 220 or 440 voltage.
 - 440 voltage is recommended so you will not be limited to only certain equipment.
 - Commercial hot water heater and boiler to generate steam that is used as a heating medium when heating the product are recommended .
 - Plant will need a chiller to cool the product as quickly as possible.

Costs Associated with On-Farm Milk Processing

- Start-up Costs--Buildings
 - Refer to the Pasteurized Milk Ordinance (PMO) and be aware of Good Manufacturing Practices (GMPs).
 - Dairy processing requires very specific valves.
 - The building process is detailed and must pass inspections.
 - Changes cost money (specialized welding @ \$35-45/hr).
 - Consider hiring an engineering firm with experience in dairy processing plants to put your plant together. Some charge \$100/hr for CAD drawing or \$10,000 to put a plant together.



Costs Associated with On-Farm Milk Processing

- Start-up Costs--Equipment
 - Cow Dairy (\$867,100 estimated)
 - 3A Sanitary Standards may be a plus.
 - New or used?
 - Match the proper equipment to the process.
 - Get the appropriate size of equipment for the amount of material to be processed over given period of processing time.
 - Make purchases subject to governing authority's approval upon inspection.



Costs Associated with On-Farm Milk Processing

- Consider the cost of capital and cash flow requirements needed to cover operating expenses, salaries and wages, and loan payments.
- The following estimated cash flow requirements were derived from the handout “Table 1—Value-Added (Cow) Milk Production Estimated Costs and Returns.”

	Value-Added (Cow) Milk Production
Variable Expenses	\$1,006,940
Repairs-Equipment	27,715
Labor	148,720
Loan Payments for Start-Up Costs	<u>175,290</u>
Total Year One Cash Flow Requirements	\$1,358,665

Estimated Revenue from Value-Added (Cow) Milk Production

Item	Description	Unit	Quantity	Price	Total
Milk Sales	1 Year	Quart	255,813	\$2.25	\$575,579
Milk Sales	1 Year	½ Gallon	127,906	2.75	351,742
Milk Sales	1 Year	Gallon	63,953	3.75	239,824
Butter Sales	1 Year	Pound	36,094	4.25	<u>153,400</u>
Total Estimated Revenue					\$1,320,544

Estimated Costs and Returns from Value-Added (Cow) Milk Production

Revenue	\$1,320, 544
Variable Expenses	(1,006,940)
Depreciation & Repairs	(116,925)
Interest	(71,013)
Labor	<u>(148,720)</u>
Return to Land, Management & Risk	(23,054)

To break even, you must either reduce expenses by \$23,054 (1.7% of total expenses) or increase revenue by \$23,054 (1.7% of total revenue).

Processing Considerations

- Considerations
 - Are you sure this is something you want to do?
 - Talk to other producers
 - Visit their facility
 - Would they change anything?
 - Keep in mind you may not be approved for the exact same set up.
 - Commitment to the dairy
 - Advantages and disadvantages
 - How hard and competitive is marketing the product?
 - If they had to do over would they begin processing?
 - What does it cost to process a gallon/pound of product?

Prospects for Value-Added Dairy Products

- Adding on-farm processing should build upon the *strength of the dairy operation*, not serve as an attempt to overcome weaknesses within the farming operation.

Additional Resources



CPA Staff Resources

- Rob Holland, Director
- Kim Giorgio,
Administrative Assistant
- Hal Pepper,
Financial Analysis Specialist
(Value-Added Dairy)
- Megan Bruch Leffew,
Marketing Specialist
(Agritourism)
- Troy Dugger,
Program Coordinator



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