Minnesota Department of Health (MDH), Food Safety Partnership (FSP) and PWDU Quarterly Update

Volume 8, Issue 3, July 8, 2014

Note from the Editor

What do we mean when we talk about "food safety?"

That question challenged me recently, as I struggled to find or formulate a clear and concise definition for a term we use daily. I couldn't find a definition that fit the needs of the project I was working on. Everything I found was too long, too complex, too tied to other concepts.

Instead of being frustrated, I chose to look at this as a reminder that our work to improve food safety in Minnesota is multi-faceted. As professionals focused on research and education, industry practice, and regulation, we are the link connecting all aspects of food safety: people, environment, technology and more.

Be safe! Sarah and the PWDU team

Training Calendar

Date	Org.	Details
July 7 to 10	NEHA	Annual Educational Conference & Exhibition Las Vegas, NV
July 9	MDH/FPLS	Regulators' Breakfast 8:30 a.m. to 10:00 a.m.
Aug 6	MDH/FPLS	Regulators' Breakfast 8:30 a.m. to 10:00 a.m.
~~Aug 6~~	MDH/FPLS	~~FSP+~~ - *cancelled*
Sept 10	MDH/FPLS	Regulators' Breakfast 8:30 a.m. to 10:00 a.m.
Sept. 17 – 19	SCHSAC and MDH/ OPI	Community Health Conference Cragun's Conference Center, Brainerd
Oct 1	MDH/FPLS	Regulators' Breakfast 8:30 a.m. to 9:30 a.m.
Oct 1	FSP	9:45 a.m. to 1:00 p.m. Agenda TBA
Oct. 2	MEHA	Fall Conference Prairie Woods Environmental Learning Center, Spicer
Oct. 28	MDH/FPLS	*How to Develop, Validate and Verify a HACCP Plan at Retail* - for regulatory staff All day
Nov 5	MDH/FPLS	Regulators' Breakfast 8:30 a.m. to 10:00 a.m.
Dec 3	MDH/FPLS	Regulators' Breakfast 8:30 a.m. to 10:00 a.m.
Dec 3	MDH/FPLS	FSP+ 9:45 a.m. to 1:00 p.m. Agenda TBA

Training Events

New Hazard Analysis Critical Control Point (HACCP) Course

Minnesota Department of Health (MDH) Food, Pools, and Lodging Services Section (FPLS) will be conducting an all-day classroom food safety training for regulatory inspection staff on Tuesday, October 28, 2014. A cadre of FPLS staff will be presenting and facilitating this activity-based course, titled "How to Develop, Validate and Verify a HACCP Plan at Retail."

We are offering this specialized training to inspection staff from MDH and delegated agencies in order to increase staff knowledge, skills and abilities and to maintain consistent, uniform, and safe retail food and beverage regulatory programs throughout the state.

Topics and Format

We have built this course to include topics that will help you solidify your knowledge of HACCP principles and put your skills into practice as you work with food establishments to protect the health of Minnesotans. Course content will include:

- Introduction to HACCP
- Minnesota Food Code Requirements for HACCP
- Validation of a HACCP Plan
- On-site Verification of an Approved HACCP Plan
- Resources for Regulators and Operators

Throughout the day, you will:

- Identify steps in a simple food flow.
- Hear from experienced staff.
- Classify processes as requiring/not requiring HACCP in Minnesota.
- Write a HACCP plan, including:
  - Recipe
  - Flow diagram
  - Hazard analysis
  - Critical control points (CCPs)
  - Standard operating procedures (SOPs)
- Work alongside fellow regulators.

Dates and Locations

To promote statewide participation—as well as to reduce travel expenses—we will be using the video conference format. The training will originate from the Freeman building in St. Paul (OLF-B107) and will be available at the MDH district offices in Bemidji, Duluth, Fergus Falls, Mankato, Rochester, and St. Cloud. Staff who register for this opportunity are expected to attend the entire day.

Recognizing potential demand and space limitations at OLF, Twin Cities metro delegated agencies will be limited to two attendees each on October 28, 2014. Agencies may request additional seats, and will be notified if space is available.There are no limitations for delegated agency staff attending at MDH district offices.

Metro agencies interested in hosting a site should contact Jim Topie.

If there is enough interest, we will offer the course again in early 2015 for in-person attendance at the St. Paul location only. We do not anticipate a need to limit the number of staff attending from each agency for the second training date.

***What**: How to Develop, Validate and Verify a HACCP Plan at Retail*
***When**: Tuesday, October 28, 2014*
***Where**: OLF-B107 and MDH district offices in Bemidji, Duluth, Fergus Falls, Mankato, Rochester, St. Cloud*
***Contact**: Jim Topie (james.topie@state.mn.us; 218-302-6154)*

Registration

For planning purposes, we are requesting each delegated agency have a manager or supervisor email Jim Topie at james.topie@state.mn.us by August 15, 2014 with a list of potential attendees. Please include the following information:

- Attendee name(s)
- Attendee email address(s)
- Location (OLF or specify which MDH district office)

Staff enrolled in the "How to Develop, Validate and Verify a HACCP Plan at Retail" course will receive information

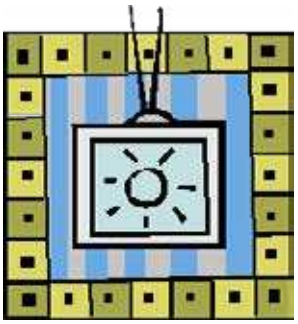
on how to register using MN.TRAIN and download training materials from FoodSHIELD. If you have questions, please contact Jim Topie at james.topie@state.mn.us, or 218-302-6154.

Continuing Education

This offering fulfills some requirements for staff training described in the Best Practices Manual for Administering Consistent, Uniform, and Safe Food, Pools, and Lodging Programs in Minnesota, Section Two: Trained Regulatory Staff (www.health.state.mn.us/divs/eh/food/pwdu/bestpractices/bpm2rgstf.pdf).

MDH staff who attend will complete the "Food - Specialized Training, Retail HACCP: Classroom" requirement as included in the MDH FPLS staff training plan.

REHS/RS may earn continuing education contact hours for this course.



FSP Videoconferences

The Food Safety Partnership (FSP) is a consortium of environmental health professionals, industry partners, and other stakeholders, founded in 2001. FSP members work together to protect public health in the area of food safety.

The last Food Safety Partnership (FSP) videoconference was held on June 4, 2014. Our agenda covered three aspects of foodborne illness outbreak investigation associated with the food supply: surveillance and detection, epidemiology, and traceback investigations. Additionally, we gained insight into the development and implementation of food safety systems at the industry level.

Dave Boxrud (MDH Lab) led off the program with information about pulsed-field gel electrophoresis (PFGE) and the up-and-coming technique of whole genome sequencing (WGS). Josh Rounds (MDH) then took over, discussing foodborne illness outbreaks, and highlighting aspects of the epidemiological investigations that draw on information learned from PFGE testing to identify pathogens. Third, we heard from Alida Sorenson (MDA). Alida demonstrated how MDA uses information from both epi and the lab to trace the flow of food through the food system and pinpoint the source of contamination.

Finally, we were lucky to have Tom Webber (Buddy's Kitchen) speak about his experiences developing and using systems for tracking food—before, during and after his company is handling the food.

Thanks to all the presenters for an informative session.

The next FSP videoconference will be held from 9:45 a.m. to 1:00 p.m. on Wednesday, October 1, 2014. Watch the website for the agenda.

For contact hours or site information, contact Jennifer Rief at 651-201-4508, jennifer.rief@state.mn.us.

FSP+ Videoconferences

Food Safety Partnership Plus (FSP+) videoconferences are opportunities for the regulatory community, industry and consumers to meet and learn about current issues impacting various environmental health issues.

Watch for details in future issues and by viewing the PWDU training calendar at http://www.health.state.n.us/divs/eh/food/pwdu/training.html.

PWDU Trainings Now Using MN.TRAIN

In an effort to streamline documentation for participation in the many training events sponsored by PWDU, FSP and MDH FPLS, we are now using the MN.TRAIN system for registration and management of contact hour certificates.

Minnesota Department of Health
MN.TRAIN

MN.TRAIN is part of a national network that provides a platform for organizations and individuals to connect and promote continuing education and training in public health fields. Anyone can sign up. There is no cost to you or your organization.

Pre-register for courses such as FSP and FSP+

videoconferences at https://mn.train.org if you want to:

- View the livestream.
- Receive a contact hour certificate for REHS/RS continuing education.

Here's how:

1. Set up a user account if you don't already have one. (State employees should already have an account.)
   a. Go to https:mn.train.org (use Internet Explorer or Google Chrome) and click on "Create an Account" on left side of screen beneath the Login button.

   b. Review MN.TRAIN policies and check the "Agree" box. Click "Next."
   c. Enter all required profile information. Click "Next."
   d. If you are NOT a state employee, click the "Select Groups" button and select "Not a State Employee." Select the region where you live, and the county in which you work.
   e. Select ODP discipline (the field in which you work). Click the "Submit" button below the map.
2. Register for the course. (Each course has a unique title and ID; these will be provided on agendas and in course announcements.)
3. Attend the course. If you attend in person, make sure to sign in. PWDU staff will verify your attendance in MN.TRAIN.
4. After the course, log back in, and save or print your contact hour certificate, if desired. You can also store your certificates on your MN.TRAIN account, and print a transcript later.

If you have questions or problems with your account, contact MN.TRAIN at mn.train@state.mn.us.

You can learn more about MN.TRAIN at: https://mn.train.org/DesktopShell.aspx?tabId=93

Regulators' Breakfast

The purpose of the Regulators' Breakfast is to establish a forum that will contribute to statewide uniformity and consistency amongst regulatory staff and management (local agency and MDH) in the interpretation and application of statutes, rules and procedures. This event is for regulatory agencies. Contact Sarah Leach for more information sarah.leach@state.mn.us, 651-201-4509.

Healthy and Safe Swimming

We're in it Together!

As temperatures rise and Minnesotans gather to swim at their favorite pool, it's important to remember that we all play a role in keeping our swimming venues healthy for everyone to enjoy. Unfortunately, even though a pool has chlorine in it does not mean it's germ-free. In fact, the parasite *Cryptosporidium* is extremely chlorine-tolerant and can survive for 3 to 10 days in a properly maintained pool!

Swimmers can help prevent the introduction of pathogens by practicing good hygiene. Specific steps swimmers can take include:

- Don't swim when you have diarrhea.
- Shower with soap before swimming.
- Wash your hands thoroughly after using the toilet or changing diapers.

- Take children on bathroom breaks or change diapers often.
- Change diapers in a bathroom, not at poolside or beachside.

Additionally, recreational water illness prevention will be optimized when aquatics staff maintain disinfectant and pH levels according to state and local public health standards to inactivate pathogens, and state and local environmental health specialists enforce such standards.

More information on waterborne illness can be found on the updated MDH Waterborne Illness website at www.health.state.mn.us/divs/idepc/dtopics/waterborne/.

Bug of the Quarter: Mystery Outbreak!

Sushi Sickens Two

In May, 2013 Minnesota Department of Health received a call from an urgent care physician reporting similar illness in two women from southern Minnesota. The two had eaten lunch together that day at 1:00 p.m. at a local sushi restaurant. Both ate a spicy tuna roll. Read about their symptoms, conditions in the restaurant and lab results below. Then see if you can solve the outbreak!

Symptoms

Within about 45 minutes of eating at the restaurant, one or both of the victims began to experience the following symptoms:

- Nausea
- Hive-like rash
- Tingling around the mouth
- Headache
- Flushing
- Dizziness
- Rapid pulse
- Facial swelling
- Fever and chills
- Metallic taste

Sanitarian Observations

As part of the outbreak investigation, a sanitarian from MDH conducted a full inspection at the restaurant. Several critical violations were noted, including:

- No soap, towels, fingernail brushes at either of the two handsinks.
- One handsink not operational. The other sink had a cooking pan lid in its basin.
- Dirty kitchen equipment.
- Foods in the prep cooler were in the temperature danger zone (46 to 50 degrees F).
- Tuna for sushi rolls had been thawed in packages at room temperature for about one hour.

Lab Testing

The Minnesota Department of Agriculture collected and tested a sample of the leftover sushi. They also tested two unopened packages of tuna from the same shipment that was used to make the sushi eaten by the ill patrons. What do you think they found?

The Solution

Did you think this was an outbreak of scombroid fish poisoning due to eating sushi made with tuna? If so, pat yourself on the back; you are correct!

The leftover sample of spicy tuna roll collected from a case's home had histamine levels at 4890 parts per million (ppm)—well above the normal range of less than 10 ppm. When the public health lab tested the packaged tuna samples, they found histamine levels within the normal range.

Laboratory testing suggested that histamine production occurred during food production at the restaurant, however improper handling prior to the restaurant receiving the product could not be ruled out.

Scombroid Facts

According to the US Centers for Disease Control (CDC), scombroid is one of the most common fish poisonings and can occur in both temperate and tropical waters.

Fish typically associated with scombroid have naturally higher levels of histadine in the flesh. Histadine converts to histamine by bacterial growth when fish is temperature abused.

Fish typically associated with scombroid poisoning include: tuna, mackerel, mahimahi (dolphin fish), sardine, anchovy, herring, bluefish, amberjack and marlin.

The cases in this Minnesota outbreak exhibited the classic signs of scombroid poisoning. Symptoms of scombroid poisoning resemble an allergic reaction and can appear anywhere from 10 minutes to one hour after eating the contaminated fish.

Contaminated fish may appear honeycombed or bubbly, and have a peppery, salty or metallic taste. However, often the fish may look, smell and taste normal.

Scombroid toxins are resistant to cooking, smoking, canning or freezing. The best prevention is to ensure that fish is stored at proper temperatures after it is caught.

For more information, http://www.health.state.mn.us/divs/idepc/diseases/scombroid/.

Tip of the Quarter

Be Prepared!

Record heavy rains, flash flooding and storms are assailing communities throughout Minnesota as we prepare this issue of the newsletter. All of us—environmental health specialists, members of the hospitality industry, food safety educators, and the general public—need to know how to keep ourselves and others safe in these unusual and challenging situations. Here are some tips and resources for dealing with weather emergencies.

Personal Safety

At work, at home or on the road, it is important to keep personal safety our number one priority. Weather and road conditions can change quickly, so stay abreast of the situation in your area and heed all safety warnings from state and local officials.

While cell phones are a good tool for keeping in touch, don't rely on your phone—in some areas of Minnesota this spring, conditions have interrupted coverage.

When travelling for work or personal business, remember to let someone know your plans, and then check in with them when you arrive.

Check local road conditions before heading out. Minnesota Department of Transportation (MnDOT) maintains a website for traveler information at www.511mn.org/. You can access maps and descriptions of current conditions statewide from your computer or smartphone.

Food Safety

Did you know that a flood, fire, or the loss of power could jeopardize the safety of your food? Knowing how to determine if food is safe will help minimize the potential loss of food and reduce the risk of foodborne illness. MDH provides food safety resources for individuals and businesses who are affected by disasters. You can find quick tips, detailed information and links to Red Cross and federal agency websites at: www.health.state.mn.us/divs/eh/emergency/natural/floods/food/index.html.

Emergency Handbook for Food Managers

The Twin Cities Metro Advanced Practice Center (APC), supported by funding from the National Association of County and City Health Officials (NACCHO) developed a training handbook for food managers in Minnesota.

The Emergency Handbook was developed as a quick reference guide to provide step-by-step emergency information to food managers and other supervisory personnel at food service establishments. The handbook:

- Addresses both naturally occurring and man-made emergencies.
- Provides prompts for whom to call, first steps to take and subsequent recovery actions to follow after an emergency happens.
- Contains tips on managing longer-term emergencies caused by disruption of utilities and municipal services.
- Offers ongoing food safety and emergency preparedness advice.

The handbook is organized into sections based on 10 emergency scenarios—both natural and man-made. Natural disaster scenarios addressed include:

- Power outage
- Flood or sewage back-up
- Fire
- Water service disruption or contamination
- Tornado and wind

The handbook also provides food managers at food service establishments with easy-to-use materials to educate food workers about emergency preparedness and response. It includes a discussion guide along with a laminated, pictorial photo lesson for each scenario. Photo guides are provided in both English and Spanish.

If you would like copies of the Emergency Handbook for Food Managers, contact either MDH FPLS (Jennifer.rief@state.mn.us; 651-201-4508) or St. Paul-Ramsey County Department of Public Health (651-266-1199).

Additional materials from APC are available online at: http://www.health.state.mn.us/divs/eh/apc/index.html.

Food Code Revision

Minnesota is currently in the process of revising the Minnesota food code, Minnesota Rules, chapter 4626. Look for more rulemaking updates in future issues.

Moving Forward

Now that the 2014 legislative session is over and we are able to access more time from the Office of the Revisor of Statutes, we are moving full speed ahead with finalizing the draft proposed revisions to Minnesota Rules, chapter 4626 (the Minnesota food code).

MDH and Minnesota Department of Agriculture (MDA) have reviewed all eight chapters that have been returned from the revisor, made corrections and changes to seven of them and returned these to the revisor. The departments still are working on some language for Chapter 6.

Highlights

- All of the revisions from the FDA 2013 Food Code are being incorporated into the draft proposed rule.
- We will be using the terms “priority 1,” priority 2” and “priority 3” instead of using the FDA terms of “priority,” “priority foundation” and “core.”
- Chapter 2 is being revised to better reflect the current food safety science and Minnesota’s process for foodborne outbreak investigations.
- Chapter 3 will contain lots of new language, including requirements prohibiting bare hand contact with ready-to-eat foods; for conducting non-continuous cooking of raw animal foods; and for using reduced oxygen packing methods.
- As we continue to focus on controlling hazards based on menu and food preparation process, we are deleting Chapter 9 and moving the needed language into the other chapters as appropriate.
- We will be adopting the FDA term “certified food protection manager” (CPFM).
- We have decided to move the certified food protection manager (CFPM) language to Chapter 2, rather than moving it into its own chapter (Chapter 10). On the website, Chapter 10 has been removed.
- We are proposing to expand the types of food establishments that require a CFPM.

Public Review

We hope to have a complete (all eight chapters) draft proposed document for public review in late summer or early fall.

Advisory Committee

The Food Code Rule Revision Advisory Committee continues to meet monthly to discuss outstanding issues and assist the department in collecting information—especially information on the potential costs to food establishments and regulatory agencies of the new rule requirements—for inclusion in the Statement of Need and Reasonableness (SONAR).

Contact MDH

The most up-to-date rule revision information and draft proposed language can be found on the MDH website at www.health.state.mn.us/divs/eh/food/code/2009revision/index.html.

If you have questions or would like additional information, please contact Linda D. Prail at either linda.prail@state.mn.us or 651-201-5792.

People’s Garden Apiary – USDA Headquarters

The United States Department of Agriculture (USDA) has made it possible for anyone, anywhere to learn about honey bee activity. The information in this article is excerpted from the USDA website. Visit www.ars.usda.gov/main/site_main.htm?modecode=12-45-33-00 for more resources.

The People’s Garden Apiary located on the roof of the Jamie L. Whitten Building at USDA Headquarters in Washington, DC is home to approximately 40,000 Italian honey bees. You can #USDABeeWatch any day of the week by tuning into the live bee cam.

The activities of a colony vary with the seasons. Join the conversation about bees and other pollinators by using hashtag #USDABeeWatch.

About The People's Garden Apiary

The first beehive was installed on Earth Day in 2010 and a second hive was later added in 2011. USDA's Agricultural Research Service (ARS) Bee Research Lab (www.ars.usda.gov/main/site_main.htm?modecode=12-45-33-00) in Beltsville, Maryland helps keep these colonies of bees strong and healthy so they can pollinate crops growing in the Headquarters People's Garden and neighboring landscapes. An added bonus is the delicious honey, approximately 18 gallons worth, extracted from the hive since 2010.

The beehives consist of wooden box-like sections stacked on top of each other. Each box (or super) holds 8-10 wooden frames, each containing a thin sheet of wax foundation. The bees build their combs on these foundations.

Honey is stored in the combs in the upper parts of the hive. When the bees have filled the combs in the upper section with honey and covered them with wax caps, the beekeeper takes them away to extract the honey. You can take a virtual tour of the People's Garden Apiary at www.flickr.com/photos/usdagov/9110167709/ for a look inside the hive and the fascinating world of beekeeping.

Honey Bees

Honey bees are not native to the United States. The scientific name for honey bee is Apis mellifera. Since humans first began keeping honey bees, their principal aim has been the harvest of honey. Beekeepers select the appropriate type of honey bee based on temperament, physical characteristics, disease resistance, and productivity.

Italian honey bees were selected for the People's Garden Apiary because they are most often used in commercial beekeeping in the United States. These bees have a relatively gentle disposition and are good honey producers. They are not the most resistant to disease, but they excel in most other areas.

There have been some queen survivorship issues in both of the People's Garden colonies, which actually mirrors what's going on in the rest of the country. Queen health is an issue for everyone who buys queens, commercial or hobbyist. The exact underlying reasons for poor queen survivorship is unknown, but the ARS lab is actively researching this problem.

Why Care About Pollinators?

Pollinators need us and we need pollinators. Honey bees are responsible for pollinating more than 100 crops and one out of every three bites of food Americans eat. These foods give our diet diversity, flavor, and nutrition. Sadly, the number of native bees and domesticated bee populations are declining due to disease, adverse weather and other conditions.

The People's Garden Initiative encourages everyone to take an active role in saving the honey bee and other pollinators by adopting pollinator-friendly land management practices at home and within your local community. Remember: no bees, no honey.

How to Garden for Pollinators

Increase the number of pollinators in your area by choosing plants that provide essential habitat and food sources for birds, bats, butterflies, moths, flies, beetles, wasps, small mammals, and most importantly, bees. Supporting pollinators is not hard to do. Start by following these simple steps to create a pollinator-friendly garden:

- **Go Native** - plant native plant species.
- **Bee Showy** - flowers should bloom in your garden throughout the growing season.
- **Bee Bountiful** - plant big patches of each plant species.
- **Bee Diverse** - plant a diversity of flowering species that supply an abundance of pollen and nectar.

- **Bee Chemical Free** - limit or eliminate use of pesticides.

The webinar, Pollinators for Your Garden has expert advice on how to create a successful pollinator garden. You can access the webinar here: www.extension.iastate.edu/broadcasts/recordings/healthygardensfall2011/default.htm?file=Jeff-Pettis-CC.flv.

How can you find pollinator-friendly native plants for your garden?

The Pollinator Partnership offers 32 different planting guides to improve pollinator habitat, each one tailored to a specific ecoregion in the United States. Each guide is filled with an abundance of native plant and pollinator information. Enter your zip code at www.pollinator.org/guides.htm to find your ecoregion planting guide and download it for free.

e-Learning on Environmental Assessment of Foodborne Illness Outbreaks

CDC's e-Learning course provides training on how to use a systems approach in foodborne illness outbreak environmental assessments. Participants acquire in-depth skills and knowledge to:

- Investigate foodborne illness outbreaks as a member of a larger outbreak response team.
- Identify an outbreak's environmental causes.
- Recommend appropriate control measures.

Visit www.cdc.gov/nceh/ehs/eLearn/EA_FIO/index.htm for information on how to register for the course. After you register, CDC will give you a user account.

Course Information

Before you start the course, you will take a pretest to assess your current knowledge. After the pretest, you can start the course on foodborne illness outbreak environmental assessment, which includes the following sections:

1. Your assignment
2. Overview of foodborne illness outbreak environmental assessments
3. Effective interviewing skills
4. Observation and record review
5. Sampling
6. Critical thinking skills
7. Organizing assessment information
8. Control strategies and concluding actions

The course is presented in the context of a simulated virtual environment where participants can interact and practice the skills being learned. The course can be completed in about 8-10 hours.

Completion Certificates

Certificates of completion are awarded to all who successfully finish the course.

Continuing Education

Continuing education units (CEUs) are available free for this e-Learning course if it is passed within the first two attempts. CDC is approved as an authorized provider of CEUs by the International Association for Continuing Education and Training (IACET), 1760 Old Meadow Road, Suite 500, McLean, VA 22102. CDC is authorized by IACET to offer 0.9 IACET CEUs for this program.

The e-Learning course is approved for 9 contact hours toward Minnesota Registered Sanitarian/Environmental Health Specialist (RS/REHS) renewal.

Course Development

This national foodborne illness outbreak environmental assessment course was collaboratively developed by CDC with the help of its Environmental Health Specialists Network (EHS-Net) grantees, the U.S. Food and Drug Administration, and the U.S. Department of Agriculture. EHS-Net is a collaborative forum of local, state, and federal food program officials who work toward understanding the environmental causes of foodborne and waterborne disease.

In the News

Eatery mistakes cleaner for cheese, sickening teen

EASTHAMPTON, Mass. (AP) — Authorities say a customer at a Massachusetts restaurant became sick when an employee mistakenly sprinkled a chemical cleaner on food instead of grated cheese.

Easthampton health agent Jackie Duda says the teenager fell ill immediately after eating the food at Riff's Joint and was driven to an emergency room.

Duda says the powdered chemical had been removed from its original container and placed in another that was not properly labeled. She tells The Daily Hampshire Gazette (http://bit.ly/1kxCB5y) the restaurant has rectified the issues that led to the poisoning.

Co-owner Jeffrey Cahill called it an isolated incident caused by "gross human error" that won't happen again.

Information from: Daily Hampshire Gazette (Northampton, Mass.), http://www.gazettenet.com

University of Minnesota Food Policy Research Center

The Food Policy Research Center delivers comprehensive, integrated Policy Analyses and Issue Briefs of some of today's complex food issues. The goal is to inform policymakers, industry representatives, and consumers of the science behind the issues. Each Policy Analysis and Issue Brief involves an interdisciplinary research team comprised of at least one author and several scientific reviewers incorporating economic, environmental, social, health, governmental, and legislative considerations.

Issue Briefs are presented using balanced and un-biased science in a straightforward one to two-page format using plain language. Topic areas identified by various commodity groups and legislative staffers helped determine the critical issues for Analyses.

A new issue brief was released in June, 2014. Some background information is included, below. Please read the full brief at www.foodpolicy.umn.edu/.

Issue Brief: General Overview of the Food Safety Modernization Act

Despite the United States (US) having one of the safest food supplies in the world, the US Centers for Disease Control and Prevention estimates that each year nearly 48 million people (roughly 1 in 6 Americans) are sickened, 128,000 are hospitalized, and 3,000 people die from preventable foodborne illnesses. In recent years, high profile and deadly outbreaks of foodborne illness have fueled the interest of policy makers and their constituents in improving food safety.

- (2008/09) An outbreak of *Salmonella* Typhimurium in peanut products sickened over 700 people in forty-six states and may have contributed to 9 deaths. In total, 398 products from 361 companies were recalled and FDA is actively pursuing a criminal case.
- (2008) The melamine milk scandal in China caused the death of 6 infants, sickened over 300,000 people, and drew intense international criticism.
- (2010) Five hundred million eggs produced in Iowa were recalled due to suspected *Salmonella* Enteritidis contamination, sickening over 1,900 people.
- (2012) Cantaloupe contaminated with *Listeria monocytogenes* sickened at least 147 people, killed more than 30, and was one of the deadliest foodborne illness outbreaks in US history. The owners have since pled guilty to violating federal law.

In response to such events, the US Congress has passed historic new legislation, the first major reform of the US Food and Drug Administration (FDA) food safety authority in over 70 years. The Food Safety Modernization Act (FSMA) was signed into law by President Obama in 2011. The law is intended to shift FDA focus to better protect public health by preventing food safety issues rather than reacting to outbreaks. FSMA is a large piece of legislation intended to build a new proactive federal food safety system. The regulations continue to evolve with each new event and with the continued engagement of the FDA with stakeholders including, states and the food industry.

For the most recent updates and current implementation status, visit the FDA FSMA site: http://www.fda.gov/Food/GuidanceRegulation/FSMA/default.htm.

Hypoallergenic Peanuts Move Closer to Commercial Reality

Hypoallergenic peanuts, peanut butter, and other peanut products are a step closer to grocery stores with the signing of an exclusive licensing agreement for a patented process that claims to reduce allergens in peanuts by 98 percent.

North Carolina Agricultural and Technical State University (NC A&T) in Greensboro signed the agreement with Xemerge, a Toronto-based firm that commercializes emerging technologies in food, agriculture, and a variety of other fields.

The patented process was developed by Dr. Jianmei Yu, a food and nutrition researcher in the NC A&T School of Agriculture and Environmental Sciences, and two former faculty members there, Dr. Mohamed Ahmedna and Dr. Ipek Goktepe, both of whom are now at Qatar University.

"Treated peanuts can be used as whole peanuts, in pieces or as flour to make foods containing peanuts safer for many people who are allergic," Dr. Yu said.

"Treated peanuts also can be used in immunotherapy," she said. "Under a doctor's supervision, the hypoallergenic peanuts can build up a patient's resistance to the allergens."

Research funding was provided by the Agriculture and Food Research Initiative of the U.S. Department of Agriculture.

The process treats roasted peanuts, removed from the shell and skin, with food-grade enzymes commonly used in food processing. The treatment consists of soaking the peanuts in an enzymatic solution.

Studies show this treatment reduces key peanut allergens Ara h 1 to undetectable levels and Ara h 2 by up to 98 percent. The resulting peanuts look and taste like roasted peanuts. The peanuts are not genetically modified.

The effectiveness of the process was demonstrated in human clinical trials using skin-prick tests at the University of North Carolina at Chapel Hill.

In contrast to various other approaches to eliminating peanut allergens, the NC A&T process doesn't involve chemicals or irradiation and uses commonly available food-processing equipment.

Wayne Szafranski, NC A&T's assistant vice chancellor for outreach and economic development said that when the hypoallergenic peanut products will actually be available to retail consumers depends on how fast Xemerge can drive commercialization of the process.

He noted that, while peanuts and associated products such as peanut flour are used in a wide variety of foods, the patented process should require "very little modification in food production lines."

Peanuts cause serious allergic reactions in an estimated 0.9 percent of the U.S. population, or about 2.8 million people. Highly sensitive children and adults can develop anaphylaxis, a severe allergic reaction, in just a few seconds after ingesting extremely small amounts. Anaphylaxis symptoms can include difficulty breathing, low blood pressure, swelling of the tongue, eyes or face, stomach pain, nausea and vomiting, skin rashes, blisters, itching, inflammation, pain, and, in some cases, even death.

Peanut and tree nut allergies are the most severe of all food allergies, according to a 2007 NC A&T release about the research, affecting millions of people and causing 100-150 deaths from anaphylactic shock annually and many more hospitalizations. In industrialized nations, the allergy has been rapidly increasing in children, for causes that are not entirely understood. One study showed that, between 1997-2002, peanut allergies in children doubled in the United States.

Training for Minnesota Foodworkers

Some health departments in other states have adopted a credentialing requirement or "food handler card" for all foodworkers. The state of Minnesota does not require nor issue a "food handler card."

Minnesota food code requires one full-time certified food manager (CFM) for each food establishment (there are a few exceptions).

The duties of the CFM include:

- Identifying hazards in the operation.
- Developing and implementing policies and procedures to prevent foodborne illness.
- Training employees, including the persons in charge (PICs).
- Protecting the health of the consumer by directing food preparation and taking corrective actions, as needed.
- Inspecting daily operations to make sure food safety policies and procedures are followed.

MDH approves continuing education courses and trainers. You can find approved training courses on the CFM website at www.health.state.mn.us/divs/eh/food/fmc/index.html.

If you have questions about whether an in-person or online training course is approved, please contact Tracie at 651-201-4502 or tracie.zerwas@state.mn.us.

Biosecurity in Backyard Poultry

Now is an important time to ramp up biosecurity practices and disease awareness in backyard poultry flocks. Wild waterfowl are the natural reservoir of influenza viruses, but can also transmit Newcastle disease, Salmonella and other poultry diseases through interaction with domestic poultry on their migration north. Our state is a common migratory flyway for these birds, and though Minnesotans enjoy wildlife, we must also do what we can to protect domestic animals from disease.

- Biosecurity basics in backyard flocks include:
- Separating different species and ages of birds
- Decreasing or eliminating the potential for interaction with wild birds with proper and well-kept buildings, fencing and netting
- Restricting visitors, vehicles and equipment that are non-essential in the care of your birds
- Not borrowing or loaning out vehicles, equipment and tools to others
- Knowing the warning signs of disease
- Separating sick birds from the rest of the flock and testing them for disease

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