HCAE Pub. 2010-02

PROCESSING FOR PROFITS

An assessment tool and guide for small-scale on-farm food processors

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Issued in furtherance of Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, University of Maryland, College Park, and local governments. Cheng-i Wei, Dean and Director of University of Maryland Extension.

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This report is available in PDF format at the Maryland Rural Enterprise Development Center's website, http://www.mredc.umd.edu.

Note: The information included in this guide is current as of December 31, 2009. However, laws and regulations can change frequently. Please refer to the contacts listed for the most up-to-date information on requirement and fees.

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PROJECT INFORMATION

In September 2008, the Harry R. Hughes Center for Agro-Ecology, with support from the USDA-CSREES, funded a project titled, "Processing for Profits: Assessment and Comparison of Regional On-Farm Processing Regulations to Develop a State Food Policy that Accommodates Small-Scale Processing." The project identified resources and regulatory clarifications needed to support the development of more on-farm and value-added processing in Maryland. The project focused on stimulating both growth and profitability. This guide is an output of the project, printed in 2009 and intended to be a resource for Maryland entrepreneurs. Many other topics including regulations, licenses, entrepreneurship, and processing resources and equipment are available online at www.mredc.umd.edu.

Project partners included University of Maryland Cooperative Extension, Maryland Department of Agriculture, Maryland Department of Health and Mental Hygiene, and Future Harvest – A Chesapeake Alliance for Sustainable Agriculture.

Material for this guide was researched, written, and formatted by Ginger S. Myers, Regional Marketing Specialist & Director of the Maryland Rural Enterprise Development Center, University of Maryland Cooperative Extension, and Billie Best, an independent consultant in Alford, Massachusetts. Where applicable, references have been cited from the United States Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) and the Code of Federal Regulations (CFR).

Reasonable effort was made to ensure the accuracy of the information in this guide. However, content and interpretation of laws and regulations are subject to change. The effect of future legislation and interpretation cannot be predicted. This guide is not intended as legal advice.

Mention, visual representation, or referred reference of a product, service, manufacturer, or organization in this publication does not imply endorsement by the authors or any project partners. Exclusion does not imply a negative evaluation.

ACKNOWLEDGEMENTS

The authors would like to thank several people and organizations who contributed in the effort to produce this guide. Some asked a question that required research, some provided the research, and some assisted with updates and edits. All comments, ideas, references, contacts, interpretations, and reviews were valuable. Most were used in some way during the evolution of this publication.

Jody Menikheim, formerly with the Maryland Department of Health and Mental Hygiene, currently working with the FDA and Jane Storrs, Maryland Department of Agriculture, retired, are recognized here as significantly contributing their time and talent to this project.

This works builds on and borrows from the previous work of the Northeast Sustainable Agriculture Working Group (NESAWG) project called, “Northeast Ag Works!” (funded by W. K. Kellogg Foundation) and one of the outputs of that project, a report titled *Understanding Food Safety Regulations for Farm-Direct Sales: A Study of Connecticut, Massachusetts, New York and Vermont.*

INTRODUCTION

Maryland's farmers are ardently searching for ways to increase their profitability. According to the survey, "Local & Organic – Bringing Maryland Organics from Farm to Table," conducted in 2004 by the Chesapeake Field Institute, three-quarters of farmers are trying out value-added labels and this does not include the certified organic label. Many have diversified their marketing outlets and now are looking to diversify their product inventory by creating value-added products. Fruit and vegetable, niche meat and poultry producers are all clamoring for more opportunities to process and sell value-added products because processing their own products has the potential to greatly increases their profit margins.

Maryland farmers and food processors need to know and work with the regulations that apply to the food products they sell. Complying with food safety regulations requires learning and understanding the applicable regulations, working with appropriate federal, state and local authorities, processing paperwork, and meeting standards for compliance. To support farmers in their efforts to develop value-added products, this guide is an overview of the regulations and business development processes for on-farm processing and marketing farm products in Maryland. Special emphasis is placed on understanding regulations and the regulatory process. Regulators focus their efforts on ensuring that all products are produced and distributed in a wholesome manner. These regulations should be viewed as guidelines for producing and delivering the highest quality products to your customers.

In addition to food safety regulations, the most common regulations for food processors include business registration, contracts, zoning, insurance, taxes, labor, licenses, and weights and measures. Most of these business regulations represent administrative requirements and a fixed cost to the business. However, from a business planning perspective, food safety regulations are of particular significance

because they can define the scope of operations, they may require investment in equipment and infrastructure, and they may limit market access. Complying with food safety regulations can be a significant factor in building a profitable food processing enterprise.

At the same time, regulating food safety is an important way to assure the public about the safety of food. Consumers have reasonable demands about the safety of food products, and regulators have a responsibility to make sure food products meet applicable laws and standards. Processors who develop good communications with regulators can find a tremendous source of information and support in the experienced personnel at the Maryland Department of Health and Mental Hygiene (DHMH), Maryland Department of Agriculture (MDA), the United States Department of Agriculture (USDA), and the Food & Drug Administration (FDA).

GETTING STARTED

The food business is extremely competitive. Having a competitive edge means starting out with a sound plan and then continuously improving your business processes and products. You may have a good idea one day and soon see your idea copied by your competitors. Therefore it is important to know where you have a competitive advantage. It may be your customers are loyal to you because they appreciate having your farm in their community, they enjoy shopping at the local farmers' market, they feel safer knowing where their food comes from, or they simply relish the taste of the food you produce.

Successful food processing entrepreneurs are continuously learning about their business in order to improve it, lower their costs, and increase their profits. Understanding the business cycle is key to designing your operations because each stage in the business cycle informs the next. In the beginning, the product concept is the basis for the business strategy. The marketing plan is a tool for accomplishing your strategy. The production process, and marketing and distribution are defined by the business strategy and the marketing plan. Sales activity is the result of all the effort that came before it, a critical measure of the success of the product concept, and valuable information for refining future product concepts. Studying your sales activity is one of the best ways to learn how to improve your product and your business operations.

Success Means Continuous Learning for Food Processing Entrepreneurs

CONSIDER THE BIG PICTURE

Most start-up ventures fail because entrepreneurs do not see the big picture. They become very focused on their product without seeing the whole system in which they must work. The whole system includes you personally, your household, your community, your employees, your farm, your business operations, your market, your competition, your suppliers, your regulators, government agencies, the overall economy, your ecological environment, your climate, and perhaps more. Seeing yourself and your business in the big picture will help you maintain a realistic perspective on your food-processing venture.

Ask yourself tough questions. Are you willing and able to invest the time and effort necessary to plan this business, research the profit potential, and develop a product that maximizes your opportunity? Have you evaluated your personal and material resources to determine if this type of business is a good fit for your family and your farming operation? Can you afford the risk of failing? Can you handle the additional work and momentum of success?

Like any start-up venture, starting a specialty food processing business takes careful planning. Before you turn out your first jar of jelly or can of organic vegetable soup you will need to devote many hours to market research, phone calls, letters, office visits, learning regulations, and making critical decisions. Months or even a year is not an unreasonable amount of time to spend in preparation. You will need to establish goals, a financial plan, and a marketing plan so you can prove your potential for making a profit. To evaluate your opportunity and demonstrate your competence to collaborators and regulators, you will need a written business plan that demonstrates your understanding of your business, explains your strategy for making money, and outlines the logistics of how you plan to supply market demand for your product.

Who will purchase your product? Anyone with a new product or service must know their target market. What is your customer profile?

What is their lifestyle? What is their age, sex, income, buying habits, where do they live, how much do they spend on related items, where do they shop, what do they read?

Do you know how much your customers will pay for your product?
Have you done a price/quality comparison between your product and your competitors' products? Consumers are generally willing to pay a premium for specialty or gourmet items. Are you producing a gourmet product? Where does your product fit in the marketplace? Knowing what your customers will pay is an important component in determining your break-even point. It will help you to calculate how many pounds, jars, or units of this product you need to sell to be profitable. Do you have the capacity and resources to generate that volume of product? Remember, the goal is not just to break-even, but to make a profit.

How will you produce your product? Unlike other small businesses, the food business is unique in that what you produce can have a direct effect on your customer's health and safety. As a result food safety is a driving force in the food business, and a critical success factor for food processing entrepreneurs. If you want to make a food product for retail sale, with very few exceptions, you will not be able to make it in your home kitchen. This means you will either have to build your own facility and buy equipment, rent existing facilities and equipment, or contract with an existing food processor to "co-pack" your product for you.

What is the formula or recipe for your product? You may make small batches of your product for family and friends, but that recipe may not convert to large batch production. Large production runs demand developing large batch recipes. Where can you get professional advice on adjusting recipes and improving the shelf-life of your product? What is the shelf-life of your product? Where can you purchase the ingredients, packaging containers, and labels that make your product attractive and safe to the public?

Are you aware of the local, state, and federal regulations that govern your business? What type of license or permit is required to operate your business? Which federal, state, and/or local authorities have jurisdiction for setting standards, giving approvals, and issuing a license or permit for your product? Are there zoning ordinances or land use restrictions that affect the type of business you may operate on your property?

Do you have the required education and training to operate your business venture? Do your employees? You may be required by law to take training on food processing, and basic food safety and sanitation procedures. What are the specific labeling and distribution requirements for your product? Your product and your label may need to comply with the Food Regulation Standards developed by the Food and Drug Administration (FDA). If you are producing a product using livestock, you may also need to comply with USDA regulations.

Can you make money with this enterprise? A common characteristic of many small or on-farm specialty food processors is that they are "income patching," meaning food processing is one of several sources of household income rather than the processor's sole source of income. Therefore it is particularly important that your new business venture is profitable and not a drain on your personal economy. Be realistic about how much time and money you can commit to this new enterprise. Plan to have money set aside for those unexpected bumps in the road.

Are you aware of the risks? Risk is an intrinsic part of any business venture and starting a new food processing business is no exception. Do you understand the full scope of the risks of your operation, including production processes, marketing and distribution, food safety, and employee safety? What is your liability? The costs of mistakes can be staggering in terms of stress, family relations, self-image, and personal finance. Do you have the proper insurance coverage for your venture?

Do you have the necessary capital required to fund this new business? One way to minimize risk is to start small, with a pilot project or a test market. You may be able to start out basing your success on ingenuity first, labor second, and money third. But eventually, you will need the capital to fund your start-up venture. Stephen Hall, in *From Kitchen to Market* suggests, "Depending on your approach, you can expect to incur minimum start-up costs of approximately $35,000 to $100,000 or more for each year for the first three to five years." (Hall p. xiv).

Perhaps the most important thing you can do to protect yourself, your investment, and your business, is to be realistic. What is your capacity for change? How resilient are you? Have you approached your business development in phases to prove your ideas are valid each step of the way? Before you invest in permanent facilities, hire labor, or quit your day job, have you test marketed your product in a competitive environment? Have you proven there is a demand for your product? Answering these tough questions reduces your risk because it ensures a thorough, thoughtful approach to developing your business. Being realistic about your capacity for failure is one of the best ways to ensure your success.

Getting Your Ducks in a Row and Ready for Launch

1. Define your product.

2. Know the regulations that govern your product and your business, and the names of the required licenses and permits.

3. Meet with the regulators that oversee your business and issue the required licenses and/or permits.

4. Assess the environmental impact of your product and your business.

5. List the demographics of your potential customers.

6. Map your sales territory.

7. Source-identify all the ingredients in your product.

8. Produce a sample label for your product.

9. Model the per-unit cost of your product.

10. Contact all your suppliers to validate arrangements.

11. Do a pilot project to validate your production process.

12. Do a test market study to validate customer perceptions of your product and pricing.

Ducks in a row....

To get one's ducks in a row essentially means to ensure all of the small details or elements are accounted for and in their proper positions before embarking on a new project.

Mother ducks often corral their young offspring into manageable straight lines before traveling over land or water. Any stragglers or escapees would be noticed as long as the integrity of this line is maintained.

PRODUCT DEVELOPMENT

Product development is the process of putting your ideas into action and testing your assumptions about what will be successful. Now is the time to set up your organization, begin good record keeping, and establish good communications. Reach out to the people you will be working with and gather feedback on your business concept. Get a sense of who is enthusiastic and who is skeptical. Then ask why.

As you develop your first food product you are also developing your brand. A brand represents a set of values, which by their nature trigger an emotional response. If we share the values, we are attracted to the brand. If we are repelled by the values, we are repelled by the brand. A widely popular brand represents a widely shared set of values. What values will your food product represent? How will you communicate those values?

More than likely, your food product will fall into the category of specialty foods because it is not mass-produced. Consumers are attracted to specialty foods for many reasons. They may have the image of them being homemade from natural ingredients, uniquely packaged, or specially prepared. They may want to support their local economy, or reduce their own ecological footprint by eating food grown closer to home. Or they may simply believe farm fresh foods taste better.

Many specialty foods are not really new, but innovative variations or unique combinations of existing ingredients or products. Your “Jammin’ Jelly” is not a new product, but it is an improvement on generic jelly, with a new name and, perhaps, a new style of packaging. Consider how much of your product’s value is based on the actual ingredients versus your clever marketing idea.

Do You Have a Marketable Product?

According to the Appalachian Center for Economic Networks, about 15,000 new value-added products are introduced each year. However, the failure rate is as high as 90 percent. A critical first step towards developing a successful value-added business is to determine whether or not you have a marketable product.

What is your product? Sounds like a simple question, but it's not. You must determine what exactly you plan to sell. Will it be fresh, refrigerated, or frozen? Is it canned or bagged? What size containers will you offer and what is the shelf-life of your product? Is it a stand-alone product or an additive?

Most importantly, before you chop the first tomato for your wonderful new salsa or go looking for the latest cheese culture, answer this set of questions:

- Who will buy my product?
- What is the competition?
- Where will it be sold?
- What will the price be?
- Why will they buy it?

Answers to these questions will help you better understand what your potential customers want. They will help you determine your market niche and facilitate writing your business plan.

Product development also includes packaging, labeling, FDA regulations, UPC codes, nutrition claims, and a cost and pricing analysis. Sometimes just a brief initial estimate of gross revenue potential can help entrepreneurs decide whether or not to take their idea into the business planning stage. Remember, the purpose of your business is to sell products at a profit, not make products that might sell.

Market Research

To develop your product you need to understand your target audience. *Who will buy your product?* You need to know their age, their gender, buying habits, where they live, how much they spend on products such as yours, and even where they get information about the food products they buy. This is called demographic information. Gathering this information is called market research. Conducting market research is part science and part intuition.

Test market your product in more than one setting to understand its viability, and actively seek customer feedback. Of course, there is no better feedback than repeat sales. Farmers' markets allow for customer feedback with every sale. Collect, record, and incorporate feedback on every aspect of your product.

Other sources of market research are industry trade shows (listed in the Resource Section), local chefs, food vendors, and specialty food shop owners. Read the food section of your local paper. Follow current food industry trends, consumer preferences, and industry leaders.

Identify Your Market Niche

Once you have determined what product you want to produce and who will buy it, you need to determine **where it will be sold**. Direct markets, grocery stores, institutional food service, mail order, and specialty shops are all very different markets. Identifying the venue best suited to your product will help you determine what niche market you should concentrate on developing. Niche marketing entails finding the best combination of product design, packaging, pricing, positioning, and promotion that will encourage a select group of customers to purchase your product.

Direct marketing through farmstands, farmers' markets and festivals is one of the most cost-effective methods of introducing your product to the marketplace. The product's reception at these outlets is a good indicator of how the product will be received in larger venues.

Direct marketing also allows direct customer feedback about product preferences, packaging sizes, and pricing. This information can help you form new marketing ideas or revise an existing marketing plan.

Grocery store markets are the hardest venues to enter. Shelf space in grocery stores command a premium, and most grocery stores require a “slotting fee” to place products on their shelves. These fees are non-refundable and they do not guarantee that your product will remain in the store. Another disadvantage in the grocery market is competition with large national chains in shelf space, advertising dollars, and pricing.

The **institutional food service market** is somewhat easier to enter than grocery stores. This market includes restaurants, schools, military facilities, penal institutions, corporate dining rooms and hospitals. While most government institutions are required to bid out their bulk food orders, specialty seasonal items can be added for menu variation. Specialty and local restaurants can actually help a small specialty food processor introduce their product to the public, while at the same time acquiring a unique item for their menu or ingredient for their recipes.

Specialty gourmet or health food stores often hold more potential for sales for the small food processor than any other food market outlet. The uniqueness of your product and/or your packaging becomes very important in this market. Gourmet shoppers are looking for high quality, good tasting foods in creative packaging.

Internet sales and mail order can work well for specialty food products because they are targeted to a specific audience by demographics, geography, and special interests. These sales offer farmers new ways to form long-distance relationships with consumers. The Internet is also a great way to research potential markets. There are many unique costs in mail order and Internet sales including printed materials, website design and maintenance, shipping and handling, lost shipments, and contact lists to develop and maintain.

Determine Profit Potential

Can you make money selling your product? What is the right price? What is your per unit cost?

You'll need to calculate all your costs, both fixed and variable. Fixed costs are the things that don't change whether you make one jar of salsa or 10,000 jars. These costs include rent, basic utilities, insurance, salaries, and taxes. Variable costs include such things as ingredients, packaging, labels, shipping, advertising, promotion, supplies, etc. Variable costs go up or down in relation to sales volume.

The sum of your fixed and variable costs are your cost of production. To find your cost of production per unit, divide the total cost by the number of units. Add the profit you want to make to the cost per unit. This gives you your initial sell price, the starting place for pricing your product.

Example: You sell gourmet apple butter for $10.00 per jar.

Selling Price		$10.00
Variable Costs		
Raw Material	$3.00	
Hourly Labor	1.00	
Sales Commission (10%)	1.00	
Shipping Charge	0.50	
Total Variable Costs		$5.50
Price minus Variable Costs		$4.50

The $4.50 is called the contribution margin because it represents how much is "contributed" from each unit of sales toward paying for fixed costs and profits.

Example: Fixed expenses (per month)

Lease payment	$ 800.00
Telephone	100.00
Insurance	50.00
Bookkeeping	100.00
Loan Payments	300.00
Total Fixed Expenses	$ 1,350.00

Question: How many jars of apple butter do you have to sell each month to pay for your variable and fixed expenses? 300 jars

The price of a product can make the difference between success and failure. The price you set may not be the final price. Everyone who handles your product before it reaches the consumer will mark it up to realize a profit too. Visit stores to check the price and availability of products similar to yours.

Consumers are generally willing to pay a premium for high quality specialty food products, but you must determine what the market will bear. This is where your earlier market research information really helps. That market research can give you a clearer picture of your potential customers' buying income and helps you to determine how price sensitive they are.

Once you have an estimated selling price and your production costs per unit, you need to determine how many units you need to sell at that price to make a profit. You need to determine your break-even point. Your break-even point is the point at which you have sold enough products to cover all your expenses. However, you are not going into business to just break-even making a product, but to make a product you can sell at a profit.

Check Out the Competition

Studying the competition can give you an abundance of information about your customer, the marketplace, and your profit potential — all for a minimal investment of time and money. When you make the effort to study what your competitors do and how they do it you may:

- Learn more about what the customer wants.
- Discover niche markets that the current competition isn't serving.
- Get ideas for marketing, merchandising, and product mix.
- Gauge how the competition will react to you entering their market.
- Think of complimentary products or services.
- Receive advice, information, help and support you cannot get locally from remote competition (similar businesses but not near your trade area).

Once you have studied your competition, make a list of your competitive advantages. Don't forget to leverage ever aspect of your business, including:

- **Place —** the farm, the scenic views, the clean environment, wild life, biodiversity, the countryside, rural heritage, local culture, local cuisine, your state, your region.
- **People —** your family, your employees, your community, fellow foodies, local citizens, local organizations, causes people care about.
- **Processes —** hand made, home made, home grown, farm fresh, locally produced, all natural, organic, grass-fed, integrated pest management, locally owned.
- **Price —** use place, people, and processes to explain and justify your price whether it is higher or lower than the competition.

MANUFACTURING YOUR PRODUCT

Don't assume because you are a good cook with a great idea you can produce your product in your home kitchen. In Maryland, with the exception of a few products in set quantities (refer to Appendix A), you cannot manufacture your product in a residential kitchen. Most processed or value-added foods must be manufactured in a licensed commercial kitchen. You must comply with federal and state regulations regarding the preparation of food products, regardless of the size of your business. Food safety is a requirement in all food processing.

Many food processors start making a product from favorite home recipes. A recipe usually has a list of ingredients with the amounts required and the method to prepare the recipe. These recipes and methods are suitable in small batches; however, they are not appropriate for commercial processing. To be useful in a commercial setting, you need to convert your recipe to weights and metric units and then into a workable, repeatable production formula. A recipe for four dozen cookies may need the ingredients and their proportions changed to make a batch of 400 cookies.

According to most sources, the most consistent measurement is weight (ounces, pounds, grams). Weight is the heaviness of a substance and is used to measure dry or liquid ingredients. Scales are required to weigh ingredients. Because we purchase most of our ingredients in metric weights, you may also want to convert ingredients from volume measurements to metric weights. Cups, quarts, teaspoons, fluid ounces, and liters are volume measurements, i.e., the space taken by a substance. Even though it may be quicker to measure by volume for recipes, when developing your formula you will want to convert the measurements to weight for accuracy.

The metric system of measuring is a decimal system and can make the costing and measuring of ingredients more convenient and accurate. Review your recipe and your ingredients, and determine the best way to

measure your ingredients. When your recipe is scaled up for large batch production, you will find it much easier to weigh the ingredient rather than measure by volume.

If your recipe gives the ingredients as:

- **Volume measurement**, such as cups, to convert to equivalent weights measure the ingredient and weigh it.
- For **liquid measurements**, such as cups of milk, there is no need to weigh, just convert to liters or milliliters.
- **Teaspoons and tablespoons** require a recipe gram scale to obtain an accurate weight.

Consult with an accredited professional, such as a Process Authority to scale up your recipe. A Process Authority is a person or institution with expert knowledge and experience to make determinations about the safety of a food process and formulation, and is required to maintain product confidentiality. While you may be able to modify your recipe yourself, it is strongly recommended that you work with a food consultant for your recipe expansion.

A food consultant may work for a company that also provides process-auditing services. Food process auditing companies assist food processors by providing expertise in recipe expansion and food testing to help guarantee food safety. They work closely with processors to assure their process practices meet the FDA's Good Manufacturing Practices requirements and comply with the Hazard Analysis and Critical Control Point (HACCP) Program.

A Process Consultant will help design a written program for your food manufacturing process and your processing facility. The program ensures safe and sanitary food processing in your facility. Process Consultants can also advise you on food labeling requirements, product storage, and transportation issues.

Analytical Testing

One of the first steps in developing the production process for you new product is to have your product analyzed for safety. Process Consultants usually have this testing done at their in-house laboratory. A list of analytical and microbiological testing laboratories is available in the Resources Directory of this manual. These tests help determine product safety and shelf life. A Process Consultant will use your test results to pinpoint potential problems in your processing procedures or recipe design.

Food analyses may include pH (acidity or alkalinity), water activity (moisture), shelf-life (product life under storage conditions), microbial testing and chemical composition. These tests will range in cost from $15 for a pH test and $10 for a moisture test, to over $100 for a dietary fiber test.

Most laboratories also provide nutrient labeling information. This is important if you are required to provide a “Nutritional Facts” label on your product. The Nutritional Labeling NLEA 90 Package required by the FDA for several classifications of processed products requires testing for the product’s total contents of dietary fiber, iron, calcium, sodium, vitamin A, vitamin C, total sugar, and cholesterol and fat composition. A laboratory certified label-ready presentation of the Nutritional Facts Panel, with calculations of Percent Daily Values, usually costs at least $600.

You should receive your test results back from the laboratory on a Certificate of Analysis. This may be a very simple form or a more elaborate report. This document verifies that certain microbiological, chemical, or physical analyses were conducted on the product, and the product performed within the established criteria.

Safe Food Handling

Food processing procedures and manufacturing facilities should:

- Follow the Hazard Analysis and Critical Control Point System.

- Use Good Manufacturing Practices.
- Complete training programs on food safety.
- Have in place sanitation programs and procedures to ensure clean and sanitary processing equipment and facilities.
- Have a trace-back system to trace raw materials and ingredients to finished product and outlets.
- Have an in-house audit system.

HACCP, Good Manufacturing Practices, and other food safety criteria and training will be discussed in more detail later in this chapter. You will need to have these plans in writing to submit with your Facility and Process Review application.

If your product is sold across state lines, it will be subject to regulations of the Federal Food, Drug and Cosmetic Act and Fair Packaging and Labeling Act. These include labeling, ingredients, preparation, and handling requirements.

Durable Life (Shelf Life)

Durable life is the period, starting on the day that a product is packaged for retail sale, during which the product, when stored under appropriate conditions, will retain, without any appreciable deterioration, its normal wholesomeness, palatability, nutritional value, and any other qualities claimed for it by the manufacturer.

Factors that affect shelf life include:

- Original quality of the product
- Harshness of processing method
- Effectiveness of barrier and physical protection of the packaging
- Appropriate storage conditions

You determine shelf life primarily through laboratory testing, along with sensory evaluation. An experienced food microbiologist can help you assess the shelf life of your product.

Food Standards Regulations

If you plan to process heat-processed, low-acid canned foods and acidified foods, you are required to be registered with the FDA, which regulates low-acid (pH 4.6 and above) and acidified canned foods. Low-acid canned food and acidified food processors must also have their processes approved by a recognized Processing Authority. Full text of the low-acid canned foods and acidified food regulations is in the Code of Federal Regulations (CFR), Title 21 Parts 108, 113, and 114. To obtain these regulations, contact:

Superintendent of Documents
Government Printing Office (GPO)
Attn: New Orders
P.O. Box 371954
Pittsburgh, PA 15250-7054

There are nine volumes of Title 21, but only Chapters 1 through 3 apply to small scale food processing, including general regulations, food standards, Good Manufacturing Practices and food additives.

Food Standards, as published in the CFR Title 21, are regulations enforced by the FDA. These standards assure consumers that products that are labeled the same are, in fact, the same products. Examples of standardized food are peanut butter, ketchup, and jams and jellies.

Food Standards include:

- Standards of Identity — What a given food product is, its name, and the ingredients used to make it.
- Standards of Quality — Minimum standards and specifications for quality requirement.
- Fill of Container — Defines how full the container must be and how this is measured.
- Imitation Food — A substitute that resembles another food, but is nutritionally inferior to that food and must bear the label “imita tion.”

Facility and Process Review

Once you have obtained your Scheduled Process documentation (see *Food Safety* section to follow), you will have a better concept of the facility that will be required to process your product. When applying for a food processing facility license, you will need to submit a detailed drawing of your plant design and a list of equipment to be used in handling and processing your product.

The Department of Health's Food Establishment Plan Review provides a step-by-step process to help you design and construct a facility that meets all the state's food processing regulations and provides for the safest and often most efficient production of your product. A copy of Department's *Processing Plant Plan Review General Notes* is contained in the Appendices Section of this manual.

Once you have a general plan and a preliminary drawing of your facility's floor plan, contact the Department of Health and Mental Hygiene and request a *Food Establishment Plan Review* packet be sent to you. The materials in this packet include application forms and detailed requirements on facility drawings, construction materials, a written HACCP plan, plumbing and ventilation requirements, restrictions on sources of potable water, required food processing equipment, lighting, waste disposal requirements and more. Familiarization with the plan requirements will save you several steps in the review process. Make additions and corrections to your general plan and facility drawings based on this detailed information. A copy of this information is also available in the Appendices Section of this manual or online at www.dhmh.state.md.us.

Once your plan has been submitted, it will be given an initial review. You will be contacted to supply any missing information. This will prolong your review process, so make your initial submission as complete as possible.

The Product

1. Develop a prototype. Test it on people. Collect and incorporate feedback on flavor, texture, appearance, packaging and price.
2. Determine the market form you would like the product to have: shelf-stable, refrigerated, frozen, baked, canned, etc.
3. Determine the batch size you will need for commercial operation. A good start-up size for a liquid product (dressings, etc.) is 5-10 gallons. For solid product, consider a 15-25 pound batch.
4. Consult a Process Authority to scale up your recipe. Take the following into consideration:
   - The formulation may change due to regulatory and food safety requirements.
   - Testing (pH, water activity, etc.) may be required for compliance with regulations.
   - It may take several attempts to achieve a scaled-up product comparable to the original; ingredient amounts will not change proportionately. For example, you may double the tomato sauce in a BBQ recipe but find you only need to slightly increase the amount of garlic.
5. Get approval for your recipe from a Process Authority. The resulting document, a Scheduled Process, will help avoid product safety and quality issues.
6. Determine the cost of ingredients based on your approved, scaled-up recipe.

UNDERSTANDING THE FOOD SAFETY SYSTEM

The government sets the standards for food safety and enforces them through the licensing process. Jurisdiction over food safety regulations and licensing is divided among a few different government agencies. In general, federal regulations supersede state regulations, and state regulations supersede local regulations. States may be more restrictive, but not less restrictive than federal regulations. In the same spirit, some states like Maryland have “home rule” which means designated areas may act independently, and their regulations may be more restrictive than state regulations.

At the federal level the Food & Drug Administration (FDA) and the United States Department of Agriculture (USDA) have jurisdiction, which means they have the authority to make and enforce regulations applicable to any state or territory. Within the USDA is the Food Safety Inspection Service (FSIS). FDA and FSIS have overlapping authority for making and enforcing food safety standards, which adds to the complexity and confusion in our food safety system. For example, FSIS regulates livestock and dairy farms, but FDA regulates milk pasteurization. FSIS regulates animal slaughter facilities and grades meat, but FDA regulates products that contain meat as an added ingredient, such as sausage pizza and frozen dinners. FSIS regulates eggs, but FDA regulates processed egg products.

At the state level, each state has a department of agriculture and department of public health, each of which must, according to federal law, adopt and enforce food safety regulations at least equal to federal standards. State standards may be more restrictive than federal standards, but not less restrictive. Federal standards are set in large, complex pieces of legislation such as the Federal Meat Inspection Act and the Pasteurized Milk Order, which may be amended or re-interpreted over the years. Therefore, most states adopt federal regulations into state legal code “by reference,” meaning they don’t put the federal language word-for-word into state code, they simply refer to the federal law by name only as being incorporated into state law. In

effect, this requires food processors to have working knowledge of federal regulations in order to understand and comply with state regulations.

At the local level, the food safety system becomes particularly complex, with quite a bit of variation in authority, process, interpretation, and enforcement. Each state is different, and in many states, each county or municipality may be different. In some states, food safety inspectors work under the auspices of the department of agriculture. In other states, they work under the auspices of the department of public health. There may be different inspectors for different food products and production processes. A food safety inspector may be from the local board of health or the county health department or a regional district. And training and education for food safety inspectors varies widely. All of these things combine to make licensing and inspection of on-farm food processing complex.

Jurisdiction and Authority

USDA and FDA share federal jurisdiction. All food in "interstate commerce" — food produced in one state and sold in another state — must meet requirements of USDA and/or FDA. Food sold retail or wholesale must come from "an approved source" as defined by government regulations. Food and the facility where it is produced, stored, and sold must be inspected unless it falls under an exemption. Some federal regulations include specific exemptions for certain foods and operators, although some states may not allow those exemptions.

The main role of USDA is to develop and manage products and markets for U.S. agriculture (food, fiber, forest, horticulture). USDA exercises authority over on-farm processing through these programs:

Agricultural Marketing Service (AMS)

- Specific programs for dairy, poultry, fruits and vegetables (Good Agricultural Practices or GAP), livestock and seed, organic standards

Animal and Plant Health Inspection Service (APHIS)

- How animals/plants are grown, where they come from, how illnesses are treated, how identified, tagged, or labeled, NAIS

Food Safety and Inspection Service (FSIS)

- Oversees domestic and imported meat, poultry, and eggs, plus foods where they are an ingredient
- Hazard Analysis and Critical Control Point Program (HACCP)
- Regulates meat and poultry from farm to table

FDA is within the U. S. Department of Health and Human Services. Its mission is to protect the public health by assuring the safety, efficacy, and security of human and veterinary drugs, biological products, medical devices, food, cosmetics, and products that emit radiation. FDA oversees all domestic and imported food sold in interstate commerce, but not meat and poultry. The agency also has oversight for animal feed, veterinary drugs, and pesticides. It shares jurisdiction with USDA over eggs and egg products. FDA programs include: Acidified and Low Acid Canned Foods, Color Additives, Dietary Supplements, Food Ingredients and Packaging, Foodborne Illness, Food Labeling and Nutrition, Hazard Analysis and Critical Control Point (HACCP), Infant Formula, Pesticides and Chemical Contaminants, and Seafood.

USDA and FDA share jurisdiction over food quality, safety, sales, and marketing. As a result of this overlap there is often overlap at the state level between departments of agriculture and public health. A state department of public health is analogous to the FDA. A state department of agriculture is analogous to the USDA. State regulations govern “intrastate” production and sale — food produced and sold within the state. State regulations are typically customized to a state’s economy, agriculture, markets, style of government, and administrative infrastructure. Each state has a unique approach to food safety and on-farm processing with different:

- Department and division names
- Administrative structure and staffing

- Regulations and policies
- Programs and services
- Communications and media
- Language and nomenclature
- Culture and attitude

Local health departments are responsible for food safety regulation at the local level, including enforcement of federal and state regulations. Local authorities may be empowered to create additional local regulations appropriate to community's specific circumstances. It is important for farmers to know a local health inspector's interpretation of food safety regulations. Local health departments have many responsibilities in addition to food safety regulation. In small rural communities, the local health inspector may be a part-time job, however, the inspector may be very familiar with farms and farm-direct food sales. In large urban communities, the local health inspector may have more expertise in food safety for restaurants and grocery stores, and less familiarity with farms and farm-direct food sales. Regardless of their knowledge and experience, local health inspectors are on the front lines of food safety.

Standards & Licenses

Food safety standards are the basis for licensing a food business. To get a license the applicant must show they meet the standards established in food safety regulations. Inspectors interpret and enforce the regulations as they apply it to actual circumstances. There are five areas where local, state, and federal governments have instituted regulations to ensure food safety, quality control, and consumer protection: *food processing, food processing facilities, food storage, package labeling, and food distribution.* The licensing process is a way of setting standards in each of these areas and enforcing them to protect public health.

The effect of regulations varies widely based on the type of food being considered and the scale of the operation. *Food processing*, as regulators define it, can range from cutting a watermelon in half to

pasteurizing milk. A *facility* may be as simple as your home kitchen, or as complex as a slaughterhouse. *Storage* ranges from an open-air basket of baby greens to a humidity-controlled walk-in freezer. *Labeling* may be as simple as a handwritten address on a used egg carton, or as complex as the list of ingredients and nutrition information on a jar of spaghetti sauce. *Distribution* may be a self-service store in a farmer's barn or trucking food across the country.

Food processing regulations are very specific for each food and/or process. A fruit or vegetable is considered "processed" as soon as the protective outer layer of the skin or husk is broken, exposing it to pathogens. A melon cut in half is "processed" because the flesh of melon is exposed to bacteria as soon as it is cut. Cutting melon in half before it is sold must be done in an inspected food processing facility. Meat is "processed" once the animal is no longer adive. Killing and packaging of an animal as food is governed by food processing regulations.

A food processing facility is anywhere food for human consumption is processed or prepared, whether a farm, factory, slaughterhouse, packing plant, dairy, shared-use kitchen, or home kitchen. Regulations often refer only to "food processing plants."

Facilities are licensed or permitted to handle specific types of food production and sales, such as direct-to-consumer, retail, or wholesale. The license correlates to the type of food processing the facility is designed for, the type of equipment and infrastructure required, and the processes specified in food safety regulations.

Food safety regulations specify conditions under which food may be stored before it is sold. Storage conditions are critical to avoiding contamination and spoilage. With farms, farm stands, farmers' markets, and food buying clubs, food is often stored in more than one place before it is purchased. Storage regulations specify time and temperature, and how long temperature must be maintained. Storage regulations specify conditions for the place where the food is stored, be it a truck,

cooler, warehouse, or pantry shelf. Storage regulations may also specify packaging requirements, e.g., packaging materials, or whether food is required to be packaged by machine rather than hand. Packaging requirements may be influenced by storage conditions.

Labels are required for all prepared foods, including breads, cereals, canned and frozen foods, snacks, desserts, drinks, etc. USDA, FDA, state departments of agriculture, and state departments of health have specific labeling requirements for each type of food. Labels provide information to trace a food back to its source, identify ingredients, warn of potential health hazards, recommend storage conditions, and verify weight or volume, quality or grade, calories and nutrition. Label requirements may be linked to how food is processed, where it is processed, how it is stored, and how it is distributed.

Regulation of food distribution – moving food from wherever it is produced to the place where it will be sold – begins with the licensing of food processing facilities. A USDA or FDA licensed facility may distribute food anywhere in the United States. In most cases, a facility licensed by a local inspector may distribute food only via retail sales (in other words, the licensee may not wholesale) within the state. A farm-direct sale is a retail sale.

GMPS & HACCP

In addition to state requirements, most specialty foods are subject to federal regulations because products cross state boundary lines during distribution. The federal agencies responsible for food safety are the Food and Drug Administration (FDA) and the United States Department of Agriculture (USDA). There are three programs that food processors must follow to operate in accordance with state and federal regulations. These include:

- Good Manufacturing Practices (GMP)
- Hazard Analysis Critical Control Point System (HACCP)
- Better Process Control Training (where applicable)

Good Manufacturing Practices (GMP)

A food processing operation should be designed and operated in according to "Good Manufacturing Practice" regulations. A copy of these regulations is available from the regional FDA Office.

FDA Regional Office
Baltimore District (BLT-DO)
900 Madison Avenue
Baltimore, MD 21201
Phone: 410-962-4012
Fax: 410-962-0044

Working through the "Food Establishment Plan Review" process with the Maryland Department of Health and Mental Hygiene's Bureau of Food Control will help guarantee you meet these requirements. Here is a general outline of GMP regulations. All food plants, except meat and poultry, are subject to inspection by the FDA to ensure compliance with these regulations. Specialty foods containing meat and poultry fall under the jurisdiction of the USDA. For more information concerning food safety regulation for meat and poultry products, call the USDA Meat and Poultry Hotline, (800) 535-4555.

Personnel

A. disease control
B. cleanliness
C. education and training
D. supervision

Plants and grounds

A. grounds
B. plant construction and design

Sanitary facilities and controls

A. water supply
B. sewage disposal
C. plumbing
D. toilet facilities
E. hand-washing facilities
F. rubbish and offal disposal

Sanitary operations

A. general maintenance
B. animal and vermin control
C. sanitation of equipment and utensils
D. storage and handling of cleaned, portable equipment and utensils

Equipment and procedures

A. general
B. use of polychlorinated biphenyls in food plants

Process and controls

A. raw materials and ingredients
B. raw ingredient containers and carriers
C. ice
D. food processing areas
E. food processing equipment
F. good processing conditions and controls
G. testing procedures
H. packaging processes and materials
I. product codes
J. storage and transportation of finished products

WHAT DOES THIS MEAN (IN GRAY TEXT)? Natural or unavoidable defects in food for human use that present no health hazard.

Bulletin 1051/March, 1991, The University of Georgia and Ft. Valley State College.

The FDA publishes a compilation of "Current Good Manufacturing Practice (CGMP) Regulations" and any amendments to the current regulations is the Federal Register. The CGMP are printed in Title 21 Code of Federal Regulations, Part 110 (21 CFR 110).

You may subscribe to the Federal Register's online database by sending e-mail to the GPO Access User Support Team at gpoaccess@gpo.gov. For more information, contact Electronic Information Dissemination Services, U.S. Government Printing Office at 202-512-1530, or 888-293-6498 (toll free).

Hazard Analysis Critical Control Points (HACCP) Program

HACCP (pronounced "hassip") is a program designed to be useful in the prevention of food safety hazards. Food processors and food processing facilities develop a HACCP plan customized for their operation to ensure they understand and monitor points in their production process critical to food safety. In the past, periodic plant inspections and sample inspections have been used to check product quality and ensure safety. However, inspection and sample testing provided information relevant only for the specific time the product was inspected or tested. What happened to the product before or after? This method offered the public little protection or assurance that the product was safe and stable.

HACCP plans, which may be mandatory in some jurisdictions, are pro-active in their approach to food safety. HACCP Systems control safety before and during the manufacturing process, rather than trying to detect problems by testing the finished product. Developed by the

Pillsbury Company in the 1960's as a way of producing safe food for NASA, the system identifies potential problems before production begins, allowing for effective monitoring during production to make sure the problems have not occurred.

Since then, the principles of HACCP have been adopted by a number of food industry segments. The use of HACCP principles are required by the U.S. government in the seafood industry, juice operations, the meat and poultry inspection service, and in those plants that produce meat and poultry products. Discussions are currently underway to include dairy and fresh and processed produce under these requirements as well.

HACCP consultants can help you set up a system. The Maryland Department of Health and Mental Hygiene also has a fact sheet, "Guidelines for Submitting A Hazard Analysis Critical Control Point Plan" that includes detailed information on plan requirements and examples of completed plans. You can obtain a copy of these guidelines by calling the Department at (410) 767-8440 or from their website at www.dhmh.state.md.us.

HACCP has worked well in the food industry and is here to stay. It protects your business and your customers and can be a selling point for your product. An understanding of HACCP concepts and principles should be incorporated into your product development plans.

7 Principles of HACCP

1. **Hazard analysis of the food.** This principle involves a hazard analysis of the product from delivery of the raw ingredients to the consumer's plate. There are three kinds of hazards in food preparation.

    - Biological hazards such as bacteria and viruses.

- Chemical hazards such as toxins, improperly used pesticides, or cleaning compounds.
- Physical hazards such as foreign objects like glass, metal, plastic, or wood.

You should develop a flow chart that includes how your product is produced, the packaging involved, the temperature requirements for storage, distribution and display of your product, and finally, your intended customer base. This chart will help you identify any possible sites for the introduction of hazards into your production and distribution process. Your chart should also list the steps that will be taken to control the hazard.

2. **Identification of critical control points (CCP's).** A critical control point is a step in your food preparation during which a safety hazard can be prevented or eliminated. Typical critical control points include cooking time/temperature parameters, proper acidity (pH) and/or drying steps in your food process.

3. **Establish critical limits.** All CCP's must have preventive measures that are measurable within critical limits. The critical limits guaran tee safe production of your product and are defined in your Certified Process. If the critical limit criteria are not met, the process is "out of control" and food safety hazards are not being prevented or eliminated. Examples of critical limits include checks of processing temperature, processing time, and maintaining proper pH.

4. **Establish monitoring procedures.** Monitoring is a planned se quence of measurements or observations to insure that the process is in control. It allows you to determine if the processing is proceeding correctly, and if not, to make adjustments before loss of control occurs. The monitoring interval must be adequate to ensure reliable control of the process. Examples of monitoring include visual observations, checks on processing time and temperatures, and checks of moisture levels.

5. **Establish corrective action.** HACCP is intended to prevent variations in your product or your production process. Mistakes will happen. If they do, you must have a written plan for correcting the situation and disposing of the product. Examples of corrective actions are discarding the food, fixing the problem, and maintaining a written history of the actions taken.

6. **Establish verification.** Review your HACCP system at least annually to make sure it is working properly. Additional audits should be done if you add new equipment or change your Authorized Process.

7. **Establish recordkeeping.** The HACCP system requires the preparation and maintenance of a written HACCP plan. This plan must include all records generated during the monitoring of each CCP and notations of corrective actions taken. Keep daily records and review them daily to ensure that your system is operating within controls. *Keep your recordkeeping system simple.*

HACCP is only one tool in your food safety program and is not meant to be a stand-alone program. It should be coupled with other food safety processing tools such as Good Manufacturing Practices and Sanitation Standard Operating Procedures. HACCP plans can and should change as your processing business changes. When changes occur in your process, your HACCP plan must be evaluated and revised by a recognized Process Authority to reflect those changes.

The specific requirements for each of the seven principles can be found in the Code of Federal Register, Part 417-Hazard Analysis and Critical Control Point (HACCP) Systems. For more information, contact:

- USDA/FSIS, HACCP Small Plant Coordination Office (202) 720-3219.
- USDA Food Safety and Inspection Service Website: www.fsis.usda.gov.
- Food and Drug Administration, Foodborne Illness Education information Center, USDA/FDA HACCP Training Programs and Resources Database, Website: www.nal.usda.gov/fnic/foodborne/haccp/index.shtml.

•USDA Meat and Poultry Hotline, (800) 535-4555.
•Maryland Department of Health and Mental Hygiene, Office of Food Protection and Consumer Health Services. Website: www.mdpublichealth.org/ofphs/index_mp.html, (410) 767-8400.

States may have HACCP Plan guidelines that vary in title from the seven principles listed, but not in content. Annotated Code of Maryland, Health-General Article, and the Code of Maryland Regulations requires that plans and specifications be submitted to the Maryland Department of Health and Mental Hygiene when a person proposes to construct, remodel or alter a food establishment, or convert or remodel an existing building for use as a food establishment.

This information is used to make a priority assessment of the facility. A HACCP plan is required for all high or moderate priority facilities. For a copy of Maryland's "Guideline for Submitting a Hazard Analysis Critical Control Point (HACCP) Plan" that lists the necessary information for priority assessment and developing a HACCP plan, contact the Office of Food Protection and Consumer Health Services.

FOOD PROCESSING

What constitutes food processing? “Food processing” is the treatment of a food substance to change its properties with the intention of preserving it, improving its quality, or making it functionally more useful. Food preservation through processing is an extremely broad area in food science.

The Virginia Tech College of Agriculture and Life Sciences, Virginia Food Processor Technical Assistance Program is an excellent resource for information concerning small batch processing. Much of the following material concerning Approved Processing and Processing terms were taken from this source. Visit http://www.fst.vt.edu/extension/valueadded for a more detailed discussion of these topics.

On-Farm Food Processing

On-farm food processing is food processing done on the farm with food produced on the farm. On-farm food processing is an important market opportunity because it:

- Increases the farmer’s share of food dollars by eliminating middlemen
- Enhances farm profitability and viability
- Expands consumer access to fresh, whole, foods
- Builds the local agriculture economy, creates jobs
- Contributes to community culture and cuisine, quality of life, tax revenues
- Reducing food miles, conserves energy

The Scheduled Process

What is a Scheduled Process?

A detailed procedure for a single product issued by a recognized Process Authority that includes formulation, critical control points, processing steps, and storage, distribution, and selling conditions/restrictions.

Why have a Scheduled Process?

- It is required by FDA for acidified (pickled) products that do not need refrigeration.
- It is required for most products in Maryland, (although we recommend it for any product in any state for the reasons listed below).
- The development process forces a critical study of your operations leading to the discovery of potential safety concerns:
    1. Unmet regulatory requirements
    2. Changes in recipe, processing, or production that could affect product safety and quality
    3. Critical steps which are not being verified or documented
- During the approval process, a recognized Process Authority reviews your procedure and makes suggestions for improvement if necessary.
- It provides a basis for required safety documentation.

What's in a Scheduled Process?

Every Scheduled Process must:

- Descriptively identify the type of product (condiment, pet food, beverage, etc.).
- List the exact formulation of the product: itemized ingredient list with weights (grams, ounces, pounds, etc. NOT tablespoons, teaspoons, cups, etc.).
- Give precise directions for the process; the reader should be able to follow a comprehensive step-by-step process. (Try drawing a flow chart of your procedure and take the steps from that.)
- Include your name, address and phone numbers, fax, e-mail address.
- State the date on which the document was developed.
- Provide results from required lab analyses (see Required Analyses Fact Sheet).
- Identify packaging to be used (type and size of container, container material, etc.).
- State if product is to be sold refrigerated, frozen, or shelf-stable.

Each product produced must have a unique scheduled process.

You must follow the approved schedule as written and maintain appropriate records of critical control points such as pH, temperature, etc. for every batch of product made.

Amendments: The scheduled process for each product should be reviewed periodically to determine if changes are necessary or have crept into the process due to consumer demand, ingredient problems or changes in processing equipment. These changes must be filed as an amendment to an existing scheduled process. If the changes are significant, a new scheduled process may be necessary.

Better Process Control School (BPC) is required by federal regulations for any supervisors of low-acid food thermal processing systems and container closure operations. It is strongly recommended that anyone involved in any phase of food processing who is not familiar with the principles of food preservation attend this school. Several universities hold a BPC school at various times during the year. To locate a BPC school near you and learn about the many other training resources available, contact:

Food Processors Institute
1350 I Street, NW
Suite 300
Washington, DC 20005-3305
202-639-5945
800-355-0983 (toll-free)
202-639-5932 FAX
fpi@fpa-food.org

Acidified Foods

What is an acidified food?

According to FDA's 21 CFR 114 the definition of acidified foods means "low-acid foods to which acid(s) or acid food(s) are added; these foods include, but are not limited to, beans, cucumbers, cabbage, artichokes, cauliflower, puddings, peppers, tropical fruits, and fish, singly

or in any combination. They have a water activity (aw) greater than 0.85 and have a finished equilibrium pH of 4.6 or below."

pH	Water Activity	Classification
> 4.6	> 0.85	Low Acid Food
< 4.6	> 0.85	Acidified Food[1]
< 4.6	> 0.85	Acid Food[2]
	< 0.85	Exempted from 21 CFR 114

[1]Acidified foods must have both low acid and high acid components.
[2]Primarily acid foods do not have low acid components and contain only acid ingredients.

What is NOT an Acidified Food?

It is often useful to state what is not an acidified food when defining acidified foods. The regulation does this, in part, in §114.3(b).

Acid Foods - Those foods such as most tomatoes and many fruits, which have a natural pH of 4.6 or less, even if acid is added during processing.

Repacked Acidified or Fermented Foods - Previously acidified or fermented foods, which are usually received in bulk, and which are then repacked into retail size containers, generally with the addition of a fresh acid brine, are not acidified foods as long as the re-packer does nothing, such as washing, to raise the pH above 4.6 prior to packing. If there is a washing step to remove the old brine, or any other similar processing step, determine the pH of the product prior to the addition of the fresh acid brine.

Fermented Foods - Foods such as some kinds of cucumber pickles, most green olives and sauerkraut are not acidified foods because pH reduction is not accomplished by the addition of acids or acid foods.

Carbonated Beverages - The products excluded from these regulations are those beverages which until 1989 were covered by a standard of identity (21 CFR 165) for Soda Water. They were excluded because of their low pH and the fact that CO2 is somewhat bacteriostatic.

Jams, Jellies, Preserves - The products excluded from these regulations are only those covered by the standard of identity (21 CFR 150). This is because the water activity is low (because of the minimum brix) and the pH is low since they are all made from acid fruits. Any non-standardized products labeled using these terms must conform to certain product attributes set forth in the standard such as, but not limited to, brix, consistency, acidity, and fruit/sugar ratio in order to be exempt (refer to CPG 550.475).

Refrigerated Foods - Products which rely, in part, on refrigeration for preservation and are stored, distributed and retailed under refrigeration are not covered by these regulations even if they are low-acid foods which are acidified.

In order to qualify for this exclusion, the product must be refrigerated after processing and the label must prominently bear the statement, “Must Be Kept Refrigerated To Maintain Safety” (refer to FR Vol. 62, No. 36, February 24, 1997 Guidance on Labeling of Foods That Need Refrigeration by Consumers).

Water Activity 0.85 or less - Any food, which always has a water activity of 0.85, or less is excluded from coverage under these regulations.

MARYLAND FOOD LABELING REQUIREMENTS

All processed foods sold direct to wholesale or retail must bear labels on their packaging. This includes processed foods sold at farmers markets, on the Internet, to restaurants, or grocery stores. This includes prepackaged, chopped, canned, baked, and frozen foods. The State of Maryland food labeling requirements are based upon the Federal Fair Package and Labeling Act of 1966. Creating labels for processed foods can be one of the most expensive start-up costs for new processed products. Contact the Maryland Department of Health and Mental Hygiene Food Protection program for technical assistance with food labels before printing.

Processed Food Labels

Language:

- All information must be legible and in English; other languages may be present, but English is required.

Product Identity:

- The common or usual name of the food product is prominent on the principal display panel (i.e. Pumpkin Bread).

Ingredient Statement:

- Ingredients must be listed by their common or usual names in descending order of their predominance by weight.
- All ingredients must be listed in the ingredient statement with all subcomponents listed in parenthesis. For example: Butter (cream, salt, annatto). Subcomponent ingredients must also be listed in descending order.
- Font size of ingredient statement must be at least 1/16 of an inch as measured for the lower case “o.”
- Food products that include spices, flavorings, and colorings as ingredients may designate these products as spices, flavorings, and coloring (with the exception of certified colors such as FD&C Red #40 or Yellow #5, 6, etc.).
- Food Allergens: The following common (Big 8) food allergens

must be declared as ingredients: Peanuts, tree nuts, eggs, fish, crustaceans, milk, soy, wheat. Other ingredients that can cause a reaction by certain sensitive individuals must also be declared on the ingredient statement, including FD&C Yellow #5, FD&C Yellow #6, sulfites and carmine/cochineal extract. Consumers with food allergies depend on accurate product labeling to choose their food products. Companies may have to recall product if foods contain allergens that are not listed in the ingredient statement.

- Flour must be listed as type of flour, (e.g., wheat flour or spelt flour).

Name and address:

- Labels must include the street address of the manufacturer, packer or distributor's principle place of business.
- If the name given is not the actual manufacturer, it must be accompanied by a qualifying phrase that states the firm's relation to the product, e.g., "manufactured for" (company name and address) or "distributed by" (company name and address).
- Street address may be omitted if the business is listed in a current city or telephone directory. Company name, City or Town, State, and ZIP code is still required.
- Phone numbers and Internet addresses can be added, but cannot be used instead of the name and address.

Net Weight:

- Accurate statement of quantity of the contents by weight in both U.S. Customary and metric values. Statement must appear within the lower 30 percent of the label panel, in lines generally parallel to the base of the package.
- The net weight must appear in conspicuous and easily legible boldface print or type in direct contrast to other matter on the package.

Perishable Foods:

- Products with a projected shelf life of 30 days or less must state the pull date on the package label. The pull date must be stated in day and month, in a style and format that is easily understood by the consumer. If products require refrigeration before or after opening, such information must be on the label.

Nutritional Value Information:

- Nutritional information is required on the label for most packaged and processed foods.
- Food produced by small businesses may be exempt from nutritional value labeling requirements.
- Businesses selling a product that makes a nutrition claim (e.g. "Supplies 100% of daily recommended amount of Vitamin C!") are not exempt.

USDA Mark of Inspection

Meat that is sound, healthful, wholesome and fit for sale and consumption shall receive a "Mark of Inspection" under a USDA inspection system. If an amenable meat, the mark of inspection shall be a circle, inside which is encrypted the identification number of the slaughtering or processing plant. If a non-amenable meat, the mark of inspection shall be a triangle, inside which will be encrypted the unique identification number of the slaughtering or processing plant.

Meat that has been federally inspected and passed for wholesomeness is stamped with a purple mark that is either round for amenable species or triangular for non-amenable species. The purple dye used to stamp the grade and inspection marks onto a meat carcass is made from a food-grade vegetable dye and is not harmful. (The exact formula is proprietary and owned by the maker of the dye.) The mark is put on carcasses and major cuts. After trimming it might not appear on retail cuts such as roasts and steaks. However, meat that is packaged in an inspected facility will have an inspection mark that identifies the plant on the label.

Inspection mark
raw meat

Inspection mark
raw poultry

Inspection mark
processed products

Voluntary
inspection mark

Labeling of Raw Meat and Poultry

The requirements in the new final rule on Pathogen Reduction and Hazard Analysis and Critical Control Points (HACCP) are designed to minimize the likelihood of harmful bacteria being present in raw meat and poultry products. However, some bacteria could be present and might become a problem if meat and poultry are not handled properly. To assist food handlers, USDA requires that safe handling instructions be put on all packages of raw and not fully cooked meat and poultry.

Labeling of Additives

"Food additive" is defined by the Food and Drug Administration (FDA) as any substance used to provide a technical effect in foods. The use of food additives has become more prominent in recent years, due to the increased production of prepared, processed, and convenience foods. Additives are used for flavor and appeal, food preparation and processing, freshness, and safety. At the same time, consumers and scientists have raised questions about the necessity and safety of these substances.

Before any substance can be added to food, its safety must be assessed in a stringent approval process. The Food Safety and Inspection Service (FSIS) of the U.S. Department of Agriculture (USDA) shares responsibility with FDA for the safety of food additives used in meat, poultry, and egg products. All additives are initially evaluated for safety by FDA. When an additive is proposed for use in a meat, poultry, or egg product, its safety, technical function, and conditions of use must also be evaluated by the Labeling and Consumer Protection Staff of FSIS, as provided in the Federal Meat Inspection Act, the Poultry Products Inspection Act, the Egg Products Inspection Act, and related regulations.

Although FDA has overriding authority regarding additive safety, FSIS may apply even stricter standards that take into account the unique characteristics of meat, poultry, and egg products. Additives are never given permanent approval. FDA and FSIS continually review the safety of approved additives, based on the best scientific knowledge, to determine if approvals should be modified or withdrawn.

The statutes and regulations to enforce the statutes require certain information on labels of meat and poultry products so consumers will have complete information about a product. In all cases, ingredients

must be listed on the product label, in the ingredients statement in order by weight, from the greatest amount to the least. Substances such as spices and spice extractives may be declared as “natural flavors,” “flavors,” or “natural flavoring” on meat and poultry labels without naming each one. This is because they are used primarily for their flavor contribution and not their nutritional contribution.

Substances such as dried meat, poultry stock, meat extracts, or hydrolyzed protein must be listed on the label by their common or usual name because their primary purpose is not flavor. They may be used as flavor enhancers, binders, or emulsifiers. They must be labeled using the species of origin of the additive, for example, dried beef, chicken stock, pork extract, or hydrolyzed wheat protein. Color additives must be declared by their common or usual names on labels, e.g., FD&C Yellow 5, or annatto extract, not collectively as colorings. The labeling requirements help consumers make choices about the foods they eat.

Dating

“Open Dating” (use of a calendar date as opposed to a code) on a food product is a date stamped on a product’s package to help the store determine how long to display the product for sale. It can also help the purchaser to know the time limit to purchase or use the product at its best quality. It is not a safety date. Product dating is not required by federal regulations. However, if a calendar date is used, it must express both the month and day of the month (and the year, in the case of shelf-stable and frozen products). If a calendar date is shown, immediately adjacent to the date must be a phrase explaining the meaning of that date such as “sell by” or “use before.” There is no uniform or universally accepted system used for food dating in the United States. Although dating of some foods is required by more than 20 states, there are areas of the country where much of the food supply has some type of open date and other areas where almost no food is dated.

Types of Dates

Sell-By date tells the store how long to display the product for sale. You should buy the product before the date expires.

Best if Used By (or Before) date is recommended for best flavor or quality. It is not a purchase or safety date.

Use-By date is the last date recommended for the use of the product while at peak quality. The date has been determined by the manufacturer of the product.

Closed or coded dates are packing numbers for use by the manufacturer.

Nutrition Labeling

The Nutrition Labeling and Education Act of 1990 required nutrition labeling of most foods regulated by the Food and Drug Administration. The USDA's Food Safety and Inspection Service proposed to extend mandatory nutrition labeling to single-ingredient raw meat and poultry products, which are currently covered only under the voluntary nutrition labeling program. Nutrition information for major cuts would be required either on their labels or at their point of purchase. Nutrition information for ground or chopped products such as ground beef would be required on package labels.

Extending mandatory nutrition labeling to these products would help consumers make food-purchasing decisions that may help to improve diet quality. The proposal also would allow the industry to continue to use the "percent lean" nutrient content claim for ground or chopped meat or poultry products that do not meet the criteria for low fat. Many ground and chopped products have difficulty meeting the criteria for "low fat." The proposal also requires nutrition labeling on the packages of all ground or chopped meat and poultry products, such as hamburger, ground beef, ground beef patties, ground chicken, ground turkey, and

ground chicken patties. Certain exemptions would apply to these requirements.

Small businesses that qualify for the existing small business exemption from nutrition labeling requirements would be exempt from nutrition labeling requirements for ground or chopped products. However, the small business exemption would not apply to the major cuts of single-ingredient, raw products.

For the major cuts of meat and poultry products, nutrition information could be provided either on the package or at their point-of-purchase because consumers have reasonable expectations as to the nutrient content of these products. For ground or chopped products, however, Sample label in Current Format nutrition labeling would be required on the package. Point-of-purchase labeling would not be permitted for ground or chopped products in order to make the nutrition labeling

Sample label in Current Format

Nutrition Facts

Serving Size ½ cup (114 g)
Servings Per Container 4

Amount Per Serving	
Calories 90	Calories from Fat 30
	% Daily Value*
Total Fat 3g	**5%**
Saturated Fat 0g	**0%**
Cholesterol 0g	**0%**
Sodium 300g	**13%**
Total Carbohydrate 13g	**4%**
Dietary Fiber 3g	**12%**
Sugars 3g	
Protein 3g	

Vitamin A 80% • Vitamin C 60%
Calcium 4% • Iron 4%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:

	Calories	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300 mg	300 mg
Sodium	Less than	2,400 mg	2,400 mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

Calories per gram:
Fat 9 • Carbohydrate 4 • Protein 4

requirements for these products consistent with those for multi-ingredient and heat processed products, which have been covered under mandatory nutrition labeling requirements since 1993. Single-ingredient, raw ground or chopped meat and poultry products differ from other single-ingredient, raw meat and poultry products because, in these products, certain parameters, such as their fat content, can be controlled precisely to obtain the desired product. In addition, FSIS has found that the nutrient and fat content of ground or chopped products varies so significantly that, without labeling, consumers could not assess the nutritional quality of these products to make informed comparisons.

The nutrition label would be comparable to that which appears on products today. The proposed requirements for the labels of major cuts are consistent with the current provisions of the voluntary nutrition labeling program, and the proposed requirements for the labels of ground or chopped products are consistent with the requirements for the labels on multi-ingredient or heat processed products. For example, FSIS is proposing that the nutrition information on labels of the major cuts be calculated on an “as packaged” or “as consumed” basis, while nutrition information of labels on ground or chopped products would be calculated on an “as packaged” basis.

FAQ'S ABOUT MARYLAND'S FOOD PROCESSING REGULATIONS

1. What Maryland agency or department is responsible for food safety?

Food safety administration includes both food service and food processing. Food service is serving ready-to-eat food for consumption on premises or take-out. Food processing is production of food for commercial distribution. Maryland's Department of Health & Mental Hygiene (DHMH) has jurisdiction over food safety in the state. The agency within DHMH that administers food safety is the Community Health Administration - Office of Food Protection & Consumer Health Services which is composed of three divisions: Food Control, Milk Control, and Community Services, and four administrative program areas: Licenses and Permits, Rating Officers, Legal Counsel, and Support Services. USDA Food Safety Inspection Service (FSIS) has jurisdiction over all animal slaughter facilities in Maryland. The Maryland Department of Agriculture (MDA) has jurisdiction over eggs.

2. What Maryland agency or department licenses food businesses?

DHMH licenses food processing businesses. Counties license food service facilities. Baltimore City, Charles County, and Prince George's County have adopted their own food codes, including the state's food processing regulations, and therefore may license food processing facilities. County health departments issue food service facility licenses but not food processing licenses (except in the three counties previously mentioned). USDA FSIS authorizes animal slaughter facilities. DHMH Office of Milk Control licenses dairies and dairy products. MDA licenses eggs. Note that Baltimore County has also adopted its own food code, but it does

not include the state's food processing regulations, and therefore Baltimore County does not license food processors.

3. Does Maryland provide meat and poultry processing inspection services funded under USDA FSIS?

No, Maryland does not license or inspect animal slaughter facilities. However, Maryland does cooperate and collaborate with USDA FSIS to enforce and comply with federal regulations.

4. Does Maryland have a "home rule" policy that allows locales to further restrict food safety regulations?

Yes, Maryland has 23 counties plus Baltimore City, for a total of 24 different food safety jurisdictions. Thirteen counties have adopted home rule. Home rule counties may have food safety regulations that are more restrictive than state regulations. However, most often further restriction of state food safety code by counties applies to food service, not food processing. Only the state, Baltimore City, Prince George's County, and Charles County have authority to regulate food processing.

5. Does Maryland have county level food safety inspection services?

Yes, County Health Departments inspect food service. Only Prince George's County, Baltimore City, and Charles County inspect food processors. There is one regulation for food processing facilities throughout the state. A food processing license issued by the state, Baltimore City, Prince George's County, or Charles County is portable throughout the state. Some counties may further restrict food service. All counties set their own fees for food service facility licenses.

6. Does Maryland have municipal level food safety inspection services?

Yes, Baltimore City has a municipal government on a par with the state's county governments, and inspection is done by the Baltimore City Health Department.

7. Does Maryland license animal slaughter facilities?

No, USDA FSIS has jurisdiction over animal slaughter facilities and they issue a “grant of inspection,” not a license, which is continuous while the operation is in compliance. In other words, if the facility meets federal standards, FSIS will assign an inspector to the facility, and FSIS will provide continuous inspection services to the facility as long as it operates in compliance with federal standards. If FSIS withdraws inspection services for whatever reason, the facility will no longer qualify as federally inspected.

8. Does Maryland license poultry slaughter facilities?

No, USDA has jurisdiction over poultry slaughter facilities and they issue a “grant of inspection,” not a license. USDA FSIS has jurisdiction over and issues a grant of inspection for processors of over 20,000 poultry per year. Under 20,000 slaughtered per year, USDA FSIS has jurisdiction to not sell adulterated poultry but the facilities are exempt from continuous inspection, however they may be inspected quarterly. Maryland allows the up to 20,000 bird exemption for on-farm processing and sales as specified in the Federal Poultry Act, but Maryland further restricts the Act by not allowing those birds to be sold off farm (DHMH approved source regulations). However, MDA may soon offer a training program for exempt farmers who want to sell off farm. Farmers enrolled in this program would be allowed by the state to sell off farm without further inspection.

9. Does Maryland license mobile processing units (MPUs) for animal slaughter?

In Maryland, MPUs may be used for processing meat or poultry, but MPUs are not licensed. They are treated as an on-farm facility, and all the same facility licensing requirements apply.

10. Does Maryland license custom meat processing facilities?

No, Maryland has no state meat inspection services. USDA FSIS has jurisdiction over custom meat processing under the Federal

Meat Inspection Act and may inspect facilities quarterly. Custom meat processors are not licensed, they receive an exemption from continuous inspection from FSIS.

11. Does Maryland license custom poultry processing facilities?

No, Maryland has no state poultry inspection services. USDA FSIS has jurisdiction over custom poultry processing under the Federal Meat Inspection Act and may inspect facilities quarterly. Custom poultry processors are not licensed, they receive an exemption from continuous inspection from FSIS.

12. Does Maryland license sales of raw milk?

No.

13. Does Maryland license on-farm bottling of milk?

Yes, several dairy farms in Maryland are bottling milk and processing other Grade A dairy products. DHMH Division of Milk Control issues a Milk Processing Plant - Milk Processor license. Regulations for the Division of Milk Control are specified in the FDA Pasteurized Milk Ordinance. There is no Division of Milk Control at the county level because of the technical expertise required.

14. Does Maryland license on-farm processing of cheese, butter, and yogurt?

Yes, DHMH licenses value-added dairy products. Butter and yogurt require a Grade A Processor license, cheese requires a Manufacturer Grade Processor license, and ice cream requires a Frozen Dessert license. All dairy products must be produced from pasteurized milk. However, DHMH has launched a Farmstead Cheese Pilot Study Program for producers who make cheese from raw milk aged at least 60 days. There are five on-farm cheese processors in Maryland. Twelve Maryland producers ship milk to Pennsylvania to have Farmstead Cheese produced. There are two on-farm ice cream processors.

15. Does Maryland license small-scale food processing facilities?

Yes, DHMH licenses food processors. The license is often restricted to processing only certain types of foods based on the facility capacity, equipment, and design.

16. Does Maryland license home kitchens for food processing?

No, however, home kitchen operators may process non-potentially hazardous baked goods, jams, and jellies, which may be sold only at farmers markets in the state.

17. Does Maryland license on-farm food processing?

Yes, DHMH issues an On-Farm Home Processing License. In addition to producing non-potentially hazardous baked goods, jams and jellies, fruit pies, honey and herb mixtures, dried fruit and vegetables, farmer operators may process acidified foods. However, to process acidified foods on-farm, FDA training is required (Better Process School), and/or a process authority or person who is trained and certified by FDA, must authorize the recipe and process. Non-potentially hazardous baked goods include baked cakes, muffins, or cookies with a water activity of 0.85 or less, and fruit pies with an equilibrated pH of 4.6 or less. Food produced under an On-Farm Home Processing License may be sold at any venue in the state.

18. Does Maryland license on-farm processing of honey and maple syrup?

Maple syrup is licensed seasonally by DHMH. Honey is a raw agricultural product and no license is required unless it is prepared with added ingredients.

SPECIFIC MARYLAND PROCESSED FARM PRODUCTS

A wide variety of raw farm products may be processed into value-added products such as jams, baked goods, dairy products, and niche market meats in Maryland. The following is a brief synopsis of the licenses required and marketing parameters for several of the most popular. Please check the appendices of this guide for additional contact information and processing regulations that may apply to your product.

When you consider making a food product, it is important to know these 5 things:

1. Which federal, state and/or local authorities have jurisdiction for setting standards, giving approvals, and issuing licenses or permits?
2. What are the specific requirements for becoming an "approved source" of a specific food?
3. What is the name of the law, regulation, permit, license, or certification that applies to a specific food?
4. What is the process and timeframe to obtain the proper permits, licenses and/or certification?
5. What is the contact information for the authorities that have jurisdiction?

Fresh Fruits and Vegetables

- No license required for farmers to sell fresh, whole, raw fruits and vegetables
  - Increasingly farmers required by institutional, retail, and wholesale buyers to be GAP (Good Agricultural Practices) certified.
  - FDA and USDA set grade and pack standards and regulations for large producer/distributors of fruits and vegetables.

- Salad greens may present confusion
  - No license/inspection required if:
    - Product is labeled “wash before eating”
    - Product is whole leaf or plant product
    - Seeds are mixed at planting (rather than leaves mixed after harvest)
  - Requires license/inspection if:
    - Leaves are mixed after harvest
    - Product is cut up or chopped
    - Product is labeled “ready to eat”

Processed Foods

- FDA and USDA food safety regulations apply to processed foods
  - Processed foods include minimally processed fruits and vegetables (e.g., cut melon, peeled squash, husked corn) jams, salsa, sauces, cheese, dried fruits, dried herbs, teas, pastries, pies, cider, blended salad greens, condiments and spreads, canned or frozen food, etc.

- In Maryland, home kitchen processing is allowed only on-farm
  - In addition to producing non-hazardous baked goods, jams, and jellies, farmers may also process acidified foods.

- For acidified foods FDA training is required, and a process authority or person who is trained and certified by FDA, must authorize the recipe and process.
  - This food may be sold anywhere in the state.

Baked Goods

- FDA and USDA food safety regulations apply to baked goods
  - Baked goods may be considered hazardous or non-hazardous depending upon specific ingredients.
  - Licenses may restrict recipes, or conversely, specific recipes may require specific licenses.

- DHMH licenses on-farm production of non-hazardous baked cakes, muffins, or cookies with a water activity of .85 or less. Fruit pies with an equilibrated pH of 4.6 or less.
    - These foods made in a farm kitchen and licensed by the state can be sold at all venues.

Milk

- FDA and USDA regulate dairy farms and milk
    - Milk producers, milk haulers, and milk processors are licensed separately, although they may be the same business.
- Maryland dairies are bottling milk on-farm and processing other Grade A dairy products
    - Licensed by DHMH Division of Milk Control
- Regulations for the Division of Milk Control are specified in the FDA Pasteurized Milk Ordinance.
    - There is no Division of Milk Control at the county level be cause of the technical expertise required.

Cheese, Yogurt, and Butter

- FDA and USDA regulate dairy farms and milk
    - Value-added dairy products like cheese, yogurt, and butter come under jurisdiction of both agencies.
    - Butter and yogurt require a Grade A Processor license, cheese requires a Manufacturer Grade Processor license, and ice cream requires a Frozen Dessert license.
- In Maryland, all dairy products must be produced from pasteurized milk.
    - DHMH has launched a Farmstead Cheese Pilot Study Pro gram for producers who make cheese from raw milk aged at least 60 days.

Meat

- USDA regulates meat
- 27 states have state meat inspection services as an alternative but equal to USDA inspection services
  - State meat inspection services serve mainly small/very small processors.
  - Benefit is that state-inspected meat may be sold retail/whole sale in the state, increases supply of local meat products.
  - Maryland does not have a state meat inspection program.
- USDA inspects all meat in Maryland
  - USDA issues a grant of inspection, not a license, which is continuous while the operation is in compliance.
  - Custom meat exemption for meat processed for owners of the animal and not for sale/re-sale.
- In Maryland, custom processors are licensed and inspected quarterly by USDA.

Poultry

- USDA regulates poultry
  - In Maryland, USDA has jurisdiction over and issues a grant of inspection for operations processing over 20,000 poultry per year.
  - Under 20,000 per year, USDA has jurisdiction to not sell adulterated poultry but the facilities are exempt from continuous inspection.
- MD allows the (up to) 20,000 bird exemption for on-farm processing and sales, but MD further restricts federal regulations by not allowing those birds to be sold off farm (DHMH approved source regulations).
  - MDA may soon offer a training program for exempt farmers who want to sell off farm. Farmers enrolled in this program would be allowed by the state to sell off farm without further inspection.

Vinegars and Herbs

- DHMH licenses on-farm production of vinegars and herb products.
- The equilibrated pH of the product, as manufactured using a known and repeatable process, must be determined by a bona-fide testing laboratory using procedures cited in the Code of Federal Regulations 21 CFR 114.90. The pH results must be submitted to the Department.

PROCESSING & SELLING VALUE-ADDED FOOD PRODUCTS IN MARYLAND

All products sold in Maryland must at a minimum be labeled with the name and address of the producer or distributor, a quantity statement (count, fluid measurement, or net weight depending on the product), and the identity of the product. The requirements listed only address food safety requirements and licenses. Local and state zoning, waste disposal, and other laws may apply. Instead of obtaining the license(s) to process the value-added products, a farmer can have them processed at a licensed facility and returned to the farm for sales.

On Farm Home Processing License: License issued by Maryland Department of Health and Mental Hygiene (DHMH). Must be a farmer and sales must be less than $40,000.00 annually. Allows the processing of some products in a home kitchen. Cost $30.00

Processing License: License issued by Maryland Department of Health and Mental Hygiene to persons processing food. Must meet commercial requirements. Cost $150.00

Process Authority: A person(s) who has expert knowledge of thermal processing requirements for low-acid foods packaged in hermetically-sealed containers or has expert knowledge in the acidification and processing of acidified foods. This person(s) evaluation of a scheduled process must be approved by FDA or USDA depending on the food. Private Sector, fees vary.

Scheduled process: The process selected by the processor as adequate under the conditions of manufacture for a given product to achieve commercial sterility and/or maintaining a food that will not permit the growth of microorganisms having public health significance.

Product	Licenses Required	Basic Requirements
Baked Goods - with potentially hazardous toppings or fillings Toppings, glazes, icings or fillings that must be refrigerated such as custard based, filled or topped with cream, cheese, etc.	Processing license from DHMH.	Potable water, approved sewage disposal system, commercial kitchen and refrigeration. Plan Review.
Baked Goods - without potentially hazardous toppings or fillings. Pies, turnovers, fruit tarts from fruits such as apples, apricots, blackberries, boysenberries, cherries, peaches, strawberries, etc. No cream, cheese, custards, etc.	Can sell directly from farm or at farmer's markets with no license. To sell to restaurants or retailers, on farm home processing license for sales less than $40,000. Over $40,000.00 requires a Processing License from DHMH.	Potable water, approved sewage disposal system & home kitchen for less than $40,000. Potable water, approved sewage disposal system, plan review & commercial kitchen for more than $40,000.
Canned Goods - acidified Products must be acidified to a pH of 4.6 or less during processing such as artichokes, asparagus, beans, beets, broccoli, cabbage, corn, cucumber, peas, most peppers, potatoes, pumpkin, etc.	On farm home processing license from DHMH if less than $40,000 in sales. Processing license from DHMH if more than $40,000 in sales. FDA Better Process School training course required.	Potable water, approved sewage disposal system. Scheduled process approved by a process authority, and filed with FDA & home kitchen for less than $40,000. Potable Water, approved sewage disposal system. Scheduled process approved by a process authority, and filed with FDA & commercial kitchen for more than $40,000. Plan review for both types of licenses.
Canned Goods - naturally acid (pH of 4.6 or less) Fruit such as apples, apricots, blackberries, boysenberries, cherries, grapes, peaches, etc.	Evaluation needed in order to sell directly from farm or at farmer's markets with no license required. To sell to restaurants or retailers, on farm home processing license for sales less than $40,000. Over $40,000.00 requires a Processing License from DHMH.	Potable water, approved sewage disposal system & home kitchen for less than $40,000. Potable water, approved sewage disposal system, plan review & commercial kitchen for more than $40,000.

Product	Licenses Required	Basic Requirements
Dairy Products	Requires a license from DHMH.	Regulated by the federal Pasteurized Milk Ordinance and State.
Dried Products	On farm home processing license from DHMH if less than $40,000 in sales. Processing license from DHMH if more than $40,000 in sales.	Potable water, approved sewage disposal system & home kitchen for less than $40,000. Potable water, approved sewage disposal system, plan review & commercial kitchen for more than $40,000.
Eggs	Register with the Secretary of Agriculture annually (no fee if less than 3,000 chickens). Some counties require a retail license from local health department to sell at Farmer's Markets. No retail license required to sell from farm.	Chickens must originate from National Poultry Improvement Plan monitored hatchery. Must meet minimum of Grade A standards, weight requirements, labeling requirements, invoice requirements & be held at 45°F.
Fermented Products	Processing license from DHMH.	Potable water, approved sewage disposal system, commercial kitchen and refrigeration. Plan Review.
Fruit & Fruit Butters Pumpkin, banana, pear	Processing license from DHMH.	Potable water, approved sewage disposal system, commercial kitchen and refrigeration. Plan Review.
Fruit - cut, ready to eat	Processing license from DHMH.	Potable water, approved sewage disposal system, plan review & commercial kitchen.

Product	Licenses Required	Basic Requirements
Honey	No license required if no flavors added (raw agricultural product). If further processed, on farm home processing license from DHMH if less than $40,000 in sales or processing license from DHMH if more than $40,000 in sales.	Potable water, approved sewage disposal system & home kitchen for less than $40,000. Potable water, approved sewage disposal system, plan review & commercial kitchen for more than $40,000.
Jellies and Jams - Made with fruits with a natural pH of 4.6 or less such as apples, apricots, blackberries, peaches, strawberries, etc.	Can sell directly from farm or at farmer's markets with no license. To sell to restaurants or retailers, on farm home processing license for sales less than $40,000. Over $40,000.00 requires a Processing License from DHMH.	No paraffin wax seals allowed hot filled into sterile Mason jars with ¼" head space. For other than farm and farmer's markets sales, potable water, approved sewage disposal system & home kitchen for less than $40,000. Potable Water, approved sewage disposal system, plan review & commercial kitchen for more than $40,000.
Meats - cured	Processing license from DHMH.	Potable water, approved sewage disposal system, plan review, commercial kitchen.
Meats - non USDA regulated (bison, rabbits, etc.)	On farm sales only without inspection. Can have voluntary inspection by USDA or MDA to qualify for sales off farm. If slaughtered, packaged and labeled at a USDA facility, can be returned to farm for sales. Must have a license from DHMH for on farm storage unless farm is inspected by MDA or USDA.	For storage on farm Commercial freezer capable of maintaining an air temperature of 0°F. Meat must be frozen if sold at farmer's market. Dry ice or mechanical freezer required for sales at markets.

Product	Licenses Required	Basic Requirements
Meats - USDA regulated Cattle, swine, sheep, goats and equine	Cannot slaughter, process, package or label without USDA inspection. Can have the product slaughtered, packaged and labeled at a USDA inspected facility and return to the farm for sales. Must have a license from DHMH for on farm storage. Can be sold off the farm to food service facilities. Retail license required for sales at farmer's markets.	For storage on farm Commercial freezer capable of maintaining an air temperature of 0°F. Meat must be frozen if sold at farmer's market. Dry ice or mechanical freezer required for sales at markets.
Pickles - canned	On farm home processing license from DHMH if less than $40,000 in sales. Processing license from DHMH if more than $40,000 in sales. FDA Better Process School training course required.	Potable water, approved sewage disposal system, Process Authority, scheduled process filed with FDA & home kitchen for less than $40,000. Potable water, approved sewage disposal system, Process Authority, scheduled process filed with FDA & commercial kitchen for more than $40,000. Plan review for both types of licenses.
Poultry - less than 20,000 slaughtered annually	Can slaughter and sell directly from farm without a license or inspection. To slaughter and sell to retailers, restaurants or at a farmer's market must be inspected by USDA or MDA. Retail license from local Health Department required for Farmer's Markets sales. Can be slaughtered, packaged and labeled at a USDA inspected facility and returned to the farm for sales with a license from DHMH.	All: Must be own production. Potable water and approved sewage disposal system. Cannot be adulterated - contaminated with filth, held under unsanitary conditions, contain any poisonous or added deleterious substance, etc. Must be held at 41EF or less if fresh, 0EF or less if frozen. Off farm sales: Must have voluntary inspection by USDA or participate in MDA's voluntary program.

Product	Licenses Required	Basic Requirements
Poultry - more than 20,000 slaughtered annually	USDA continuous inspection required.	Continuous inspection by USDA/FSIS of slaughter poultry health and sanitation.
Sauerkraut and other fermented products	Processing license from DHMH.	Potable water, approved sewage disposal system & commercial kitchen. Plan Review.
Vegetables - cut, ready to	Processing license from DHMH.	Potable water, approved sewage disposal system, plan review & commercial kitchen

BUSINESS PLANNING

Imagine visiting New York City for the first time and trying to find your way around without a map. You might find some of the places you want to visit, but not without a lot of detours and lost time. Time you could have spent visiting sites and enjoying the city.

This is exactly what you're doing with your value-added products business if you don't have a business plan. Your business plan is your road map to implementing your business ideas and measuring your success along the way. Even if your value-added products are an addition to your existing operation, without a plan, you're likely to run down a lot of dead-ends paths and waste a lot of time and money.

There is a lot of controversy about the value of a business plan. Comments run from "business plans are useless" to "business plans are essential." If you have someone else write your business plan or you use a pre-programmed computer program and guess at the numbers, then the resulting plan will probably be useless. But, a business plan that you develop yourself, with some review and consultation from an Extension Farm Management Specialist or other business management professional, can help you systematically think through the steps involved in your business development. It is this process of planning that pays dividends.

A well thought-out business plan:

1. Defines Your Venture - Describes your product or service. Details your market and how you plan to get your product to market. It also describes where you plan to do business and what skills and experiences you bring to the table.

2. Surveys the Business Environment - Describes the existing market and how you will fit into it. What is your advantage and how will you capture market share?

3. Estimates Your Financials - Estimates your fixed and variable costs, identifies your funding sources and assets, and projects revenues and cashflow.

Where do you find all this information? Start with an outline of your business concept and fill in as much information as you can about what you plan to sell, how you plan to sell it, and how much net profit you plan to generate in the first year.

Develop the same outline for your business at three years. These are just rough outlines and will quickly show you where you're missing valuable information in your planning. You're looking for as much factual information as possible. Gather information using your records or if you must, estimate based on enterprise budgets. Question your potential customers and suppliers about their preferences and prices. Glean as much information as possible about your business from competitors, industry specialists and consultants, industry associations, publications and journals, educational institutions and government agencies, and the Internet.

Business plans written to obtain financing must not only explain the business, but justify its repayment abilities. If you are expecting to get a bank loan to fund your food processing venture, you may find the financials in your plan must also include information about your total financial worth. Consult your Extension Specialist about the range of financing options available to you, including grants and low interest government loans.

Your business plan is a living document that will evolve with your enterprise just the way a city grows and adds new streets to its map. It may be different from year to year, but it is a valuable tool for identifying your destination and making sure your get there.

Elements of a Business Plan

1. Executive Summary - “Why someone should invest or partner with us in this business.” A brief (one page) description of your business concept and why it will be successful. The Executive Summary may be the only section some reviewers read. The objective is to motivate them to learn more by reading the rest of the plan. It appears first in the business plan, but write it last, after you’ve written all the other sections so you can give a complete summary of the rest of the document.

2. Table of Contents - Write your table of contents for quick perusal. Again, some reviewers will only skim the plan looking for information to pull them in deeper.

3. The Farm or Company - “Who we are.” This is your story about the farm or company, its history, direction, values, goals, etc.

4. Products and Services - “What we do.” An in-depth description of the product you propose to produce and sell.

5. Production - “How we do it.” How will you produce your product and what raw products are involved?

6. Marketing & Distribution - “Why we make it and why our customers buy it.” A detailed marketing plan includes what and how you will advertise, margins, demographics, targeted outlets, and any sales agreements already secured.

7. Competition - “Why we will be successful.” An evaluation of your competition and how you will position your products to be different or better.

8. Obstacles - “How we will succeed.” What hurdles will your business meet and how will you deal with them.

9. Finances - “How we will measure our performance.” Cost of set up and operation as well as day-to-day financial needs for overhead and marketing. Include an income statement, cash flow analysis and balance sheet. You can get these from your accountant. Don’t have an account? Get one.

10. Goals and Milestones - “When we will achieve our goals.” This is the timeline for the future of your business.

How to Write the Plan

Your business plan should be written in plain, easy-to-read language. Use short simple sentences. Determine what you want to cover and make headings for each of the items. Make sure your business plan covers all of the relevant topics.

Remember a few “Do’s” and Don’ts.”

Do . . .

- Put your main selling points, which are the most important to the business, early in the Farm or Company and Marketing sections. *Example: If you plan to sell artisan cheese, how you plan to make the cheese and sell it will be more important than where you get the milk.*

- Include references for numbers you cite to substantiate your business case.

- Sell the benefits of your products and not its features. *Example: If you are selling a convenience food emphasize the ways it will save customers time, effort, and energy.*

Don't . . .

- Use hype. You're writing a plan, not a press release.
- Go overboard on the length. Most plans are 15-30 pages plus appendices. Your plan may be may be complete with 8-10 pages.
- Use graphs and spreadsheets without explaining your assumptions and arguments. Analyze the numbers and write out your predictions.

Have someone who is not involved with your project proofread your plan for the following:

- Poor organization
- Vague statements
- Errors in logic
- Gaps in the plan
- Repetitive statements
- Inconsistency
- Misspelled words
- Poor grammar
- Incomplete sentences
- Mathematical errors

MARKETING 101

Not many farmers get into farming because they enjoy predicting consumer buying preferences or because they get great personal satisfaction out of tracking grain futures. Farmers want to farm and marketing takes time. But marketing can be one of the most cost-effective uses of time in your business.

Marketing is the process of creating demand for a product or service. Demand is created through communications or messages. To create demand for a product you must deliver the right message to the right audience. Many entrepreneurs develop effective messages in the form of advertising, packaging, and websites, but they fail to connect their message with an audience that cares. Conversely, other entrepreneurs have a great audience, a farmers' market for example, but fail to deliver a message that compels shoppers to buy. Matching messages with audiences is the essence of marketing.

Creating a compelling message means knowing who you are talking to and what will motivate them. A compelling message is relevant to the recipient. Your market research will tell you what your potential customers care about and how to be relevant to them. It will also tell you what media your customers use to inform their purchasing decisions so you can be sure your message is in the media most relevant to your customers.

One way to be relevant to your customers is to provide the lowest price. Price-driven businesses depend on high-volume low-margin transactions. The **transactional marketing** approach seeks to make the largest number of sales possible. Transactional marketers increase profits by increasing sales and lowering costs. While this works as a marketing strategy on a large scale, it leaves very little room for expanding profits when markets are saturated or costs can't be lowered any further. An example of this is when dairymen can't lower their cost of production any further even though the market is flooded with excess milk production, and milk retailers compete primarily on price.

A second marketing approach is **relationship marketing**, which seeks to cultivate loyal, repeat customers who value their relationship with you and your products. Jay Conrad Levinson, author of Guerrilla Marketing (Houghton Mifflin, 2007) and proclaimed marketing expert states, “Marketing is EVERYTHING you do to promote your business, from the moment you conceive it to the point at which customers buy your product or service and begin to patronize your business on a regular basis. The key words to remember here are everything and regular basis.”

Relationship marketing can provide a lower cost of sales and a more sustainable approach to marketing for many small to mid-size businesses because it takes less effort to keep a customer you have than to go out and get a new one. When you are in relationship with your customers everything you do becomes relevant to them, you have mutual interests, and a mutual investment in your future together. An example of this is farmstead cheese makers who actively use their farm, their family, their scenic views and rural values, as a way of promoting their cheese.

Another example of relationship marketing is the success that subscription services for fresh produce have in the United States. Since the mid-1980s, many communities in the U.S. have banded together with local farms in food purchasing cooperatives and buying clubs. This practice, known as Community Supported Agriculture(CSA) or farm share programs, matches consumers interested in purchasing safe, locally grown foods with small local farmers seeking stable markets for their crops.

Relationship marketing your value-added food products is effective because it puts you, your product, and your farm in the big picture with your customers. Your shared values become part of your brand message. EVERYTHING you do and say from the time you finalize your idea to the time you have repeat customers is marketing, including:

- The name, logo, and image of your business

- The location of your business, your farm
- What you are selling
- Your pricing
- Packaging, colors, sizes and shapes of your products
- Advertising, promotions, and public relations
- Your website
- Sales presentations
- Customer service
- Interactions with your suppliers
- How you present yourself personally

Defining Your Market

Your market is the group of people potentially willing and able to become your customers. Markets are divided into segments defined by geography, demographics (lifestyle characteristics), psychographics (behavior characteristics), shopping habits, brand preferences, and product usage patterns. When you have a group of customers representing a percentage of the total market, they are your marketshare. The object of sales and marketing activities is to increase marketshare in your target segments.

When you do your market research, you will segment your market into clusters of people or businesses with similar characteristics. The characteristics indicate what is most relevant to the people in that segment. Once you have determined the segments of a potential market, you need to choose a targeting strategy.

An undifferentiated strategy treats all segments the same in one singularly focused marketing message. For example, you are growing niche market grains and milling them into flour. You decide anyone who cooks or bakes is your ideal customer. You market your flour in 5 lb. bags and sell it through conventional grocery stores.

In a concentrated strategy, you choose a single segment or niche and develop a singularly focused marketing strategy for that segment. For example, you decide chefs and bakers are the ideal customers for your

niche market grains. You market your grains and flour in 20 lb. bags through a food service supply company.

In a differentiated strategy, you address the whole market with each segment being recognized as significant and develop many marketing strategies. For example, you determine there is a demand for your product with both chefs and bakers, and grocery store customers. You decide to implement both of the strategies previously discussed. You also launch a website that differentiates your goods and services to customers depending on whether they are a home cook or a professional chef/baker.

Marketing Strategies

Your marketing strategy is shaped by your overall business goals. It includes a definition of your business, a statement of your brand attributes, a description of your products and services, a profile of your target customer, your company's relationship to the competition, and a game plan for achieving your business objectives. Your sales and marketing plans are the specific actions you take to achieve the goals of your marketing strategy.

Your marketing strategy influences product development and business development. It is determined by your sales and distribution strategy, and it guides your approach to advertising and promotion, customer service and public relations.

Sales and Distribution

Your sales and distribution plan will to a large extent determine your marketing strategy. If you sell directly to your customers from your farm or farm stand, your marketing plan will be much simpler than if you sell wholesale to a distributor who then sells your product to stores. Business-to-consumer sales are very different from business-to-business sales.

If you have a business-to-consumer sales and distribution plan, you are meeting your customers face-to-face, and you are able to develop a relationship marketing strategy through ongoing contact with individuals who matter to your business. Your brand image is you personally, your farm, your table at the farmers' market, and the taste experience you deliver. You probably won't need much advertising, and word-of-mouth will be your most valuable media. Your website might have photos of your customers and you together on the farm or at the farmers' market, and email may be a very effective tool for communicating your latest tomato harvest or the date for the Pumpkin Festival at your farm.

If you have a business-to-business sales and distribution plan, you may not meet many of the buyers who purchase your product through their distributor unless you attend annual industry conventions. Or you may sell directly to busy chefs at the back door of their restaurant kitchen. You will be under pressure to deliver specific quantities of your product at dependable quality, and your communications will most likely emphasize your capacity to deliver results (sales) for the businesses that buy your food products. Labeling, packaging, brochures, trade advertising, and a professional looking website will be critical to your brand image.

Advertising and Promotion

Advertising is simply purchasing space in a media (print, radio, TV, Internet, concert program, farmers' market flier) for your message. Promotion goes one step beyond advertising by making an offer of something special to your customer, for example, a sale price or discount coupon, a buy-one-get-one-free option, or a free gift included with a purchase.

Websites have been shown to be one of the most cost-effective forms of advertising and promotion because content can be accessed 24/7, your content may be changed instantly, your content can be as deep and rich as you want it to be, and your communications can be received by an unlimited number of people without increasing your cost of delivery.

The extent to which you need to invest in advertising and promotion is determined by your sales and distribution strategy. For example, if you sell only at a farmers' market, you may not need to advertise beyond having attractive signs at the market. If you plan to sell off the shelf in a grocery store you may need to do a significant amount of advertising, and develop a clever, ongoing promotion plan. If your product is sold only to chefs who then put your name on their menu, you may not need more than a website.

Customer Service

Whether you sell to directly to consumers or only to other businesses, your enterprise will be judged by the way you treat other people. A business can be come world renown for delivering first class customer service, e.g., L.L. Bean or GoDaddy.com. A congenial tone and manner in dealing with customers, suppliers, competitors, neighbors, colleagues, regulators and law enforcement is the best marketing you can do for your business. When you can't communicate in person, be clear and helpful with signs, on your website, and in advertising and promotions. Have a written customer service policy that begins with, "The customer is always right." Then explain your policies for returns, refunds, delivery, forms of payment, etc.

Testimonials

Customer testimonials are one of the best ways to promote your business. Ask your customers to send you letters or emails describing their experience with your product. Select excerpts for your website, your brochure, and your advertising. Encourage people to taste your food and provide feedback in writing. Capture their choice of words and feelings to market your brand.

Consider using a blog or a social networking website like Facebook to enable your customers to post their comments about your products online, and share their experience with each other. Create a dialogue

with your customers to let them know what you are producing and engage them in the process of product development and market testing.

Public Relations

Public relations can take many forms. Your annual Pumpkin Festival is an example of public relations because you are using it to attract people to your farm and build your relationship with them. A tasting of your products at a buyers' convention is public relations. Providing a chef with samples of your products to include in a cooking competition is public relations. Public relations can be a very cost-effective form of marketing when it is experiential.

However, one of the most cost-effective forms of public relations is the press release, which is a very basic means of simply conveying information. A press release is time sensitive information, distributed in writing via email or postal mail, to the media who cover your business. A press release should be very brief, including the basics of who, what, when, where, why and how. Often a quote from some key player is included to spice up the story. Contact information, telephone numbers, email addresses, and website links are critical to getting your story published.

Keep a list of the media most relevant to your business and your customers, including dates of publication (daily, weekly, monthly), reporters' names, and specific sections or columns that cover your topics.

Test & Track

Protect your investment in marketing and communications by testing your messages and brand image, and tracking your sales. Don't try to guess at the effectiveness of your marketing strategy. Measure it. Ask your customers what they think. Gather feedback, write it down, and total it up. Keep records of sales from day to day and week to week, and note whether or not you ran an ad or a promotion that pushed sales up

(or didn't). Follow your sales numbers from year to year, and chart your growth. Ask customers how they heard about the business and keep a list of the media they mention.

Your website is one of the most effective means for tracking and measuring the impact of your marketing. Everything that happens on your website is measurable in terms of numbers of viewers, numbers of clicks, amount of time spent on your site, requests for more information, inquiries, feedback and sales. Include the URL of your website on your packaging and in all of your communications, and ask your customers to go the site and give you feedback by sending an email or posting a comment.

Your marketing plan is never really done — you're always revising it, because market forces are always changing. Making a plan is your starting place for measuring your efforts. As you measure your success, let the numbers be your guide to the next phase in your plan.

Developing the Plan

A marketing plan is a written document that describes your goals, your business, your customers, your competition, your marketing strategies and a budget for marketing activities. It is a subset of the information in your business plan. You will want to review and update your marketing plan frequently, at least annually, perhaps seasonally.

Step 1: List all of your products and services. For example, let's say you retail fruit pies, cream pies, frozen piecrusts, and made to order pies. You also have a wholesale pie business selling to restaurants. Divide your pies into four strategic groups:

1. *Cash cows* are pies that sell well and are the major suppliers of cash to your business. You sell four times as many cherry pies as pumpkin pies.

2. *Stars* are pies with the potential to generate excellent sales and cash in the future. Your made to order pie sales have been climbing at a slow but constant rate, and you're able to charge a premium price for them.

3. *Question marks* are pies that are neither cash cows nor potential stars. Your frozen piecrust business could help grow your business, or it could be a distraction from your core business. Customers don't want to spend a lot on an empty piecrust, but it takes almost as long to make as a whole pie.

4. *Dogs* are pies with no real future. Your cream pie business burdens your HACCP plan because cream pies are potentially hazardous baked goods and require a lot more food safety related work. Plus they have a shorter shelf life.

Concentrate on becoming excellent in your core business and protect it from competition by continually improving in that area. *Your core business will account for 80 percent of your profits.*

Step 2: Decide what target audience you are trying to reach since these are the people who will make your marketing strategies most effective.

Step 3: Find out what your competition is doing and then determine what people are willing to pay you to do better. Use this information to develop a differentiated marketing strategy that separates your product from others, ultimately creating value in the mind of the customer.

Step 4: Determine your marketing budget and the time you will allocate to your marketing strategies. Usually this is done as a percentage of sales. You plan to spend X% of your sales revenues on marketing activities. Put the most resources where you can affect the most sales.

Step 5: Conduct a SWOT (strengths, weaknesses, opportunities, threats) analysis of your business. A SWOT analysis is a fairly simple, low cost way of assessing your company's position. It presents

information that is vital in developing business and marketing plans, as well as setting organizational goals and objectives.

MARKETING PLAN OUTLINE

Your marketing plan may contain all or just some of these components depending on your company type, stage of growth, and goals.

I. Executive Summary

- Introduce your company and yourself.
- State your mission, goals, and objectives.
- Define your brand.
- Describe your customer and the market demand for your product.
- Summarize the strategies for supplying that demand.

II. Current Situation

- Describe the current position of your brand in your market.
- Describe the features and benefits of your product.
- Describe your pricing strategy.
- Describe how, when, and where your product is presented to customers.
- Describe your market segments and profile your customers.

III. Competitor and Issues Analysis

- Describe the key issues your company faces.
- Name and describe your competitors and their similar products and services.
- List key business issues that are potential challenges, such as new legislation, seasonality of ingredients, financing, or the impact of an impending technological advance in your industry.

IV. Marketing Objectives

- State your business objective(s) in terms of your brand position. What do you want your brand position to be?

- State your marketing objectives in terms of how they address your current situation, competition, and issues.

V. Marketing Strategy

- Explain your strategy for moving your brand from where it is now to where you want it to be.
- Describe the type of strategy you will deploy, e.g., high-volume low-margin year-round vs. relationship marketing of a high-priced seasonal product.
- Describe the communications, messaging, media and tactics you will use to accomplish your objectives.
- Explain the time frame for accomplishing your strategy, and identify milestones along the way.
- Explain how your strategy will be measurable, and on what basis you will judge the success of your strategy.

VI. Action Plan

- List the key actions you must take to accomplish your strategy, and the dates by which they will be accomplished.
- List the communications materials that will be created and describe how they will be distributed.
- List outside resources must you organize (designer, webmaster, print publication).
- Explain any other activities that must be undertaken to accomplish your objective. For example, joining your local farmers' market, transitioning to organic, purchasing a piece of equipment.
- Explain how and when you will measure your progress, and how you will incorporate that feedback into your ongoing work.

VII. Budget

- Itemize the cost of the marketing activities in the action plan.
- Break out fixed marketing costs (logo design, website domain name) from variable marketing costs (media, ads in the newspaper, fliers).
- Break out label and packaging costs separate from advertising and promotion costs.

VIII. Supporting Documents

- Include any supporting documents such as testimonials or letters of intent to purchase your product.

Internet Marketing Tools & Resources

The following are different types of marketing tools available on the Internet.

DIRECT MARKETING: Any marketing method whereby farmers sell their products directly to consumers. Examples include roadside stands, farm stands, U-pick operations, community supported agriculture or subscription farming, farmers' markets, etc. Growers who market their products directly to the customer usually receive a higher price than those who sell wholesale.

> ***Find Your Market First***. University of Wisconsin Extension, 1999.
> Full text: http://www.uwex.edu/ces/agmarkets/findmarket.html (accessed 8/8/05)
> Chapters: Conducting Market Research; Following Trends; Developing a Marketing Plan.

> ***"The Key to Successful Direct Marketing: Use Your Head!"*** by Laura Sayre. New Farm (2003).

Full text: http://www.newfarm.org/depts/talking_shop/0104/food_farm.shtml (accessed 8/8/05)
Report from the 5th Annual Future of Our Food and Farms Summit, advanced course in direct marketing.

Marketing Strategies for Farmers and Ranchers. Revised edition. Sustainable Agriculture Network (SAN), 2003. Note: Also available with accompanying PowerPoint presentation on CD ROM.
Full text: http://www.sare.org/publications/marketing.htm

Farm Direct Marketing: Guide to Educational Resources, by David Chaney, Gail Feenstra, and Jeri Ohmart. University of California, Sustainable Agriculture Research and Education Program (SAREP)/Sustainable Agriculture Research and Education (SARE), 2004.
Full text: http://wsare.usu.edu/pub/index.cfm?sub=mktsearch (accessed 8/8/05)
"This annotated listing includes practical, high quality resources such as print publications, videos, and Web resources..."

Direct Marketing of Farm Produce and Home Goods: Direct Marketing Alternatives and Strategies for Beginning and Established Producers, by John Cottingham et al. University of Wisconsin Extension, undated. 28p.
Full text: http://cecommerce.uwex.edu/pdfs/A3602.PDF

Direct Farm Marketing Resources. USDA, Agricultural Marketing Service.
State-by-state directory of contacts.
http://www.ams.usda.gov/directmarketing/DM_states.htm

MARKETING TO RESTAURANTS AND FOOD RETAILERS: A growing number of natural and specialty food stores, chef-owned restaurants, and even some larger grocery store chains are actively purchasing locally grown food products. Farmers need to keep informed about trends in the food industry to fully utilize this outlet.

> ***Selling Directly to Restaurants and Retailers***, by Gail Feenstra, Jeri Ohmart, and David Chaney. University of California, Sustainable Agriculture Research and Education Program (SAREP), 2003. 5p.
> Full text: http://www.sarep.ucdavis.edu/cdpp/selldirect.pdf (accessed 8/8/05)

> ***Selling Local Food to Restaurants and Food Services: Why and How***. (Report Brief) University of Missouri Outreach and Extension, Food Circles Networking Project, undated. 1p.
> Full text: http://www.foodcircles.missouri.edu/selltorestaurants.pdf

COMMUNITY SUPPORTED AGRICULTURE (CSA): Partnership between consumers and farmers in which consumers pay for farm products in advance and farmers commit to supplying sufficient quantity, quality and variety of products. This type of arrangement can be initiated by the farmer (farmer directed) or by a group of consumers (participatory).

> ***CSA Across the Nation: Findings from the 1999 CSA Survey***. (2003) Center for Integrated Agricultural Systems (CIAS), College of Agricultural and Life Sciences, University of Wisconsin-Madison. Provides the first comprehensive portrait of the CSA movement in the US. Findings from a 1999 national "census" survey show commonalities and diversity among CSA farms.
> http://www.cias.wisc.edu/pdf/csaacross.pdf

CSA Resources for Farmers. (updated 2006) U.S. Department of Agriculture, AFSIC. List of selected books, articles, videos, and web links focusing on the business of CSA farming. http://www.nal.usda.gov/afsic/pubs/csa/csafarmer.shtml

INTERNET SALES: While the Internet plays an important role in business today, its significance is about to explode. According to a recent survey by International Data Corporation, sales influenced by the Internet, either purchased online or directly influenced by research conducted on the Internet, account for 17% of all sales in the U.S.

How to Direct-Market Farm Products on the Internet, by Jennifer Claire V. Klotz. USDA, Agricultural Marketing Service (AMS), Transportation and Marketing Programs, Marketing Services Branch, 2002. 50p.
Full text: http://www.ams.usda.gov/tmd/msb/pdfpublist/internetmarketing.pdf (accessed 8/8/05)
This publication provides basic information and suggestions for direct farm marketers on selecting and tailoring a website to meet their marketing needs and goals, including: Reasons for considering using the web for direct farm marketing; How to develop a marketing plan; How to research the market; How to set up and market the website. References are cited to enable producers to undertake additional research on Internet marketing. Feedback from producers who use the Internet is included to demonstrate the challenges and the benefits of using this marketing tool.

E-Commerce for Farmers: Yes, You Can! by Michelle Frain. New Farm (2003).
Full text: http://newfarm.org/depts/midatlantic/Fact%20Sheets/e-commerce.shtml

AGRI-TOURISM: Refers to the act of visiting a working farm or any agricultural, horticultural or agribusiness operation for the purpose of enjoyment, education, or active involvement in the activities of the farm

or operation. Agri-tourism is increasingly popular in farming communities near urban areas.

> ***Western Profiles of Innovative Agricultural Marketing: Examples from Direct Farm Marketing and Agri-Tourism Enterprises***, by Russell Tronstad. (Publication, AZ1325) Western Extension Marketing Committee/University of Arizona, CALSmart, 2003. 128p.
> Full text: http://cals.arizona.edu/AREC/wemc/westernprofiles.html

WHOLESALE: Selling in quantity to a buyer who then resells the product. Most agricultural products in the US are sold through wholesale channels. Small farmers may sell wholesale directly to local grocery stores, natural food stores, food service establishments, and food buying co-ops or to buyers who then serve as the middle men in the marketing chain.

> ***Wholesale Marketing - Penn State University***. Collection of fact sheets, marketing tips, and resource links.
> Full text: http://agmarketing.extension.psu.edu/Wholesale.html

> ***USDA Agricultural Marketing Service. AMS at USDA, Fruit and Veetable Market News Service***. U.S. Wholesale (Terminal) Market Price Reports • International Wholesale (Terminal) Market Price Reports • Shipping Point Price and Supply Reports ...
> www.ams.usda.gov/fv/mncs/fvwires.htm

> ***Steps to Ag Business Development – Marketing. Steps to Ag Busaness Development - Marketing***. MARKETING. Chapter 27.... Wholesale? Other? The answer to that question is largely dependent upon your needs.
> Full text: www.extension.iastate.edu/valueaddedag/info/stepsagbusmarketing.htm

More Marketing Resources for Value-Added Products

Keys to Success in Value-Added Agriculture
http://attar.ncat.org/attar-pub/PDF/keystosuccess.pdf
Excellent article and valuable information for anyone considering a value-added enterprise.

Agricultural Marketing Resource Center
http://www.agmrc.org/agmrc/default.html
An electronic, national resource for producers interested in value-added agriculture.

Agriculture Innovation Center – Starting a Value-Added Business
http://www.mda.mo.gov/AgBusiness/resources/starting.htm

New Uses, New Opportunities – Missouri Department of Agriculture
http://www.mda.mo.gov/AgBusiness/resources.htm

Building Farm Budgets for Value-Added Enterprises
http://valueadded.missouri.edu/vantage/V3n2/vanews2.htm
This site has enterprise budgets from producers in Missouri, but includes valuable information on how to draft a working budget for your new product or enterprise.

Publications

Farming for Profit and Stewardship Tool Kit
http://www.nrcs.usda.gov/technical/RESS/altenterprise/toolkit.html
Available from the USDA NRCS. The entire publication or individual chapters of the 850 page publication can be downloaded at the NRCS website.

The Rodale Institute Store

http://www.rodaleinstitutestore.org/store/customer/home.php.cat=408

Contains 80 value-added and alternative enterprise publications covering topics from Bee Products to Woodworking.

APPENDICES....

STATE OF MARYLAND
DHMH

Maryland Department of Health and Mental Hygiene
6 Saint Paul Street, Suite 1301 • Baltimore, Maryland 21202
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor
John M. Colmers, Secretary

Office of Food Protection and Consumer Health Services
Alan Taylor, R.S., Director

On-Farm and/or Small Milk Processing Plants Plan Review Submittals

The Code of Maryland Regulations10.15.05, 10.15.06, and 10.15.09 require that legible, detailed plans be submitted to, and approved by, the Department of Health and Mental Hygiene, Division of Milk Control, before a manufactured grade milk facility is constructed, remodeled or altered, or before an existing building is remodeled for use as a manufactured grade milk facility. These plans must include, but are not limited to, the following information:

1. Basic building layout showing all doors and windows.

2. A drawing that identifies the separate work areas and the location of all equipment to be used in the preparation, production, and storage of manufactured grade milk products and ingredients. This must be drawn to scale.

3. Diagram of the milk piping layout in the plant – CIP or manual clean up, flow of milk (raw and pasteurized), valve locations, recorder locations, equipment piping.

4. A description of the building's construction type, such as wood frame, masonry, metal siding on steel, or concrete tilt-up construction.

5. A complete list of the proposed equipment to be used in the preparation, production, and storage of milk products and ingredients. The separate equipment items must be numbered in the list, and the corresponding number assigned to the item on the drawing in horizontal section for easy identification.

6. A finish schedule that includes the material of construction of the walls, floors, and ceiling of all areas.

7. A plumbing layout and/or riser diagram which indicates the proposed location of all fixtures such as hand sinks, toilets, utility sinks, floor drains, floor sinks, hose stations, hub drains, and backflow preventers.

8. The method of sewage disposal and the source of potable water. Location of toilet facilities. Toilet room cannot open into a processing area and must have a hand sink provided.

9. The specifications of all the proposed equipment to include documentation of applicable listings such as NSF, UL, and 3A standards.

10. Diagram showing utility locations - The size, type and location of water heating facilities (recommend placement in utility room), glycol or cooling water tanks, compressors, CIP tanks and recorders.

11. A Standard Operating Procedures or Operations Manual that addresses manufacturing practices, employee training, and plant sanitation.

12. Electrical diagrams and lighting plan to provide adequate light, shielded in areas with exposed milk or milk products.

13. The methods and facilities for trash storage and disposal (including whey) and rodent control.

14. Ventilation plans

15. Include a detailed process narrative that includes:

- List of ingredient sources
- Receiving and processing steps (mixing, pasteurization, cooling, packaging, etc.)
- Description and examples of labels
- Description of storage and transportation
- A product flow chart
- Product sell by dates
- HACCP evaluation may be required for certain facilities.

Submit this information to Laurie Bucher, Section Head, Division of Milk Control, 1360 Marshall Street, Hagerstown, MD 21740. You are advised that additional information may be required based on future findings. There is no fee for plan review.

Send plans to: Division of Milk Control
1360 Marshall Street
Hagerstown, MD 21740

USDA Inspected Facilities in Maryland
Slaughter and Process Directory by County

May 2009

Note: Mention, visual representation, or referred reference of a product, service, or organization in this directory does not imply endorsement by the author or any of the partners. Exclusion does not imply a negative evaluation.

BALTIMORE

G. G. Ruppersberger & Sons, Inc.

2639 Pennsylvania Avenue
Baltimore, MD 21217
Phone: (410) 669-2600
Website:
E-mail: wrupper@aol.com

- ☑ Value-added processes
- ☑ Private label accounts
- ☑ Vacuum_pack
- ☑ Kosher
- ☑ Halal

Livestock accepted: beef, veal, lamb, goat

Does not accept: bison

J. W. Treuth & Sons, Inc.

328 Oella Avenue
Baltimore, MD 21228
Phone: (410) 465-4650
Website: http://www.treuth.com
E-mail: treuth@msn.com

- ☑ Value-added processes
- ☐ Private label accounts
- ☑ Vacuum_pack
- ☑ Kosher
- ☑ Halal

Livestock accepted: beef only - target prime & choice market (penalty fee for custom slaughtered if carcasss in under 575 lbs.; nothing over 30 months of age)

Does not accept: swine, lamb, goat, bison

CARROLL

A & W Country Meats, Inc.

12 Middle Street (rear)
Taneytown, MD 21787
Phone: (410) 756-2420
Website:
E-mail:

- ☑ Value-added processes
- ☐ Private label accounts
- ☐ Vacuum_pack
- ☐ Kosher
- ☐ Halal

Livestock accepted: beef, swine, pork, lamb, goat

Does not accept: bison

Bullock's Country Meats & Farm

2020 Sykesville Road
Westminster, MD 21157
Phone: (410) 848-6786
Website:
E-mail:

- [ ] Value-added processes
- [ ] Private label accounts
- [ ] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat

Does not accept: bison

Lambco, LLC

722 Green Valley Road
New Windsor, MD 21776
Phone: (410) 775-0546
Website: http://lambcomd.com
E-mail: lambcomd@yahoo.com

- [x] Value-added processes
- [ ] Private label accounts
- [ ] Vacuum_pack
- [ ] Kosher
- [x] Halal

Livestock accepted: lamb, goat

Does not accept:

Maurer & Miller Meats, Inc.

3278 Main Street
Manchester, MD 21102
Phone: (410) 374-2884
Website:
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat

Does not accept: bison, poultry or fowl

Wood Meats

2020 Sykesville Road
Westminster, MD 21157
Phone: (410) 840-0098
Website:
E-mail:

- [ ] Value-added processes
- [ ] Private label accounts
- [ ] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted:

Does not accept:

CECIL

Galvinell Meat Company, Inc.

461 Ragan Road
Conowingo, MD 21918
Phone: (410) 378-3032
Website: http://www.galvinell.com
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat, bison

Does not accept:

FREDERICK

Dorsey Meats, Inc.

100 Dorsey Alley
Woodsboro, MD 21798
Phone: (301) 845-8314
Website: http://www.dorseymeats.com
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: swine, beef (only kill hogs at our facility)

Does not accept: goat, lamb, bison

Shriver Meats

16436 Four Points Bridge Road
Emmitsburg, MD 21727
Phone: (301) 447-2255
Website:
E-mail:

- [ ] Value-added processes
- [x] Private label accounts
- [ ] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef

Does not accept: swine

Shuff's Meats, Inc.

12247 Baugher Road
Thurmont, MD 21788
Phone: (301) 271-2231
Website: http://www.shuffsmeatmarket.com
E-mail: info@shuffsmeatmarket.com

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat

Does not accept: bison

Wagner Meats, LLC

604 N. Main Street, P.O. Box 51
Mount Airy, MD 21771
Phone: (301) 829-0500
Website: http://www.wagnersmeats.com/
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb

Does not accept: goat, bison

GARRETT

Country Pride Meats

5481 Friendsville Road
Friendsville, MD 21531
Phone: (301) 746-5600
Website:
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat

Does not accept: bison

Garrett Country Market, LLC

418 S. Main Street
Accident, MD 21520
Phone: (240) 321-5505
Website: http://www.garrettcountrymarket.com/
E-mail: craig@garrettcountrymarket.com

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, lamb, bison

Does not accept: goat, swine

The Butcher Block

2482 Maryland Highway
Mountain Lake Pk, MD 21550
Phone: (301) 334-4140
Website:
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat, bison

Does not accept:

QUEEN ANNE'S

Sudlersville Frozen Meat Locker

204 E. Main Street
Sudlersville, MD 21668
Phone: (410) 438-3106
Website: http://sudlersvillemeats.com/
E-mail: sudlersvillelocker@verizon.net

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, veal, swine, lamb, goat, bison

Does not accept:

WASHINGTON

Hoffman's Quality Meats

13225 Cearfoss Pike
Hagerstown, MD 21740
Phone: (301) 739-2332
Website: http://www.hoffmanmeats.com
E-mail: Dluhouse@hoffmanmeats.com

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, veal, swine, lamb, goat, bison

Does not accept:

Horst Meats

17807 Reiff Church Road
Hagerstown, MD 21740
Phone: (301) 733-1089
Website:
E-mail:

- [x] Value-added processes
- [x] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat

Does not accept: bison

Sunnyland Corporation

16223 Spielman Road
Williamsport, MD 21795
Phone: (301) 223-9637
Website:
E-mail:

- [ ] Value-added processes
- [ ] Private label accounts
- [ ] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine

Does not accept:

Woodlawn Farms

4233 Harpers Ferry Road
Sharpsburg, MD 21782
Phone: (301) 432-6425
Website:
E-mail:

- [x] Value-added processes
- [ ] Private label accounts
- [x] Vacuum_pack
- [ ] Kosher
- [ ] Halal

Livestock accepted: beef, swine, lamb, goat, would consider bison

Does not accept:

Food Information Note 5:

Homemade Fruit Jellies, Jams, Preserves, and Butters and Baked Goods Sold at Farmer's Markets

November 7, 2001

In response to inquiries from local health departments and farmer's market organizers and vendors, the following information is provided to supplement the Farmer's Market Interpretative Memorandum 80-6 dated August 27, 1992. This Office, using legal authority set forth in the Code of Maryland Regulations (COMAR) 10.15.03.03H, considers some hot-filled canned fruit jellies, jams, preserves, and butters and non-potentially hazardous baked goods made in private home kitchens as being from an "approved source" when the homemade foods are:

1. Limited to the foods specified in this Note, which are non-potentially hazardous foods and have inherent safety factors;
2. Wholesome and properly packaged and labeled; and
3. Offered or sold solely at a farmer's market.

For the purpose of this Note, a farmer's market is a place where:

1. One or more persons offer or sell to the public food products supplied directly from one or more farm operations; and
2. The major activity involves the offering or selling of agricultural food products to the public.

A farmer's market does not include:

1. A food service facility operated by a person licensed in accordance with COMAR 10.15.03 in which the major activity

does not involve offering or selling agricultural products to the public; and

2. A place:
   a. Where the food offered or sold does not include food supplied directly from farms; and
   b. From which food is wholesaled or commercially distributed.

The homemade foods accepted as being from an approved source at a farmer's market are the high acid fruit jelly, jams, preserves, and butters and non-potentially hazardous baked goods described below.

Fruit jelly and fruit jams (and preserves)

Fruit jelly is the jelled mixture of one or more filtered or strained fruit juices and sweeteners, pectin, and other optional ingredients. Fruit jam and preserves contain fruit and are viscous or semi-solid. Preserves typically contain small whole fruit or uniform pieces of fruit, while jams use crushed or chopped fruits. In this Note, jams and preserves are considered the same food. For standardized fruit jellies and jams, 21 Code of Federal Regulations (CFR) §§150.140 and 150.160 require that the mixtures contain a minimum of: 1) 45 or 47 parts by weight of fruit juice or fruit respectively to each 55 parts by weight of saccharin ingredient; and 2) soluble solids of 65%. Although jellies and jams typically contain a high sugar content, the water activity (Aw) of jellies and jams may exceed .85 (threshold value for food pathogens and potentially hazardous foods). Only fruit and berries with sufficient natural acidity to guarantee an equilibrated pH of the jelly or jam of less than 4.6 may be used in homemade jams and as a source of the fruit juice ingredient in jellies. The fruits and berries that likely have sufficient natural acidity for safety and that are also included in the CFR as sources for standardized fruit jelly and jam include: apple, apricot, grape, peach, plum, quince, orange, nectarine, tangerine, blackberry, raspberry, blueberry, boysenberry, cherry, cranberry, strawberry and red currants. Fruit jelly and jam made from fruit and berries other than the above may not be manufactured without a license issued in accordance with

COMAR 10.15.01 “Canning and Acidified Food Manufacturing” unless specific written approval is given by this Office. Rhubarb, tomato, and pepper jellies and jams are not allowed for in-home manufacturing.

Fruit butters

Fruit butter is the smooth and semi-solid mixture of screened fruit and sweeteners, fruit juice, pectin and other optional ingredients. For standardized fruit butters, 21 CFR §150.110 requires that the mixture contain as a minimum: 1) 5% of fruit by weight; 2) fruit juice that is ½ the fruit weight; and 3) soluble solids of 43%. Fruit butters contain less sugar than jams and jellies and are likely to have a Aw of greater than .85. Fruit butters that are homemade and offered or sold at a farmer’s market must use fruits that have sufficient natural acidity to result in a food with an equilibrated pH of less than 4.6. The fruits that likely have sufficient natural acidity for safety and that are also included in the CFR as sources for standardized fruit butter are apple, apricot, grape, peach, plum, prune, and quince. Fruit butter made from other than the above may not be manufactured without a license issued in accordance with COMAR 10.15.01unless specific written approval is given by this Office. Pumpkin butter, banana butter, and pear butter are not approved for in-home manufacturing. Some pear serovars may have a pH of 4.6 or slightly higher and most pumpkin and banana butters are either “low-acid foods” or “acidified foods” that, in accordance with COMAR 10.15.01, require the manufacturer to: 1) Receive a license to operate a food processing plant; 2) Attend specialized training; and 3) File a scheduled process with the U.S. Food and Drug Administration.

Baked goods

Baked goods are breads, cakes, and pastries that are cooked with dry heat. The only homemade baked goods that may be offered or sold to the public at a farmer’s market are those that are non-potentially hazardous. Many baked goods are non-potentially hazardous chiefly because of low water activity. Fruit pies made from the high acid fruits

listed above for fruit jams, jellies, and butters are acceptable. Potentially hazardous baked goods offered or sold to the public such as most foccacia breads, pumpkin pies, sweet potato pies, cheesecakes, and pastries with potentially hazardous fillings or toppings must be from a licensed food processing plant.

Except for the specified fruit jams, jellies, and butters, and non-potentially hazardous baked goods made for sale or offering directly to consumers at farmer's markets, all processed foods sold or offered to the public must be manufactured in a commercial food processing plant by a person licensed by the Department of Health and Mental Hygiene to operate the plant.

Directory of Health Departments

Allegany
Health Officer: Sue Raver, MD
Address: Box 1745
12501-12503 Willowbrook Road SE • Cumberland, MD 21501
Voice: 301-759-5001 • Fax: 301-777-5674

Anne Arundel
Health Officer: Frances Phillips, RN, MHA.
Address: Health Services Buildings 3 • Harry S. Truman Parkway
Annapolis, MD 21401
Voice: 410-222-7375 • Fax: 410-222-7294

Baltimore City
Health Officer: Josh Sharfstein
Address: 210 Guilford Avenue, 3rd Floor • Baltimore, MD 21202
Voice: 410 396 4387 • Fax: 410-396-1617

Baltimore Co.
Health Officer:Gregory W. Branch, MD (Acting)
Address: Drumcastle Government Center
6401 York Road, 3rd Floor • Baltimore, MD 21212
Voice: 410-887-2702 • Fax: 410-377-9646

Calvert
Health Officer: David L. Rogers, MD, MPH
Address: P.O. Box 980 • 975 Solomons Island Rd
Prince Frederick, MD 20678
Voice: 410-535-5400 ext 305 • Fax: 410-535-5285

Caroline
Health Officer: Leland Spencer, MD, MPH
Address: 403 South 7th Street • P.O. Box 10 • Denton, MD 21629
Voice: 410-479-8030 • Fax: 410-479-0554

Carroll
Health Officer: Larry Leitch, MA, MPA
Address: Box 845 • 290 S. Center Street
Westminister, MD 21158-0845
Voice: 410-876-4972 • Fax: 410-876-4988

Cecil
Health Officer: Stephanie Garrity, Acting
Terri Reid, Secretary 410-996-5550 ext 108
Address: John M. Byers Health Center • 401 Bow Street
Elkton, MD 21921
Voice: 410-996-5550 • Fax: 410-996-5179

Charles
Health Officer:Stephanie Garrity
Location Address: 4545 Crane Highway • White Plains, MD 20695
Mailing Address:Mailing: P.O. Box 1050 • White Plains, MD 20695
Voice: 301-609-6901 • Fax: 301-934-4632

Dorchester
Health Officer: Roger Harrell, MPA
Address: 3 Cedar Street • Cambridge, Md 21613
Voice: 410-228-3223 • Fax: 410-901-8194

Frederick
Health Officer: Barbara Brookmyer, MD, MPH
Address: 350 Montevue Lane • Frederick, MD 21702
Voice:301-600-2509 • Fax: 301-600-3111

Garrett
Health Officer: Rodney Glotfelty, RS, MPH
Address: 1025 Memorial Drive • Oakland, MD 21550
Voice: 301-334-7700 • Fax: 301-334-7701

Harford
Health Officer: Susan Kelly, Actin
Christi Calhoun, Secretary 410-638-8400
Address: 119 S. Hays Street • Box 797 • Bel Air, MD 21014-0797
Voice: 410-638-8410 • Fax: 410-420-3446

Howard
Health Officer: Peter Beilenson, M.D., MPH
Address: 7178 Columbia Gateway Drive • Columbia, MD 21046
Voice: 410-313-6305 • Fax: 410-313-6303

Kent
Health Officer: Leland Spencer, MD, MPH
Address: 125 S. Lynchburg Street • Chestertown, MD 2162
Voice: 410-778-2409 • Fax: 410-778-6119

Montgomery
Health Officer: Ulder Tillman, MD, MPH
Kelly Robinson, Secretary, 240-777-1603
Address: 401 Hungerford Drive, 5th Floor • Rockville, MD 2085
Voice: 240-777-1741 • Fax: 240-777-1494

Prince Georges
Health Officer: Donald Shell, MD, M.A.
Address: 1701 McCormick Drive • Largo, MD 20774
Voice: 301-883-7834 • Fax: 301-883-7896

Queen Anne's
Health Officer: C. Devadason, MD, DPH
Address: 206 N. Commerce Street • Centreville, MD 21617
Voice: 410-758-3364 • Fax: 410-758-2838

Somerset
Health Officer: Colleen Parrott, RN, MSN
Address: 7920 Crisfield Highway • Westover, MD 21871
Voice:443-523-171 • Fax: 410-651-5680

St. Mary's
Health Officer: William B. Icenhower, MD, MPH.
Address: 21580 Peabody Street • Leonardtown, MD 20650
Voice: 301-475-4315 • Fax: 301-475-4350

Talbot
Health Officer: Kathleen Foster, RN, MS
Address: 100 S. Hanson Street • Easton, MD 21601
Voice: 410-819-5606 • Fax: 410-819-4703

Washington
Health Officer:Earl E. Stoner, MPH
Address: 1302 Pennsylvania Avenue • P.O. Box 2067
Hagerstown, MD 21742
Voice: 240-313-3260 • Fax: 240-313-3301

Wicomico
Health Officer: Lori Brewster, MS (Acting)
Address: 108 East Main Street • Salisbury, MD 21801
Voice:410-543-6930 • Fax: 410-543-6975

Worcester
Health Officer: Deborah Goeller, RN, MSN
Address: P.O. Box 249 • 6040 Public Landing Rd. • Snow Hill, MD 2186
Voice: 410-632-1100 • Fax: 410-632-0906

DIRECT MARKETING FARM-RAISED MEATS IN MARYLAND

Maryland farmers who raise meat - beef, pork, lamb, chevon, and veal- on their farms can sell their USDA processed frozen products and frozen cuts directly to the public from their farms. These products can also be sold at farmers' markets, to restaurants, and also to retailers. All meats sold in this manner must have been processed through a USDA federally inspected facility.

Product Development

Have your USDA processor cut, vacuum wrap, and label your individual cuts or packages. It is much easier to apply a label to the package before freezing. Clear, vacuum sealed packaging makes it easier for customers to see what they are purchasing and also helps keep your meat fresher and freezer burn resistant.

Most USDA processors have contact information for a label designer and printer. Your label should include the following information:

- Name of the product
- Your farm name and address
- The processor's name and address
- The processor's USDA stamp
- Safe food handling instructions

Obtaining an On-Farm Food Processing Plant License

To sell stored, frozen farm-raised meat directly from your farm, you should obtain a Food Processing Plant License. This is also sometimes referred to as an on-farm home processing facility. Request the license application by contacting:

Carolann Liszewski, Division of Facility and Process Review
Maryland Department of Health and Mental Hygiene
Office of Food Protection and Consumer Health Services
6 St. Paul Street, Suite 1301 • Baltimore, MD 21202-1608
410-767-8417

You will receive a one-page application form that is fairly simple to complete. The license type to request is “On Farm Processor”. The license fee for on-farm distribution is $30 if you stay under $40,000 in sales per year. If you go over that amount, the fee is $150. Payment must be returned with the application.

To facilitate a speedier plan review, include a one-page description of what you plan to sell, where, and how. This page can serve as your site plan. It should include:

1. A description of the designated area on your farm where the frozen meat will be stored.
2. A description of your freezer. You will need an NSF certified commercial freezer. These are available at a number of retailers such as Sears and, although they cost slightly more than home freezers, are better insulated and more energy efficient.
3. Describe how the product will be kept secure. The simplest answer is that your freezer locks. Security becomes a food safety issue to prevent contamination.
4. Describe how the meat will be kept frozen during transportation or storage at a farmers’ market.

Once the plan has been reviewed, an on-farm inspection of your facility and equipment is required to confirm it complies with the local and state laws governing food processing facilities.

Risk

All producers should consider the added risk of selling their meat directly through retail channels. The potential for loss could be great. You may want to consider legally organizing your meat sales business separate from your farm business to protect your farm. Consult with your insurance professional to discuss product liability insurance. Also, stores and markets often require that you have product liability insurance before they will purchase any of your products.

TITLE 10
DEPARTMENT OF HEALTH AND MENTAL HYGIENE
SUBTITLE 15 FOOD

CHAPTER 04

FOOD AND DRINK PROCESSING AND TRANSPORTATION

Authority: Health-General Article, §§18-102, 21-211, 21-234, and 21-304; Agriculture Article, §4-311; Annotated Code of Maryland

.19 On-Farm Home Processing.

A. The Department may issue a food processing plant license to an individual who owns a farm to process food in a home or domestic kitchen located on the individual's farm as set forth in this regulation.

B. In addition to the training required in Regulation .07H of this chapter, before an individual may be licensed as set forth in §A of this regulation, the individual shall complete a course given or approved by the Department that provides a minimum of 8 hours of training in:

(1) Sanitation;
(2) Cross-contamination controls; and
(3) Food security.

C. While operating with a license issued in accordance with §A of this regulation, the person-in-charge:

(1) Shall comply with this chapter except for:
(a) Regulation .10D(2)(b), (4), and (5) of this chapter;
(b) Regulation .10K of this chapter; and
(c) Regulation .12B(1), (3), and (4) of this chapter;

(2) Except as provided in §D(1) and (2) of this regulation, shall manufacture and process only non-potentially hazardous foods such as:
(a) Baked cakes, muffins, or cookies with a water activity of .85 or less;
(b) Fruit pies with an equilibrated pH of 4.6 or less;
(c) Canned acid foods with an equilibrated pH of 4.6 or less;
(d) Herbs in vinegar with an equilibrated pH of 4.6 or less;
(e) Honey and herb mixtures; and
(f) Dried fruit and vegetables;

(3) May not process:

(a) Low-acid canned foods;

(b) Cured or fermented foods;

(c) Except as provided in §D(2) of this regulation, seafood;

(d) Apple cider or other juices;

(e) Grade A milk product or manufactured grade milk product as defined in Health-General Article, §21-401, Annotated Code of Maryland; and

(f) A frozen dessert as defined in Health-General Article, §21-801(b), Annotated Code of Maryland;

(4) Shall process food in accordance with manufacturing procedures and standard processes as set forth in Regulation .08 of this chapter;

(5) Shall limit processed food production to:

(a) An amount of food that can safely be produced in the domestic kitchen as evidenced by sanitation and process and cross-contamination control;

(b) $40,000 of sales;

(6) Shall process commercially only during times when the kitchen is not being used for domestic purposes;

(7) Immediately before and after processing commercially, shall clean and sanitize all food contact surfaces, equipment, and utensils;

(8) While processing commercially, shall:

(a) Use only building areas, equipment, and utensils that the Department has reviewed or inspected and approved; and

(b) Exclude pets and other animals and individuals not involved in the manufacturing from the kitchen; and

(9) Shall store ingredients for commercial manufacturing and finished manufactured food in a separate area from foods used domestically.

D. An individual licensed in accordance with this regulation may:

(1) While operating a farm where animals are raised commercially, weigh, package, label, and sell or distribute raw meats when the meats originate from animals that:

(a) Are raised, fed, or managed on the farm; and

(b) Have been slaughtered and chilled at a plant inspected and regulated by the United States Department of Agriculture or the Department;

(2) While operating a fish farm, clean, weigh, package, label, and sell or distribute raw finfish from the farm that are not associated with histamine intoxication; and

(3) Use shared equipment and utensils for both domestic and commercial uses provided that the equipment and utensils are:

(a) Designed and constructed as set forth in Regulation .11 of this chapter; and

(b) Cleaned and sanitized as set forth in Regulation .13 of this chapter and §C(7) of this regulation.

E. When a farm ceases to be a farm, a food processing license issued in accordance with this regulation becomes void.

F. In the absence of a license issued in accordance with COMAR 10.15.03, a license issued in accordance with this regulation shall provide for the sale on the farm of food processed on the farm by the licensee.