

FoodBytes

Food Protection Program

Summer, 2008

Indiana State Department of Health

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Is ROP happening in your county?

The answer is directly related to whether or not you are looking for evidence of reduced oxygen packaging (ROP) during an inspection.

Just because you don't see the equipment does not mean the operator is not conducting (ROP). Sometimes the equipment is tucked away on shelves due to the fact it may not be used frequently.

◆ Ask the operator related questions

"Do you package any of your own food products?"

Keep this question broad at first. Do not ask "Do you conduct reduced oxygen packaging?" Operators do not understand the phrase "reduced oxygen packaging" and do not always understand the phrase "vacuum packaging," although this phrase is more readily recognized by some. Once you have determined they do package products, continue with the following questions.

"What type of packaging do you use?"

Thicker packaging will inhibit oxygen from crossing through the packaging.

"How do you seal your packages?"

If it is determined the packages are truly sealed so no oxygen is allowed in

the package through the opening, it is then important to establish if the packaging is too thick to also allow oxygen transmission across the package material. Manufacturer's specification sheets will provide the oxygen transmission rate across the packaging material.

◆ Look for "vacuum packaged" foods

If you see what looks like a "vacuum packaged" food product, do not assume that it has come from a food processing plant. Some inspectors are finding that "vacuum packaged" products are coming into their counties from establishments in other counties. These products may or may not be looked at in the county of origin to determine compliance with Section 195 of 410 IAC 7-24.

◆ Recognize ROP equipment



Commercial ROP machines

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Is ROP happening in your county (continued)

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Home type ROP machines



Packing materials, like thicker plastic bags



Heat sealers to seal the plastic bags

Whenever the oxygen is reduced in a packaged product, there is a risk of *Clostridium Botulinum*. A Hazard Analysis Critical Control Point (HACCP) plan would need to be submitted to, and approved by, the local health department.

Operators must show they know how to handle ROP safely.

*Kris Thomas,
Retail Food Specialist*



After more than 32 years with the Grant Co. Health Dept., PJ Culley is retiring. During a retirement party at her office, Scott Gilliam, ISDH Food Protection Program manager, presented PJ with an "Award of Excellence" recognizing her service to public health.

Food Protection Program Begins GIS Integration

The ISDH Food Protection Program (FPP) is starting to utilize Geographic Information System (GIS) technology to enhance Indiana food protection efforts. GIS is a geographical system technology used for capturing, storing, analyzing and managing data and associated attributes that are spatially referenced to the earth. GIS is a tool that allows users to create interactive searches, analyze the spatial information, create maps and present the results of all these operations.

The FPP will start by using the physical addresses of the Indiana wholesale and retail food establishments to geocode them into the GIS

GIS is technology used for capturing, storing, analyzing and managing data.

system so they can be plotted onto a map. This will create two layers (wholesale and retail) in the ISDH GIS system that the FPP will

manage and have editing authority. Recently, the Food Inspection Regulatory Management System (FIRMS) list of wholesale food facilities was used to geocode them into GIS. As soon as the wholesale layer is complete, the FPP will begin geocoding the retail food establishments in the FIRMS program into GIS.

The GIS integration of Indiana

food assets will take some time and several FPP staff will be attending GIS training. The FPP will be making decisions about what type of attributes (information) should be included along with the physical locations of the facilities. One benefit of GIS is that you can take the various layers of data and overlay them on a map for visual comparison. For example, we could compare the locations of reported illnesses to the locations of restaurants in an area to see if any similarities stand out. Although this will take some time and effort, it will be very beneficial to Indiana public health in the long run.

*Travis Goodman
Food Defense Coordinator-South
ISDH*



Typhoid Mary might have made the Guinness Book

If there were a Guinness Book of Records for foodborne illness, Mary Millon would be in it. She caused the deaths of three persons and illness in scores more just by handling food while infected with *Salmonella*. A cook who wouldn't stop, Mary Millon earned the nickname "Typhoid Mary."

Born around 1870, Mary first became known in 1904 when an epidemic of typhoid fever swept through New York's Oyster Bay and adjacent towns on Long Island. A sanitary engineer with New York's Department of Health,

George Soper, discovered that Mary had been employed as a cook in the homes of the typhoid fever victims.

At that time, although it was not generally known that people who were not sick could be carriers of the disease, Soper deduced that this was the case with Mary. He told her his belief and offered her free medical help, but Mary refused, and disappeared.

Three years later, a persistent Soper found her working as a cook in a home on Park Avenue in New York City. Though not sick with the disease, Mary was found to be a

carrier of typhoid fever (*Salmonella Typhi*) and was carried kicking and screaming to be forcibly quarantined at Riverside Hospital for Communicable Disease on North Brother Island.

Mary was kept there until 1910, when she was released after promising never to work as a food handler again.

But when typhoid fever epidemics broke out four years later at a sanatorium in Newfoundland, N.J., and a hospital in Manhattan, Soper found that Mary had been

(Continued on page 5)

FDA proposes adding leafy greens to PHF / TCS list

The U.S. Food and Drug Administration (FDA) is recommending leafy greens be added to the list of Potentially Hazardous Foods (PHF) regulated by law.

Designating foods PHF requires that they be under temperature or time control.

FDA says evidence shows that such foods support the growth of microorganisms. FDA argues that requiring that these foods be stored under refrigeration should significantly limit the growth of pathogens that may be present on the product and therefore represents an important step in preventing foodborne illness in the U.S.

Statistics cited by FDA show that since 1996, at least 21 con-

firmed foodborne illness outbreaks have been attributed to consumption of various types of leafy greens including 11 that were contaminated prior to the point of service, most likely on the farm.

Cut leafy greens have a very low acid (pH) content and high water activity (A_w) so once the product is harvested, internal liquids and nutrients are readily available for bacterial growth.

Requiring refrigeration of these products to 41° F. or below would slow the pathogenic growth.

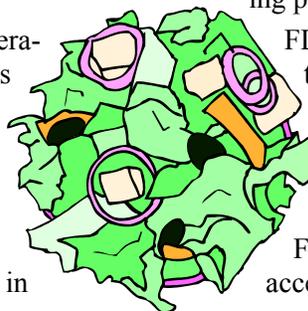
Organisms of concern that have been known to grow in

leafy greens include *E. coli* O157:H7, *Salmonella spp.* and *Listeria monocytogenes*.

Although it has been a common industry practice to refrigerate leafy greens after cutting to preserve crispness and prevent browning and sliminess from spoilage organisms, such products can be displayed for extended periods at any temperature. FDA notes that storage at temperatures above 41°F can negate pathogen reductions achieved from prior washing in cold or warm chlorinated water allowing surviving pathogens to multiply.

FDA presented its request to the Conference for Food Protection (CFP). The CFP recommended holding greens at 45° F ambient but not making it a PHF.

FDA will decide whether to accept the CFP decision.



Once the product is harvested, internal liquids and nutrients are readily available for bacterial growth.

Shirley Vargas retires after serving ISDH for 25 years

The first woman to work as a professional in ISDH Food Protection is stepping aside. Shirley Vargas began her career with ISDH in 1983 working for the Division of Retail and Manufactured Foods.



Consumer Specialist overseeing numerous complaint investigations until 1999 when she was selected to become the Wholesale Section Supervisor.

Shirley directed one of ISDH's most high profile cases when Roselyn Bakery was ordered closed due to numerous and ongoing food safety violations.

Because of new federal regulations, Shirley created the "Apple Cider Training School" along with Purdue University to aid Indiana processors in achieving compliance.

Shirley has won numerous awards from ISDH, the Indiana Environmental Health Association,

and the North Central Association of Food and Drug Officials (NCAFDFO) for her service to public health. She served a term as NCAFDFO president, is a member of its board, and was the host for a regional conference held in Indianapolis.

Food Program Manager, Scott Gilliam, describes Shirley as "one in a generation" and credits her for being "caring, honest, and providing positive leadership." Gilliam added that she always strived for excellence in any project.

A successor is expected to be named soon.

FDA investigation leads to indictments over pet food

The U.S. Food and Drug Administration's (FDA) Office of Criminal Investigations announced that two Chinese nationals and the businesses they operate, along with a U.S. company and its president and chief executive officer, were indicted by a federal grand jury in separate but related cases. The indictments are for their roles in a scheme to import products into the United States purported to be wheat gluten that were contaminated with melamine. These products were used to make pet food. Numerous cases of pet deaths were reported, linked to tainted pet food.

Xuzhou Anying Biologic Technology Development Co., LTD. (XAC), a Chinese firm that

processes and exports plant proteins to the United States; Mao Linzhun, a Chinese national who is the owner and manager of XAC; Suzhou Textiles, Silk, Light Industrial

Products, Arts and Crafts I/E Co. LTD. (SSC), a Chinese export broker that exports

products from China to the United States; and Chen Zhen Hao, president of SSC and a Chinese national were charged in a 26-count indictment returned by a federal grand jury in Kansas City, Mo.

Also indicted were ChemNutra, Inc., a Las Vegas, Nevada corporation that buys food and food components from China to sell to U.S. companies in the food industry, along with ChemNutra owners

Products purported to be wheat gluten that were contaminated with melamine, then used to make pet food.

Sally Qing Miller and her husband, Stephen S. Miller, who were charged in a separate, but related, 27-count indictment. Sally Qing Miller, a Chinese national, is the controlling owner and president of ChemNutra; Stephen Miller is an owner and CEO of ChemNutra. The indictments charge all seven defendants with delivering adulterated food that contained melamine, a substance which may render the food injurious to health, into interstate commerce; introduction of a misbranded food into interstate commerce; and other charges.

The indictments allege that more than 800 tons of purported wheat gluten, totaling nearly \$850,000, was imported into the United States in 2006 and 2007.

Melamine is not approved as a food additive. *(from FDA Press Release)*

ISDH Food Defense Specialist to serve in D.C.

Travis Goodman, Food Defense Specialist with the Food Protection program at ISDH is heading to Arlington, V.A. after having been selected to spend a year with the U.S. Department of Homeland Security (DHS).

DHS stated it was looking for someone with state-level expertise relevant to food and agriculture. The federal department said it wanted “to broaden Departmental capabilities, improve coordination between the Department and the sector’s owners and operators of critical infrastructure, enhance

communication between DHS and the Government Coordinating Council (GCC), and provide state level perspective and experience within the Food and Agriculture Sector program area at DHS headquarters.”

Goodman has achieved national recognition for his accomplishments in food defense and security and will serve as a “subject matter expert” for DHS. He will be charged with supporting the partnership with state and local governments and their Federal counterpart, and improving the lines of commu-

nication toward achieving DHS goals.

Goodman will also design a dynamic information system that “pushes” and “pulls” information to and from the Agriculture and Food Sector on the communications backbone of the Homeland Security Information Network (HSIN), according to DHS. He will return home with knowledge of food security and defense issues from the federal perspective.

Goodman will begin his year-long assignment this summer.

Typhoid Mary (continued)

(Continued from page 3)

employed as a cook at both.

Enough was enough. Mary, who had directly infected at least 51 people, three of whom died, and had indirectly infected countless others, was again quarantined in Riverside Hospital, this time permanently. She died in 1938.

While symptom-free carriers of foodborne diseases are rare, *Salmonella* food poisoning is fairly common. The U.S. Centers for Disease Control and Prevention (CDC) estimates there are up to four million cases of *Salmonella* infection in the U.S. yearly. Many such foodborne illnesses are caused by people with infections, like a cut on the hand, that induces germs into foods handled.

Food, as once living organisms, also carry germs within them naturally. Such germs can be killed

by cooking or kept under control by refrigeration.

The symptoms of *Salmonella* food poisoning are nausea, vomiting, abdominal cramps, diarrhea, fever, and headache, usually lasting from one to two days. The disease is seldom fatal except for the very young, elderly, and individuals with compromised immune systems.

Most *Salmonella* food poisonings can be prevented if the cook follows a few precautions:

Wash hands before handling food, particularly after handling raw meat. Don’t handle foods if sick.

Keep food hot at 135° F. or above, or at 41° F. or below. Don’t



1909 newspaper front page illustration of Typhoid Mary (Wikipedia)

allow room temperature to nurture bacteria growth.

Wash and sanitize utensils, cutting boards, work areas, and equipment like blenders, pots and pans after each use.

A common mistake made is to place grilled food back on the same - unwashed - plate that was used to take the raw meat to the grill. This reinfects the food with the germs cooking was meant to kill.

Bad food handling can lead to a food establishment making the news. But with good food handling, *Salmonella* food poisoning can become, like Typhoid Mary, no more than an historical footnote.

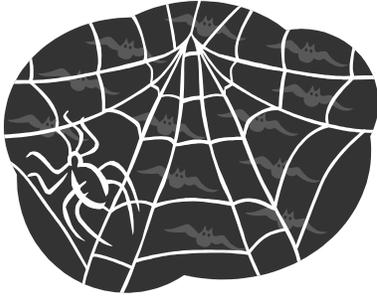
Janet LeClair, FDA (retired)

FOOD PROTECTION PROGRAM

Food Protection Program
Indiana State Department of Health
2 N. Meridian St., 5C
Indianapolis, IN 46204

Phone: 317 233 7360
Fax: 317 233 7334
Email: food@isdh.in.gov

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Judith A. Monroe, MD
State Health Commissioner

Mary L. Hill, JD
Deputy State Health Commissioner

Loren Robertson, MS, REHS
Assistant Commissioner,
Public Health and Preparedness Commission

Editorial Staff

Ed Norris, MS, CP-FS
FoodBytes Editor

Scott Gilliam, MBA, CP-FS
Food Program Manager

Email

food@isdh.in.gov

Tidbits, Crumbs, and Leftovers

- ◆ The "Guide For Local Health Officers and Boards of Health Members" is available via the SharePoint Web site. Local health departments must log in to download it.
- ◆ The Augusta (G.A.) Chronicle has reported that FDA revoked the Castleberry's Food Company plant's temporary operating permit in March amid concerns of "process deviations" with operation of the company's processing equipment. The plant was shut down last year after under processing of chili products was linked to several botulism cases. The plant was expected to reopen in a few weeks.

- ◆ Can a retail food establishment prepare fish that is brought in by a customer? The answer may be yes, if certain conditions are met. The fish can only be served to that customer. The fish must be cleaned and prepared in a separate area from all other foods, and all equipment and utensils used must be thoroughly cleaned and sanitized after use. If the fish is stored, it must be completely separated from other foods.

- ◆ Note that the Web

Send your questions and comments to the e-mail or postal address on this page.

address for the Food Protection Program has changed. See the new Web site in the block titled, "Find us on the Web!" Changes are on going so also try www.in.gov/isdh and click on "consumer protection" on the left.

Calendar

IEHA Fall Educational Conference

Sep. 29, 30, Oct. 1

Florence