

# Cactus IFT

*A professional group of IFT members in Arizona seeking to advance the science and technology of food through exchange of knowledge*

A Quarterly Newsletter

Issue No. 1 Jan Feb March

**Gale Prince**

*A word on why manufacturers must invest in food safety, establishing a food recall system, and be ready for the new FDA Food Modernization Act in 2011.*

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**Sun Orchard**



*An afternoon spent learning about fresh-squeezed goodness.*

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**Officer Bios**

*Cactus IFT has recently had a change in leadership. See who the new section officers are and how to contact them.*

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*Brian Giannini gives a taste of what the future holds for Cactus IFT*

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**Save the Dates**

*Cactus IFT has some great events in store for you, so be sure to add them to your calendar.*

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## “Food Safety is a Journey”

*Food safety pioneer Gale Prince, the “Dean of safety recalls,” addressed the Cactus International Food Technologists (Cactus IFT) chapter dinner at the Fiesta Resort conference center in Tempe, Arizona. He spoke about food recall trends, how to enhance food safety program, and gave a few details on the then proposed FDA Food Safety Modernization Act.*

Gale Prince says there is a growing number of recalls in the United States. “Food safety has become a frequent topic for the media,” he said. If you look at a 20-year trend, recalls at retail have increased exponentially. Sharing a graph of the trends, he also details a few examples he’s been involved with over the years.



**Salmonella outbreaks in peanut paste, powdered milk, and pistachios accounted for more than half of the food recalls in 2009, according to Gale Prince.**

The USDA has had a number of meat recalls, which Prince shows picks up during the summer months of May through August. He says it is partly due to people cooking outside, such as during 4th of July festivities on the grill, who often leave their meat out or undercook their meat.

When you look at all the recalls of FDA, you also see the recalls going up, Prince said, showing a graph

that illustrates the trend. There were more than 8,000 just in the last year.

From 2004 to 2009 looking at class of recalls, most were class 1 due to salmonella problems. “Salmonella is a real challenge,” Prince said.

There are three instances that accounted for 55 percent of food recalls in 2009.

- Peanut paste
- Powdered milk
- Pistachios

Of all the recalls, 10 percent did not have a code. “This is like suicide for a company,” Prince said. And 51 percent involved multiple codes.

The major issues for generated recalls in 2009 were due to microbiological problems, allergens, mislabeling, foreign material (mainly plastic), chemical contamination, and inadequate processing.

Prince gave some advice for each of these areas, including focusing on source first. He tells the story of how Chinese honey is sometimes tainted with an antibiotic that is not allowed in the United States.

The Chinese know that so they send to a different country to be relabeled as coming from that country.

Why do recalls always happen late Friday afternoon? He has a theory that this is because manufacturers procrastinate to do it until the end of the week, which is a nightmare for the retailer. In addition, if you are a public company you need to inform the Securities and Exchange Commission (SEC) before you do the product recall, so companies often wait until the market closes on Friday to do it.

New food vehicles identified in multistate outbreaks since 2006 are surprising like salmonella peanut butter despite lack of moisture, spinach and broccoli, carrot juice, hot peppers, pepper (salmonella can be in pepper for years), raw cookie dough, raw pistachios, and dog food.

What are the major contributing factors of recent recalls? Mostly, it's non-compliance with current Good Manufacturing Practices, failure to maintain food manufacturing facilities and equipment, non-compliant with a company's own Standard Operating Procedures (SOPs), and weaknesses in HACCP analysis.

Another factor is management responsibility for food safety for their products, for operations, for supply chain, etc. We're dealing with a global food ingredient procurement complexity these days, Prince said. It is much more difficult to manage.

Prince tells the story of the infant formula recall that ended up leading to stores in cities of China not containing any infant formula, all due to melamine by greedy businessmen who tainted their products.

When we see recalls of imported items, it is typically due to particular ingredients including milk powder. Food import problems include filth, production under unsanitary conditions, pesticide residues or use of approved pesticides, chemical contamination, or economic adulteration.

"There's a rough guess that 8 percent of food on the market is economically adulterated," he said. Still, the biggest problem is simply salmonella, showing a slide of the variety of import alerts that are related to salmonella.

Recalls are also becoming more massive and expensive over time. The big peanut butter recall was a loss of over a year's worth of peanut butter. Ere is also a large legal impact coming from complaints. For example, the recall of 30,000,000 toys led to a hugely expensive settlement (\$50 million).

"For those of you in the room in quality assurance, how would you like a new boss?" Prince asks. In these cases, when the government comes in, the government becomes your boss. When you consider the economics of food safety, the loss of business, cost of loss of brand value, and litigation, it's worth taking proactive measures.

So, why the increase in all these cases? There are several factors, Prince says. They include concentrated food production, increased batch changes, product changes, and changes in food distributions, as well as better techniques in plotting trends in different parts of the country.

The trends show salmonella remains a serious problem. "When you look at what we've gone through as far as recalls, we're being bombarded from salmonella from everywhere around the world," Prince said.

The salmonella, campylobacter, and listeria outbreaks causes several fatalities when they occur.

The CDC uses the Pulse Net Database to track patterns, as in states, and has put together an outbreak team. In 2004, there was an outbreak in Tennessee that had outbreaks that the CDC tracked. They did a food history and through new technology was able to pin down peanut butter as the culprit of salmonella.

Then, peanut paste came along, which was more extensive because it was all over the country. "If it wasn't for Pulse Net they could've missed it," Prince said.

**Traceability**

What about traceability? Methods of traceability need to be improved. What Prince found is that most of the time traceability records were handwritten, which don't lend well to transferring electronically.



Gale Prince

Even a small accounting program or Excel spreadsheet would improve traceability. Basically, traceability should include firm identification, product identification, product coding, and time codes.

Electronic traceability can have readable bar codes, tracking lot codes, shipping codes, etc. "A good traceability program protects your business and provides a tool for managing supply chain," Prince said.

How do consumers see food safety? Anyone can see that it's a big issue when one looks at headlines of the melamine scandal, peanut butter recall, and so on. The data are clear: Invest in food safety.

Consumers are largely concerned about germs, bacteria, pesticide residues (although not so much in this country), and terrorism. According to a Gallup poll, 29 percent felt recalls were serious concern, 55 percent would switch brands temporarily, 21 percent said would not purchase from company again.

"Tell that to your sales department," Prince said. The changes in food purchasing is clear by sales shown in peanut butter and spinach well after a recall.

Also, don't forget social media, Prince warned. Monitor it well, because consumers are incredibly vocal, more than ever through these avenues.

The "take aways?"

- Comply with GMPs
- Know your products
- Know your supply chain
- Know your process
- Audit your QC records (it's very educational)
- Maintain facility and equipment in sanitary manner
- Develop a food safety culture in your operation



**FDA Food Safety Modernization Act**

Prince then discussed the proposed FDA Food Safety Modernization Act, which is having troubles in the House currently. What will happen to it, is not known. Funding is an issue, along with other problems. These are the highlights:

- Registration of facilities
- Performance standards
- Hazard analysis
- Record access
- Product traceability
- Lab accreditation
- Mandatory recall authority
- Accreditation of 3rd party auditors (related to imports)

Prince said that complacency is often a problem with food companies when it comes to food safety. "Are you taking things for granted," he said.

In summary, Prince said that companies must look to food safety as a major focus of their business, to develop a culture of food safety, and to never become complacent.

"Food safety is a journey," he said.

Amusingly, someone asked Prince what foods he avoids for sure: sprouts and raw oysters. He added, "The safest food is a hamburger."

— David Despain

# An Afternoon at Sun Orchard

*“Try not thinking of peeling an orange. Try not imagining the juice running down your fingers, the soft inner part of the peel. The smell. Try and you can’t. The brain doesn’t process negatives.”*

— Doug Coupland

*Sun Orchard has been in the business of creating fresh-squeezed citrus juices for more than 25 years. On Sept. 24, Cactus IFT enjoyed a tour of the citrus-juice and fruit-processing facility, as well as a few glasses of delicious OJ.*

Tony DeCastro, Sun Orchard’s vice president of product innovation and regulatory affairs, was our tour guide for the afternoon and gave us an overview of how everything worked at the facility.

First, he gave us some of the history about the place and how Sun Orchard found its niche in the marketplace dominated by giant corporations. They achieved success by becoming a full-service nationwide distributor for supplying fresh-squeezed juice beverages and bar mixes like margarita mixes to restaurants.

We then walked into the receiving center where the fruit is inspected, then scrubbed, washed and sanitized. The fruit is then sent through an extraction process.

The extractors squeeze the juice freshly as anyone would in their own home. When we arrived, the entire area was being sprayed down with water for its regular cleaning between shifts. It gave us the time to look at the machines unimpeded and without bothering production.

Then, we were guided through rooms that featured a series of pipes and tanks. We learned that it was through these pipes that Sun Orchard performed gentle pasteurization and ensuring the safety of the product. The pasteurization delivers shelf life to the product, but has no effect on the quality or flavor of the end product.

Citrus flavor actually depends quite a bit on the content of orange oil in the product and concentration of the volatile compound called limonene, DeCastro explained to us. He told us that orange oil is also pressed out of the rinds of the fruit because of its high value on the market.

We entered the room where product

blending and customization of juice is performed and DeCastro shared, how depending on the proprietary mix, different levels of volatile compounds needed.

Lastly, we came to where the juice was bottled and packaged. That’s when thirst came over us and DeCastro let us enjoy some of those delicious volatile compounds in a glass of juice.

— David Despain



**The foundation for juice quality is a combination of freshness of the fruit, careful inspection and sanitization, extraction and gentle pasteurization, and management of shelf life.**

CHAIR'S BIO

*Cactus IFT is under new leadership with Brian Giannini as chair.*



Brian Giannini has over 25 years of experience in quality assurance market research, business development, sales and product retrieval and recall services. In 1993 he joined RQA, Inc. which provides international quality assurance services to manufacturers with operations in North America, Europe and Asia-Pacific. Mr. Giannini developed an international product retrieval service delivered through a global network of registered dietitians and healthcare professionals.

In April 2007, Brian joined Stericycle which invested in the RQA retrieval business to enhance the recall services that Stericycle has been providing to the Pharmaceutical, Medical Device and Consumer Goods Industries. Stericycle now has the ability to provide a complete recall solution for companies which includes; consulting, notification/communication, retrieval, processing, fulfillment, reimbursement, transportation, storage, destruction and reporting. Brian has maintained his client account responsibility for all product retrieval services, including consumer complaint retrievals, product recall/withdrawal services and product retrievals for new product development and quality assurance purposes.

Mr. Giannini obtained his B.S. in Business Administration at the University of Arizona. He has been a member of SOCAP (Society of Consumer Affairs Professionals) since 1994; served on the SOCAP International Board of Directors from 2002-2004 and is currently on the Board of Directors for the Southwest Regional SOCAP Chapter. He is currently the Secretary of the Southern California Association for Food Protection, the Chair for the Cactus Section of IFT and a member of the Association of Food and Drug Officials.

New Section Officer Short Bios

*With new leadership came the appointment of new section officers. Each new officer was asked to give a short bio to properly introduce him or herself.*

*Tony DeCastro, Chair Elect*

Tony is currently Vice President of Product Innovation & Regulatory Affairs at Sun Orchard, Inc. at Tempe, AZ, a national producer and distributor of juices and beverages for the foodservice industry with facilities in Arizona, Florida and California. Tony has been involved with juice and beverage processing and packaging for over 25 years, with responsibilities encompassing product and process development, QA/QC, operations, and legal compliance. Tony earned his B.S. degree in Biology from the University of California at Riverside, is a Professional Member of the Institute of Food Technologists, a Culinology member of the Research Chefs Association, and a former board member of the American Fresh Juice Council. Tony is also a PADI Master Scuba Diver and Dive Master, member of the Aircraft Owners and Pilots Association, and an avid motorcycle rider.



*Lynn Abarr-Boubelik, Membership Committee Chair*



Lynn Abarr-Boubelik's career has been devoted to marketing and sales in the food industry and manufacturing where she has been recognized as a top performer, cultivating strong, long-term customer relations often times from a prospecting basis. Her resume includes employment with Unilever, Bestfoods of NA, Corn Products Company and J.P. Foodservice/Monarch. Lynn grew up in Iowa where she attended college and received her degree in travel and hospitality, where she learned superior customer service skills. Lynn joined the Vivion team in 2008 with enthusiasm and her extensive experience to her role as Account Manager allowing her rapidly expands her markets by targeting customers in all industries throughout Arizona and New Mexico representing Vivion. Lynn is the membership chair for the local Cactus Section IFT in Arizona.

*Holly Curtis, Secretary*

Holly Curtis has 18 over years of experience in the Nutritional Supplement Industry working in a wide range of areas including Formulations, R&D, Brand Management and Web Fulfillment. Her education includes a BS in Food Science from the University of



Arizona, an MS in Food Science from Brigham Young University and an MBA from the University of Utah.



*Jessica Dykun, Student Committee Chair*

Jessica Dykun is a Microbiologist in the Quality Assurance Division at Daisy Brand, LLC in Casa

Grande, AZ. Jessica's past work experience has included positions as the Sr. Research Scientist for XND Technologies, where she formulated nutritional water beverages, and as a Research Technician in the Research and Development Division at the H.J. Heinz Innovation Center. Jessica's research has included areas of viscosity and rheological profile studies on sauces and condiments and the effects of chlorination and incubation times on Coliform growth. Jessica has also worked on developing a patented aseptic-cold fill process for the production of beverages without the need for heat pasteurization. Jessica received a Bachelor of Science in Biology and Chemistry from the University of Pittsburgh and is currently completing a graduate degree in Food Science with a concentration in Food Microbiology and Food Safety at the Food Science Institute at Kansas State University. Jessica has been an active member in IFT and the Society for Applied Microbiology since 2007. Jessica was recently nominated as the Student Outreach Chair for the IFT Cactus Section in 2011. In her spare time, Jessica enjoys brewing her own beer and jogging.

*Darrel Swift, Member at Large*



Darrel Swift has more than 15 years of experience working for the food industry in several capacities of Quality Assurance. He has mainly dealt with the quality control of food, dietary supplements and cosmetics. Darrel has a bachelor's of science degree in Zoology from

Arizona State University and an MBA in management from Western International University. He has worked for three and a half years at Isagenix International, LLC as a Quality Control Release Coordinator and Auditor.

*David Despain, Newsletter Committee Chair*



David Despain, MS, is a science writer and a nutritionist. He earned a master's degree in Human Nutrition in from University of Bridgeport. Previously, he earned a BA in English from University of Illinois at Springfield in 2004. At Isagenix, a company that distributes nutraceuticals, he is Manager of Science Communications in Research and Science. In his spare time, you'll find David spending time with his family, reading, or enjoying nature.



# Flavor in Arizona

*One cannot think well, love well, sleep well, if one has not dined well.*

— Virginia Woolf

*Ken Baseman will be giving us a taste of what it is to be a flavor scientist on May 18. Here is a preview*

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— Aenean Iaculis

# Important Dates and Contacts

*Please be sure to join us at the following events. They are not only informative, but also give you a chance to rub shoulders with other people involved in the food industry or affiliated industries. And, lastly, they are designed to be a lot of fun.*

## May 18, Wednesday

5:30 pm to 8pm

*Ken Baseman will be presenting on sensory analysis. It is sure to be a wonderful evening of flavor and fun.*

## August (tentative)

*Come out and enjoy baseball game with your friends at Cactus IFT*

## December 6, Thursday

*Annual holiday meeting - We will be having a wine tasting with special guests!*

### Chair - Brian Giannini

Stericycle ExpertRecall  
602-561-7211  
[bgianini@stericycle.com](mailto:bgianini@stericycle.com)

### Chair Elect - Tony DeCastro

Sun Orchard  
480-966-1770 ext. 28  
[tdecastro@sunorchard.com](mailto:tdecastro@sunorchard.com)

### Treasurer - Lorraine Hansen

Henkel  
480-754-6463  
[lorraine.hansen@us.henkel.com](mailto:lorraine.hansen@us.henkel.com)

### Secretary - Holly Curtis

Arizona Health Food  
480-319-5644  
[hcurtis@azhf.com](mailto:hcurtis@azhf.com)

### Membership Committee

**Chair - Lynn Abarr-Boubelik**  
Company: Vivion, Inc.  
480-917-0797  
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### Member at Large - Darrel Swift

Company: Isagenix® International LLC  
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### Programs Committee Chair:

**Ken Baseman**  
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### Student Committee Chair:

Jessica Dykun  
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### Newsletter Committee

**Chair - David Despain**  
Isagenix® International LLC  
480-636-5611  
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## Got something interesting to say?

If it is something you feel your fellow Cactus IFT members would appreciate, then we'd love to publish it in this newsletter. Simply, send an e-mail with your article topic idea to David Despain, newsletter committee chair, at [daviddespain@gmail.com](mailto:daviddespain@gmail.com).

We will certainly welcome any originally written material you'd like to share related to food, food science, food technology, or the food industry. Feel free to also send material about different learning experiences you've had in the food industry. Lastly, we are also interested in your stories as you enjoy our events. The more you share, the better -- so don't be shy!

Please be advised that we cannot publish any content that could be regarded as promotional material offering products or services, although we are definitely interested in sharing your hiring opportunities.

— David Despain

## Section Officers

**Brian Giannini — Chair**  
**Tony DeCastro — Vice Chair**  
**Lorraine Hansen — Treasurer**  
**Holly Curtis — Secretary**

Lynn Abarr-Boubelik - Membership Committee Chair; Ken Baseman - Programs Committee Chair; Darrel Swift - Member at Large; Jessica Dykun - Student Committee Chair; David Despain - Newsletter Committee Chair



## IFT Headquarters

Contact for membership questions:  
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