“MAKING ON-FARM PROCESSING A VIABLE ECONOMIC OPTION IN MARYLAND”

Developing Policy and Technical Support Systems to Accommodate Small-Scale Food Processing in Maryland

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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-quarter 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-add products. While fruits and vegetables are often mentioned in the need for an acidified food processing program in the state, niche meat and poultry producers are also clamouring for more opportunities to process and sell valued added products.

Just like in direct marketing, the ability to process their own products, rather than using a co-packer, greatly increases their profit margins for these products. Farmers in Maryland have not been able to take full advantage of adding value to their raw products because of costly, complicated and confusing health code regulations.

In September 2008, the Harry S. Hughes Agro-Ecology Center, 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” that seeks to identify the barriers to the development of more on-farm, value-added processing in Maryland. This paper examines the results of four key project outcomes:

- Provide an overview of the profit potential and define the barriers for on-farm processed products.
- Report on surveys conducted with both farmers and agency personnel on the barriers and opportunities for on-farm processing of value-added products.
- Examine a matrix of state food processing regulations in neighboring states to identify models for training, inspection, safety requirements, and standard operating regulations for small, on-farm processing enterprises.
- Summarizes farmer and agency feedback from a daylong seminar on developing business models and regulation aimed at increasing on-farm processing and valued added enterprise.
- Offer recommendations for regulatory changes or clarifications that embrace the need for safe food processing but seeks to support small-scale processing, on-farm processing.
Analysis of Problem

Consumer demand for locally produced, organic, “natural” and/or grass-fed meat, poultry and dairy products is expanding rapidly, and Maryland’s topography, climate, rainfall, and consumer demographics make it exceedingly well-suited for these enterprises. Demand for these farm products currently exceeds supply and is likely to continue growing for many years. Considering the size of consumer markets available, this represents a significant economic opportunity for Maryland’s farm families and rural communities.

As an example, Rumbleway Farm in Cecil County, MD, has persevered and obtained a USDA meat processing certification for their on-farm processing operation. They now process their own pastured poultry and rabbits on their farm and market everything directly to a large local customer base and through the Internet. They grow pork and beef that are processed and also sold through their on-farm retail store. Their store is also a marketing outlet for nearby producers of jams, honey, baked goods, soup mixes, specialty nuts and candy, milk and ice cream. Imagine this replicated many hundreds of times in communities across the state.

Value-added dairy products represent significant market opportunities Maryland’s smaller farms. Demand for locally and regionally produced specialty cheeses, yogurts, and ice creams, appears to be growing steadily among consumers, restaurants, wineries, specialty groceries and even chain supermarkets. Increasing numbers of dairy farms are turning to value-added products, including a surprising number of new small dairy start-ups across the state. Many view this as a way of going to market with fresher products that are locally processed and meet all of today’s standards while also developing a stronger community support program.

South Mountain Creamery is a 180 cow dairy farm in Frederick County, MD operate their own processing plant and retail store, and provide employment for 30 local residents, in addition to their own family, solely on the basis of their local markets. When the Sowers ship milk to their milk cooperative they receive about 15 cents per pound. When they process the milk produced on their farm into a half-gallon jugs of skim milk and sold directly to customers, they receive 5 times that amount per pound.

Nearly 78 percent of the adults surveyed in the latest annual public opinion survey by the University of Baltimore’s Schaefer Center for Public Policy, said they
would be more likely to buy produce that is identified as having been grown by Maryland farmers (1). This surge in demand comes at a time when Maryland farmers are struggling with high land prices, skyrocketing input costs, and significant tax and labor issues. Direct marketing and on-farm value-added processing to expand shelf life and product variety, are two of the best options Maryland farmers meet this increase demand and willingness to purchase. Yet, marketing and processing skills were two areas farmers identified very challenging during the state-wide listening sessions to develop the Maryland’s Strategic Plan for Agriculture in 2006.

**Background**

Legislative action in 2006 designating an Ombudsman in the Maryland Department of Health and Mental Hygiene’s Office of Food Protection dedicated to assisting farmer’s with processing concerns accentuates the demand for assistance to the agriculture community in making value-added processing a profitable reality. Processing regulations that will support that intent are now needed.

Increasing farm profitability is one of the major goals in Maryland’s new Statewide Plan for Agricultural Policy and Resource Management. The plan specifies: Clarify, Harmonize, and Improve Regulations to Encourage Profitable Agriculture. Food processing regulations are not applied consistently across the state, which makes them more burdensome and confusing to farmers. Farmers need a place for regulatory “one-stop shopping” to simplify compliance and make it more cost-effective.

Health regulations: Health department regulations regarding food safety protect both the public and business ventures. New value-added enterprises provide opportunities for farmers to increase revenues. Health regulations need to be revised to accommodate the scope and scale of agricultural operations. (p.16)

Recommendation 1: Encourage On-Farm and Small Scale Processing for Maryland Products: Reform current policies and enact new policies that encourage on-farm and small scale processing for Maryland products. (p.18)

Processing infrastructure and regulations appear to be key factors limiting the growth of value-added processing among small farms in Maryland. Timely access to slaughter facilities with the required USDA licensing is a major obstacle. Farmer groups and rural economic development programs in several regions of the state have been trying to address this issue over the past several years with limited success. Access to appropriately scaled processing equipment is also a barrier in many cases.
Failure to have workable scale-specific processing regulations and training for on-farm processors in place has also contributed to a few examples of processed products offered at farmers markets that failed to meet food safety standards.

During inspections of farmers markets in Maryland during August and September of 2006, local health departments identified several problem products offered at some markets. Home canned vegetables were available for sale. Inadequate process control during manufacturing was evident in 12% of the pickled and jellied vegetables. Canned goods did not have labels indicating ingredients and meats and dairy products were available for sale with labeling indicating their source or to keep refrigerated statements on the packages.

Food safety is every food producer’s major concern. Farmers do not want to make anyone sick with their products. Limited access to affordable acidified food processing training and lack of an affordable Process Authority for Maryland’s small and specialty food producers, results in this small, but potentially hazard, sample of adulterated products that can make it to market.

Agency & Producer Surveys

To gain a greater “on the ground” sense of what is happening on the farm and the problems and requests agencies are confronting concerning on-farm processing, the Project’s Principal Investigator, Ginger Myers, Marketing Specialist with the University of Maryland Extension, interviewed and electronically surveyed 194 farmers, and 34 federal and state agencies personnel, and industry and trade groups, to identify regulatory barriers to the development of value-added farm enterprises in Maryland. The farmers interviewed were drawn from the pool of attendees at on-farm processing workshops held throughout the state in 2005. These workshops were conducted by the Maryland Department of Health and Mental Hygiene and the Maryland Department of Agriculture to deliver food safety and processing regulations materials. Other farmers surveyed included those listed a producers on the “Maryland’s Best” list and members of Future Harvest-CASA, a non-profit, sustainable agriculture organization.

While the questions were slightly different on these two surveys (See Appendix A & B for copies of the survey questions), they shared common questions about barriers, potential areas for change, delivery of services, and possible income potential. Twenty-eight farmers responded to the survey and eighteen agency personnel completed surveys for response rates of 14% and 62% respectively.
The following is a summary of survey responses from farmers and small food processing entrepreneurs:

**Maryland Agriculture’s Producer Value-Added Assessment Survey**

**Current Accomplishments**

1. Are you currently processing products? (In other words, are you processing food items such as meat, dairy, canned items, or other food items?)

What types of items are you processing now?
How much did these items increase your total gross sales?

Future Needs:

2. Would you like to increase your ability to process food products on your farm?

Other- included: Dried tomatoes or peppers, frozen pies, cookies, breads, frozen foods, ice cream, ciders, cider donuts, pasta, low acid foods, fruit butters, sauces, fungi, medicinal herbs, soybeans, salsas.
Processing Business Development Needs:

1. Do you have a written business plan for a processing business?

   - Yes - 2 responses/ 7.1%
   - No - 23 responses/ 82.1%
   - Did not respond - 3 responses/ 10.7%

   If not, do you want assistance with writing a plan?

   - Yes - 14 responses/ 50%
   - No - 11 responses/ 39.3%
   - Did not respond - 3 responses/ 10.7%

2. If you are interested in on-farming processing, but are not yet engaged in the venture; what do you think are the greatest barriers in Maryland to on-farm processing? (Rank top 5, 1 being the most important)

   - Local Regulations - 7 responses/ 25%
   - State Regulations - 6 responses/ 21.4%
3. Capital - 5 responses/17.9%

4. If you are processing, have you had to incur capital limiting costs to meet regulatory issues?

   Yes - 2 responses/ 7.1%
   No - 11 responses/ 39.3%
   Did not respond - 15 responses/ 53.6%

5. In regards to your product, have you had to meet state or federal regulations that have compromised your product?

   Yes - 2 responses/ 7.1%
   No - 12 responses/ 42.9%
   Did not respond - 14 responses/ 50%

   Explanations: USDA processing destroys the quality of my chickens, poultry regulations don’t consider the size of my operations, unable to sell meats to retailers.

Summary of Producers' Survey Results:

More producer respondents are having products process somewhere other than their farms or are not yet processing on-farm for a variety of reasons. The majority of on-farm processing currently involves meat products, which must be poultry products since on-farm processing of other meats for retail sales is not permitted in Maryland. Whether processed on-farm or through an off-farm processor, over 40% of the respondents marketing these value-added products are at seeing at least a 50% increase in their total gross sales. And, 14% are grossing an additional 50%-100% in gross sales from these products.

Over 85% of respondents would like to increase their abilities to process food products on their farms with meats and acidified foods the major target product. They project the ability to process and sell these items could increase their total gross sales an average of 35% (range 10% to >50%). Processed meat products and acidified foods were the two categories of process that agency and support personnel also identified as holding the greatest profit potential for Maryland farmers.

Whether it is a perception or reality, most respondents consider food processing regulations, both state and local, to be their major barriers to launching on-farm processing enterprises. Those already processing did not incur capital limiting costs to meet regulatory issues. Confusion and
contradictory interpretations of the regulations and the lead time required to meet regulatory requirements are producers’ major complaints.

Access to capital and small-scale processing equipment were also ranked in their top five concerns. However, most respondents, (82.1%) don’t have a written business plan for a processing business. Completing a written plan would help them identify regulatory opportunities as well as barriers, explore additional sources of capital, and require researching options for processing equipment.

The following is a summary of survey responses from agency, educational and regulatory personnel:

**Maryland Agriculture’s Support Agencies Value-Added Assessment Survey**

**Client Interest:**

1. Do you receive requests for information concerning on-farm processing in Maryland? Yes - 90%  No - 10%
   
   If YES, how many (total) inquiries do you receive annually?
   
   Range 4-50+  Average annual inquires - 20

What type(s) of items are clients considering for processing on-farm based on inquiries:

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<tr>
<th>Agencies Receive Requests for Information</th>
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<tr>
<td>Other-soaps, lotions</td>
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<tr>
<td>Home Kitchen Products</td>
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<tr>
<td>Acidified Foods</td>
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<td>Meat Products</td>
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<td>Dairy</td>
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Dairy Products - 27%  Meat Products - 21%  Acidified foods* - 31%
Home Kitchen Products - 15%  Other - 6%

*Acidified foods include canned foods to which acid (lemon juice, vinegar, etc.) has been added, such as pickles, salsa, some jams & jellies, etc.
Identifying Concerns:

1. What do you think are the greatest barriers in Maryland to on-farm processing? (Rank top 5, 1 being the most important)-Local regulations, Timely Access to Slaughter Facilities, Capital, Technical Assistance, Federal Regulations

2. In your opinion, which type of on-farm processed products holds the greatest profit potential for Maryland producers? (Rank top 3, 1 being the most important)-Meats, Acidified, Dairy

3. In your opinion, which food processing regulations hold the most potential for revision to facilitate on-farm processing? (Rank top 3, 1 being most important)-Meats, Acidified Foods, Dairy

Who Should Provide On Farm Assistance

<table>
<thead>
<tr>
<th>MDA</th>
<th>Health Dept</th>
<th>Support Agencies</th>
<th>Food Science Dept</th>
<th>Organization to Assist</th>
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<td>Department of Health</td>
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1. HACCP (Hazard Analysis Critical Control Points) and GAP (Good Agricultural Practices) plans, as well as voluntary quality control measures, continue to become more of a real issue for producers. Which organization should provide assistance for the development of such plans? (Rank top 3, 1 being most important)

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<td>Private Consultant</td>
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2. Which organization should provide assistance with on-farm processing? (Rank top 3, 1 being most important)

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3. Which organization should provide assistance with marketing and promotion?

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Summary of Agencies Survey Results:

From these results it is clear that agency and support personnel are receiving a good number of inquiries annually about on-farm processing from farmers and small food processing entrepreneurs. Most of the requests concern processing dairy products, something that has been very difficult to do in Maryland. However, regulatory and support personnel see more processing opportunities in the areas of meat and acidified foods. In fact, their responses identified the profit potential for meat and acidified foods to be twice that of the profit potential for dairy products. This is an interesting point considering there is no Better Processing Training School for acidified food producers currently being offered in Maryland.

Most of the barriers to on-farm processing identified by those surveyed at problems and concerns that have surfaced before. This question asked respondents to list their top five choices and those are reported here. But, if a very close sixth choice was written in on several response forms “Lack of a Business Plan to Determine the Feasibility of the Business”.

In reviewing the individual responses, most agency and department respondents tagged some other agency with the responsibility for supporting on-farm and small specialty food processors. It should be acknowledged that in some instances a department’s regulatory responsibilities precludes them providing certain types of support and that production and marketing are two different skill sets. But these charts
suggest that on-farm assistance may not be reaching farmers because a lack of clear areas of responsibility.

Results from the Matrix Research

The second objective of the grant project was to examine a matrix of state food processing regulations in neighboring states to identify models for training, inspection, safety requirements, and standard operating regulations for small, on-farm processing enterprises.

Billie Best, www.billiebest.com, is an agricultural researcher, writer, and advocate conducted this research. Her findings are detailed here.

Context

Government instituted food safety regulations require all food processing operations and their products to meet specified standards, and often the facility and/or the operator must be licensed. Therefore launching a food processing business and remaining in compliance with regulations requires access to clear, accurate information about food safety standards and licensing requirements.

Learning the standards and requirements for a food processor license can be challenging. Who do we ask? What government agency has legal jurisdiction over food safety? Who makes the regulations and where can they be found? Once found, regulations may be poorly written, confusing, and the terminology may be indecipherable. How does a farmer or food processor find the appropriate authority to guide them through interpreting and applying standards? And what if authorities from different agencies don't agree? Who has the final word in interpreting regulations? What happens when one authority permits an activity or product based on their interpretation of regulations, and another rejects it? These are some of the most common problems faced by farmers and food processors who produce a regulated product. In this report we look at Maryland's regulatory environment and the specific challenges faced by Maryland's small farmers and food processing entrepreneurs.

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 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 a 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.

**On-Farm 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. 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 regulatory environment for on-farm food processing is complex, confusing, and time consuming. But consumers have a right to expect safe food. Buying directly from a farm should not be a compromise in food safety. It’s the farmer’s responsibility to know and comply with regulations. At the same time, government has a responsibility to protect the food supply by developing innovative, cost-effective food safety systems, technology, and services, and by supporting a diverse marketplace. Food safety mistakes can become tragedies all too easily.

**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 and crabs.

2.) **What Maryland agency or department licenses food businesses?**

DHMH licenses both food service and food processing businesses. County licenses may also be required. 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. 13 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 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. For example, all counties set their own fees for 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?
13.) Does Maryland license on-farm bottling of milk?

Yes, 2 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, DMHM 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 5 on-farm cheese processors in Maryland. 12 Maryland producers ship milk to Pennsylvania to have Farmstead Cheese produced. There are 2 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 .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.

**COMPARING MARYLAND AND NEIGHBORING STATES**

<table>
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As recently as 1980, farmers received 31 cents of every food dollar spent in the US. Today, farmers receive less than 20 cents of every food dollar spent. From this 20 cents they must deduct production and marketing costs, leaving net profits of less than a dime. There are not individual state figures, but there is little reason to believe that Maryland farmers deviate from the national average. Value added by the food marketing system is largely independent of farm prices, as when consumer prices have held steady or risen in the face of a decline in farm prices. Over the years, consumer prices have tended to rise, regardless of whether farm prices were rising or falling. As a result, the farm share has tended to decline for most foods, while farm-to-consumer price spreads have widened.

The price we pay for those layers of business between our farms and our dinner table is reduced economic vitality, loss of cultural identity, an increase in diet-related diseases, and of course, the fuel costs, traffic and pollution that come with global transportation systems.
Marylanders want to purchase local food products and support local farmers. The “Maryland Policy Choices: 2009”, Schaefer Center for Public Policy, Feb. 2009 posed the question,

“Are you more likely to or less likely to select fresh fruit, vegetables or other farm products to purchase in your local grocery store if they are identified as having been grown by a Maryland farmer?”

The survey found that over three quarters of Marylanders (77%) are more likely to buy produce that is identified as having been grown by a Maryland farmer. These responses are almost identical to those for the last two years of the annual survey, indicating that public opinion has remained relatively stable.

The 2007 US Census of Agriculture documents the dramatic increase in Maryland’s direct marketing sales and its economic impact at the county level, particularly in urban counties where farmland is most under pressure from development.

**BARRIERS TO ON-FARM PROCESSING IN MARYLAND**

Billie Best, the project researcher, found several barriers to on-farm processing: some are regulatory, others deal with the ease of access to the correct information about the regulations. Best writes concerning these barriers, “Food business licenses are based on standards that specify what foods may be processed and how, where food may be processed, how food is stored, kept, and held, what information is required on a food label, and where food may be processed.”
distributed and sold. As we have seen, the situation is complex, and complexity creates stress, confusion, and fear in the minds of farmers, food processors, regulators, inspectors, and consumers. Managing complexity is one of the biggest barriers to on-farm processing in Maryland.

Some complexity may be eliminated, or diminished, but there are certain features of the system that everyone must learn to live with, for example, the hierarchy of federal, state, and local agencies. Farmer processors must know federal, state, and local food safety regulations. While finding complete, accurate, understandable information is a barrier to compliance and enforcement at every level, Maryland’s 24 local food safety jurisdictions makes learning this information particularly challenging for Maryland food processing entrepreneurs.

Federal, state, and local food safety information resources are often poorly organized, incomplete, out of date, and inaccurate. They may be technical and require knowledge of food safety science, technology, and the culture of the industry. For example, seldom does a government agency take a whole system approach to explaining our system of food safety by outlining the distribution of jurisdiction and authority across three levels of government and multiple agencies. Often words are not used in the way people commonly understand them. Depending on who is talking, “food” may not include meat, “meat” may not include poultry, and “poultry” may not include turkey or farm-raised game birds. Regulations may use nomenclature particular to the agency, legislation, or geography, and often names of licenses use alphanumeric and unexplained acronyms.

Government regulations are often designed for and are more applicable to large-scale industrial operations. They tend not to support small-scale operations with step-by-step instructions for how to get a license, and basic information like the name of the license, applicant requirements, term of the license, cost of the license, the license granting authority, and contact information. This absence of public information, a shared vocabulary, and common understanding may result in variations in interpretation and enforcement of regulations. Lack of transparency in interpretation and enforcement compounds the problem, increasing the risk of food borne illness for both food processors and consumers.”
Strategies for Change

In the past four years, the Maryland Department of Health and Mental Hygiene, working in partnership with the Maryland Department of Agriculture, has made progress towards developing more farmer-friendly on-farm processing regulations and reforms. These should be acknowledged and include: (1) securing an Ombudsman for agriculture at the Maryland Department of Health and Mental Hygiene, (2) clarifying regulatory interpretations concerning small batch processing, (3) attempting to harmonize regulatory interpretations at the county level, and (4) implementing an “open door” policy for questions, concerns and assistance in planning, developing and launching on-farm processing enterprises.

However, several actions could be taken to further stimulate the growth and profitability of on-farm food processing in Maryland. These recommendations must be implemented by a collaboration of agencies, regulators and University of Maryland Extension.

1. Regulatory Transparency & Reform

A. Present an annual food safety forum for farmers, food processors, state and county agencies, and food safety inspectors
   - Host stakeholder dialogues to build collaboration
   - Create community by listening, share information, point of view
   - Openly address issues, controversy, conflict
   - Celebrate success stories
   - Eat food grown and processed in Maryland

B. Cross train farmers and food safety inspectors
   - Collaborate on new solutions and technology

C. Require all stages of processing, licensing, and enforcement to be transparent.
   - This could be done at a web site designed to:
     o Include the complete list of food categories and licenses, don’t divide the list by agency jurisdiction
     o Explain the division of jurisdiction (which is arbitrary)
     o Cross link different departments, state, and county websites
     o Give licenses uniform proper common language names
     o List all available licenses, issuing authority, cost, and term
     o Post step-by-step instructions for obtaining each license
For each license, provide a list of requirements and standards that must be met by applicants.

- Provide (or link to) a food safety glossary

2. Provide Entrepreneurial Assistance and Support Consumer Education Efforts:

A. Business Planning:
   - Provide low-cost or no-cost assistance in formulating business plans.
   - Producers considering processing required to have production, marketing, labor, and financial plans to qualify for state funded grants and low-interest loans.

B. Food Processing Business Development:
   - Provide clear, concise, updated info on current regulations, technologies, processes, and available facilities, online and in print- link to the websites of the Department of Health & Mental Hygiene and the Department of Agriculture.
   - Identify promising innovations; provide information and training
   - Identify sources of small scale equipment for on-farm or regional processing
   - Educate the next generation of farmers regarding the production and marketing of quality meats by maintaining and possibly enhancing Meat Science courses and facilities at the University of Maryland

C. Research
   - Estimate the potential economic impacts of redeveloping Maryland’s processing infrastructure for meats.
   - Inventory existing Maryland’s meat and dairy processing facilities, and assess constraints and possible solutions to meet the needs of Maryland’s small farm producers and this emerging market
   - Explore feasibility of expanding meat science research, teaching and extension through the University of Maryland’s Food Science Department and the Department of Animal and Avian Science.
   - Evaluate food safety, economic and environmental impacts of processing alternatives (e.g. mobile processing units; farm-based processing facilities; other)
   - Evaluate impact of plant or animal breeds on quality of value added products
D. Public Education

- Provide comprehensive print and online information on small farm sources of local meats and dairy products across the state

3. Other Opportunities

A number of processing options have strong applicability to sustainable community scale processors. These include "ready made" (i.e. ready-to-cook or ready-to-eat) processed foods, canning and bottling, and custom-packing meat processing. Ready-made processed foods are well suited to local markets, typically involve less capital equipment to produce than other processed foods, and command premium prices. There is good potential to can and/or bottle high acid foods although the best opportunities appear to be for ready-made canned or bottled goods such as soups, stews, and sauces. On-farm or off-farm custom processing of small quantities of chickens also has strong potential.

In general, the profitability of industrial food processing firms increases in a linear fashion with firm size. This is why there is a high degree of consolidation and vertical integration in the food processing sector. Nonetheless, there is evidence that small quantity, on-farm processing can be economically viable because the processors are able to keep their costs low by using farm family labor and on-farm kitchen facilities. However, small scale processors that wish to increase their sales of value added products face unexpected difficulties. This is because they are too large to use hand processed, low overhead production methods but not large enough to capture economies of scale. The primary exception to this is processors of "ready-made" food products, which can be quite profitable at a medium scale.

A. Farmer controlled processing

Traditionally, farmers receive their lowest returns from the commodity processing market. This is because processors need to acquire their farm inputs for as low a price as possible to compete in the very low margin processed food market. One strategy to address this is farmer controlled processing.

A growing number of farmers in other parts of the country have established successful grower owned, processing cooperatives to obtain secure markets and better prices. Some of these processing cooperatives are very large. Other farmers have resorted to small scale on-farm processing. In some cases, individual farmers have joined together to jointly purchase processing equipment and storage, washing, and grading facilities.

B. Potential for Diverse Processing Facilities
Feasibility studies abound in Maryland that document the need for more meat and poultry processing facilities on a variety of scales, the potential for portable processing facilities, a growing demand for organic processing, and mixed-use shared kitchens. Extensive evaluations of these types have been done in North Carolina and Wyoming.

- Develop current cost/benefit analysis for additional processing capacity
- Cultivate crop of processing managers, business entrepreneurs, meat fabricators, processing specialist to design, fund, and/or operate these facilities.
- Offer tax credits for expansion of dairy, meat, and poultry processing facilities similar to credits offered in Wisconsin.
- Consider providing financial support for farmer-owned portable meat and poultry processing units such as those in operation in Nebraska, Oregon, and Washington state.

C. Developing Value Chains

Most U.S. food commodities are produced by a few contract growers linked to large processors and consolidated wholesale-retail buying corporations. Increasingly, as these firms dictate farm management practices to meet their business interests and community goals are frequently ignored.

Market conditions make America’s 575,000 midsize farms especially vulnerable. Midsize farmers find it difficult to gain market access to the industrial value chain because large processors buy from large farms to reduce transaction costs. In addition, they have difficulty taking advantage of direct marketing opportunities, and often lack the market power and capital to compete.

A viable alternative for midsize farms is the development of differentiated value chains that create new marketing relationships among farmers, processors, distributors, and retailers. Networks can be built on the competitive advantages of differentiation (in product quality, farming practices, community values and environmental benefits).

The central goal of this marketing strategy is to use collaborative approaches to support new and existing value chains that promote local ownership and influence environmental stewardship and economic sustainability for all members of the value chain.

A value chain in the meat industry might include:

- an input supplier (of food, housing, veterinary care, etc.)
- the farmer or producer (to raise and market the animals)
- the packing plant (for primal cuts)
• the fabrication plant (for portion cuts)
• the food service distributor who gets the product to wholesalers and other markets
• the consumer who buys the steaks or pork chops

4. Long-term Recommendations

To increase opportunities for on-farm processing focus on changes in the culture of the food safety industry, and changes that need to be made at the federal level.

• Support diversity in food processing methods and scale of operations
  o Diversify food safety regulations to accommodate the diversity in producers, products, production methods, and production facilities
  o Increase access to inspectors with mobile inspectors for on-farm processing, mobile processing units, seasonal operations, and very small operations
• Foster innovation in super small scale, super high tech solutions for food safety technology
  o Design portable food safety systems for on-farm and farmers market environments
• Green food safety
  o Reduce the ecological footprint of food safety
  o Develop organic food safety standards
  o Design zero pollution food safety systems
  o Require food safety systems to protect top soil and reduce erosion
  o Require food safety systems to conserve energy

Summary

On-farm food processing represents an opportunity for Maryland farmers that can improve farm viability, build the state’s agriculture economy, create jobs, and give consumers access to healthy, fresh, local foods. We must strengthen our regional food system by increasing opportunities for—and mitigate barriers to—farm-direct sales. This includes greater transparency of regulatory requirements at all levels of jurisdiction. Neither political boundaries nor complex regulatory requirements should create obstacles for farmers or consumers.

Maryland’s on-farm food processing policy and regulations must be designed to foster rural entrepreneurship and build rural economies. These policies and regulations should encourage diversity and competition in the food processing market without compromising public safety. Whether it is livestock, dairy, or
produce, small batch food processing is vital to agriculture and to a distinctive local cuisine. We recognize that federal regulations will still set the final perimeters for safe food processing.

Market access should not depend upon how or where food is processed, only that it is safely processed.

References


Local and Organic: Bringing Maryland Organics from Farm to Table, Survey analysis, case studies and recommendations for Maryland’s agricultural producers and policy makers. Chesapeake Fields Institute, 2004, USDA Federal-State Marketing Improvement Program and the Maryland Department of Agriculture


Maryland Agriculture Producer
Value-Added Assessment Survey

We want to help farmers increase profits by adding value with on-farm processing. Some have already done this; others would like to but need additional training or resources. We are collaboratively working to increase on-farm processing opportunities in Maryland through a grant funded by the Harry S. Hughes Agro-Ecology Center.

Please help us help you by providing the information requested below by November 21.

Current Accomplishments

1. Are you currently processing products? (In other words, are you processing food items such as meat, dairy, canned items, or other food items?)  ___Yes, on my farm ___Yes, but in a different location or state ___ Yes, through a processor ___No

If NO, please continue to the “Future Needs” section below.

If YES, please mark the type(s) of items you now process on-farm:

_____Dairy Products     _____Meat Products     _____Acidified foods*

_____Other (please list):______________________________________________________

If YES, how much did these items increase your total gross sales (percentage)? _____%

Future Needs:

2. Would you like to increase your ability to process food products on your farm?  
   Yes_____   No_____

   If YES, mark all that apply:

_____Dairy Products     _____Meat Products     _____Acidified foods*

_____Other (please list):______________________________________________________

If YES, how much do you think these items will increase your total gross sales (percentage)? ___%

3. If you marked “YES” to #1 or 2 above, please give us your contact information so we may contact you about upcoming workshops, trainings, and other events:
Name:_____________________________________________________________________

Mailing Address:____________________________________________________________
____________________________________________________________________________

Phone and/or Email:____________________________________________________________

*Acidified foods include canned foods to which acid (lemon juice, vinegar, etc.) has been added, such as pickles, salsa, some jams & jellies, etc.

**Processing Business Development Needs:**

1. Do you have a written business plan for a processing business? y/n_____ If not, do you want assistance with writing a plan? y/n____

2. If you are interested in on-farming processing, but are not yet engaged in the venture; what do you think are the greatest barriers in Maryland to on-farm processing? (Rank top 5, 1 being the most important)
   
   o _____ Labor
   o _____ Capital
   o _____ Processing capacity
   o _____ Federal regulations
   o _____ State regulations
   o _____ Local regulations
   o _____ Technical assistance
   o _____ Acquiring processing equipment
   o _____ Marketing
   o _____ Distribution
   o _____ Product testing support
   o _____ Scaling process, facility and equipment to smaller operations

3. If you are currently processing and increased demand has generated pressure for you to expand your business, what have been the most significant barriers to expansion? (Rank top 3, 1 being most important)

   o _____ Labor
   o _____ Capital
   o _____ Federal regulations
   o _____ State regulations
   o _____ Local regulations
   o _____ Present location
   o _____ Technical assistance
   o _____ Processing capacity
   o _____ Marketing
   o _____ Distribution
   o _____ Other:__________________
4. If you are processing, have you had to incur capital limiting costs to meet regulatory issues? y/n____ If so, please explain___________________________________________________

5. In regards to your product, have you had to meet state or federal regulations that have compromised the quality of your product? y/n________ If, so please explain____________
_____________________________________________________________________________

Other comments/questions:  
___________________________________________________
________________________________________________________________________________
Maryland Agriculture Support Agencies
Value-Added Assessment Survey

We want to help farmers increase profits by adding value with on-farm processing. Some have already done this; others would like to but need additional training or resources. We are collaboratively working to increase on-farm processing opportunities in Maryland through a grant funded by the Harry S. Hughes Agro-Ecology Center.

Please help us help you by providing the information requested below.
Mail or fax your completed form by November 21. (See below)

For additional information, call Ginger Myers at 301-432-2767 or email gsmyers@umd.edu

Client Interest:
1. Do you receive requests for information concerning on-farm processing in Maryland? y/n

If NO, please do not continue and return this survey to Ginger Myers. Thank you for your input.

If YES, please mark the type(s) of items clients are considering for processing on-farm:

_____ Dairy Products     _____ Meat Products     _____ Acidified foods*

_____ Home Kitchen Products     _____ Other (please list)______________________________

*Acidified foods include canned foods to which acid (lemon juice, vinegar, etc.) has been added, such as pickles, salsa, some jams & jellies, etc.

If YES, how many (total) inquiries do you receive annually? ______

Identifying Concerns:
1. What do you think are the greatest barriers in Maryland to on-farm processing? (Rank top 5, 1 being the most important)

_____ Labor       _____ Acquiring scale appropriate equipment

_____ Capital     _____ Marketing

_____ Processing capacity     _____ Distribution

_____ Federal regulation     _____ Product testing support

_____ State regulations     _____ Scaling process & facility and equipment

_____ Local regulations     _____ Timely access to Slaughter facilities

_____ Technical assistance     _____ Other______________________________
2. **In your opinion**, which type of on-farm processed products holds the greatest profit potential for Maryland producers? (Select one)

- [ ] Dairy Product  
- [ ] Meat Products  
- [ ] Acidified foods*
- [ ] Home Kitchen Products  
- [ ] Other (please list) ________________________________

3. *In your opinion*, which food processing regulations hold the most potential for revision to facilitate on-farm processing? (Rank top 3, 1 being most important)

- [ ] Dairy Products  
- [ ] Meat Product  
- [ ] Acidified foods*  
- [ ] Home Kitchen Products  
- [ ] Other (please list) ________________________________

4. When producers contact you for information concerning on-farm processing, what are their major areas of concern? (Rank top 3, 1 being most important)

- [ ] State or Federal regulations
- [ ] Local regulations
- [ ] Technical Training
- [ ] Access to Infrastructure (slaughter facilities, certified kitchen, etc.)
- [ ] Marketing Assistance
- [ ] Scale Appropriate Equipment
- [ ] Packaging, Labeling or Storage
- [ ] Supplies
- [ ] Capital
- [ ] Labor
- [ ] Zoning
- [ ] Laboratory testing

**Who Should Provide On Farm Assistance**

1. HACCP (Hazard Analysis Critical Control Points) and GAP (Good Agricultural Practices) plans, as well as voluntary quality control measures, continue to become more of a real issue for producers. Which organization should provide assistance for the development of such plans? (Rank top 3, 1 being most important)

- [ ] State Department of Agriculture
- [ ] Department of Health
- [ ] University of Maryland Cooperative Extension
- [ ] University of Maryland Food Science Department
- [ ] Private Consultant
- [ ] Other

2. Which organization should provide assistance with on-farm processing? (Rank top 3, 1 being most important)

- [ ] State Department of Agriculture
- [ ] Department of Health
- [ ] University of Maryland Cooperative Extension
- [ ] University of Maryland Food Science Department
- [ ] Private Consultant
3. Which organization should provide assistance with marketing and promotion?

- [ ] State Department of Agriculture
- [ ] Department of Health
- [ ] University of Maryland Cooperative Extension
- [ ] University of Maryland Food Science Department
- [ ] Private Consultant
- [ ] Other