



VENTURE

**A Newsletter for the
Small Scale Food Entrepreneur**

Volume 3, No. 2

Summer 2001



HOT STUFFING: EVENTS YOU DON'T WANT TO MISS

August 15
Open House for NECFE at
University of Vermont,
Burlington, VT.
(see p. 3)

August 17
Open House for NECFE at
Cornell University,
Geneva, NY.
(see p. 3)

August - An Introduction to HACCP
with an emphasis on the Massachusetts
Food Code- Massachusetts

October - Acid and Acidified Foods
Workshop - Massachusetts (tentative)

November 7-9 - Basic Cheesemaking
Short Course - Burlington, VT.

November - Good Manufacturing
Practices for Fermented Meats (Sausage)
and Dried Meats (Jerky) - Ithaca, NY



Fruits And Vegetables: Safe Handling and Preparation Practices to Reduce the Risk of Foodborne Illness

*By Cecilia Golnazarian, Ph.D. and Todd Silk, M.S.,
University of Vermont*

People fall prey to foodborne illness when foods are not properly handled, refrigerated or cooked. The most susceptible populations to foodborne illness are young children, frail or elderly people, and those with a weakened immune system. For these individuals, foodborne illness can cause serious and sometimes fatal infections. Healthy adult persons can experience fever, diarrhea, nausea, vomiting and abdominal pain.

Fruits and vegetables as a source of foodborne illness was once considered a rarity. However, over the past two decades consumption of fresh fruits and vegetables has greatly increased and sources and distribution of fresh produce has greatly expanded. The Center for Disease Control (CDC) reports that produce-associated Foodborne disease outbreaks in the United States doubled between 1973 and 1987, and 1988 and 1991. The number of infected individuals associated with each outbreak has also doubled. In light of recent foodborne disease outbreaks, fruits and vegetables as a source of infection has become a major concern for government regulatory agencies. The FDA advises consumers about fresh produce safety via their web site at <http://vm.cfsan.fda.gov/~Ird/tpproduc.html>. The Center for food Safety and Applied Nutrition offers an online guide to minimize food safety hazards for fresh produce at <http://vm.cfsan.fda.gov/~dms/prodglan.html>.

As a raw commodity, fruits and vegetables are subject to several potential sources of contamination. The sanitary quality of the soil in which the vegetables are grown can directly influence the product. Soil can be a source of fecal contamination from both domestic and wild animals. Human harvesters are also potential sources of contamination. Fresh unprocessed produce which has been subjected to minimal cleaning steps should be considered to be contaminated with pathogens, and therefore can be sources of contamination in a food processing facility. The following steps should be taken by the food processor to reduce the risk of foodborne illness:

- The first step producers should take to ensure the sanitary handling of their products is to properly train workers. Emphasize the importance of adherence to sanitation rules and procedures. Compliance with sanitation procedures should be nonnegotiable.
 - Wash hands often. Hands should be washed with hot soapy water before and
- Food Safety continued on p. 6

Profile: Tekle Tomlinson,

When one thinks of Vermont food products, maple syrup, cheese, apple cider and ice cream come to mind first. If Tekle Tomlinson has his way, you can add Ethiopian cooking sauces to that list.

Tektonic Palates is the result of nearly thirty years of trying to replicate the flavors of Tomlinson's native homeland. He fled Ethiopia during political turmoil in the early 1960's and after a variety of jobs in New York and Boston, spent 20 years in the United Nations World Food Program. He retired to Vermont and finally moved across the Connecti-

Tektonic Palates was then born.

The complexity of the flavors matches the complexity of the cooking



VFVC is a non-profit kitchen incubator for food entrepreneurs to rent as needed for production and to receive hands-on help with their product and processing. The VFVC is a partner in the NECFE project.

For his first production, Tomlinson brought what he believed to be fully scaled-up product formulas. Like many start-ups, glitches occurred in the first commercial-sized batch, not a surprise to VFVC Project Director Brian Norder but a shock to Tomlinson. "When we started making three hundred pound batches, we had some surprises; the recipe didn't behave the same way as it had on our kitchen. We got very discouraged but Brian worked with us and helped us understand what made our product tick."

The Tektonic Palate line will be expanded by the end of the summer with the addition of hot and savory versions of olive paste. Tomlinson is working with NECFE staff at the University of Vermont and VFVC on scale-up, testing and development of a scheduled process

*By Brian Norder
Vermont Food Venture Center*



cut River to settle in Orford, NH.

After years of tinkering with the flavor combinations, he produced a batch of hot paste for his daughter's wedding that he bottled as table favors. The response was overwhelming as guests at the event wanted to know where they could purchase more.

That was the motivation he needed to start his food business. He developed three different products in two heat levels each, savory and hot. In addition to being a stand-alone item, the paste, is the base for the tomato-based sauce and for the peanut sauce.

Once he had his product line, he needed a name. His wife, Sally read that the tectonic plates of New Hampshire were slowly sliding under Vermont. With a bit of culinary/literary license, the brand



process. One of Tomlinson's first actions was to consult with the staff at Cornell for process approval and assistance. "Dr. Padilla-Zakour has been most helpful. When we were having some difficulties she was able to help us focus on where the problems might be arising and how to correct them."

Finally, Tektonic Palates was ready for commercial production and Tomlinson turned to the Vermont Food Venture Center (VFVC) in Fairfax.

VENTURE

Summer 2001 • Vol. 3 No. 2
A Newsletter
Published by NECFE,
NYS Food Venture Center
Geneva, NY

Editors
Dr. Olga Padilla-Zakour
oip1@cornell.edu
Judy L. Anderson
jla2@cornell.edu
Phone: 315-787-2273
888-624-6785
Fax: 315-787-2284
www.nysaes.cornell.edu/necfe
Funded in part by USDA/
Fund for Rural America/ CSREES

Steps to Start a Specialty Food Business

by Brian Norder and NECFE Staff

Introduction:

The following is a list of the basic steps to starting a specialty food business. While each specialty food business is unique and subject to specific product requirements, the list below outlines the overall process. The steps are grouped by topic. Keep in mind that each topic effects the others: your product type and packaging will effect your labels; the ingredients to make your product will effect your cost and production plans.

The Product:

1. Develop a prototype. Test it out on people. Collect and incorporate feedback on flavor, texture, and appearance.
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:
 - a. The formulation may change due to regulatory and food safety requirements.
 - b. Testing (pH, water activity, etc.) may be required for compliance with regulations.
 - c. 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. This result-

ing 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.

Business Planning:

1. Write a Business Plan. It will help you focus your business goals and determine if you need funding.
2. Consider liability insurance. It is affordable and can protect personal assets in the event of a problem with your product.
3. Determine a form for your business: sole proprietorship, corporation, partnership, limited liability, subchapter(s) corporation.
4. Register your business with the state.
5. Get assistance from business resources: state agricultural departments, state extension organizations, SBDCs, SCORE, NECFE, local economic development agencies.

Labels:

1. Decide on a product name.
2. Determine applicable regulatory requirements. Ask your state regulatory officials for help or contact NECFE. Consult the FDA Food Labeling Guide.
3. Determine what storage information must be on your package: refrigerate, refrigerate after opening, etc.
4. Choose a size and shape which is compatible with your packaging.
5. Invest as much in your labels as possible. They are the first thing customers will see.
6. Make test labels, or labels for small, initial, batches, on a computer printer to cut costs.
7. Decide if you wish to make health claims. If you do, you must have

nutritional analysis done and invest the time and money for FDA compliant nutrition labeling.

8. Decide whether or not to invest in a bar code. The registry fee is \$500, but most large stores and chains will not consider your product without one. If you do not plan to sell to large distributors, you don't need one.

Market Decisions:

1. Write a Marketing Plan. It is a framework for research on competition, ceiling prices, target markets, etc. and structures your marketing goals and methods.
2. Decide where you will sell your product. Generally, start off small – at farmers markets, fairs, road-side stands, etc. These are also good places to test market your product.
3. Determine a selling price for your product, taking the competition and your financial needs into account.
4. Develop a distribution method: your car, the mail, a fellow specialty food entrepreneur, distributor, broker.

Production:

1. Decide where you will produce your product: commercial kitchen, pilot plant, co-packer.
2. Find storage space for ingredients, packaging, and the final product.
3. Schedule time with experts at the production facility to learn about equipment.
4. Determine when, based on ordering supplies, you can produce and package product.
5. Schedule time at a processing facility to produce your product.

Food Safety continued from p. 1

- after handling fresh produce. Hands should be washed for at least 20 seconds.
- All water used in processing must be potable. If recycling water, the processor must take extra precautions and steps to be sure that the water is not a source of contamination.
- Produce processing equipment must be properly maintained. Cutting equipment is particularly troublesome because it is constantly becoming soiled with juices and other organic matter. Counter tops, cutting boards, utensils and other equipment should be cleaned and sanitized before and after processing (a mild bleach solution [1 tsp bleach per 3 cups water] is a sufficient sanitizer).
- Purchase produce that is not bruised or damaged. If purchasing fresh cut produce, keep it refrigerated or surrounded by ice.
- After purchase, refrigerate produce promptly (fresh whole produce such as bananas and potatoes do not need refrigeration).
- Fresh produce that is peeled or cut must be refrigerated within 2 hours.
- Leftover cut produce should be dis-

carded if left at room temperature for more than 2 hours.

- When preparing the produce, cut away any damaged or bruised areas where contamination from the skin may have entered.
- Any bacteria present on produce during processing will remain intact unless cooked. Wash produce in cool potable water just before using.
- Avoid cross-contamination with other foods such as meat and fish by using separate cutting boards and utensils.

The occurrence of foodborne illness increases during the summer months. Follow the guidelines to keep you and your customers safe. ❖



From: Food Institute Report, July 2, page 9. Fair Lawn, NJ Phone: 201-791-5570

FDA Taking Close Look At Allergens In Food Plants

Over the next two years, as many as 6,000 plants operated by candy makers, bakeries and other food processors could face inspection from the Food and Drug Administration to see that allergens aren't getting into their products accidentally. FDA decided to make such inspections after testing in several plants in Minnesota and Wisconsin found a quarter of the cookie, ice cream and candy makers tested included ingredients such as peanuts that weren't disclosed on product labels, according to Kenneth J. Falci, director of FDA's Center for Food Safety & Applied Nutrition's Office of Scientific Analysis and Support. "We'd like to go out and see if that is true in the rest of the nation," said Mr. Falci in a speech at the Institute of Food Technologists annual conference.

Training for the 2,500 FDA inspectors could take up to a year, added Mr. Falci.

The food industry recently released voluntary labeling standards to disclose the sources of flavorings that could cause allergic reactions.

FDA is also preparing an updated allergen compliance policy guide for general consumption and for FDA field investigators and the food industry a "Guide to inspections of firms producing food products susceptible to contamination with allergenic ingredients." ❖



**BULK RATE
U.S. POSTAGE
PAID
PERMIT NO. 75
GENEVA, NY 14456-0462**

www.nysaes.cornell.edu/necfe

*The University of Vermont
and
Cornell University*

cordially invite you to attend an Open House for:

*The Northeast Center for
Food Entrepreneurship*

Food Entrepreneurship, A Recipe for Success

**Good Tasting Product • A Strong Business Plan
The Right Name & Logo • Approved Production Process
Savvy Marketing Decisions**

Cornell University:

August 17, 2001

9 AM-2 PM

LOCATION

The Northeast Center for Food Entrepreneurship
NYS Agricultural Experiment Station,
Geneva, NY

Showcasing: Value-added Products from
throughout the Northeast

Marketing Seminar for Entrepreneurs: 9 AM – 11 AM

Processing Demos: Ongoing

Legislative Panel Discussion on the Impact of
Food Entrepreneurship: 11 AM- noon

Tasting & Tours: Noon – 2 PM

Product Sampling from some of the best food
entrepreneurs in the Northeast!

August 15, 2001

10 AM – 2 PM

LOCATION

Carrigan Building, 536 Main Street
University of Vermont Campus
Burlington, Vermont

Keynote Address by
Senator Patrick J. Leahy (D - VT)

Refreshments

Exhibits by Resource Providers

Sampling by Food Entrepreneurs

Please join us!

Questions: 802-656-8300

Please join us!

Questions: 315-787-2274

The University of Vermont:

<http://www.nysaes.cornell.edu/necfe>

Targeting the Right Market for Your Product

by: Jane Kolodinsky
Community Development & Applied Economics Dept.
University of Vermont

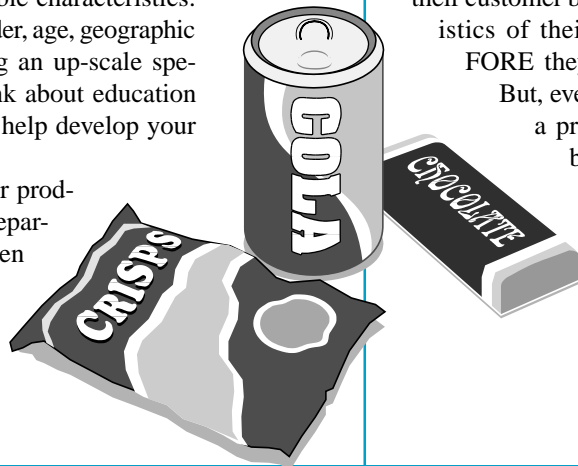
You have a great product idea that you think “everyone” will buy, but... who is “everyone?” No matter what the product, a producer needs to think about a target market. The truth is, not everyone is a customer for a product, no matter how appealing it is and the concept of target marketing flows from this fact. The trick is to use what you know about your product to identify the characteristics of a group of prospective customers, to make your business profitable.

Some characteristics to think about include demographics, lifestyles, and how people use the product.

Let's start with the easiest and most measurable characteristics: demographics. These include attributes such as gender, age, geographic location, education, and income. Are you selling an up-scale specialty or gourmet product? Then you should think about education and income as possible demographic variables to help develop your target market.

Moving on to lifestyle characteristics. Is your product a convenience food? Does it cut time from preparing a meal, or does it add time? If it cuts time, then the lifestyle characteristic that can help narrow your target market is perhaps “dual earner households.”

Lastly, how do people use your product? Is it for everyday use? Is it given as a gift? Is it used seasonally or all year round?



Why does all this matter? Knowing your target market helps develop your marketing campaign. How should you price your product (at a bargain or higher priced as a sign of quality)? Where should you advertise your product (Welcome Centers, newspapers, the internet)? What is the best distribution outlet for your product (internet sales, specialty stores, gift shops, supermarkets)? What is the best headline or catch phrase to include in your advertising? What benefit does your product have for the target market you have defined?

Ideally, producers should think about their customer base and the characteristics of their target market BEFORE they develop a product.

But, even if you already have a product on the market, a better definition of your target market can help you in pricing, promoting, and distributing your product in a way that increases its potential as a winner. ❖

Press release from IFT, Chicago, IL

Skinny Doughnuts: Reducing Fat with the Help of Rice

CHICAGO—Imagine starting Fat Tuesday morning with a big bite from a tasty Polish paczki that has less than half the oil of the traditional doughnut. By mixing in important ingredients made from rice under carefully controlled conditions, researchers have discovered that dough absorbs less oil during deep-frying. The skinny doughnut is born! This USDA research is noted in the February issue of Food Technology, a publication of the Institute of Food Technologists.

Researchers with the USDA Agricultural Research Service in New Orleans—the nation’s Mardi Gras capital—have conducted preliminary trials on doughnuts that contain small amounts of modified rice starch, rice

flour and other ingredients in the dough. When compared to all-wheat doughnuts, this rice-enhanced formula reportedly resulted in as much as a 70-percent reduction in absorbed oil during the deep-fry process; containing as little as 8 grams of oil, down from as many as 26 grams.

Applied commercially, this new fat-reducing procedure could have dual benefits according to Food Technology—expanded market areas for rice, and eased consumer concerns about eating doughnuts, already a multi-billion dollar industry. But the leap to commercial production is a big one, according to Bruce Watkins, Ph.D., an IFT member and an expert in fats and oils.



“Obviously, there’s the hurdle and challenge of taking a lab experiment and sending it into commercial application,” Watkins said, in re-

sponse to the article, “But the idea is exciting.”

And rice’s influence on reducing fat in food preparation may not stop at doughnuts.

As noted in the article, the same researchers have also experimented with fried chicken. Coated in a batter made from rice flour, the dish boasted a batter with up to 60-percent less absorbed oil than batters made from wheat.

The article, “Rice: Not Just for Throwing,” (a reference to the wedding tradition), also notes recent research on new flavors for rice, enhanced vitamin content, beverages made from rice bran and studies of rice bran’s cancer-fighting potential.

Food Technology is published monthly by IFT, providing news and analysis of the development, use, quality, safety, and regulation of food sources, products, and processes. It is available online at www.ift.org/publications/ft, via the IFT web site at www.ift.org ❖