



Center For Profitable Agriculture

A University of Tennessee - Farm Bureau Partnership



# How to Add Value to Your Existing Farm Products

## Jams, Jellies and Salsa

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Center for Profitable Agriculture

The University of Tennessee

# First Things First!



# Center for Profitable Agriculture

## Mission

*To increase the value and profitability of Tennessee's food and fiber economy through new, expanded and improved processing and marketing of agricultural commodities and farm resources*



# What We Do!

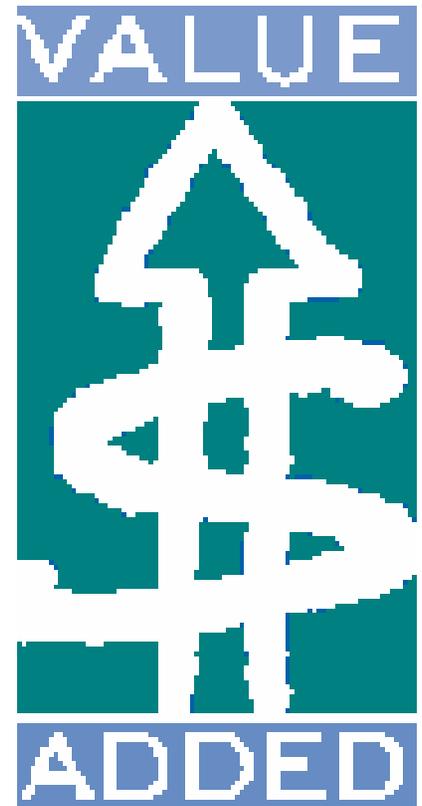


- UT Extension Department
  - Partnership with Farm Bureau and Dept. of Ag.
- Focused on “Value-Added”
  - Created in 1998
  - 6 Full-time Positions (+/-)
- One-on-One (V-A) Enterprise Analysis
  - Team effort (production, marketing, financial)
  - Studies, Analyses, Project Reports, Evaluations
- Outreach Teaching (V-A)
- Development of educational materials





# Adding Value to Farm Commodities and Resources

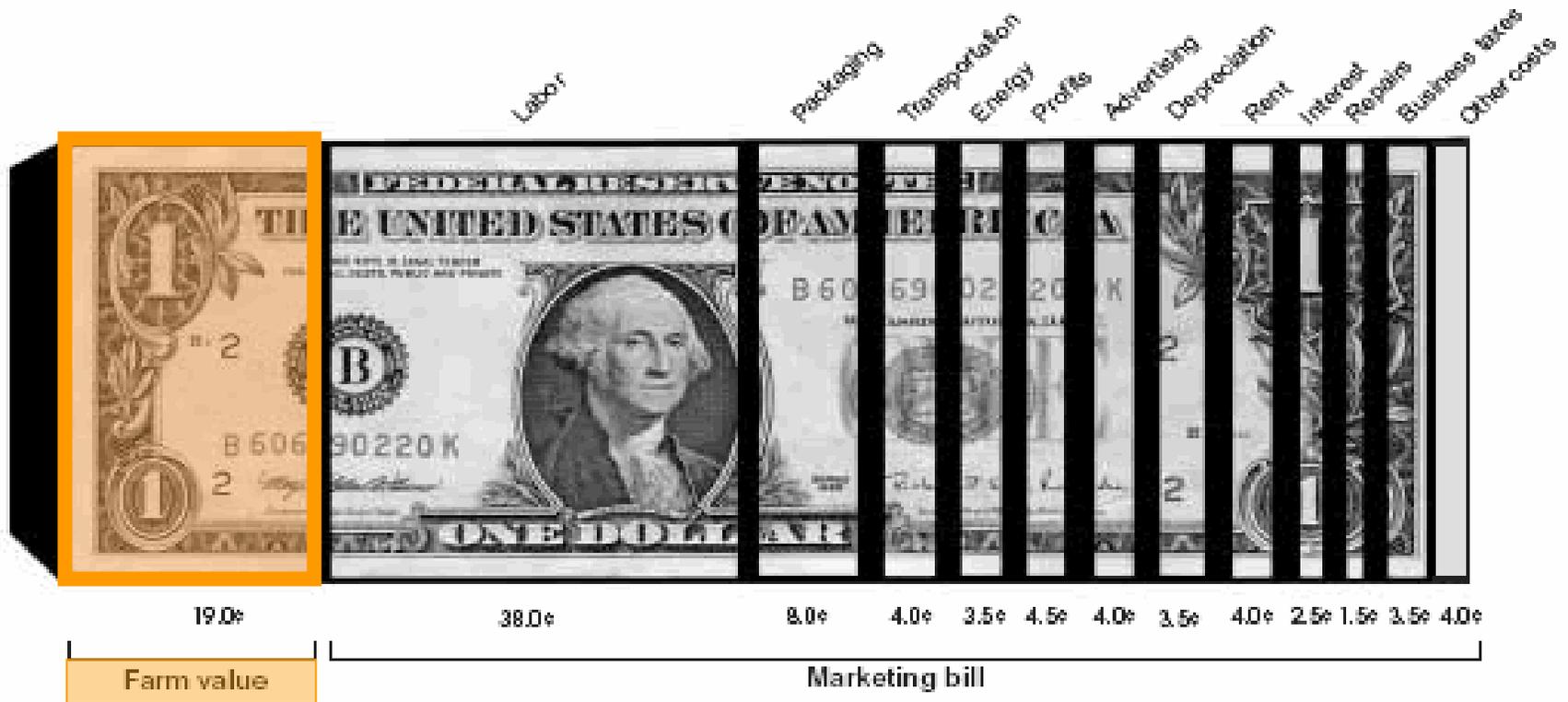


# What is Adding Value?

- Doing something to makes a product worth more to consumers.
- Doing something that increases the farm portion received from a commodity/product.
- Fry it, pie it or put it in cider.
- Processing, Packaging and Marketing



# Farm Value of Food Dollar



Source: USDA's Economic Research Service.

# Examples

- Apples . . . . . Apple Jelly,  
Cider, Pies
- Sweet potatoes . . . Pies, Muffins,  
Chips
- Cattle/Hogs. . . . On-farm butcher  
shop
- Soybeans/Corn . . . Biodiesel,  
Ethanol
- Farm Waste . . . . Packaged  
Fertilizer





West Tennessee Peach Orchard Has  
P-Y-O and Markets Breads, Relishes,  
Cookies, Jams & Jellies





## East Tennessee Dairy Opens Cheese Plant and Offers Specialty Farmstead Varieties





Tennessee Apple Orchard  
Markets Direct and  
Features Apple Butter



# Other Project Examples



*SLAWSA*

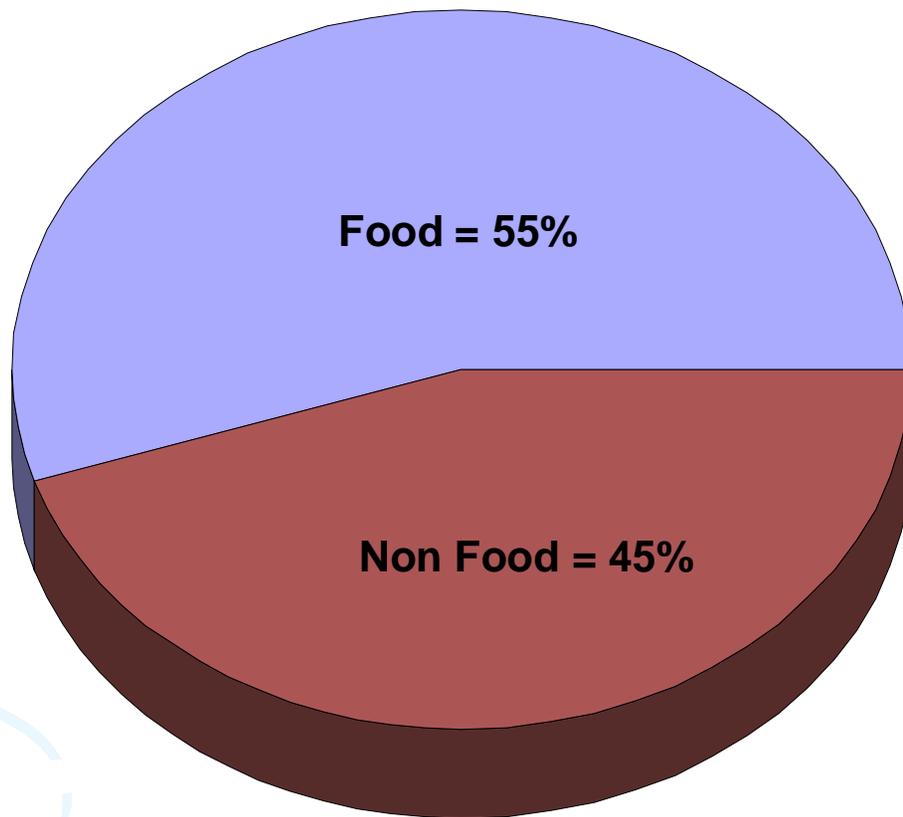


*Dotta Sue Cookies*

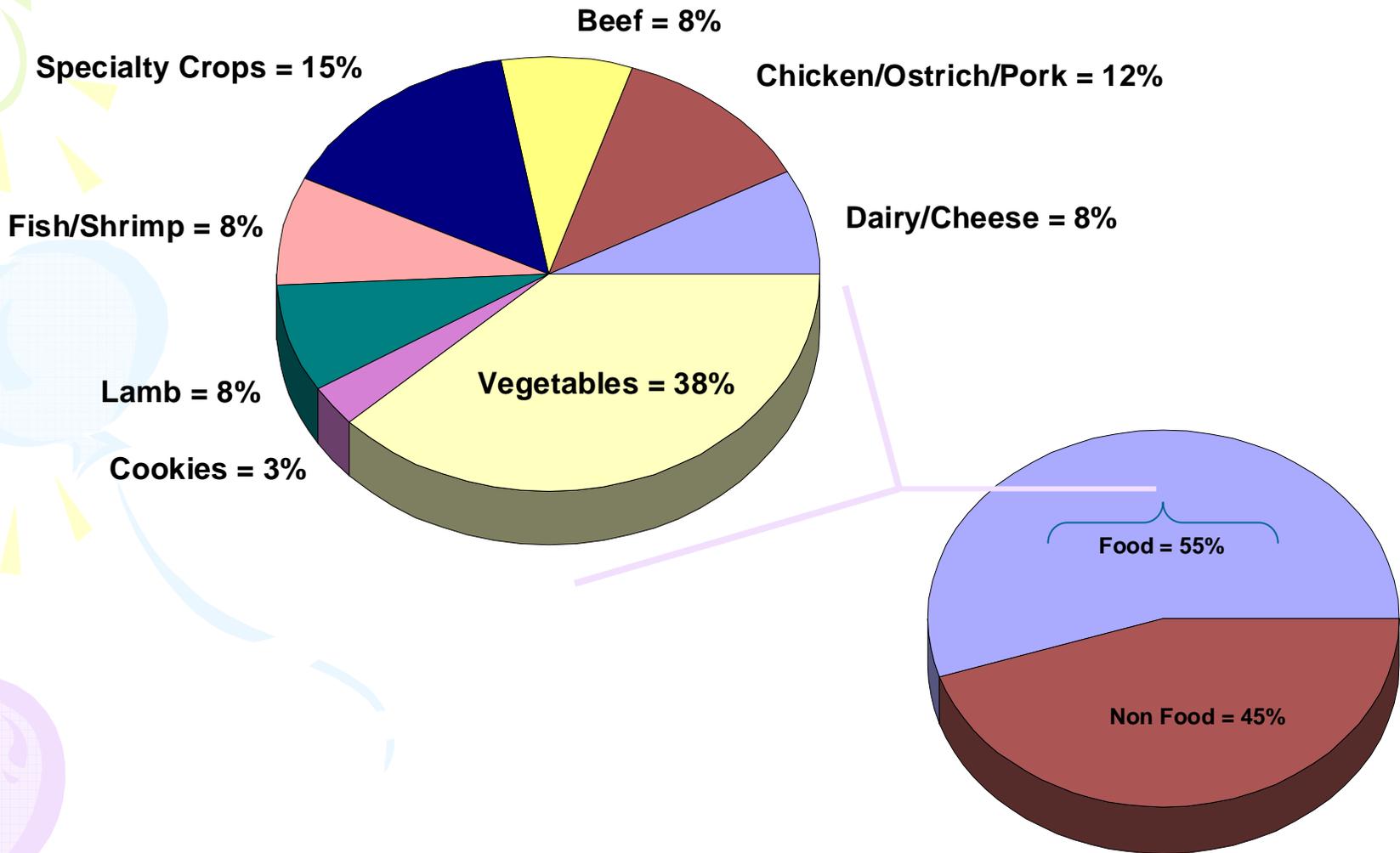


*Merritt Pop*

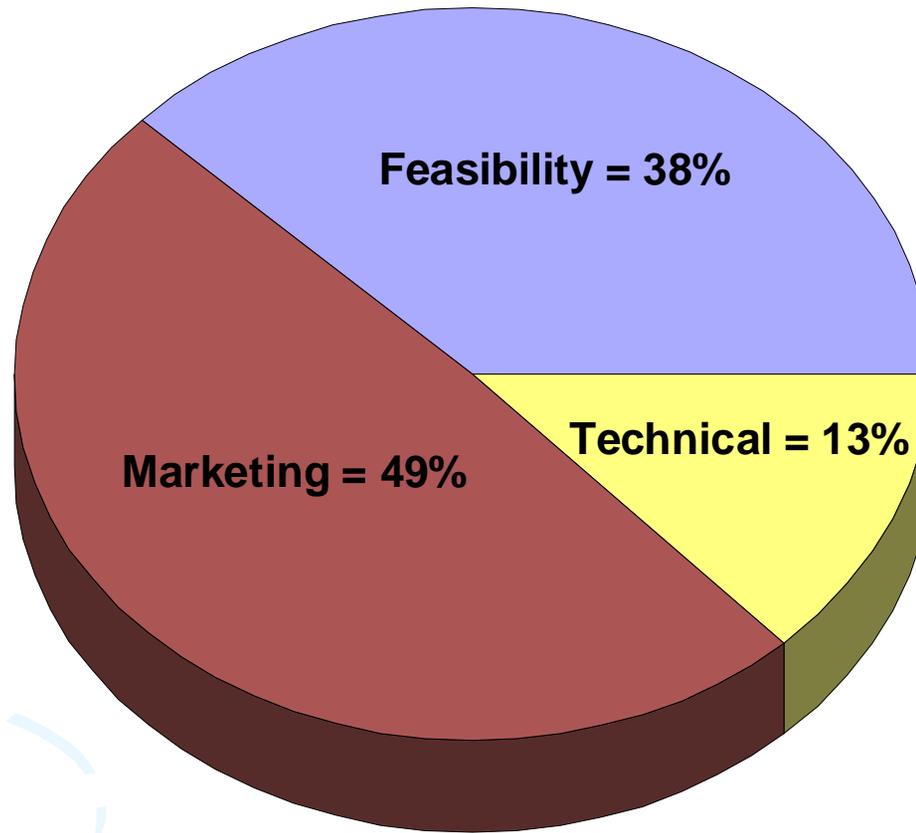
More than half of our projects have been food related.



# Types of Food Projects



# Primary Role of CPA



Many questions are similar.

Many answers  
are similar!



# Some of the similarities:

- We've got a good recipe, can we make money selling it?
- Everybody loves it, how can we get legal?
- How do I get a bar code?
- We've been selling some and now we want to go to grocers, do we need to get a permit or something?



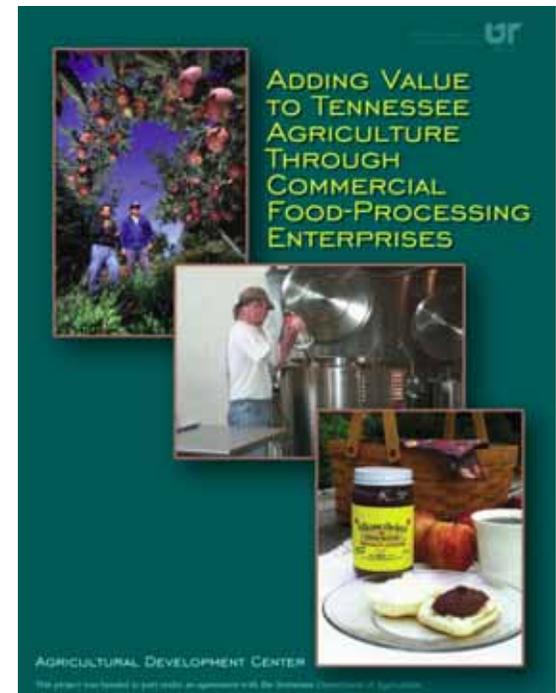
# *There's more to Hickory-Nut Pie than hickory nuts!*

- Eggs
- Corn Syrup & Sugar
- Flour, Vanilla, Salt
- Hickory Nuts
- Labor
- Kitchen
- Oven
- Utensils and supplies
- Electricity
- Permit/Inspection
- Pie pan/Cover
- Label
- Advertising & Promotion



# Adding Value Through Commercial Food Processing (PB 1710)

- Overview of commercial kitchen considerations
- Requirements
- Construction
- Quality Control
- Marketing
- Costs
- Other Considerations
- Feasibility



# Why Consider a V-A Food Business?

- Net farm income is low.
- Consumer expenditures are high.
- Farm portion of consumer spending is shrinking.

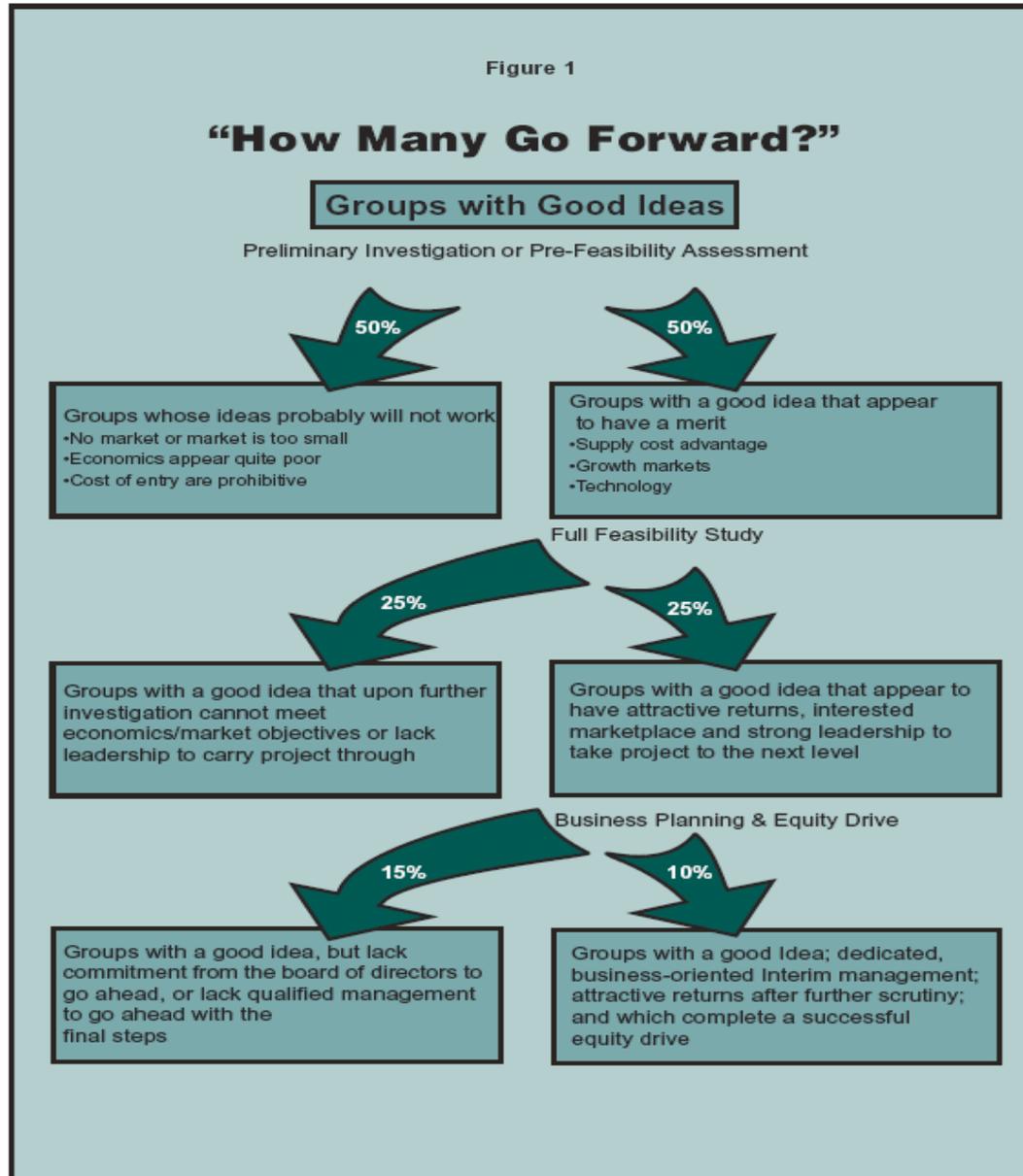


# Why is planning important?

- New skills are needed.
- No guarantee of success.
- More of a “small business” environment than “agriculture.”
- More than a good idea is needed.
- Failure rate is high (70 to 80%)
- Rarely does v-a save a struggling farm.
- A unique combination of resources is needed.



# How Many Go Forward?



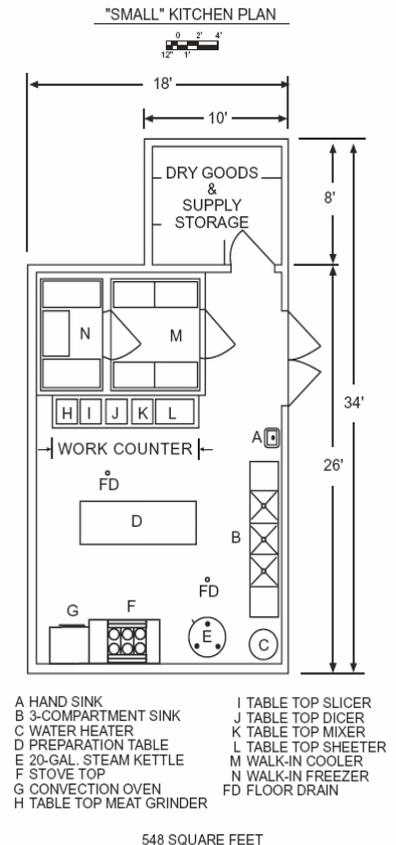
# Requirements/Regulations: Just an Overview!

- Facility? (Health Dept, Dept of Ag, USDA, FDA)
- Business License
- Zoning
- Permits
- Good Manufacturing Practices
- Food Regulations
- Weights & Measures
- Labeling
- Allergens

<b>Nutrition Facts</b>	
Serving Size 1 jar (140g)	
<b>Amount Per Serving</b>	
Calories 110	Calories from Fat 0
<b>Total Fat</b>	0g
Saturated Fat	0g
<b>Chloesterol</b>	0mg
<b>Socium</b>	10mg
<b>Total Carbohydrate</b>	27mg
Dietary Fiber	4g
Sugars	0g
<b>Protein</b>	0g
<b>% Daily Value</b>	
Protein 0%	• Vitamin A 6%
Vitamin C 45%	• Calcium 2%
Iron	2%

# Construction

- GMPs
  - Floors and walls
  - Space between equipment and walls
  - Installation must accommodate cleaning
  - Hand-washing sink
  - Self-closing doors
- Floor Plans
- Regulations
- Volume
- Product-line Diversification
- Time & Motion Efficiency
- Storage
- Equipment
- Costs
- Space? (Large = 1496 sq. ft., small = 548 sq. ft)



# Quality Control

*"instill product quality and promote food safety"*

- Cleaning
- Sanitizing
- Personal Hygiene
- Sanitary Design
- Pest Control
- Wastewater
- Handling raw ingredients
- End-product analysis
- Quality assurance analysis



# Marketing

- Often a complex topic to tackle.
- Many overlapping issues.
- Focused on selling (more) products.
- The sale of products generates revenue.



# Marketing continued . . .

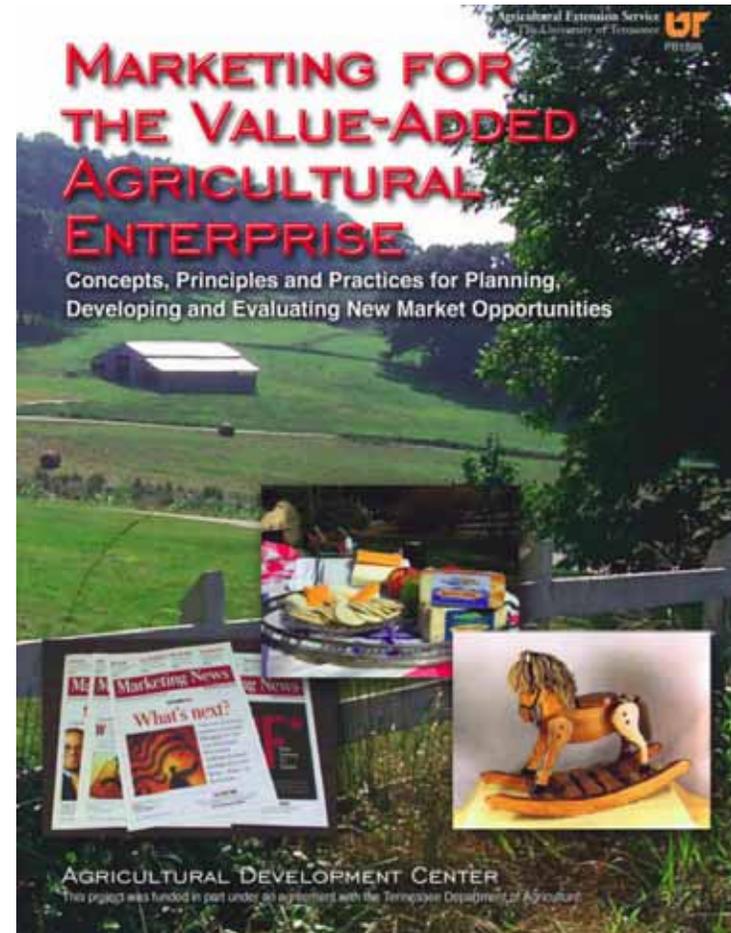
First - - Evaluate and understand the industry/environment.

- Competition
- Segmentation
- Target Market?
- Niche Market?
- Wholesale/Retail
- Broker/Distributor
- Product Position
- Packaging & Labeling
- Advertising
- Promotion
- Product image



# Marketing continued . . .

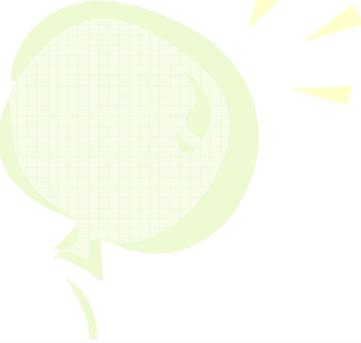
- Marketing budget
- Price analysis
- Estimating sales:
  - Common Sense Approach
  - Survey Customers
  - Average Number of Businesses
- PB # 1699 "*Marketing for the Value-Added Agriculture Enterprise*"



# Costs

- Start-up Costs
- Operating Costs
- Variable Costs





# Start-Up Costs

Kitchen Equipment:	
Hand-washing Sink .....	\$200
Three-compartment Sink .....	1,200
Stainless-steel Preparation Table .....	800
20-Gallon Steam Kettle .....	4,500
Range Top .....	1,200
Convection Oven .....	3,500
Stainless-steel Slicer/Dicer Table .....	500
Slicer .....	400
Dicer .....	500
Mixer .....	800
Sheeter .....	900
Walk-in Cooler/Refrigerator .....	8,000
Walk-in Freezer .....	12,000
Wire Shelves for Dry Storage .....	800
Cold-storage Shelves .....	1,200
Thermometers, Knives, Utensils, Scales, Pars, Bowls and Other Small Equipment .	560
Cleaning Supplies .....	500
Clothes Locker .....	250
Floor Matting .....	500
<b>TOTAL .....</b>	<b>\$38,310</b>

Office Expenses:	
Desk .....	\$600
Chairs .....	200
Computer .....	4,000
Adding Machine .....	50
Filing Cabinets .....	200
Vault .....	1,000
Copier .....	600
Fax Machine .....	300
Supply Cabinet .....	500
Other Office Supplies .....	800
<b>TOTAL .....</b>	<b>\$8,250</b>

Other Start-up Expenses:	
Labor .....	\$4,000
Legal Fees .....	800
Licenses & Permits .....	300
Supplies .....	300
Accounting .....	500
Utilities .....	200
Marketing .....	5,000
<b>TOTAL .....</b>	<b>\$11,100</b>



# Operating Costs

## OPERATING EXPENSES

An evaluation of a commercial kitchen's operating costs should be done on an annual basis, where the overall costs to operate the business are considered.

Annual Payment on Start-up costs (5 years) .....	\$30,800
Utilities	
Gas .....	4,000
Electric .....	13,000
Water .....	4,000
Telephone .....	3,000
Hired Labor .....	10,000
Cleaning Supplies .....	2,000
Advertising .....	5,000
Bookkeeping .....	3,000
Insurance .....	4,000
Repairs .....	4,000
Marketing & Promotion .....	10,000
Automobile .....	5,500
<b>Total .....</b>	<b>\$98,300</b>



# Variable Costs

Summary of Variable Costs Per 8-Ounce Jar	
Strawberries	\$0.50
Sugar	0.12
Jar Lid	0.08
Glass Jar	0.35
Packaging Accessories	0.16
Label	0.04
Labor	0.71
Total variable cost per jar	\$1.96

# Other Considerations

- Insurance
- Packaging
- Bar Code
- Internet Presence & E-commerce





# Feasibility

- Break-even calculation

## Break-even Calculation

**Operating cost = \$98,300**

**Variable cost per jar = \$1.96**

**Estimated average sales price per jar = \$3.20**

**$\$98,300 / (\$3.20 - \$1.96)$**

**$\$98,300 / (\$1.24) = 79,274 \text{ jars}$**

# Other Resources:

**Extension**  
W548



## Evaluating the Potential of Success for Value-Added Products



Complete these tools – get a broad assessment of the potential of value-added market success.

**Project Partners**  
USDA

This project was funded in part under an agreement between the Center for Profitable Agriculture and the Tennessee Department of Agriculture. Trade name cards included with related tools under the Federal-State Market Improvement Program of the Agricultural Marketing Service, U. S. Department of Agriculture.

the UNIVERSITY of TENNESSEE

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The University of Tennessee  
PB1727

## A REVIEW OF USDA-INSPECTED LIVESTOCK SLAUGHTERING FACILITIES IN TENNESSEE

Analysis of Tennessee Resources That Contribute to Direct Marketing Opportunities for Value-Added Meat Products



This project was funded in part under an agreement between the Center for Profitable Agriculture and the Tennessee Department of Agriculture. State funds were matched with federal funds under the Federal-State Market Improvement Program of the Agricultural Marketing Service, U.S. Department of Agriculture.

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**Agricultural Extension Service**  
PB1719

## HOW TO GET VALUE-ADDED PRODUCTS INTO LOCAL GROCERY STORES

Analysis of Grocery Store Market Access Opportunities for Small-farm and Value-added Products



This project was funded in part under an agreement with the Tennessee Department of Agriculture and the USDA Federal-State Market Improvement Program.

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PB1728

## HOW MANY BUSINESSES CAN A COUNTY SUPPORT?

County Population

### An Analysis of the Average Number of Retail Businesses in Various County Population Ranges

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**cpa**

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