

## Ask the Experts



### Another Successful Year!

We are now able to share with you what marks the end of another productive year at the Product Center. I am pleased to be able to share with your our annual client figures for 2009. This information includes both counseling figures as well as technical services provided throughtout the state of Michigan. [Click Here](#)



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# Federal Policy Supporting Alternative Agriculture

By: Bill Knudson

Compared to previous administrations, the Obama administration is putting more of an emphasis on smaller scale agriculture. One of these initiatives is “Know Your Farmer Know Your Food” which is designed to promote local food systems. For example, Michigan has already been a beneficiary with a \$40,000 grant in addition to private sector funds to help small farmers in southeast Michigan to reach urban markets.

According to the *Des Moines Register*, another initiative is the development of a food safety manual for small meat processors and mobile slaughter units. The development of rules and regulations for these types of activities could help develop a small scale meat processing industry. The lack of small scale meat processing has been identified by several Product Center clients, other firms and government entities as a barrier to the development of the livestock sector in the state, especially for the beef industry. Despite this interest, the barriers to small scale meat processing remain high.

Organic foods and fresh fruits and vegetables are also a point of emphasis for the administration. In addition to the desire to promote small scale agriculture, this initiative also ties directly into the administration’s efforts to reduce obesity and promote healthy eating.

Michigan is well suited to take advantage of these policies. Farms in Michigan are small compared to farms in many other states such as California and Iowa. Also, Michigan produces a wide range of fruits and vegetables that fit into the administration’s plan. Michigan’s proximity to large urban areas also works to the state’s agri-food system’s advantage. Transportation and other marketing costs for Michigan products are lower than produce from many other states.

It should be noted that these policies are a reflection of a change in emphasis not a fundamental shift in policy. For example the wheat, dairy and feedgrain programs are not under threat although there is some question on limiting the size of farm payments. The USDA also continues to support the use of biotechnology.

On a completely unrelated note, the website for the Michigan Biomass Inventory has been changed. The inventory can not be accessed at <http://mibiomass.rsgis.msu.edu/> [Return to Top](#)



# Brittanie's Thyme, LLC

By Tom Kalchik

Yvonne Petterson, General Manager and Director of Sales for Brittanie's Thyme LLC in Cedar Springs, Michigan, says that six months ago she was concerned about the future of the business. Today she knows the business is going to be successful. And she credits much of that turn around to the Product Center and its Project Consultant, Matt Birbeck.

Before we relate Yvonne's comments about how the Product Center helped her, let's step back and look at the history of Brittanie's Thyme. The business was started in 2004 by Nancy Metzger and her daughter, Michelle Jester. Michelle was expecting a baby but learned that the child was going to require extensive medical help. She realized she could not continue to work and care for her child so the concept of an at-home business was conceived by the Michelle and her mother, Nancy. The business was selling the products developed at home over the years – natural and organic products that aid in producing a feeling of well being, without the expense associated with high quality skin and personal care items. Michelle's child was named Brittanie and thus Brittanie's Thyme was launched.

Yvonne became involved in the business in 2007 after her mother bought her a Brittanie's Thyme sinus relief pillow to relieve her allergies. "I thought my mother was crazy," Yvonne says. "But, you know, it worked! I contacted the company and learned that Nancy and Michelle needed marketing help. Since I had a marketing research background it was a good fit for me. In March 2007, I invested in Brittanie's Thyme, becoming a one-third owner of the business. Nancy continues as Chief Executive Officer, Michelle as Chief Operating Officer and Director of Operations." Yvonne is General Manager and Director of Sales.

"After I came on board we tweaked our packaging. We had good response from our customers but we

seemed to be missing some links," Yvonne says. "We went to different agencies for help but they just focused on financing. We didn't need help with financing, we needed help with running our business and our product lines.

"As I was searching for help, I ran across the Product Center. Matt Birbeck has done wonders for us. He helped us define our product lines. We learned we had a mish-mash of products and he helped us sort them into individual lines with branding potential that solve problems and focus needs in a way that makes sense to buyers."

Yvonne points out that many small business owners have difficulty thinking like a buyer. "Matt not only helped make this transition but taught us how to do it," she says. Each new product line now has a sales sheet. They now understand how to write their sales sheets to represent their product lines in a way that makes sense to buyers.

Brittanie's Thyme products were accepted by Whole Foods in November 2009. The buyers at Whole Foods are excited about the changes Brittanie's Thyme is making as the result of input from the Product Center.

"We always knew we had something people wanted but now we know how to communicate that to the buyers," says Yvonne. They are pursuing larger customers so the ability to effectively present the product lines to professional buyers has become important. According to Yvonne, before the Product Center assisted her, she would fill out new vendor forms with no response. Now the buyers are responding within twenty-four hours. "Matt taught us how to approach buyers and conduct telephone interviews. That has given us confidence because we know what to expect

## Brittanie's Thyme LLC (Continued from page 4)

from the buyers and how to respond to them. We are getting positive feed back from the buyers at the larger customers we are trying to attract," Yvonne says.

Yvonne has this advice for anyone starting a business. "Find the right help." Look for agencies that go beyond just focusing on financials. "Don't discount the PR." Learn how to attract the media and get other people to talk about you and your business rather than talking about it yourself.

For those interested in learning more about Brittanie's Thyme LLC and its USDA certified organic personal care lines, go to their website at <http://www.brittaniesthyme.com>.

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# Formula set..... Whats Next?

By Dianne K. Novak, RD, MS

Preparing your product for market launch involves many aspects from business planning to product development. Past newsletter articles have focused on the art and science of preparing your famous recipe to a commercial formula for quality consistency and food safety. With those accomplishments in mind, the “What’s Next?” is deciding on packaging and the look of this package, in attempt to getting closer to product launch. Typically, these investigations include reviewing different types of packages, its’ material, the look and product label. The topic of this newsletter will be the product label and future editions will be dealing with product packaging.

The product label is the main communicator to the purchasing consumer, for product information and enticement for product sale. The product label because of its dual purpose is a blend of regulatory requirements and marketing dynamics. To tackle this in the most efficient way, it is best you first find out what is required by law (regulatory) to be stated on the label and then move to determining how this information can be incorporated to the graphic design (marketing). This approach will increase your odds of your label to have minimal edits, when it is submitted for label review by the Michigan Department of Agriculture (MDA). The label review is a requirement when obtaining your food product license.

The determination of what is legally required to be placed on the label is driven primarily by federal law and the agency in which it is regulated by. Most food products fall within the Food and Drug Administration (FDA), Code of Federal Regulations, but some food products are under the jurisdiction of the United States Department of Agriculture (USDA). The role of MDA is to determine the regulatory agency and utilize the applicable federal law, plus the Michigan Food Law, during the label review process.

For products which fall under the FDA, MDA has developed a set of guidelines for use as a reference for creating your food label and is available on-line [http://www.michigan.gov/documents/mda/MDA\\_LBLGUIDE061308draft\\_283638\\_7.pdf](http://www.michigan.gov/documents/mda/MDA_LBLGUIDE061308draft_283638_7.pdf). These guidelines are specific and detailed in identifying the required information on the label. It is advised you review these guidelines for compliance. Reference is also made to USDA resources if the product falls under this agency.

As a simple overview, your food label will require at a minimum a Principal Display Panel (PDP) and may include an Information Panel (IP). The required components of the label include Standard of Identity, Ingredient Statement, Net Contents, Responsible Party Statement, Allergen State-

## Whats Next? (Continued from page 5)

ment and Nutritional Labeling. This required information, except the Nutritional Labeling, may all appear on the PDP, but some components can also appear on the IP, where the Nutrition Facts will always be. The requirement for Nutrition Facts does have exemptions, with one being, small business who's product sales are less than \$500,000 annually. However, any reference on the label for a nutrient content or health claim requires the display of the Nutrition Facts. The Product Center does offer the service for creating the Nutrition Facts label for your food product using your recipe/commercial formula.

Upon the completion of the listing of the regulatory requirements, you can now build the "Marketing and Look" of your product. The marketing look is often referred to as the branding of the product. Branding denotes the repeating symbol or tag line that orientates the consumer to the image or position of the products which are a part of the brand. Sometimes

branding is thought of as company name/logo. This decision is not always the best approach. The breadth and depth of your company and product line is one factor in guiding you, what is the best option for branding your product, in addition to having a company logo. Additionally, the graphic design (color, font, pictures) and the layout of the information for your product label is another important component of the label. To provide your product with distinction and competitive advantage, developing a product introduction "story" as to the history, uses, purpose etc., using terms which resonate with the intended target market, can support that important first sale. The "story" is usually displayed on the IP part of the product label. Lastly, the "Marketing and Look" review should also include deciding what type of package. This topic will be discussed in next issue of the newsletter and should not be forgotten when you are designing the "shelf presence" of your product in the marketplace. [Return to top](#)



# Assessing the Need for a Kitchen Incubator in Your Region: Some Action Steps

By Getachew Adatekassa

A growing number of individuals, businesses and local and regional communities are currently interested in establishing kitchen incubator programs. These programs help develop value added products at reasonable rental rates on a flexible time-share basis. Potential users of a kitchen incubator are new entrepreneurs and existing food businesses (e.g., restaurants, caterers, home-based businesses, ethnic food producers, specialty food processors), and local and regional organizations that complement the incubator's function and enhance its linkages to the larger community. Depending on user needs, a kitchen incubator can make available equipment like ovens, ranges, refrigerators, freezers, mixers, food processors, slicers, worktables, kitchen utensils, and others including storage space. The program can also provide a wide range of training and support services connecting entrepreneurs with



business and market development resources and facilitating access to professional mentors. Entrepreneurs have the opportunity to develop, test, label, store or package products in the facility to increase their chances for launching new products or expanding their current operations.

Developing and implementing a kitchen incubator program requires a variety of steps and actions that need to be undertaken by entrepreneurs, program leaders, stakeholders and partners. There has to be sufficient demand for the services to justify the creation of a kitchen incubator. This requires identifying and assessing the need for specific services at the facility and making financial projections (cost and revenue streams) including start-up capital needs for the program. Successful business development programs need strong support from their communities. It is thus useful to assess the level of community support, readiness and commitments for successful program implementation. It is also important to identify and review different options to create an appropriate governance, management, ownership and organizational structure for the program.

One other key element in determining the feasibility of a kitchen incubator program is the site choice. Decisions have to be made regarding the facility's location and the potential for

# Introduction to Shelf Life II

By Nicole Goldman & Janice Harte, MS, PhD

Our first article discussed the types of changes that can occur in a food product when stored over time. According to Dr. J. Hotchkiss, MSU School of Packaging, shelf life can be defined as, “the time it takes a food product to deteriorate to an unacceptable degree under specific storage, processing and packaging conditions.” The key is to determine what quality or safety factor is the first that will signal end of shelf life. This article will present the methods that can be used to then evaluate the complex system of ever changing chemical and microbiological conditions in food.

There are a number of tests to choose from that may be used to evaluate shelf life. In fact, in some cases it may be necessary to develop new testing protocols for different types of food products. The major tests, however, can be simply divided into three categories. The test types are as follows:

- **Static tests:** real time, real world condition testing; the product is handled and stored as it would be in retail and home storage. The disadvantage of this method is the long time it takes for packaged shelf stable or frozen food products. However, it is the best and ultimate confirmation of your product’s shelf life. A general rule that can vary with product, package, and storage conditions is called the “two thirds” rule. If the quality of your product lasts 90 days for example, a 60 day shelf life is a good estimate. However the experience you have with your product, its behavior over time, and its distribution system will be your best guide.
- **Accelerated tests:** the food is subjected to stress conditions (temperature, humidity, oxygen, etc) which affect the key mode of quality or safety loss. It is said to simulate normal storage in a shorter time. There are many mathematical models found in the literature to help predict the actual shelf life using this method. The final confirmation is found by using static testing.
- **Use/abuse tests:** worst case scenario testing in which the food is placed in a number of highly stressful environmental and use conditions. This involves cycling storage temperatures, humidity, or variable oxygen levels above and below levels that are appropriate for your food product based on quality loss. The key mode of quality or safety loss is then evaluated.

Even with well developed testing methods, there is a certain amount of guessing that goes into selecting the shelf life of a product. Having a failure mode and viable test chosen is most of the battle, but it is important to keep a few things in mind as shelf life testing progresses. There is no “perfect” test for shelf life. No one test will best predict shelf life or the exact mode of failure. This is why it is important to run shelf life testing only on finished products. Any change in formulation could have a significant impact. Consequently, shelf life

should be reevaluated following any future ingredient changes made to the product. Keep in mind that people are unpredictable. Consumers may not follow storage directions and ultimately affect the product in ways that could not be predicted. With concrete testing methods and conservative estimates, the food will live up to its self life expectations.

For information on food technology and the science behind shelf life: <http://www.ift.org/cms/>

**Summary:** This may be a little too advanced for the everyday reader just hoping to gain a bit of knowledge about shelf life, but those who are ambitious can read a multitude of scientific articles. There is a box in the upper left-hand corner of the page that has a small box that reads “GO” next to it. By typing “shelf life” in the box, along with the name of a specific food, it is likely that there will be an article about the shelf life of the specific food that it is question. See “Food Quality and Shelf Life (Shelf Life, deterioration, & Packaging)” by Dr. JH Hotchkiss, current Director of the MSU School of Packaging.

**For more information of factors that influence shelf life:**

<http://www.foodscience.afisc.csiro.au/shelf-life.htm>

**Summary:** This page provides a lot of information about Australian food regulations, which must be disregarded, but it does provide a great section about “Factors Influencing Shelf Life.” It specifically discusses microbiological changes, moisture and water vapor transfer, and chemical and biochemical changes. It puts its explanations in fairly easy to understand terms.

**For information about what keeps food shelf stable:**

<http://www.ific.org/nutrition/ingredients/index.cfm>

**Summary:** This gives a lot of good information about food additives. It discusses the additives that keep foods good for eating long after they are actually manufactured.

References:

Brody, Aaron L., and John B. Lord, eds. *Developing New Food Products for a Changing Marketplace*. Lancaster: Technomic, 2000.

Fuller, Gordon W. *New Food Product Development*. 2nd ed. Boca Raton: CRC Press, 2005.

Hotchkiss, J. *Food Quality and Shelf Life Food Quality and Shelf Life(Shelf Life, Deterioration, & Packaging)*. A presentation. [http://members.ift.org/NR/rdonlyres/2B2AC30E-5DF7-4B9A-8B04-A1126F3AA041/0/Packaging\\_QualityShelfLife\\_Hotchkiss.pdf](http://members.ift.org/NR/rdonlyres/2B2AC30E-5DF7-4B9A-8B04-A1126F3AA041/0/Packaging_QualityShelfLife_Hotchkiss.pdf)

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## Summary of Counseling and Technical Services Provided:

SERVICES PROVIDED	SINCE 2004	In 2009
One-on-one client counseling sessions	<i>12,667 sessions</i>	<i>2,799 sessions</i>
Assistance with business concept development	<i>1,116 clients</i>	<i>274 clients</i>
Assisted with venture start-up (earliest stage of business development)	<i>721 clients</i>	<i>235 clients</i>
Provided specialized services (including product testing, market analysis, and feasibility studies)	<i>713 clients</i>	<i>162 clients</i>
Venture launches (initiation of sales, investment or employment for new business or new product)	<i>145 ventures</i>	<i>19 ventures</i>

- The Product Center's assistance in launching *145 known new businesses and business expansions* has had the following estimated economic impacts:
  - *Increased annual sales: \$278.5 million (cumulative first year sales only)*
  - *Value of increased investment: \$204.6 million*
  - *Jobs created: 711*
  - *Jobs retained: 351*

# Aquaculture in Michigan

By Ruben Derderian

At the Product Center we are getting an ever increasing number of inquiries for help from people who are looking for new business opportunities that would utilize some of the state's inventory of vacant buildings, land and unemployed people. More recently, one of the more popular requests is for information on aquaculture. Almost all of the inquiries we have received relate to growing either fish or algae in indoor systems that would be located in abandoned manufacturing facilities. Surprisingly none of our potential client inquiries have suggested growing shrimp, possibly because of the misconception that you need an ocean to grow shrimp. Anyone who thinks you need an ocean to grow shrimp should meet Russ Allen. Russ has developed a thriving shrimp farming and aquatic research center right in the heart of Michigan in a town called Okemos. Russ is a true pioneer in the shrimp farming industry with a unique background that qualifies him as one of the most respected shrimp farming experts in the world.

In 1970, while sailing around the world, Russ arrived in the Galapagos Islands, liked it there, and stayed six months. A couple of years later, in 1973, after graduating from the University of Michigan with a degree in fisheries biology, he returned to Ecuador, bought a 70-foot sailboat and began running chartered tours in the Galapagos Islands.

In 1976, after running tours for three years, he leased his boat to a travel agency and suddenly found myself with a nice income and nothing to do. A friend operated a shrimp processing plant in Guayaquil, Ecuador, and wanted to expand his operation into shrimp farming. He hired Russ, as a biologist, to help him build and operate one of the first commercial scale shrimp farms in Balao, on the eastern side of the Gulf of Guayaquil, about midway between Guayaquil and Machala. During his time in Ecuador, Russ designed and built, and in some cases managed, approximately 100,000 acres of shrimp ponds. In the early 1980's Russ move to Belize and was again a major player in developing the shrimp farming industry in Belize.

He returned to the US in the mid-1990's and opened a consulting firm, Aquatic Design. located in Okemos, Michigan. He also began construction of a research and development facility that today incorporates his years of knowledge and shrimp farming skills into a state of the art operation that is capable of producing high quality, excellent tasting, farm raise salt water shrimp that he sells to the public. His shrimp farm is not an open pond, rather it is constructed within a several story building. The shrimp are raised in a series of cascading ponds filled with artificially formulated salt water. The facility is heated during the winter to 80 degrees fahrenheit and the salt water is filtered and recycled. The shrimp are fed a special diet and the entire operation is automated.

Russ is a true entrepreneur and pioneer with plans to build, in the near future, a scaled up facility that will be capable of producing several million pounds of farm raised shrimp per year. Russ has experimented with growing many species of shrimp and has decided to farm a Pacific species of white shrimp, *Penaeus vannamei* which is a fast growing, hearty, and tasty variety of shrimp that adapts well to the shrimp farming environment.

He is committed to Michigan and helping its economy and intends to build his expanded facility on the west side of the state. His new operation will employ the proprietary technology he has developed in his current research and development facility to grow shrimp for the Michigan and US marketplaces and will allow him to pursue his goal of producing shrimp within a production system that is environmentally sound, bio-secure, and highly efficient. When fully operational his new shrimp farm will contribute several million dollars annually to Michigan's economy and employ upwards of 50 people. He also has plans to license his proprietary technology to others who wish to enter the shrimp farming business.

If things go as planned, within a year or two you will have a choice, at your local Michigan supermarket, of buying wild shrimp, imported farm grown shrimp, or Russ Allen's Michigan farm raised shrimp. I have sampled his shrimp and they are as tasty as or better than fresh caught wild shrimp.

If you are in the Lansing area and want to try Russ Allen's locally raised shrimp he has a retail store that is that is open Thursday through noon on Saturday.

**Some shrimp farming history and facts:** (Edited from materials supplied by Russ Allen)

Shrimp farm products have competed with boat caught shrimp since the worldwide shrimp farming industry began in the 1970s. At that time, the shrimp fishing industry reached its maximum sustainable yield. Shortly thereafter, the shrimp fishing industry began to lose production due to the natural aging of the fleet, overfishing, poor management of the fisheries, and environmental restrictions created by a growing worldwide population. Today, the worldwide shrimp fishing fleet provides less than 50% of the world's supply.

Since 1975, using technology principally developed by U.S., Latin American, and Southeast Asian interests, the shrimp farming industry has expanded and thrived in various countries where environmental regulations are lax, land and labor costs are low, and other factors such as ambient temperatures are generally favorable. Certain countries, including China, Thailand, and Ecuador, among others, have taken a leading role in shrimp production. Costs vary considerably from country to country, and many problems such as disease and threats to the environment still heavily influence the industry's actions. Nevertheless, the rest of the world manages to export more than \$4 billion of shrimp each year to the U.S., mostly from tropical countries such as Brazil, Ecuador, Thailand, Indonesia, Vietnam, and China.

The United States is the world's largest consumer of shrimp. Shrimp ranks first in seafood consumption in the U.S., higher than tuna, salmon, and tilapia, with annual sales of approximately \$4 billion per year. Shrimp is a healthful food that contains no fat and no carbohydrates and has been shown to improve total/LDL cholesterol ratios in the human body. It dovetails nicely with modern eating trends and can be claimed to be one of the world's healthiest foods. In 2006, Americans consumed more than 16 pounds of seafood per capita and shrimp was the single most consumed seafood at 4.5 pounds per capita. These numbers translate into approximately 1.26 billion pounds consumed in the U.S. each year, worth approximately \$10 billion in retail

sales, including approximately \$7.5 billion in restaurant sales and \$2.5 billion in non-restaurant sales

Presently, only 10 million pounds of shrimp are produced in the U.S. each year from domestic shrimp farms. These shrimp farms are typically outdoor shrimp ponds or other bodies of water. In South Carolina and Texas, the technology that is presently employed originated in the 1980s and has progressed little since then. Limitations such as climate, high cost of coastal land, high labor costs, environmental regulations, and technological and economic obstacles have stifled significant development in the U.S.

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# Schedule of Upcoming Events

- July 28-29, 2010 8:00 - 5:00 US Food Labeling Workshop, Lansing, MI  
 Institute for Food Laws & Regulations, MSU  
 Registration information please contact  
 Mary Ann at 517-355-8295  
<http://www.iflr.msu.edu/label.html>

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## Acknowledgements

<b>Director</b>	Chris Peterson	<b>Product Marketing Economist</b>	Bill Knudson
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<b>Associate Director Bioeconomy</b>	Ruben Derderian	<b>Product Services Coordinator</b>	Dianne Novak
<b>Product Market Analyst</b>	Getachew Abate	<b>Editor</b>	Greta McKinney
<b>Supply Chain Specialist</b>	Matt Birbeck		