



FAFP CONNECTIONS



Fall Issue 2010

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Dear FAFP members,

It has been a busy summer with FAFP. A large group from Florida attended the International Association for Food Protection Annual Meeting and Conference in Anaheim, CA. The event featured numerous technical papers, symposia, exhibits and presentations that focused on the latest food safety research. Once again, during the business meeting FAFP made a \$1000.00 donation to the IAFP Foundation – this

A Message from the President

year's presentation of the check included California Surfer dudes with, well, let's just say a laid back attitude.

The FAFP Fall Luncheon was held on October 13 and was a big hit. The Florida Department of Agriculture and Consumer Services, Division of Food Safety in Tallahassee served as our site hosts. Featured speakers included Lee Cornman, Assistant Division Director, Division of Food Safety, Florida Department of Agriculture and Consumer Services; Patricia Hanson, Microbiology Su-

pervisor, Bureau of Food Laboratories, Division of Food Safety, Florida Department of Agriculture and Consumer Services; Dean Bodager, RS, MPA, Acting Food and Waterborne Disease Program Coordinator, Regional Environmental Epidemiologist, Bureau of Environmental Public Health Medicine, Florida Department of Health and Tom Ford Division Vice President Food Safety Global Retail Services at Ecolab.

Congratulations to our fall 2010 student scholarship

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Norovirus: The Persistent and Highly Contagious Bug

Jeff Mitchell

Noroviruses are a group of viruses that cause acute gastroenteritis in humans. The symptoms of norovirus infection include nausea, vomiting, diarrhea, cramping, and low-grade fever. Noroviruses are transmitted through the fecal-oral route, either by consumption of fecal contaminated food or water, direct person-to-person spread, or subsequent contamination of surfaces.

The Centers for Disease Control and Prevention (CDC) estimates that noroviruses cause 23 million cases of acute gastroenteritis annually, making noroviruses the leading cause of gastroenteritis in the United States (CDC, 2006; Fankhauser, et al., 2002; Mead, et al., 1999).

The norovirus was originally named the Norwalk agent after Norwalk, Ohio, USA, where an outbreak of acute

gastroenteritis occurred among children at Bronson Elementary School in November 1968. The name was shortened to norovirus after being identified in a number of outbreaks on cruise ships and receiving attention throughout the USA. Many norovirus outbreaks have been traced to food that was handled by one infected person.

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Salmonella-Egg Outbreak 2010

By Pardeepinder Brar

Salmonella Enteritidis (SE) is a major cause of foodborne illness in the U.S. Raw and undercooked eggs have notoriously been associated with *Salmonella* Enteritidis for many years. On the list of the ten riskiest foods regulated by U.S. FDA, eggs, with 352 outbreaks to date, follow only leafy greens with 363 reported outbreaks. Each year around 142,000 illnesses of SE are estimated due to eggs consumption. High nutrient content and water activity make eggs highly perishable food product. They can lose their quality very quickly at room temperature (Kamel et al., 1980). Under inappropriate storage conditions, SE present in environment can deposit and grow on the egg surface to contaminate the outer surface of eggs. Furthermore, SE can pass through pores present on the egg surface to contaminate the egg interior under warm conditions (Jaeger, 2009). Inside contamination of eggs can also be through contamination of egg content before oviposition by infected hen (Gantois, 2009). Although, eggs have some defense mechanisms like outer shell, antimicrobial factors of albumin and vitelline membrane of egg yolk to prevent SE from penetrating, SE appears to have undefined intrinsic characteristics to survive the attack and contaminate eggs (Frazier and Westhoff, 1988; Jaeger, 2009).

Recently, in the summer of 2010, a multistate SE outbreak associated with shell eggs has been reported. The outbreak began in May 2010, but it was not until July 2010, that CDC officials became alarmed at the mind boggling increase in the *Salmonella* Enteritidis cases, more than

1,000. SE isolates were identified with the pulsed-field gel electrophoresis (PFGE) pattern JEGX01.0004. From May 1 to September 14, 2010 a total of 2,752 cases were reported. Among these cases, approximately 1,144 are background cases which are expected based on previous 5 years experience and 1,608 are likely to be associated with outbreak. The standard molecular sub-typing was not alone sufficient to determine which of the reported cases were responsible or associated with the outbreak. To find out the crux of the problem, advanced molecular methodologies are currently being evaluated by CDC.

Epidemiologic investigations by health officials in 11 states were put into place, which identified 29 restaurants or event clusters likely linked to the outbreak. The states of California, Colorado & Minnesota in collaboration with FDA & CDC all came together to find a common source of shell eggs responsible for the outbreak of *Salmonella*. They zeroed in on Wright County Egg and Hillandale Farms, Iowa.

Evaluation of the investigation data including review of sampling results and records continued to find sources of contamination. FDA then collected 600 samples from both Wright County & Hillandale farms, from manure, walkways, equipment and the feed. The outbreak strain of SE was identified from both locations indicating that these two



companies are the source of the outbreak. On August 13, 2010 a nationwide egg recall was voluntarily extended by these companies. More than half a billion eggs have been recalled so far by both the farms.

Although, the exact source of outbreak has not been identified, rodents, contaminated hens, manure and contaminated feed are suspect. FDA has collected samples from companies who deliver feed ingredients to Wright County Egg. These tests have not tested positive for SE contamination, implying that contamination occurs after the feed shipments were delivered. Rodents can be a significant source of SE exposure for chicken. A single mouse produces 100 dropping a day and each dropping contain up to 230,000 SE (Tibru et al., 2006), and can contaminate the whole chicken house and hence has potential to contaminate eggs.



A study on various risk factors associated with SE infection in laying hens showed that large flock size, different housing system and mixture of hens with different ages highly increase the chances for SE infection (Mollenhorst et al., 2005). FDA has released a regulation on July 7, 2009 requiring the egg industries having more than 3,000 laying hens to take appropriate preventive methods for the safety of eggs during production, storage and transport.

CDC & FDA (2010) have advised consumers to inspect their eggs carefully before purchasing for any kind of breakage. Eggs are suggested to store at low temperature and cook properly before eating. SE illness causes fever, abdominal cramps and diarrhea beginning 12 to 72 hours after contamination and lasts 4 to 7 days. Consumers are advised to take all the preventive steps to avoid infection.

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The norovirus is unique, in that it has a protein ball structure surrounding the virus's genetic material. The virus attaches to the outside of cells that line the intestine, and then transfers its genetic material into those cells. Once the genetic material has been transferred, norovirus reproduces, finally killing the human cells and releasing new copies of itself that attach to more cells of the intestine's lining. The resulting vomiting and diarrhea is the body's attempt to flush the virus out of the system.

Noroviruses are extremely contagious due to the low infectious dose of as few as 10 to 100 viral particles. This means that low-level contamination of food and water can lead to outbreaks. A particle the size of a grain of salt could potentially hold millions of virus units. Food handlers who are infected with norovirus are a concern

since he or she could easily contaminate the food or food contact surfaces unintentionally. People may infect others by shedding the virus from the time they start feeling ill until at least three days after. Food establishments should exclude employees who have been ill with diarrhea or vomiting for at least three days after their symptoms have ended. If an employee shows up to work sick ask the question "have you vomited today or had diarrhea"? If the answer is yes the best thing to do is send them home.

Outbreaks have frequently been associated with consumption of ready-to-eat foods, including various salads, sandwiches and bakery products. Liquid items (e.g., salad dressing or cake icing) that allow the virus to mix

evenly have also been implicated as a cause of outbreaks. Additionally, food can be contaminated at its source, such as oysters harvested from contaminated waters have been associated with widespread outbreaks of gastroenteritis. A large norovirus outbreak, likely involving person-to-person spread, impacted more than 1,000 people in the Houston Astro-dome when it housed Hurricane Katrina evacuees. Inadequate sanitary conditions, the lack of adequate hand-washing facilities, delays in cleaning and decontaminating soiled areas and bedding, and close proximity of people contributed to the spread.

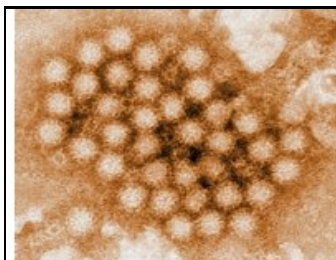


Photo Credit: Charles D. Humphrey, Centers for Disease Control and Prevention

The primary control of norovirus relies on the exclusion of ill individuals from food handling and processing settings. Because the virus can be present in the feces for two to three weeks after a person feels better, a recovered food handler must be prudent with hand-washing, especially after using the restroom and before handling food. Hand hygiene

is critical in helping to prevent and control virus outbreaks. This is a primary transmission mode and must be judiciously implemented. Washing hands well and often is the best control. Sanitizing of surfaces where the norovirus may be present is also recommended. Normal cleaning and sanitizing procedures are typically not sufficient enough to inactivate the virus and an aggressive disinfection protocol will be required. Prompt attention to disinfection is needed to reduce the magnitude of norovirus outbreaks. Food items that may have become contaminated with norovirus should be immediately discarded. The virus does not multiply in foods or in the environment, but can persist on contaminated surfaces and can survive freezing. For cleanup of vomit or other body ex-

cretions, personal protection equipment and a biohazard clean-up kit is very useful to minimize further spread of the virus.

Jeff Mitchell is the Director of Food Safety at Chemstar Corporation. Contact Jeff at: jmitchell@chemstarcorp.com

FAFP Makes IAFP Foundation Donation

Todd Rossow

As tradition and responsibility would hold, FAFP presented our contribution to the IAFP Foundation during the Tuesday Business Meeting at the 2010 annual conference held in Anaheim (LA County) California. The Foundation chaired by Gale Prince – (Retired from the Kroger Company) was at the meeting to accept our donation.

Annually FAFP supports the foundation and its efforts to fund student travel scholarships, sponsor lectures and exceptional speakers, and cover shipping costs of the JFP and FPT journals to developing countries. A special "thank you" to our member-



Surfer Dude Hibbard offers Frank Yiannas some 'snackity' goodness at the IAFP business meeting.

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Finding a Green Pest Control Operator or PCO

Jerry Hatch

The flowers are blooming, birds singing, allergies are everywhere, yes it's spring time. The time of year when projects begin or are continued and customers begin visiting your establishments for their vacations. If you are in a cooler climate, you start seeing other guests this time of year, ones that aren't so welcome; pests. We are talking rodents, flies, wasps, ants, and roaches. Not to mention bedbugs.

I travel around the country consulting with PCOs and facilities on pests and environmental issues, and while staying in even the most "green" hotel, when asked about their sustainable practices, almost all of them fall short of their desired goals. It's not their fault, the concept of green in a service industry moved too quickly to produce actionable programs beyond looking at using "natural" or "organic" materials. I'm not saying the judicious use of materials, strategically placed, isn't the best method of management, but it shouldn't be the first step. Adding anything to a program or just changing the product choice alone, usually doesn't lead to a sustainable practice.

Many clients ask the question of us, "How do we choose a green pest control company?" There are 2 parts to this answer, first you have to find a good pest control company. Be sure yours fits the recommendations from the National Pest Management Association:

Tips for Finding A Pro

1. Always deal with a qualified and licensed pest management company.

Consider asking to see the license or other credentials of the pest control professional that comes to solve your pest problem.

2. Evaluate pest control companies that are members of national, state or local pest management associations.

3. Consider an NPMA QualityPro company.

4. Ask friends and neighbors to recommend pest control companies they have used successfully and how satisfied they were with the service.

5. If a sizable amount of money is involved, get bids from several pest management companies.

6. Don't rush a decision. Since you are paying for professional knowledge as well as skillful application of pesticides, look for someone whose judgment you can trust.

7. Before signing a contract, be sure to fully understand the nature of the building pests to be exterminated, the extent of the infestation, and the work necessary to solve the problem.

8. Find out if the pest control company has liability insurance to cover any damages to your house or furnishings during treatment.

9. If a guarantee is given, know what it covers, how long it lasts, what you must do to keep it in force, and what kind of continuing control, prevention and management are necessary.

10. Buy value, not price. Beware of exterminators that offer bargains that sound too good to be true.

11. Homeowners can call state pest control regulatory agencies for information regarding the status of pest management companies. In most

states the regulatory agency is the State Department of Agriculture. I would add to find a company with a Certified Entomologist on staff.

The next question is how you find a "green" company. Although this designation is important from a marketing standpoint, what you are looking for is a company who practices sustainability in their approach to management of pests. Most service organizations look to licensing or certifications to provide proof of their sustainable practices, and at this point it's definitely better to find a company who has taken those steps to get certified. Look for a certification that requires documentation, an audit, training, and continual improvement from their designees. Certifications aside, the proof is in the pudding or where the rubber meets the road, or... whatever, you get my point, it's when the service is performed. The person inspecting should be trained in all facets of Integrated Pest Management, and able to demonstrate their abilities by providing a thorough inspection, complete with monitor devices in discreet locations as proof of pest presence. Discussing options, which should include identifications of conditions conducive to pest presence and the remediation of those conditions, should play an integral role. Removal of the pests and prevention from recurring should also be documented, and all of this before discussing application of material. I believe taking into account all the cultural aspects of a structure leads to a more informed, and responsible approach to choosing the right approach. This doesn't mean not applying a material, but issues involving formulation, chemistry, and sanitation should play a role in the decision of if, what, when and how to treat. This may sound like a lot of communication, it is, but that is the basis for good effective pest management, and

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is required in LEEDS certified buildings.

So choose wisely, ask questions, meet the technicians and managers, in general be a conspicuous consumer, pests spread disease, your customers and the environment expect to be protected.

Jerry Hatch is with PestWest Environmental .

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ship and sponsors that make this possible.

I think we all know that merely presenting the check to Gale would not be enough. A group of FAFP members developed a short skit to help present our contribution of \$1,000.00. The theme for this year's skit was centered around the location of the conference. Surfboards under



Surfer Dudes (L-R) Ken Tyrrell, Todd Rossow, Peter Hibbard and Zeb Blanton get ready for the waves...and to present Gail Prince with a \$1000.00 IAFP Foundation check.

arm, zinc oxide on their noses, cool shirts and shades, the crew again presented in style.

We not only left the check with the Foundation, but also the meeting attendees laughing and remembering FAFP's commitment to promoting food safety worldwide.

Surfs Up Dude!

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award winner, Pardeepinder Brar. Pardeep has been active in FAFP and recently presented research on *Salmonella* transfer potential during hand harvesting of tomatoes at the AEC. Applications are now being taken for the Spring 2011 scholarship. Please visit www.fafp.net to apply.

We are currently accepting nominations for the 2011 board and officers. Deadline for submitting nominations is November 5th. The election process will open on November 15th and close on December 15th. Officers and Directors will be installed at the first Board Meeting in January.



As 2010 begins to wind down I want to thank all of the FAFP membership and board of directors for making this year so successful and enjoyable. Remember, this is your organization. Now is the time to get active.

Sincerely,

Greg Orman



Don't Miss Out: Spring 2011 FAFP Scholarship Applications Due November 15

The Florida Association for Food Protection (FAFP) offers two academic scholarships each year. One \$1000 scholarship will be granted for the Spring Semester and another \$1000 scholarship will be granted for the Fall Semester.

Applications for the Spring 2011 Semester are due by November 15, 2010. Eligibility and applications can be found on the FAFP Web Site and should be completed and mailed to FAFP, P.O. Box 160032, Altamonte Springs, FL 32716-0032.

Student Professional Development Group IAFP Annual Meeting Recap

Laura Strawn

gets on what the SPDG can provide to students on the transition from student to professional; interspersed with humor (the Harris-Powel scale) and past reflections. Overall, the meeting was a huge success and the students wish to thank FAFP for their support!



Sunny California: what a perfect place to hold the IAFP annual meeting; a close second to the real sunshine state. The weather was a perfect 75 degrees and the attendance at the annual meeting was the highest yet. The 2010 meeting began like all IAFP annual meetings with the Ivan Parkin lecture (Improving Food Safety from Farm to Table: Fostering Prevention and Building Partnerships) given by the FDA's Deputy Commissioner for Foods, Michael R. Taylor. Two and a half days followed of exciting and thought provoking scientific symposia, roundtables and technical sessions. The meeting concluded with the John Siliker lecture (Understanding Foodborne Microorganisms, A Matter of Perspective) given by Director and Professor, Center for Food Safety and Security Systems, College of Agriculture and Natural Resources, University of Maryland Robert L. Buchanan. For those unable to pull away from jobs and or family to attend the IAFP annual meeting, it is an exceptional opportunity for professionals of all levels to interact with each other and foster new connections. Students are also able to begin their journey into the professional food safety arena and present their work to a large audience.

The Florida Association of Food Protection, FAFP, was a strong

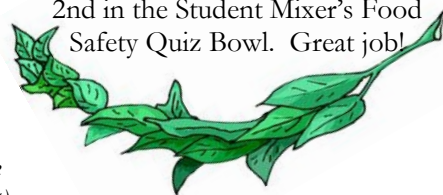
supporter of the students this IAFP annual meeting, donating money to fund student sponsored activities, such as the student mixer. Not only did the FAFP association donate funds, but also had a solid show of support from its members on hand at the student luncheon. The student luncheon had a record setting attendance for its 10 year anniversary. Past SPDG chair and current University of Florida Assistant Professor and FAFP president elect Michelle Danyluk provided the keynote address for the luncheon. Dr. Danyluk's address was a series of useful nug-



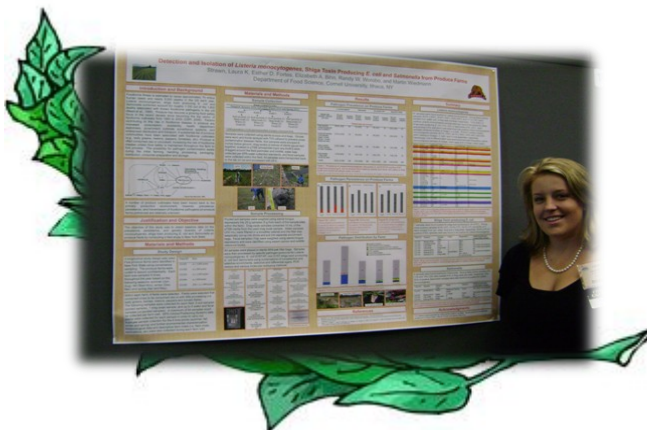
Keynote Speaker: Dr. Michelle Danyluk (FAFP President Elect)



UF's Rachel McEgan with "Team Canada" which placed 2nd in the Student Mixer's Food Safety Quiz Bowl. Great job!



UF's Pardeep Brar enjoying the Student Mixer with old and new friends .



Laura Strawn with her poster "Detection and Isolation of *Listeria monocytogenes*, Shiga Toxin Producing *E. coli*, and *Salmonella* from produce farms" at IAFP.

WELCOME OUR NEW FAFP MEMBERS



Joshua Levesque - FDACS Food Safety

Daniel Tan - Dean Foods

Anthony Febbraro - Microbac Laboratory

Daniel Periu - The Steritech Group, Inc.

Christine Crenshaw - Environmental Health Testing

Kristen Hunt - Deibel Laboratories

Dawn Hunter - University of South Florida

Diego Luzuriaga - Chiquita Brands International

Icela Leticia Tejeira De Palma - Expert Lab

Elizabeth Johnston - EcoSure

David Weberman - Weberman Traditional Foodservice Corp.

Angela Legakis - Uno Chicago Bar and Grill

Rabbi Phineas Weberman - Weberman Traditional Foodservice Corp.

Sean Drayton - Chef Creations Inc.

Ariana Van Bruggen - Emerging Pathogens Institute University of Florida

Kimberly Harns - Dedman School of Hospitality Florida State University

Shaya Weberman - Weberman Traditional Foodservice Corp.

Susan McKinley - FL Restaurant and Lodging Association

James Koenigsburg - Dedman School of Hospitality Florida State University

Kimberly Harris - Florida State University

Diane Kelsch - FDA

Become a Member of FAFP

We are always looking for people interested in joining our organization

Who Can Join?

The Florida Association for Food Protection is looking for professionals in the Food Industry to join us in enhancing the level of education, service and commitment for Food Safety Officials in Industry, Government and Academia within the State of Florida.

Benefits of Joining

Your membership demonstrates your support and commitment to promoting food safety in Florida. It helps the Association in the development of procedures, new legislation, ideas and methods. Your membership allows us to

educate food safety professionals in all areas, advancing our knowledge and awareness of safe food handling.

How Can You Join?

To join, we need a completed application and membership dues for the first year. Please contact us for more information and a membership application at: FAFP2000@hotmail.com, or check out our website at www.fafp.net.

Join Discussions and Check out the FAFP Group on LinkedIn.com

Florida Association for Food Protection Group on LinkedIn.com is a great way to join online food safety, regulatory, environmental, and public health related discussions, meet other FAFP members and keep up to date on the newest trends and issues.



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Their support allows us to bring you the high level of education and information on our Web Page, Luncheons, Newsletter and Annual Education Conference.



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