

PPS 'TOUR' – 2015

Rob Ralyea



Cornell University
Dairy Foods Extension

Subjects

- Pathogens
- FDA News
- HACCP/Preventive Measures
- Environmental Testing
- General Food Safety Issues
 - Wood Aging Boards
- Resources

Microbial foodborne diseases (2011)

- 47.8 million cases of gastrointestinal illnesses ; **9.4 million due to known and 38.4 million due to unknown pathogens)**
- 127,000 serious illnesses resulting in hospitalizations; 56,000 due to known and 71,000 due to unknown pathogens
- 3,037 deaths (range: 1,492–4,983) ; 1,351 due to known and 1,686 due to unknown pathogens



Top 5 Causes of Foodborne Illness

Pathogen	Estimated annual number of illnesses	90% Credible Interval	%
Norovirus	5,461,731	3,227,078–8,309,480	58
<i>Salmonella</i> , nontyphoidal	1,027,561	644,786–1,679,667	11
<i>Clostridium perfringens</i>	965,958	192,316–2,483,309	10
<i>Campylobacter</i> spp.	845,024	337,031–1,611,083	9
<i>Staphylococcus aureus</i>	241,148	72,341–529,417	3
Subtotal			91

Top 5 Requiring Hospitalization

Pathogen	Estimated annual number of hospitalizations	90% Credible Interval	%
<i>Salmonella</i> , nontyphoidal	19,336	8,545–37,490	35
Norovirus	14,663	8,097–23,323	26
<i>Campylobacter</i> spp.	8,463	4,300–15,227	15
<i>Toxoplasma gondii</i>	4,428	3,060–7,146	8
<i>E. coli</i> (STEC) O157	2,138	549–4,614	4
Subtotal			88

Top 5 Causing Death

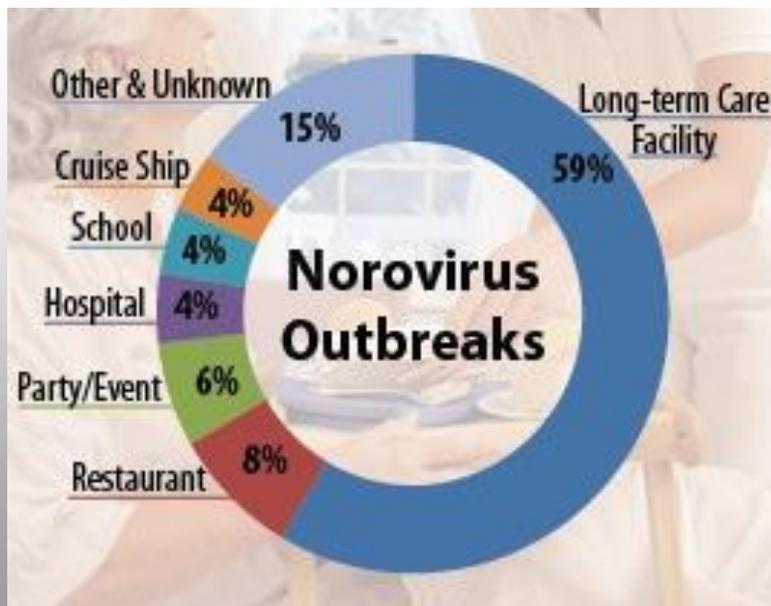
Pathogen	Estimated annual number of deaths	90% Credible Interval	%
<i>Salmonella</i> , nontyphoidal	378	0–1,011	28
<i>Toxoplasma gondii</i>	327	200–482	24
<i>Listeria monocytogenes</i>	255	0–733	19
Norovirus	149	84–237	11
<i>Campylobacter</i> spp.	76	0–332	6
Subtotal			88

10 deadliest foodborne and waterborne outbreaks

1. [Typhoid fever, 1924-25](#) - **Oysters** from Long Island, NY, held in polluted waters, sickened more than 1,500 people in New York, Chicago, and Washington, D.C.; 150 died.
2. [Typhoid fever, 1903](#) - A public **water** source in Ithaca, NY, was polluted from a dam construction site, resulting in a typhoid outbreak involving 1,350 people; 82 died, including 29 Cornell University students.
3. [Streptococcus, 1911](#) - **Raw milk** delivered door-to-door in the Boston area was responsible for a strep outbreak; 48 people died.
4. [Listeria, 2011](#) - “Rocky Ford” **cantaloupe** from Colorado became contaminated, probably in the packing facility, sickening at least 146 people in 28 states; 33 deaths and one miscarriage. Ten additional deaths were possibly related to the outbreak.
5. [Listeria, 1985](#) - **Mexican cheese** made by a Los Angeles company sickened mostly Hispanic women, many who were pregnant; 28 died.
6. [Streptococcus, 1922](#) - **Raw milk** delivered door-to-door in Portland, OR, was contaminated; 22 died.
7. [Listeria, 1998](#) - Ball Park **hot dogs** and Sara Lee **deli meats** were recalled after Listeria was found in the Michigan [processing plant](#); 21 died.
8. [Botulism, 1919](#) - **Canned ripe olives** from California sold to inland states were contaminated and caused outbreaks in three states; 19 died.
9. [Salmonella Typhimurium, 2008-09](#) - **Peanut butter and paste** contaminated with *S. Typhimurium* caused at least 714 illnesses in 46 states; 9 died.
10. [Listeria, 2002](#) - **Sliced turkey meats** from Pilgrim’s Pride were responsible for a multiple state outbreak; 8 died.

Norwalk like viruses

- Total: 23 million cases and 310 deaths
- Foodborne: 9.2 million cases and 120 deaths
- Up to 1 to 10 billion norovirus particles per g feces and 1 million infectious particles per ml of vomit
- Very low infectious dose (1/100,000 of 1/10,000 ml of vomit may contain enough virus to cause disease)



Salmonella

- Increasingly recognized as a pathogen that can survive extremely well and for extremely long time in
 - Dry food environments (cereal plants, powdered products)
 - Low water activity foods (peanut butter, cereal, flour, spices)
- Can cause disease even if no growth occurs in food
- Heat resistance is increased tremendously if *Salmonella* is present in a dry matrix
 - Temperatures that yield a >5 log reduction of *Salmonella* in milk may be virtually ineffective in reducing Salmonella **present in low water activity food or ingredients**

The screenshot shows a web browser displaying a news article on the Food Safety News website. The article title is "CDC: Source of Cucumber-Linked Outbreak Determined Too Late to Alert the Public" by James Andrews, dated April 2, 2015. The article text states that in late February, the CDC released a report about a summer 2014 outbreak of *Salmonella* linked to cucumbers from the Delmarva region of Maryland. It notes that the outbreak caused 275 illnesses and one death, and that the CDC estimates only one in 30 *Salmonella* cases are confirmed. A photograph of sliced cucumbers is included. The article also discusses the timing of the CDC's alert and the impact on consumers. A sidebar on the right contains social media links and a "Food Safety Solutions" banner.

O157 EHEC

- Shiga toxin–producing *E coli* (STEC) is among the most common causes of foodborne diseases.
- GI illnesses, including nonbloody and bloody diarrhea.
- Patients with these diseases, especially children, may be affected by neurologic and renal complications, including Hemolytic Uremic Syndrome (HUS).

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E. Coli Outbreak Centered on Private School in Louisiana

BY DAN FLYNN | APRIL 2, 2015

When an exclusive private school suddenly extends its Easter break, it might be a good time to check with social media to see if, in fact, an outbreak of foodborne illness has occurred. That appears to be what has happened with Louisiana's Silliman Institute, where the [original schedule](#) for the term shows Easter break not beginning until today.

However, Silliman sent students home last Friday, March 27, resumed classes Monday, March 30, and then called it quits until Monday, April 6. What gives? Silliman isn't talking and the answer is hard to find because Louisiana's Napoleonic Code is not about sunshine in government.

"There is an outbreak of STEC (Shiga toxin-producing *Escherichia coli*) in a school in Region 2 and it is being investigated," Ashley Lewis, [spokeswoman](#) for Louisiana's Department of Health and Hospitals, told **Food Safety News**.

"As the investigation progresses, the Department continues to take all necessary preventive measures to protect public health," Lewis noted, adding, "Louisiana law prohibits the disclosure of the content of



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Meat

Non O157 EHEC

- Disease and transmission similar to O157:H7
- Approx. 112,700 human cases and 270 hospitalizations annually in US (2011 data)
- **Big Six” – O26, O45, O103, O111, O121, O145**
- **Declared an adulterant by USDA**
- Tests for non O157 STEC/EHEC are now available
- Previous outbreaks have occurred in US, including one *E. coli* O157:NM outbreak linked to raw milk (2008)

E. coli O103 outbreak linked to raw milk cheese

- Three people became sick with *E. coli* O103 after consuming cheese made with unpasteurized cow's milk.
- Raw milk cheese from implicated facility tested positive for Shiga-toxin *E. coli* (STEC)
 - Cheese had been aged 60 + days

Campylobacter

- Generally causes mild gastrointestinal human illness
 - Campylobacteriosis is one of the most common bacterial foodborne illnesses
- Linked to Guillain–Barré syndrome (acute neuromuscular paralysis)
- Linked to chicken and poultry, but also dairy and dairy products
- About 850,000 foodborne cases and 75 deaths/year in the US

Listeria monocytogenes

- Causes septicemia, abortion and encephalitis in humans and in animals
- Incubation period 7 - 60 days
- Human listeriosis occurs in both epidemic and sporadic cases
- Affects predominantly elderly and immuno-compromised people, pregnant women and newborns.
- Approx. 1,500 human cases/year in the U.S., resulting in approx. 250 deaths/year
- Responsible for majority of microbial food recalls

foodsafetynews.com 2015 CDC-recalled-fruit-likely-caused-listeria-cases-last-summer-1014417423

Blue Bell Re... For the Test... CDC Rec...

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CDC: Recalled Fruit Likely Caused Listeria Cases Last Summer

BY NEWS DESK | 3/24/15 2:14 2015

This past summer, consumers were confronted with a series of recalls of peaches, nectarines, plums, pluots and other stone fruits potentially contaminated with *Listeria monocytogenes*.

The fruit, sourced from Wavona Packing Co., was recalled from major retailers such as [ALDI](#), Trader Joe's, Costco, [Kroger](#) and Walmart. Many consumers began expressing concerns that they had been infected, and the U.S. Centers for Disease Control and Prevention (CDC) reported an enormous surge in traffic to its website from people looking up information on *Listeria* infection.

Now CDC has revealed that at least a handful of *Listeria* infections from the summer of 2014 were likely caused by the recalled fruit, according to a new report in the *Morbidity and Mortality Weekly Report*.

The fruit was recalled in mid-July 2014. Within a month, CDC had found four human cases of listeriosis, in four different states, with infections with DNA similar to that found on the recalled fruit. Further testing with whole genome sequencing technology revealed that two of the four cases matched isolates from the fruit almost identically.

The four patients were from Massachusetts, Minnesota, Illinois and South Carolina, with the infections in the patients from Massachusetts and Minnesota having the most clear resemblance to *Listeria* from the fruits.



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- Lawsuit Alleges High Arsenic Levels in Some California Wines
- Amy's Kitchen Recalls Products

Cornell University Department of Food Science

April 15, 2015

For the first time in 108 years, Blue Bell announces a [product](#) recall.

One of our machines produced a limited [amount](#) of frozen snacks with a potential listeria problem.

When this was detected all products produced by this machine were withdrawn. Our Blue Bell team members recovered all involved products in stores and storage.

This withdrawal in no way [includes](#) our half gallons, quarts, pints, cups, three gallon [ice cream](#) or the [majority](#) of take-home frozen [snack](#) novelties.

For more information call 979-836-7977, Monday – Friday 8 a.m. – 5 p.m. CST or [click here](#).



http://cdn.bluebell.com/BB_withdrawal Blue Bell Recalls Sing... For the first time L... X

Page Safety Tools

Updated March 23, 2015

Contact:
Consumer:
979-836-7977

BLUE BELL ICE CREAM RECALLS 3 OZ. INSTITUTIONAL/FOOD SERVICE ICE CREAM CUPS - CHOCOLATE, STRAWBERRY, VANILLA (TAB LID) - BECAUSE OF POSSIBLE HEALTH RISK

Blue Bell Ice Cream of Brenham, Texas, is recalling three 3 oz. institutional/food service ice cream cups- chocolate, strawberry and vanilla with tab lids because they have the potential to be contaminated with *Listeria monocytogenes*, an organism which can cause serious and sometimes fatal infections in young children, frail or elderly people, and others with [weakened immune systems](#). Although healthy individuals may suffer only short-term [symptoms](#) such as high fever, [severe headache](#), stiffness, nausea, abdominal pain and diarrhea, *Listeria* infection can cause miscarriages and stillbirths among pregnant women.

On March 22, the Kansas Department of Health & Environment reported one positive test for *Listeria monocytogenes* on a chocolate institutional/food service cup recovered from a hospital in Wichita, Kan. This cup was produced in the Broken Arrow, Okla., plant on April 15, 2014. These cups are not sold thru retail outlets such as convenience stores and supermarkets.

The ice cream cups listed below were distributed in Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Virginia and Wyoming via food service accounts.

Ice Cream Cup Chocolate (3 FL OZ)	No UPC - SKU #453
Ice Cream Cup Strawberry (3 FL OZ)	No UPC - SKU #452
Ice Cream Cup Vanilla (3 FL OZ)	No UPC - SKU #451

There have been no reported illnesses to date.

This recall in no way includes Blue Bell Ice Cream half gallons, pints, quarts, 3 gallons or other 3 oz. cups.

http://www.fda.gov/Safety/Recalls/ucm41620.htm?source=govdelivery&utm_medium=email&utm_source=govdelivery Recalls, Market Withdrawals... X

Page Safety Tools

Blue Bell Creameries Expands Recall of Products Produced in Broken Arrow, Oklahoma Due to Possible Health Risk

Contact:
Consumer:
979-836-7977

Media:
Gene Grabowski
202-270-6560

FOR IMMEDIATE RELEASE — April 7, 2015 — Brenham, TX — Blue Bell Creameries is expanding its recall of products that were produced in the Broken Arrow, Okla., plant to include Banana Pudding Ice Cream pints which tested positive for *Listeria monocytogenes*, and additional products manufactured on the same line. These items have the potential to be young children, frail or elderly people, and others with weakened immune systems. Although healthy individuals may suffer only short-term symptoms such as high fever, severe headache, stiffness, nausea, abdominal pain and diarrhea, *Listeria monocytogenes* infection can cause miscarriages and stillbirths among pregnant women.

The products being recalled are distributed to retail outlets, including food service accounts, convenience stores and supermarkets in Alabama, Arizona, Arkansas, Colorado, Florida, Georgia, Illinois, Indiana, Kansas, Kentucky, Louisiana, Mississippi, Missouri, Nevada, New Mexico, North Carolina, Ohio, Oklahoma, South Carolina, Tennessee, Texas, Virginia, and Wyoming.

No illnesses have been confirmed to date.

Cornell University Department of Food Science April 15, 2015

Food Safety Modernization Act

Cornell University Department of Food Science

April 15, 2015

Required Records

- Written food safety plan
- Records that document monitoring of the preventive controls
- Records that document corrective actions
- Records that document verification
- Records that document training for the qualified individual

Overview of Key FSMA Provisions

Provisions that were effective immediately:

- New FDA authority for mandatory recalls
- Expanded FDA authority to request records re: “food of concern”
- New whistle-blower employee protection provisions
- New mandatory facility inspection schedule for FDA
- New FDA authority to collect fees for facility re-inspections and recall activities by the FDA if mandatory recall request is not complied with



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Helados La Tapatia, Inc. Recalls Products Because of Possible Health Risk

- **FOR IMMEDIATE RELEASE** - March 19, 2014 - Helados La Tapatia, Inc., of Fresno, California, is voluntarily recalling all ice cream products, popsicles, fruit bars/cups and bolis **due to a possible health risk from *Listeria monocytogenes***. Helados La Tapatia, Inc., is coordinating closely with regulatory officials.
- *Listeria monocytogenes* is an organism which can cause serious and sometimes fatal infections in young children, frail or elderly people, and others with weakened immune systems. Although healthy individuals may suffer only short-term symptoms such as high fever, severe headache, stiffness, nausea, abdominal pain and diarrhea, Listeria infection can cause miscarriages and stillbirths among pregnant women.
- The products were distributed in Arizona, California, Nevada, Washington, Guam and Canada in retail stores. The products are sold under the brand names of Helados La Tapatia and Icesations.
- **No illnesses have been reported to date. The recall was the result of a routine inspection program by the U.S. FDA which revealed the presence of the bacteria on certain food processing equipment.**
- A separate UPC Inventory of the products and their UPC codes is provided.

Cornell University Department of Food Science

April 15, 2015

Facility Inspection Schedules for FDA

- FDA must conduct initial inspections of **“high risk”** facilities within 5 years and follow-up inspections every 3 years thereafter
- FDA must conduct initial inspections of facilities that are not “high risk” within 7 years and follow-up inspections every 5 years thereafter
- FDA will consider a variety of factors in the determination of whether a facility is “high risk”
- FDA may rely on other Federal, State, or local agencies to conduct the inspections
- FDA examining whether it should exempt on-farm activities by small and very small businesses



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FDA Suspends Registration for Sunland, Inc.'s Peanut Butter Facility

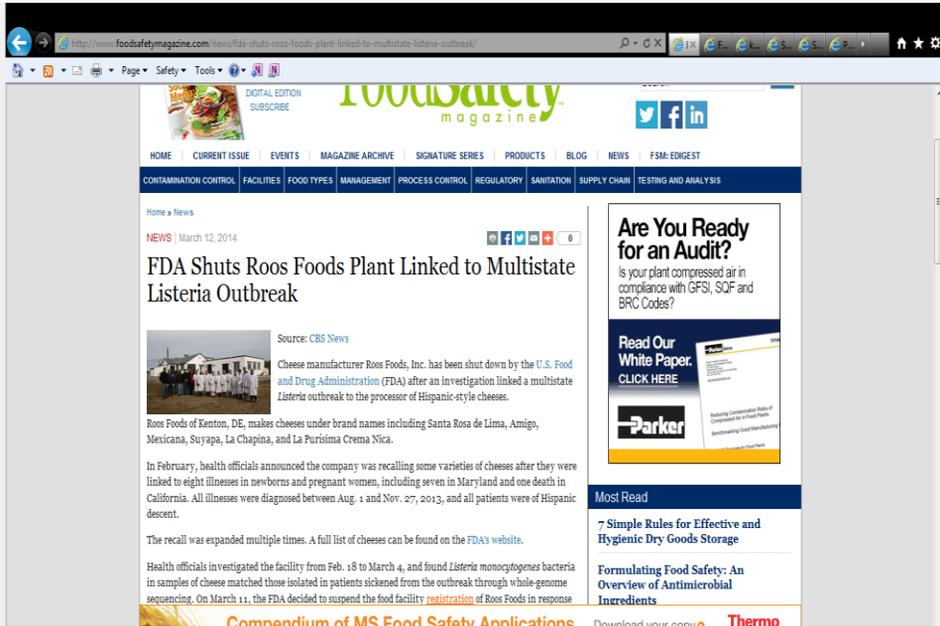


[FDA, In Unprecedented Move, Suspends Sunland Inc.'s Facility Registration](#)

The U.S. Food and Drug Administration (FDA) has ordered Sunland Inc., the nation's largest producer of organic peanut butter and other peanut products, to close its door in the aftermath of a scathing report on the company's safety standards and cleanliness at the Portales, New Mexico facility.

The inspection for the Sunland facility followed detection of 41 illnesses in 20 states from the consumption of Sunland's tainted peanut butter, mostly from Trader's Joes groceries. Sunland also made over 240 other products that had to be recalled between September and November. The FDA tests of the facility found that the facility as highly contaminated with salmonella, and also uncovered Sunland's history of shipping products to consumers in spite of positive salmonella test results.

In a statement released today, the FDA stated: "In the interest of protecting [public health](#), the U.S. Food and Drug Administration suspended the food facility registration of Sunland Inc., a producer of nuts, and nut and seed spreads." The notice also explained that "if a facility's registration is suspended, that facility is prohibited from introducing food into interstate or intrastate commerce." The FDA said its decision was based on Sunland's history of violations and the fact that the peanut butter it produced "has been linked to an outbreak of Salmonella Bredeney that has sickened 41 people in 20 states."



http://www.foodsafetymagazine.com/news/fda-shuts-roos-foods-plant-linked-to-multistate-listeria-outbreak

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NEWS | March 12, 2014

FDA Shuts Roos Foods Plant Linked to Multistate Listeria Outbreak

Source: CBS News

Cheese manufacturer Roos Foods, Inc. has been shut down by the U.S. Food and Drug Administration (FDA) after an investigation linked a multistate Listeria outbreak to the processor of Hispanic-style cheeses.

Roos Foods of Kenton, DE, makes cheeses under brand names including Santa Rosa de Lima, Amigo, Mexicana, Suyapa, La Chapina, and La Purissima Crema Nica.

In February, health officials announced the company was recalling some varieties of cheeses after they were linked to eight illnesses in newborns and pregnant women, including seven in Maryland and one death in California. All illnesses were diagnosed between Aug. 1 and Nov. 27, 2013, and all patients were of Hispanic descent.

The recall was expanded multiple times. A full list of cheeses can be found on the FDA's website.

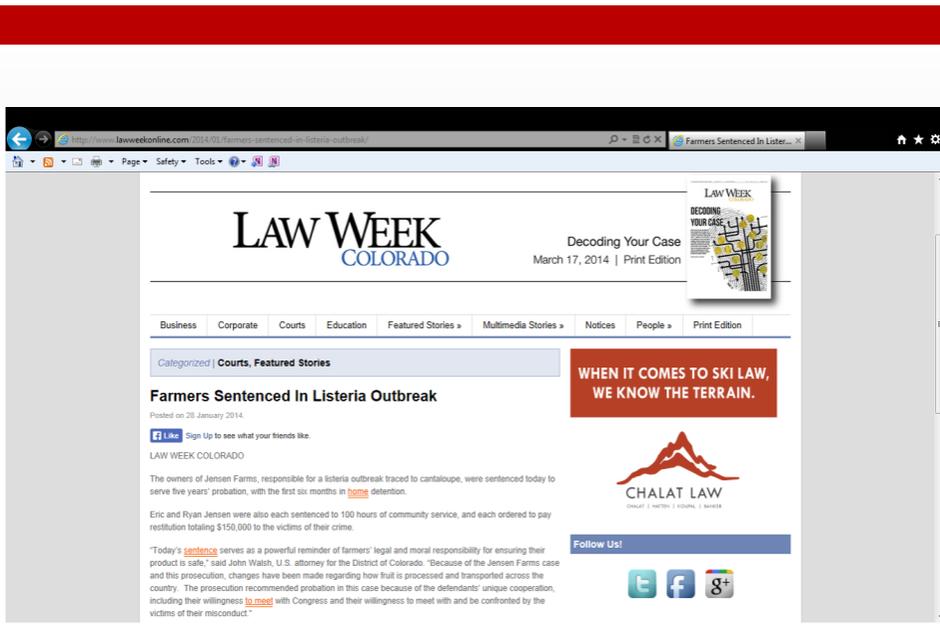
Health officials investigated the facility from Feb. 18 to March 4, and found Listeria monocytogenes bacteria in samples of cheese matched those isolated in patients sickened from the outbreak through whole genome sequencing. On March 11, the FDA decided to suspend the food facility registration of Roos Foods in response

Are You Ready for an Audit?
Is your plant compressed air in compliance with GFSI, SQF and BRC Codes?
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7 Simple Rules for Effective and Hygienic Dry Goods Storage

Formulating Food Safety: An Overview of Antimicrobial Ingredients

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http://www.lawweekonline.com/2014/03/farmers-sentenced-in-listeria-outbreak

Farmers Sentenced in Listeria...

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Categorized | Courts, Featured Stories

Farmers Sentenced in Listeria Outbreak

Posted on 26 January 2014

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The owners of Jensen Farms, responsible for a listeria outbreak traced to cantaloupe, were sentenced today to serve five years' probation, with the first six months in home detention.

Eric and Ryan Jensen were also each sentenced to 100 hours of community service, and each ordered to pay restitution totaling \$150,000 to the victims of their crime.

"Today's sentence serves as a powerful reminder of farmers' legal and moral responsibility for ensuring their product is safe," said John Walsh, U.S. attorney for the District of Colorado. "Because of the Jensen Farms case and this prosecution, changes have been made regarding how fruit is processed and transported across the country. The prosecution recommended probation in this case because of the defendants' unique cooperation, including their willingness to meet with Congress and their willingness to meet with and be confronted by the victims of their misconduct."

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New Requirements for Hazard Analyses and Preventive Controls

- Focus of the new requirements is on prevention
- All registered facilities are required to:
 - Conduct a *hazard analysis*
 - Develop and implement *preventive controls* to address identified hazards
 - Establish procedures for *corrective action* in the event preventive controls are not implemented or are ineffective
 - Conduct *follow-up hazard analyses* every 3 years or earlier if changes may result in new hazards or increased the risk of identified hazards
- Facilities must prepare a written plan documenting its hazard analysis, preventive controls, and corrective action procedures



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Seven Steps in HACCP

1. Conduct a Hazard Analysis (HA)
2. Identify the Critical Control Points (CCP)
3. Establish critical limits or thresholds which must be met at each CCP
4. Establish procedures to monitor CCPs
5. Establish the corrective action taken when critical limits are exceeded.
6. Establish procedures to verify that the HACCP system is working
7. Establish effective record keeping that will document the HACCP

Good Manufacturing Practices

Requirements Under the Code of Federal Regulations CFR
Title 21 (Food & Drug - FDA) Part 110
Current Good Manufacturing Practices
*in Manufacturing, Packaging
 or Holding Human Food*

110.3 Definitions	110.37 Sanitary facilities
110.5 Current GMP	110.40 Equipment & utensils
110.10 Personnel	110.80 Process & controls
110.19 Exclusions	110.93 Warehousing/distribution
110.20 Plant & Grounds	110.110 Natural or unavoidable defects in food
110.35 Sanitary operations	

**GMPs = General required guidelines that are the basis for
 more specific regulations and company policies**

<http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>

Sanitation Standard Operating Procedures

- ❑ **Sanitation Controls** - Each processor shall have and implement Sanitation Standard Operation Procedures (SSOP) or Prerequisite Programs that address sanitation conditions and practices before, during, & after processing.
- ❑ **Must be:**
 - *Designed to support the HACCP plan*
 - *In compliance with appropriate regulations*
 - *In writing, procedures with documentation*

Eight Key Sanitation Conditions and Practices

1. Safety of water
2. Condition and cleanliness of food-contact surfaces
3. Prevention of cross-contamination
4. Maintenance of hand-washing
hand- sanitizing and toilet facilities

Eight Key Sanitation Conditions and Practices

5. Protection from adulterants
6. Labeling, storage and proper use of toxic compounds
7. Employee health conditions
8. Exclusion of pests

There will some overlap between the different SSOPs

*There will be some items that are not covered by
the mandatory 8 SSOPs*



Product Description

Product : Normandy Camembert

Issue Date: October 6, 2014
Supersedes: Version 2

Product Name(s)	Normandy Camembert, a pasteurized soft-ripened cheese
Important food safety characteristics <i>(a_w, pH, processing, RTE, requires additional cooking)</i>	All dairy ingredients are pasteurized. May support some growth of pathogens during late processing and early aging. RTE, allergens (Milk)
Ingredient list	Cow's milk, rennet, culture, salt, white mold
Packaging used	Perforated Cheese Paper, insulated cardboard shipping carton.
Labeling requirements/ instructions for use	Keep refrigerated at 36-39°F. Store cheese in original packaging. For best results, keep cheese at room temperature an hour prior to consumption.
Shelf life	~Three weeks for date of shipment
Storage, distribution, & handling	Kept refrigerated at 36-39°F. Store cheese in original packaging. Direct-shipped in insulated carton with ice packs. Delivered to retail outlets in refrigerated truck.
Distribution area/outlets	Retail stores, Mail order/Online Sales
Intended consumers	Consumed by general public of all ages for home and institutional use.
Intended use	Ready-to-eat cow's milk soft-ripened cheese, may also be used as an ingredient.

Company Name: Lister Bros. Creamery, Plant # 9786
Address: 241 Stocking Rd., Aurora, NY 13026
Version/Date: Version 3, 10/06/2014
Approved by *[print name]*: Kathy Brusco
Approval Signature: *Kathy Brusco*

Telephone Number: 315-411-1112
Email/Website: cheese@listerbroscreamery.com/listerbroscreamery.com
Supersedes: Version 2, 10/11/2013
Title: Creamery Manager
Date Signed: *October 7, 2014*

Record	Available (X=yes)	Most Current Version (X=yes)	Comments
CCP HACCP Plan Summary(s) for each product.	X	X	Updated 09/03/14
CCP Monitoring Documents	X	X	Updated 09/04/14
Centralized Deviation Log	X	X	
Centralized List of HACCP Program Records	X	X	
Document Change Log	X	X	Updated 09/03/14
HACCP System Validation Documentation (Annually or when changes are made in raw materials or source of raw materials; product formulation; processing methods or systems, including computers and their software; packaging; finished product distribution systems; or the intended use or intended consumers of the finished product and consumer complaints)	X	X	Annual Update 09/04/14
HACCP System Verification Documentation (Including calibration of CCP monitoring equipment (i.e., past. equipment checks); review of CCP monitoring records, corrective action records and calibration records; and plant signatures and date on all of these records)	X	X	Updated 10/13/14 following deviation
Other Applicable NCIMS Requirements- Appendix K (list each separately, add rows as needed)	X	X	
Other Prerequisite Programs that are relied upon in the Hazard Analysis to reduce the likelihood of a potential hazard (List each separately, add rows as needed)			
Prerequisite Program #1 - Safety of Water	X	X	
Prerequisite Program #2 - Condition and Cleanliness of Food Contact Surfaces	X	X	
Prerequisite Program #3 - Prevention of Cross-Contamination	X	X	
Prerequisite Program #4 - Maintenance of Hand Washing and Sanitizing and Toilet Facilities	X	X	
Prerequisite Program #5 - Protection of milk or milk product, packaging material, and product contact surfaces from adulteration	X	X	
Prerequisite Program #6 - Proper Labeling, Storage, and Use of Toxic Compounds	X	X	
Prerequisite Program #7 - Control of Employee Health Condition	X	X	
Prerequisite Program #8 - Exclusion of Pests from the milk plant	X	X	
Record	Available (X=yes)	Most Current Version (X=yes)	Comments
Process Flow Diagram (s)	X	X	Updated 09/01/14
Product Description(s)	X	X	Updated 09/01/14
Required HACCP documents including forms are dated or identified with current version number. Each page is identified with a new date or version number whenever	X	X	Updated 09/-/14

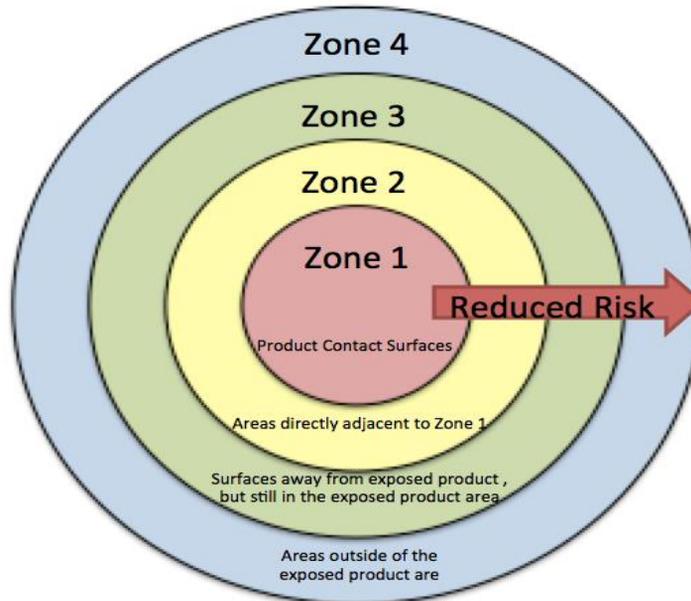
<http://dairyextension.foodscience.cornell.edu/resources/food-safety/food-safety-planhaccp>

Cornell University Department of Food Science

April 15, 2015

Environmental sampling plans – the need for written procedures and plans for corrections

- Written plans for corrections that need to be performed after positive samples are essential
 - Plans need to be plant specific
 - Each positive sample should be followed up with additional investigations
- All corrections need to be documented in writing



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April 15, 2015

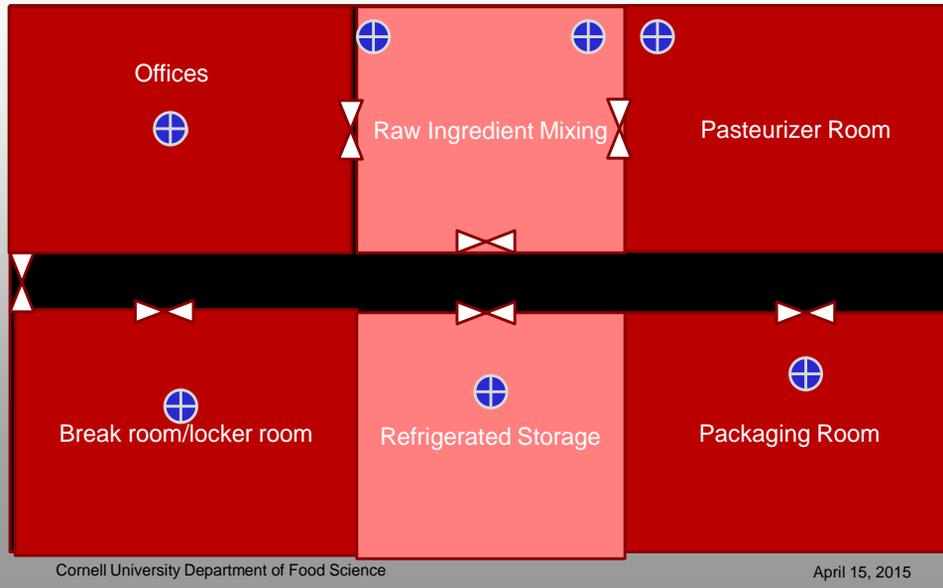
Building an Environmental Plan

- Symbols
- Drain 
- Doors 
- Assumptions
 - All floors slope to drains

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April 15, 2015

Build an Environmental Sampling Plan



Wooden Boards for Aging.....

Excerpt from FDA Policy Letter

The use of wooden shelves, rough or otherwise, for cheese ripening does not conform to cGMP requirements, which require that “all plant equipment and utensils shall be so designed and of such material and workmanship as to be adequately cleanable, and shall be properly maintained.” 21 CFR 110.40(a). Wooden shelves or boards cannot be adequately cleaned and sanitized.

http://www.foodsafetynews.com/2015/03/undclared-allergens-responsible-for-most-fda-food-recalls-in-2014-9-19470707/

Undeclared Allergens Behind Half of FDA's Fourth-Quarter Recalls

BY NEWS DESK | MARCH 4, 2015

Food recalls in the final three months of 2014 ticked up to 136 events, up from the previous lowest quarter of the year. The total includes recalls overseen by both the U.S. Food and Drug Administration (FDA) and USDA's Food Safety and Inspection Service (FSIS).

The count comes from government records monitored and reported by Indianapolis-based Stericycle ExpertSOLUTIONS, which manages recalls.

Overall in 2014, food took a backseat to recalls in automotive, medical devices and pharmaceutical, which set records in both numbers and fines.

In the fourth quarter of 2014, FDA saw 105 recalls involving 94 manufacturers of 13.8 million recalled units. While the number of FDA food-related recalls was down, there was a 142-percent increase over the previous quarter in the number of units or volume involved.

Half the FDA recalls were for undeclared allergens and, for the second consecutive quarter, more than 80 percent of FDA food recalls were classified as Class II events, meaning there was no immediate threat to public health.

FDA regulates about 80 percent of the food manufactured for sale in the U.S., including both foreign and




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GAO: FDA Not Keeping Pace With FSMA Foreign Inspection Mandate

BY NEWS DESK | MARCH 3, 2015

The Food and Drug Administration (FDA) needs to do more to ensure that its foreign offices are keeping food imported to the U.S. safe, says a report released Friday by the Government Accountability Office (GAO).

In 2010, GAO studied FDA's foreign offices and found that they engaged in a variety of activities relating to food safety but faced challenges due to an increasing workload and other factors.

In this followup to the 2010 report, GAO found that the agency is not keeping pace with the number of foreign inspections mandated by the Food Safety Modernization Act (FSMA).

Under the act, FDA was required to inspect 600 foreign food facilities in the first year following its enactment and, for each of the next 5 years, inspect at least twice the number of facilities inspected during the previous year.

By this estimate, the agency should have inspected 4,800 facilities in 2014, but it only conducted 1,323 inspections this past year.

"FDA officials told us that the agency has not met -- and is not planning to meet -- the FSMA mandate," GAO's report stated. "They questioned the usefulness of conducting the number of inspections mandated by FSMA."

But the agency hasn't conducted an analysis to determine whether the number of inspections in the mandate, or a



Meat Produce Brewery

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BY NEWS DESK | APRIL 9, 2015

The U.S. Food and Drug Administration (FDA) has issued a proposed rule to amend and improve its regulations on food facility registration.

Facilities that manufacture, process, pack, or hold food for consumption in the U.S. must register with FDA, but "retail food establishments," farms, restaurants and certain other entities are exempt from the requirement.

The proposed rule would amend the definition of a retail food establishment to expand the number of facilities that wouldn't have to register. FDA estimates that there are about 71,000 farms that only sell food directly to consumers through roadside stands, farmers markets, and Community Supported Agriculture (CSA) programs, and these would fall under the expanded exemption.

The additional establishments would then also not be subject to the requirements of the Food Safety Modernization Act (FSMA) preventive controls rule, which applies to facilities that are required to register.

"One of the most concerning aspects of the FSMA rules for farmers has been the confusion surrounding when FDA will consider a farm to also be a food facility," said Sophia Kruszewski, policy specialist with the National Sustainable Agriculture Coalition. "This clarification is critical to understanding and avoiding FSMA's adverse



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