



SCAFP NEWSLETTER

Volume 2 Number 1

Spring 2003

President's Message

Dear Colleagues

Thanks for giving me this opportunity to serve as your President of the Southern California Association for Food Protection – Year 2003. We have an exciting year ahead and I look forward to meeting you all at the quarterly events that executive committee has planned. This year's team includes: Margaret Burton – Past President, Howard Malburg – President Elect, Robert Delmore – Vice President, Marty Gushwa – Secretary, Christi Wisham - Treasurer.

We still need volunteers for other committee positions: Affiliate Delegate to IAFP 2003 Meeting, Constitution and By-Laws, Membership, Program and Public Relations. If you are interested in becoming more involved in SCAFP activities please don't be afraid.... The time commitment is minimal and you have the opportunity to exchange ideas and network with food scientists and other food safety professionals from many companies. Feel free to contact me at 818-874-4710 or jajames1_99@yahoo.com with your ideas and comments.

One of my goals this year is to increase member participation and expand our events to host a conference including presentations on "Hot Topics" as well as industry tours. We began the year with a tour of the irradiation facilities at Surebeam, Vernon, CA and IBA Corp., Tustin, CA. All participants were fascinated to learn about the wealth of resources right at our doorsteps that can be used to sanitize food for consumers. Our next event is scheduled for April 16th – A Produce Industry Food Safety Tour". This promises to be a very informative tour when we will visit strawberry fields; vegetables harvesting, packing and cooling operations; as well as a fresh cut vegetable processing plant. We will learn first hand what measures growers and processors take to protect the food supply. Having worked in the Produce industry for the past 7 years, this topic is near and dear to my heart! Hope to see you on this tour!

My motto this year is "Let's make Food Safety a Way of Life"

Best Wishes

Jennylynd James, Ph.D.

January 2003 meeting
Summary by Margaret
Burton

Special thanks to Kevin Nanke from SureBeam for the very informative seminar on e-beam irradiation, tour of the SureBeam facility, and irradiated fruit snacks.

SureBeam is a new electronic beam irradiation facility in Vernon, California. For e-beam irradiation, there is limited penetration. A curve has been developed for most products based on density and state (fresh or frozen) to pass a certain thickness through the system and ensure the product is successfully penetrated. Objects being irradiated must be less than about 2- 4 inches thick. This may cause packaging hurdles for some items. It is also impractical to irradiate certain items such as watermelon because of detrimental changes that take place. The e-beam is run by electricity requiring large electrical resources. This form of irradiation can be turned on and off as required. A standard "control" pellet is run with the product to ensure proper penetration of the product being irradiated. There are multiple safety barriers including a light source, pressure sensitive carpets, a triple key lock and emergency stop cables to ensure that humans are excluded when the beam is turned on. This facility is shielded with thick concrete walls to retain the irradiation energy.

X-ray is a machine that uses photons. This gets excellent

penetration and can do full pallets. It can be turned on and off and has low labor costs. The dose distribution is tight and it gives high quality results.

X-ray irradiation has excellent penetration. It can target the beam in a concentrated position for best coverage. It is run by electricity and can be turned on and off as needed. It has high labor costs associated with the process.

SureBeam supplied refreshments with irradiated fruit. No detrimental affects could be tasted. There is no flavor or texture difference from fresh non-irradiated product.

Special thanks to Juan Segovia for a great tour and seminar of the IBA gamma irradiation facility in Tustin. Also a special thanks to Juan for sharing his presentation with me to accurately reflect his remarks (plagiarize) in these notes.

IBA is an older working gamma irradiation facility open 24 hours a day, 7 days a week. IBA's business areas are in Sterilization and Ionization, Advanced Radiotherapy, and Radioisotopes. The Sterilization and Ionization Division works with food, medical devices, lab testing and materials. IBA uses Gamma processing, Electronic Beam Processing, Ethylene Oxide Processing and X-ray Processing in their food safety division. The facility we toured was the gamma facility. Ionization

severs the DNA bonds and for microbes, causes death or inability to reproduce. It can also sever the chemical bonds in foods and oxidation can result. The D-10 Value, in kiloGray's (kGy), to kill bacteria, varies depending on the pathogen in question. *Campylobacter* is known to be a fragile bacteria that is fairly easy to destroy with cooking or competitive exclusion and is also the easiest to kill by irradiation with a D-10 value of .18 kGy. The rest of the pathogens have a D-10 value between .18 and .70 (see the chart for the actual D values). The upper end of the irradiation is determined by the product. It has to be low enough to keep from ruining the product. The lower end is determined by the bacteria. It must be high enough to kill the microbe.

Pathogen Value (kGy)	D-10
<i>Campylobacter</i>	0.18
<i>Clostridium</i>	0.586
<i>E.coli O157:H7</i>	.25-.45
<i>Listeria</i>	.40-.64
<i>Salmonella</i>	.48-.70
<i>Staphylococcus</i>	.45
<i>Toxoplasma gondii</i>	.40-.70
<i>Trichinella spiralis</i>	.30-.60

There are pros and cons for each type of irradiation.

Gamma irradiation gets good penetration and can do a whole pallet of product at a time. The source decays with a half life of 5 ¼ years and it's on all the time. This makes it most advantageous to run a facility 24 hours a day, 7 days a week to get the most out of the cobalt-60 source. As you can imagine, this makes the logistical end

of the business very important. Low labor costs are involved with this process. This technology requires a radioisotope on site to operate. Radioisotopes are mined from the ground. I found the small amount of space taken to be remarkable. Each cobalt source is the size of a pencil with many "pencils" lined up to make up the total source.

All the sources of irradiation require a shield. Most use concrete which is cheaper but larger. Since IBA is in an earthquake area, they have double walls filled with sand so there would be no penetration through the wall in the event of an earthquake. Steel can be used as a shield also. It is smaller and faster to build but more expensive

All the sources of irradiation also require some conveyor to take product in and out of the source. For gamma, totes or pallets are used. For e-beam, trays are used and for X-ray, pallets are used. The IBA facility we visited uses a complex conveyor system with elevators and computers to manage the movement of product. It used totes with multi-pass systems. The cobalt source is stored in wet storage and is indeed, a gorgeous cobalt blue in color.

In the United States, pork, poultry, red meat, eggs, spices and herbs, enzymes, astronaut's meals, fruits and vegetables and animal feed are approved for irradiation. Pending are fin fish, shell fish, Ready-to-eat foods to 10 kGy and sprout seeds. Everything else is illegal.

According to Juan's data, from 1979 to current there are 1,221 completed studies demonstrating the wholesomeness of 200+ irradiated foods fed to animals. Irradiation is supported and endorsed as safe and nutritious by FDA, WHO, ADA, JAMA, USDA, and other science based organizations.

Labeling of irradiated product is a very interesting conundrum. According to the Code of Federal Regulations, each package must have the radiation logo (called a radura) and state "Treated with irradiation".

The problem is as follows: Irradiate product and do nothing else and it must be labeled.

Blend non-irradiated with irradiated product and no label is required.

Irradiate and repackage and each item must be labeled.

Blend irradiated products and no label is required.

Essentially, it says that if you irradiate and add a little processing, then no label is required. Our two speakers base this on the early USDA determination that irradiation is a food additive rather than a process.

Both speakers feel this is a process rather than an additive. It would be the only "process" requiring special labeling.

This tour was a hugely successful irradiation training for SCAFP. We thank both our speakers once again for very interesting seminars and tours.

Irradiation is a hot topic right now with many things happening in the news. For more information, here are a

few sources from pro and con sources:

www.pmac.net/foodirr.htm

www.ccnr.org/food-irradiation.html

www.irradiation.com

www.acsh.org/publications/booklets/irradiated.html

ccr.ucdavis.edu/irr

www.nfpa-food.org/science/irrbrochure.html

www.extension.iastate.edu/foodsafety/rad/irradhome.html

www.food-irradiation.com

Also see CDC, FDA, WHO, ADA websites

September 24, 2002

Disneyland – Food Safety at the Happiest Place on Earth

Many thanks to Todd Frantz for the very informative seminar and tour of one of Disneyland's sit down restaurants.

Outgoing President's Report

This is the story about the birth of an affiliate.

What a year it has been for me and for the new SCAFP Affiliate. The adventure began in May of 2001. I contacted IAFP inquiring about a closer affiliate that I might be able to attend in Southern California. I was told that the affiliate in Davis was the closest but would I like to start an affiliate in Southern California. With trepidation I designed a questionnaire and sent it by e-mail to all IAFP members in Southern California. One

assumes that not many will come back but I was hoping to see if there was interest, like mine, for networking in Southern California. By the survey, I learned that there was interest. My next step was to find someone that had done this before so I did not have to reinvent the wheel. David Tharp, the Executive Director of IAFP provided names of some possible people to help me in this endeavor. I received some information from folks who had started an affiliate in their areas but most importantly, I got Jennylynd James as a co-conspirator to help/push me to get this done. We met for the first time at the August 2001 IAFP Annual Meeting in Minneapolis. With her help, I got brave enough to set a date for the first meeting on December 8, 2001 and she got Scott Brooks from Taco Bell to host that meeting, provide a meeting place, and deliver a seminar on bioterrorism. Twelve people showed for the first meeting and we were able to appoint volunteers to fill the slate of officers, approve the by-laws and constitution which I had amended from a template provided by IAFP, agree on a Mission Statement that I paraphrased from the IAFP Mission Statement, and get 9 members. What a joy to see the birth of this Affiliate. Although the turn out was poor, we were convinced that we were doing the right thing. With that in mind, we boldly forged ahead and had a Board meeting to talk about where we wanted to go and what we should do to get more people interested. Jennylynd James and Bob Delmore were very important

in directing the meetings for the year. We chose several hot topics, assigned some resources to search out the speakers and we were off and running. In January, David Tharp approached us to host the IAFP Annual Meeting in San Diego. My boss, David Theno, allowed me and resources at Jack in the Box to host this meeting. Since most Affiliates take a year to do this planning, we had a lot of work to do quickly and not many people to do it. Luckily, David Tharp and the IAFP group did most of the footwork and planning and left us to provide dairy products, personnel, and welcome bags. The other part was to convince the few members, that we needed to work our butts off to support the Mothership. Our second meeting was on March 7th, hosted by Nasser Company in Yorba Linda. David Tharp was there from IAFP to confirm what we needed to do and to provide encouragement. With such a small group, it was going to be a large challenge. We also had two speakers at this meeting, Howard Malberg spoke on Amtrack food safety and Paula Tanner spoke on outbreaks associated with foodborne illness. We also had a logo contest and chose a logo and shirt for the organization. With David Tharp's list of chores, I started to get people to sign up to work, to source dairy products and to send letters to prospective IAFP Welcome Bag donors. We were extremely fortunate to have a member, Bill Huntley, who was able to source dairy products and juice for the meeting.

In March, I attended a local Environmental Health meeting to recruit more people to work at the convention. In May, Welcome Bag communications were daily and our Jack in the Box warehouse started storing items for the Welcome Bags. By the end of May, I had secured freezers and refrigerators, bag suppliers and welcome bag fillers. I was receiving daily packages and was desperately making calls and sending e-mails to get the roster lined up for the meetings. In June, we were down to the wire. I recruited my whole department to stuff some 50+ items into 1400 bags. A day later, we were done and had six pallets of products to transport down to the meeting hotel. On the 14th of June, we had a final meeting with David Tharp at the Hyatt in preparation for the big day. The Affiliate shirts arrived on the Thursday before this meeting and I was frantically embroidering the logos onto the shirts into the wee hours of the morning to distribute at this meeting. On June 25, the ice cream still had not been delivered to our DC in Buena Park and I was frantically calling Bill Huntley and the vendors to get it delivered. On June 27th, David Paredes and I rented a truck and transported ice cream, drinks, freezers, refrigerators, and welcome bags to the hotel. On the 28th, we had a crew of 10 stuffing the meeting bags with the printed materials and we opened for registration. Throughout the meeting, I was scrambling to fill all the positions and make sure the freezers and refrigerators were stocked. On many

occasions, I called on members and co-workers for last minute jobs. The meetings went very well and quite smoothly. At the close on Wednesday, we were all dead tired but managed to move all the freezers, refrigerators and left over things back up to Jack in the Box and still get to the final banquet. What a chore! It is by far the hardest I've worked in my life. Our last meeting of the year was on September 24 at Disney. Throughout the meeting, I was scrambling to fill all the positions and make sure the freezers and refrigerators were stocked. On many occasions, I called on members and co-workers for last minute jobs. The meetings went very well and quite smoothly. At the close on Wednesday, we were all dead tired but managed to move all the freezers, refrigerators and left over things back up to Jack in the Box and still get to the final banquet. What a chore! It is by far the hardest I've worked in my life. Our last meeting of the year was on September 24 at Disneyland. Todd Frantz hosted the meeting and tour of a Tomorrowland restaurant and gave a seminar on the food safety programs at Disneyland. Our continuously growing organization was then at 35 members, a 389% increase from the first meeting. One of the fun parts of this meeting is we got stopped to make way for the Disneyland Parade. What a grand finale to a great year!

Officers

President

Dr. Jennylynd James
Dole Food Company
One Dole Drive
Westlake Village, CA 91362-7300
818-874-4710
818-874-4804
Jennylynd_A_James@na.dole.com

President Elect

Howard Malberg
Amtrack
810 N. Alameda St
Los Angeles, CA 90012
213-683-6936
Malbergh@msn.com

Vice President

Dr. Robert Delmore
3049 E. Vernon Ave.
Los Angeles, CA 90058
323-583-4621 option 1, 331
323-584-1672
Rdelmore@farmerjohn.com

Secretary

Marty Gushwa
Mgushwa@aol.com

Past President

Margaret Burton
Jack in the Box
9330 Balboa Ave
San Diego, CA 92123
858-571-2441
Fax 858-571-2116
Mburton1@san.rr.com
Treasurer

Cristi Wisham

Jack in the Box
9330 Balboa Ave
San Diego, CA 92123
858-571-2669
858-571-2116
Cristi.wisham@jackinthebox

