Food allergies are a very real concern for those who suffer from them. Because there is no cure for food allergies, the only proven therapy is to avoid the offending protein. To do that successfully, the consumer must rely on the label. Hence, FDA and USDA strictly enforce regulations dealing with ingredients statements on a product label. FDA labeling regulations can be found in Title 21 Code of Federal Regulations (CFR), Part 101. Further clarifications can be found in the 1996 Supplements Notice to Manufacturers and the FDA Compliance Policy Guide issued in April 2001.

USDA labeling regulations are generally similar to FDA regulations and can be found in Title 9 CFR part 317.

Four to 8% of infants and young children, and 1-2% of adults are truly allergic to substances in foods. Some allergy sufferers are so sensitive to the offending protein that less than 1 mg in a kilogram of product (1 part per million) can cause a potentially fatal reaction. Because of those individuals with extreme sensitivity, there are no lower limits below which an allergen does not have to be declared. This is why it is so important to include all the ingredients in a product on the label. This includes the individual ingredients in formulated products that are used to make your product (i.e. if mustard is an ingredient in your product, it must appear as: Mustard [copy ingredient list on mustard label]).

Cross Contamination

When using the same equipment to manufacture more than one product, practices that lead to unintentional addition of undeclare allergens may be considered an insanitary condition that may render the food adulterated and injurious to health. Shared equipment should be thoroughly cleaned (dismantled is best) between products. Also, shared equipment should be carefully scheduled so that foods with no known allergenic substances in them are manufactured ahead of those that do contain allergens if machinery is not scheduled for a thorough cleaning. Bulk tanks used to deliver ingredients or hold product should be investigated to ascertain what other products or potential allergens they may have contained. Allergenic ingredients in storage areas should be segregated from other ingredients as much as possible.
Entrepreneur Profile

Manny's Pit Bull Hot Sauce

Owned and operated by Manny Ortiz, Lisa Anziano, Harlee and Syd the Pit Bull

B I K E R A P P R O V E D !

About five years ago, Manny Ortiz and Lisa Anziano developed a hot sauce that they served at their backyard barbecues. This past summer they turned their hobby into a business. The spare time they spent on their Harley motorcycle and hosting barbecues for friends evaporated into another 40-hour-a-week job. Manny is a water main inspector for H2M in Melville, LI and Lisa is an art teacher at Hauppauge Middle School, LI.

Lisa began researching how to start a food business with a call to the NYS Department of Agriculture and Markets, which sent her to NECFE and Dr. Olga Padilla-Zakour and the process review team of Dr. Don Downing and Judy Anderson. They, in return, sent her the Small Scale Food Entrepreneurship: A Technical Guide for Food Ventures manual. “We started at page one and have worked our way through the book step by step,” says Lisa, “from legal information to sanitation, state and federal regulation and business advice.” They also joined the Small Scale Food Processors Association and received referrals for business liability insurance and nutritional analysis. “It truly was a joint venture between Manny and I. We would copy articles and split up who read what, and report back to each other.”

At this point, Manny’s Pit Bull Hot sauce is strictly small-scale family business. Lisa takes care of internet marketing and sales. Manny sells and distributes both wholesale and retail, and they work together mixing, bottling and labeling the sauce.

They are licensed to process at a friend’s deli where they work late into the night. “It is taking over our lives!” said Manny on a phone interview from his day job. But one gets the impression that he and Lisa couldn’t be more pleased at the success of the business that started as a backyard barbecue special.

“We have found that direct sales at craft fairs and biker events have been most successful in spreading the word. There’s nothing like getting out and meeting people.” At the fairs and events, they demo their hot sauce with a delicious salsa recipe. “It’s fun to see the reaction of those who try our hot sauce. People can’t get over the sweet then hot flavor of our hot sauce,” said Manny.

They are off to a great start. Already they have come in second place in the 2003 Scovie Awards in the Medium Hot Sauce category at the Fiery Foods & Barbecue Show. Their sauce is now in 15 stores in Long Island, NYC and Massachusetts. Several Internet sites sell the sauce as well as Internet sales on their own site. Manny and Lisa go door to door to specialty and gourmet shops selling the fiery concoction, which they advertise as “a sweet hot sauce with bite and flavor.”

Most recently they have hired an advertising agent to design business cards and new labels for the sauce. Lisa says that there are two more products to be released soon—Pit Bull’s Revenge and a Salsa. Lisa and Manny like to have fun with their labor of love, which explains the titles of their new hot sauce. They are devoted to their dogs, Harlee, a 7-year-old Akita, and Syd, a 15-month-old pit bull, who they rescued from a shelter. Two years ago they lost Ticket, also a pit bull, who lived to be 16 years old.

“The sauce, which is strong and sweet is a metaphor for the pit bull breed,” says Lisa, “who, despite their reputations, are sweet, and strong but gentle companions.”

Ultimately, Manny and Lisa would like to be able to retire and supplement their income with the hot sauce business. For ordering information and recipes as well as store locations where the pit bull hot sauce is sold, check out their website at www.manyspitbullhotsauce.com.

There are also postings of local events where one can meet Manny and Lisa and taste the hot sauce.

Cheryl Leach
Allergens from P. 1

Definitions

Food Allergens: naturally occurring proteins in certain foods that cause abnormal responses of the immune system, involving the production of allergen specific IgE antibodies in certain individuals.

Food Sensitivity: a non-immunological, non-IgE mediated reaction that can include Metabolic Food Disorders (lactose intolerance) or Idiosyncratic Reactions to substances such as sulfites, food colors or MSG. Food sensitivities can be life threatening, but because they are not IgE mediated, they are not considered true allergies.

Advisory labeling

Even though a product formulation doesn’t contain an allergen, it can become contaminated by residues of previous products left on the manufacturing equipment, airborne particles or dust that collects on overhead fixtures. In cases where Good Manufacturing Practices (GMP’s) are followed but are not reliable in minimizing allergen cross-contact, or if you are not sure whether an allergen is present, you can use a statement such as “may contain: (specify allergen),” or “manufactured on the same equipment that also processes …”. However, don’t generalize and don’t use an allergen warning statement in place of GMP’s or good sanitation. Include a declaration only for those allergens that might actually be present in a product or when cleaning and sanitizing routines are not completely reliable. Neither FDA or USDA will allow a label that states “may contain allergens” when the product clearly does not and there is no likelihood of contamination. There must be a reasonable chance that there could be an allergen in the product.

Products which contain allergens or have sub-ingREDIENTS with allergens by design (including from a re-work), must bear a complete listing of ingredients unless an exemption applies. See Table 1 for a list of ingredients likely to contain offending allergens.

Table 1. Allergen Sources

<table>
<thead>
<tr>
<th>Milk</th>
<th>Dried, condensed &amp; evaporated milk; Casein &amp; caseinates; Lactalbumin; Whey, Milk chocolate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soy</td>
<td>Soy beans; Hydrolyzed soy protein; Soy milk; Soy flour; Miso; Textured vegetable protein; Tofu; Soy sauce; Albumin</td>
</tr>
<tr>
<td>Egg</td>
<td>Egg substitutes; Eggnog; Pasta &amp; noodles; Meringue; Ovalbumin; Mayonnaise; Egg white, Egg yolk, Dried powdered egg solids</td>
</tr>
<tr>
<td>Wheat</td>
<td>Wheat bran, Wheat germ, Wheat gluten, Wheat meal; Flour-enriched, graham, wheat; Bread crumbs; Bulgur; Farina</td>
</tr>
<tr>
<td>Tree Nut</td>
<td>Almonds; Brazil nuts; Pistachios; Walnuts; Cashews; Pine nuts; Chestnuts; Filberts; Hazelnuts; Macadamia nuts; Pecans; Marzipan; Pesto; Almond extract</td>
</tr>
<tr>
<td>Crustacea/Fish</td>
<td>Crab; Crawfish; Lobster; Shrimp; Prawns; Some gelatins; Fish oils</td>
</tr>
<tr>
<td>Peanut</td>
<td>Peanuts; Peanut oil; Peanut butter; Peanut Flour; Baked goods; Candy &amp; chocolates</td>
</tr>
<tr>
<td>Sub ingredients</td>
<td>Derivatives; incidental additives or processing aids; spice blends; artificial &amp; natural flavors (may contain various proteins used as carriers)</td>
</tr>
</tbody>
</table>

Labeling exemptions

As an ingredient, spices, flavors and certain colors (non-certified) may be declared as such without naming each sub-ingredient. However, the FDA encourages the declaration of an allergenic ingredient in a spice, flavor or color. Allergenic ingredients in spices, flavors or colors may be declared in the ingredient list as a separate item or following the spice, flavor or color. They may also be declared at the end of the ingredient list (i.e., may contain milk or other proteins used as carriers).

Incidental additives

While most incidental additives that are present at an insignificant amount and without a technical or functional effect in the finished food are exempt from ingredient declaration, the exemption does not pertain to known allergens.

References

1996 Notice to Manufacturers (http://www.cfsan.fda.gov/~lrd/allerg7.html) and restates labeling requirements, lists the 8 most common allergens, addresses practices to prevent allergen cross-contamination and gives the FDA regulatory action criteria. Fred R. Shank, Ph.D


An Overview of Good Manufacturing Practices (GMPs) in the Food Industry
Dr. Olga Padilla-Zakour, Cornell University

Any food manufacturing operation overseen by the Food and Drug Administration (FDA) needs to comply with a broad regulation published in the Code of Federal Regulations, Title 21 Part 110 entitled “Current Good Manufacturing Practice in Manufacturing, Packing, or Holding Human Food”. This is an umbrella-type regulation that covers all aspects of food preparation, from plant and equipment construction to personnel hygiene. Plant inspections by federal and state regulators are based on compliance with current GMPs complemented by specific review of safety issues related to the type of food.

The regulation is divided into five areas listed below:
- General provisions
- Buildings and facilities
- Equipment and utensils
- Production and process controls
- Defect action levels

GENERAL PROVISIONS

A number of definitions are included in this section to familiarize the reader with the proper terms. Two terms important to fully understand are described next.

Food-contact surfaces: those that contact human food; surfaces from which drainage onto food or onto surfaces that contact food ordinarily occurs during normal course of operations. These surfaces are mainly utensils and equipment.

Sanitize: adequately treat food-contact surfaces by a process that is effective in destroying vegetative cells of microorganisms of public health significance, and in substantially reducing numbers of other undesirable microorganisms, but without adversely affecting the product or its safety for the consumer.

Personnel. The regulations address four critical areas: proper disease control, cleanliness, timely and frequent education and training of supervisors and employees, and clear definition of supervisory responsibilities.

Adequate disease control and cleanliness start with exclusion of employees who are sick or have open lesions or wounds. Good personal hygiene is a must in the food industry, stressing the need of personnel to wash hands thoroughly (for at least 20 sec) and frequently. Each company should provide guidelines for proper outer garments if uniforms are not required. Attention should be given to pockets in garments as loose items easily find their way into food products.Hair nets and beard nets are also required in food processing areas. Jewelry should not be worn for sanitary and safety purposes. When appropriate, employees should wear clean intact gloves made of materials approved for food use. No eating, drinking or smoking is allowed in any area of a food plant. The company should provide proper facilities for storage of personal belongings and foods.

BUILDINGS AND FACILITIES

The grounds where the processing facility is installed must receive adequate care: proper storage of equipment; removal of litter and waste; frequent cutting of weeds and grass within vicinity; scheduled maintenance of roads, yards, parking areas; adequate drainage of possible problem areas; and operating systems for waste treatment and disposal.

The design and construction of the plant must follow sanitary and safe guidelines: enclosed building with sufficient space for the intended use; built-in precautions to prevent contamination of food; separation of operations to avoid cross-contamination (contaminating processed foods with raw materials); use of floor, wall and ceiling materials that are smooth, non-absorbent, easily cleanable and adequate for intended use. Process areas should have adequate lighting, with appropriate protection from glass breakage. Adequate ventilation is also necessary to control odors and vapors and to protect from contamination. Proper screening for doors and windows facilitates pest control.

Sanitary operations. Buildings and fixtures should be properly maintained and sanitized to avoid food contamination. Use only safe approved substances as cleaning and sanitizing agents. Provide proper and secure storage of toxic materials such as cleaners, sanitizers, laboratory reagents, plant maintenance and operation materials. To protect food products from unwanted chemicals, use them only as labeled and only when safe, keep chemicals and lubricants properly stored, do not store chemicals above or next to food, ingredients, and packaging materials, and make sure all chemical containers are properly labeled.

Pest control. Flies and cockroaches may transmit Salmonella, Staphylococcus, Clostridium perfringens, Clostridium botulinum, Shigella, Streptococcus, and other pathogenic microorganisms. Rodents are sources for Salmonella and parasites. Birds are hosts for a variety of pathogens such as Salmonella and Listeria. Therefore no pests are allowed in any area of a food plant. The company must take effective measures to exclude them.

Avoid open doors and uncovered waste containers as they attract pests. Install proper doors and windows with effective screens, air fans and plastic curtains. Seal holes and cracks in walls as 0.25” is sufficient for rodent and insect incursion. Inspect incoming supplies for pest contamination. Insecticides and rodenticides are permitted only under precautions and restrictions to protect food from contamination.

To control rodents, eliminate exterior and interior attractants (food and place) and implement a program that includes exterior baiting and trapping, rodent-proofing of buildings, interior trapping and inspecting. It might be cost-effective to hire an outside company that specializes in pest control.

GMPs-continued on P. 5
Sanitation of food-contact surfaces. All food contact surfaces, including utensils and equipment, shall be cleaned as frequently as necessary to protect against contamination of food.

Water supply and plumbing. The water supply must be sufficient and from an adequate source (municipal or equivalently treated) protected from contamination. The incoming water shall be tested to ensure its safety. Protect the water with back-flow and anti-siphoning devices such as air gaps, vacuum breakers or check valves. If used, water additives and treatments must be food grade and can not contaminate food.

The plumbing must be adequate in size and design to carry sufficient water into the plant, to convey sewage and liquid disposable waste from the plant, to provide adequate floor drainage, and to provide no back-flow from, or cross-contamination between waste and food.

Toilet facilities. The company must provide adequate number and location. They shall be in sanitary condition and in good repair at all times. Self-closing doors should be installed. Doors shall not open into areas where food is exposed to airborne contamination.

Hand-washing facilities. Shall be installed at each location in the plant where needed. Must provide adequate, convenient, running water at suitable temperature; proper hand-cleaning and sanitizing solutions; and sanitary towel service or suitable drying devices. Avoid recontamination of clean hands by providing appropriate water control devices. Post signs to direct employees to wash hands and to use appropriate refuse receptacles.

EQUIPMENT AND UTENSILS

Must be made of materials and design that allows for proper cleaning and maintenance, avoiding adulteration of food with lubricants, fuel, metal fragments, contaminated water, unlawful chemicals or any other contaminants. Use stainless steel when possible and food grade materials. Instruments and controls used for measuring critical conditions that affect the safety of the product must be accurate and adequately maintained.

PRODUCTION AND PROCESS CONTROLS

Appropriate manufacturing and quality control/safety operations shall be employed to ensure that food is suitable for human consumption and that food-packaging materials are safe and suitable. Specific production and process controls are described in this section and are dependant on the type of food being manufactured. All food that has become contaminated shall be rejected, or if permissible, treated or processed to eliminate the contamination. Storage and transportation of finished foods must be conducted under conditions that protect against physical, chemical and microbial contamination and against deterioration of the food and the container.

DEFECT ACTION LEVELS

This section refers to the presence of natural or unavoidable defects in food for human use that present no health hazard. FDA establishes maximum levels for these defects based on production of foods under good manufacturing practices and uses these levels in deciding whether to recommend regulatory action. A list of current defect action levels can be obtained directly from FDA.

Reference


Imholte, T.J. 1984. Engineering for food safety and sanitation—a guide to the sanitary design of food plants and food plant equipment. Technical Institute of Food Safety, Minnesota, USA.
Service is becoming more important in the business of agriculture for value-adding as well as customer satisfaction. Increases in consumer disposable income and discretionary buying power, emphasis on leisure time, and having less time to do it are all positive trends for marketing services.

In concept, marketing goods and marketing services are essentially the same. In each case, you, the marketer, must select and analyze the target markets. Then a marketing program must be built around the 4 Ps of marketing: the Product (goods or services), the Price structure, the Place (distribution or delivery system), and the Promotional program. However, some distinct characteristics that differentiate services from goods often create special challenges and opportunities for marketing services. Therefore, the strategies and tactics used in conventional goods marketing frequently are inappropriate for services marketing, and it typically leads to a quite different marketing program.

- **Services are intangible**

  It is impossible for customers to sample–taste, feel, see, hear, or smell–services before they buy. Therefore, your promotion must portray the benefits to be derived from your services, rather than emphasizing the service itself.

  Some promotional strategies you can use to suggest service benefits and make your service tangible in customers’ minds are:

  1. **Visualization**

     For example, you can depict the benefits of your service by showing people relaxing in their beautiful garden, having a great cookout with their friends and family using the fresh produce they just bought from you, or using your service to create more free time for something more “fun” or “important” to them.

  2. **Association**

     Connect your service with a tangible good, person, object, or place. Many businesses use spokespersons to promote and build confidence in their businesses. You can establish your business as an expert in the field by making yourself or someone from your business available to answer questions for the media, donate your service for a popular public area or event in your town, or sponsor programs with local organizations.

  3. **Physical representation**

     For an agriculture business, your store, staff, equipment and vehicles are the physical items people see. Creating a distinct logo to be displayed on everything representing your business, dressing your employees in clean, distinctive uniforms to stress visibility and dependability, keeping your equipment and vehicles clean, creating a display to demonstrate your expertise are things you can do to establish a good image in customers’ minds.

- **Service typically cannot be separated from the creator-seller of the service**

  Production and marketing of services are often performed simultaneously. Customers’ opinions regarding a service frequently are formed through interaction with the contact personnel and impressions of the physical surroundings. Therefore, building personal relationships and trust with customers is vital for marketing service. Too often, the contact personnel, your staff, think of themselves as producers of a task rather than marketers of a service. Training your employees to interact with customers and be knowledgeable, courteous and willing to go the extra mile to answer customer’s needs is very important.

- **Services are impossible to standardize**

  Because the final product of a service depends on the person who performed the service, each “unit” of the service is somewhat different from other “units” of the same service. However, to build trust in the company, customers need consistency. Therefore, you should pay special attention to product planning when marketing services. You must do all you can to build a protocol for performing the service tasks. It is imperative to maintain consistent service quality at or above the level of consumer expectations. More importantly, quality is defined by the consumer, not by the producer-seller of a service.

- **Services are highly perishable and cannot be stored, and the demand for services often fluctuates considerably by season**

  The combination of perishability and fluctuating demand presents many challenges to marketing services. Keeping your presence in front of customers during off-season will help you market your services later on. Developing new uses...
for idle capacity of facility during the off-season, providing newsletters to deliver information throughout the year, and offering special services or events to your best customers can even out cash flow and improve customer retention. Make it easy for customers to learn about your services. For example, offer no-cost evaluation for a service, use internet and other convenient locations to provide information, arrange tie-in sales with other local businesses.

• Customer for Life

Trends carry considerable influence in the marketing of service. Sociological factors of social-class structure and small-group influences are very important market determinants for services. Thus, service marketing can benefit significantly from indirect types of promotion such as publicity (newspapers, radio, and television) and community involvement.

Moreover, among all the promotional activities used in services marketing, personal selling plays the dominant role. Any employee who comes into contact with a customer is part of your marketing force.

A crucial step to successfully marketing services is to provide sales and marketing training for all your personnel and impress upon them the importance of their roles in marketing. Your employees need to be good at what they do with land, plants/animals and with people as well. Customers are not just buying the service, they are buying the benefits from your service, such as having a garden to enjoy, saving time, providing their family good nutrition, and having a good experience. Moreover, consumers want reliability, responsiveness, assurance, and empathy from your business, including everyone on your staff. If you can deliver that, you have the customer for life.

From an article in the Smart Marketing series, August 2002, published by the Department of Applied Economics and Management at Cornell University

Food Safety & Sanitation: A Distance Education Course

The University of Connecticut, College of Agriculture and Natural Resources

The University of Connecticut, College of Agriculture and Natural Resources, is pleased to announce Food Safety & Sanitation: A Distance Education Course. The course was developed at the University of Connecticut, Department of Nutritional Sciences with partial funding from a Food Safety Grant from the United States Department of Agriculture.

This course is available in English, Spanish, or Vietnamese at a cost of $95.00. Topics included in this course are as follows:

Lesson 1 Introduction to Sanitation & Food Safety
Lesson 2 Microorganisms
Lesson 3 Personal Hygiene
Lesson 4 Processing & Serving
Lesson 5 Facilities & Equipment
Lesson 6 Pest Control
Lesson 7 Purchasing, Receiving, & Storage
Lesson 8 HACCP (Hazard Analysis Critical Control Points)

Food Safety & Sanitation: A Distance Education Course comes with a CD-ROM containing these eight lessons which includes an audio component and a manual. In addition, a student will have access to quizzes online, instructors, and other students taking the course.

Connecticut’s website is http://www.team.uconn.edu/foodsafety_course/index.htm or contact Maryann Morris at 860.486.3605.

Sarah J. Lincoln

LEAD New York is now recruiting for Class X

The Mission of LEAD New York is to inspire and develop leaders for New York State’s food and agriculture industry.

LEAD New York is a two-year leadership training and development program consisting of approximately 47 days of seminars, workshops, and field travel experiences in and out of New York State.

Class members participate in monthly three-day workshops from October to April. Each workshop is held in a different part of the state. Trips to Washington, D.C., New York City, and to another state or region to make a comparative study of the region’s food and agricultural industry are slightly longer.

The initial program curriculum emphasizes the basic characteristics, trends, forces, and interrelationships affecting all aspects of the food and agriculture industry. The program also focuses on the study of the policymaking processes. Local, state, and national governments and issues are studied and compared.

The development of communication and leadership skills is emphasized throughout the program. Class members practice these skills as they chair workshops, react to speakers, make presentations, network, and plan programs.

New learning experiences include team projects on defining current issues, exploring opposing viewpoints, and proposing solutions to challenges facing the industry.

As a participant in the LEAD New York program, you will

• enhance your understanding of agriculture and the food system and its interrelationships on local, state, regional, national, and international levels.

• improve your leadership and communication skills.

• develop opportunities for networking.

• foster consensus-building and teamwork approaches to problem solving.

• increase your ability, desire, and commitment to seek solutions to today’s problems and to anticipate tomorrow’s needs.

Sarah J. Lincoln
LEAD New York is designed for women and men who will provide leadership to the food and agriculture industry. Selected participants have demonstrated their leadership abilities and have the potential for further leadership and development.

Roughly one-third of the program participants represent production agriculture. The other members represent food and agribusiness operations and associated occupations such as education and government. Up to four out-of-state residents may be accepted in each class.

Participants come from diverse backgrounds and have different interests and goals. Sharing expertise and teamwork are part of the program design. Participants help each other understand issues from different perspectives. All have a common commitment to the future of the food and agriculture system.

For more information and an application contact Larry Van de Valk, Director at 607.255.7907 or ljv4@cornell.edu.

Visit The LEAD NY website at www.cals.cornell.edu/LEADNY.

Sarah J. Lincoln

Finger Lakes Culinary Bounty Announces the Third Annual Trade Show

The Trade Show will be held at the Holiday Inn on Route 414 north between the Thruway and Route 20 in Waterloo-Seneca Falls. Trade Show vendors are now being recruited. Vendors can include farmers producing any agricultural product that might be used by restaurants or sold in specialty foods stores.

Trade Show hours will be 10:00 – 11:30 am and again from 2:00 – 3:00 pm. The Program and lunch will be from 11:30 am – 2:00 pm at a cost of $25.00 per person. The date for the Trade Show is Monday, March 17, 2003. For more information on how to register as an exhibitor or just to attend the event, call 607.272.2292 for a flyer or email flcb@cornell.edu.