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Cristobal Chaidez and Charles P. Gerba Daryl S. Paulson Ivan Parkin Lecture: Reclaiming Dinner: Enhancing Food Safety and Consumer Confidence.......846 Douglas A. Powell Thoughts on Today's Food Safety...Precautionary Principle and Risk Assessments: The International Debate 920 Mickey Parish **Association News** Sustaining Members 828 My Perspective 830 Commentary from the Executive Director 832 **Departments** Updates 898

Bacteriological Analysis of Cellulose Sponges and Loofahs in Domestic Kitchens

Evtras

EATTUS	
Scenes from the 87th Annual Meeting	
2000 Award Winners	855
Minutes of the 87th Annual Business Meeting	
Highlights of the Executive Board Meeting	860
Committee Minutes	867
2000 Annual Meeting Exhibitors	
Call for 2001 Award Nominations	
Call for 2001 Abstracts	
IAFP Policy on Commercialism	
Journal of Food Protection Table of Contents	
Booklet Order Form	
Membership Application	919

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My Perspective



By JENNY SCOTT President

"Did you know that..."

- IAFP began as the International Association of Dairy and Milk Inspectors in 1911?
- In 1923 the Association endorsed pasteurization as "the only adequate safeguard for milk supplies?"
- The first Annual Meeting held outside the United States was the 1927 Annual Meeting in Toronto?
- The Journal of Food Protection began as the Journal of Milk Technology in 1938?
- The IAFP Awards program began in 1952 with the Citation and the Sanitarian awards?
- The Association's first offices were in a remodeled poultry house in Shelbyville, Indiana?
- The Annual Meeting did not have exhibits until 1986?
- Ann Draughon became the first woman President in 1995?
- Helene Uhlman was the first woman in the United States to be a certified milk inspector in the Grade "A" Milk Program?
- Efforts were made throughout the '70s to merge the Association with the National Environmental Health Association (NEHA)?

These and many more interesting facts about our Association can be found in the *International Association for Food Protection History 1911-2000*. At the 1999 Annual Meeting in Dearborn,

President Jack Guzewich called for this history to be prepared. With the assistance of several Past Presidents and long-time Members, the IAFP staff pulled together a chronicle of events of the Association, from its beginning with a small group of men who cared deeply about improving the nation's milk supply to its current status as one of the world's most recognized groups of food safety professionals.

Upton Sinclair wrote The Jungle about the problems in the nation's meat supply at the turn of the 19th century; he could easily have written a sequel about the nation's milk supply. Milk was frequently watered down, it was often produced under very insanitary conditions, and it carried numerous diseases typhoid fever, diphtheria, scarlet fever, tuberculosis and more. Contaminated milk was a significant cause of infant mortality. The history of this Association is intimately associated with the history of milk safety, and with the focus of the Association expanding from milk to other foods, the history of food safety will be wrapped into our Association's history.

The History was provided to interested attendees at the Annual Meeting. I hope those of you who picked up a copy have read it. I urge all of you to get a copy of this book (it's only 50 pages — contact David Tharp at IAFP) and read about our Association — you won't be sorry. And let's all thank Jack for being interested enough in IAFP's roots to ask for this to be put together.

For some more recent history, take a look through this month's edition of Dairy, Food and Environmental Sanitation, where you will find the "history" of IAFP 2000 - the first meeting of the Association under its new name. the International Association for Food Protection. You'll find the minutes of Committee and Professional Development Group (PDG) meetings, minutes from the business meeting, the Board meeting highlights, and, of course, pictures. As I noted in last month's column, we had a record number of attendees at this year's meeting. Yet we're still small enough that the meeting provides an excellent opportunity to network with other professionals in the field of food safety.

The History of the Association shows how we changed with each decade of the 19th century. The Association changed because its

Members needed and asked for the changes. But in order for the Association to know what our Members' needs are, Members need to speak up. One way to do that is through our Committees and PDGs. As you can see from the minutes, we have a number of active groups. One of the ways these groups let us know their needs is through the organization of symposia for our Annual Meeting - these are topics they feel we need to hear about. Other Committees have seen the need to develop informative manuals for the Membership (e.g., the Procedures to Investigate Foodborne Illness, which I consider to be one of the most useful publications available) and articles for Dairy, Food and Environmental Sanitation. Our Journal Management Committees let us know about changes related to the journals (a recommendation has been

made to include the table of contents of the Journal of Food Protection each month in Dairy. Food and Environmental Sanitation; this has been approved by the Board). So participate in Committee and PDG meetings and let your needs be known.

There are other ways to be heard, too. The Board and the staff of IAFP welcome all input information on how to contact us can be found in the front of each issue of Dairy, Food and Environmental Sanitation. Do you have suggestions for improving our journals? For enhancing the annual meeting? Is there some topic you'd like to see covered in a journal article or at the meeting? Let us know. We'll see that the right people get the message. We're your Association - we want to meet your needs.

Oh yes, I almost forgot. Thanks Jack.

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COMMENTARY

FROM THE EXECUTIVE DIRECTOR



By DAVID W. THARP, CAE **Executive Director**

"Thank you for your support of the International Association for Food Protection and our Annual Meeting"

This issue of DFES is dedicated to the memory of Tanya Wheeler. Tanya was our Audiovisual Library Coordinator for the past 5 years. Although she had many challenges both medically and physically, she accepted those challenges and excelled in life. Tanya was just 30 years old when she passed away on October 1st. Our sympathies are extended to her family and friends. See page 833 for a memorial to Tanya.

In this issue of Dairy, Food and Environmental Sanitation, we report on the 87th Annual Meeting held last August. If you were unable to be with us in Atlanta, the summary provided will give you details of what you missed. If you were able to attend, we hope you enjoy reviewing the highlights of the Atlanta meeting. The Annual Meeting report begins on page 849 and includes many pictures, a narrative of events, minutes of committee meetings and the business meeting, and pictures of award presentations. We hope that you enjoy the review of our record-breaking Meeting.

The 87th Annual Meeting had 1.318 people in attendance from more than 30 countries around the world. We are certainly proud to know that so many food safety professionals choose to attend our Meeting for the latest scientific information on protecting the food supply. Again this year, our attendance broke previous records. Add to that, the record number of new Members and first-time attendees and it makes for the best conference on food safety in the world. By the way,

we welcomed new Members and first-time attendees again this year at our Saturday afternoon reception. Close to 100 people attended this orientation to the Annual Meeting and the Association. Thanks are extended to Committee Chairpersons, Affiliate representatives and Members who helped welcome attendees during the reception.

We are fortunate to have many people working together with one goal in mind - to make the IAFP Annual Meeting the best educational conference on food safety anywhere in the world. This year was no exception! The Georgia Association of Food and Environmental Sanitarians (GAFES) with their Co-Chairpersons; Ed Giera, Judy Harrison and Pam Metheny led the way by providing volunteers to assist our staff with registration, hospitality, and audiovisual needs. Every time we turned around, there were more GAFES members ready to help. Thanks to Ed, Judy, Pam and the whole GAFES membership for your excellent help.

This year there were over 300 presentations at the Annual Meeting. It is rewarding to know that each year more people are willing, and want to make presentations at the IAFP Annual Meeting. This shows the importance of what we are doing and the stature our Meeting has achieved. Thank you to everyone who gave presentations this past year. You ARE the Meeting and the reason we attract a worldwide audience. With your dedication to the Association, we will continue to thrive.

Many of our symposia topics are generated by our Professional Development Groups (PDGs). First, thank you to all developers of symposia and next, thank you specifically to our PDGs who developed and presented symposia of interest to our attendees. Everyone has an opportunity to become involved in the IAFP Annual Meeting through the PDG system. PDGs meet at the Annual Meeting and develop proposed symposia for the next Annual Meeting. If you are interested and not involved, contact our office to learn how you may share your expertise with our attendees.

Groups other than PDGs are also invited to submit symposia for consideration. One such group that has continually done so since 1993 is the ILSI Technical Committee on Food Microbiology. ILSI is the International Life Sciences Institute and they provide funding for current research. Our Meeting provides an avenue for ILSI to present their findings. The arrangement has worked well

for both ILSI and IAFP. We thank ILSI for their support over the past 8 years and we look forward to many more years of mutual benefit between our organizations.

It is the job of the Program Committee to set the program schedule for each Annual Meeting. David Golden, from the University of Tennessee, was the Chairperson for the 2000 Program Committee. With a record number of papers submitted, the Committee labored long and hard this year. Thank you, David, and your Committee for the many hours each of you contributed over the past year. Your efforts surely paid great dividends!

Sponsors play an important role in our conference. Through sponsorship funds, we are able to offer amenities to our attendees that we might not otherwise be able to provide. Our deepest thanks to everyone who helped provide sponsorship for the 2000 Annual Meeting. A list of sponsors is shown on page 862. We encourage you to do business with our sponsors and to thank them for

supporting the Association, A personal thanks from you to one of the sponsor representatives may help assure their continued support.

Last but not least, I want to thank our staff for the hours and hours of work they put forth to produce the finest food safety conference in the world. Frank. Beth, Donna, Bev, Didi, Karla, Pam, Lisa, Julie, and Lucia; you have done it again! Thanks to each of you for your work and dedication to the Association. It is truly my pleasure to work with each of vou!

I want to take this opportunity to thank you for your support of the International Association for Food Protection and our Annual Meeting. We look forward to next year's conference, IAFP 2001 the Association's 88th Annual Meeting. Mark your calendars now for August 5 to 8 and plan on being with us in Minneapolis. With your support, we will continue to grow, become stronger and we will continue to "Advance Food Safety Worldwide."



In Memory of...

Tanya Wheeler

We are deeply saddened by the recent death of Tanya Wheeler. Since November of 1995, Tanya was employed by the International Association for Food Protection as the Audiovisual Library Coordinator. She was an inspiration to the staff and served as an example of how motivation and a positive outlook can overcome adversity in life. Tanya was 30 years old and lived in Des Moines for most of her life. She will be greatly missed!

Bacteriological Analysis of Cellulose Sponges and Loofahs in Domestic Kitchens from a Developing Country

Cristobal Chaidez and Charles P. Gerba*

SUMMARY

No previous studies have been conducted on the microbial quality of household cleaning tools in developing countries. A survey of the bacterial quality of cellulose and natural fiber sponges (loofahs) from domestic kitchens of Culiacan, Mexico, was conducted. Aeromonas hydrophila (19.5%) was the predominant bacterium identified in both types of sponges. Other species identified included Enterobacteriaceae. Pseudomonas spp., and Serratia spp. Staphylococcus aureus was present in 60% of cellulose sponges and in 86% of loofahs. This was in contrast to results of studies in the United States, where Enterobacteriaceae was the dominate isolate in cellulose sponges. Salmonella spp. were identified in 9.8% of the items tested. The data obtained in this study suggest that domestic cleaning tools play host to a variety of bacterial species and may serve as an important source of bacterial contamination in the kitchen. The types of bacteria that inhabit this environment may depend on the type of sponge, food, climate, and food preparation habits in the home.

A peer-reviewed article.

INTRODUCTION

The majority of foodborne outbreaks are believed to result from mishandling of food in the home (10). The domestic environment has been shown to be a potential reservoir of enteric pathogens (6). Enteric infections in the private household were noted to be about three times more frequent than in restaurants (15). Previous studies have shown the kitchen as the most important area in harboring and transferring bacterial contamination to food products (13). The main routes by which microorganisms can reach the kitchen environment are via raw foodstuffs and the food-handler (11).

Contaminated cloths and sponges can transfer significant numbers of microorganisms onto hands or clean surfaces during use (4). Enteric bacteria have been recovered from selected sites in the kitchen area (12), including the sink, dishcloth, and cutting board (4). Specific food preparation practices, such as inadequate cleaning of cutting boards after the handling



TABLE 1. Bacterial species and their percentage frequency occurrence in kitchen cleaning tools

Bacterial species	Percentage (%)
Aeramanas hydrophila	19.5
Burkhardelia cepacia	9.8
Enterabacter claacae	2.4
Enterabacter gergaviae	2.4
Klebsiella pneumoniae	4.9
Pseudamanas pseudaalcaligens	12.2
Pseudamanas fragi	2.4
Pseudamanas mendacina	7.3
Pseudamonas putida	4.9
Pseudamanas aeruginasa	5.0
Salmonella spp.	9.8
Serratia marcescens	2.4
Serratia fanticala	2.4
Serratia adarifera	2.4

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of raw meat and poultry, most likely play a role in foodborne transmission of pathogens such as Campylobacter jejuni and Salmonella spp. (9).

Several studies on the bacteriological quality of kitchen cleaning tools have been conducted in developed countries. Davis et al. (3) found that dishcloths and teacloths were in some cases heavily contaminated with enteric bacteria (i.e., Escherichia coli). Scott and Bloomfield (14) showed that E. coli and Klebsiella spp. survived on dishcloths for a period of 48 h. Enriquez et al. (5), in a bacteriological survey of 400 cellulose sponges and cotton dishcloths obtained from households in four major cities in the United States, found that Enterobacteriaceae, Pseudomonas spp., and Burkholderia spp. were the most common groups identified. However, Salmonella spp. and S. aureus were also identified. They suggested that kitchen cleaning tools may be an important source of bacterial contamination in the home environment.

Loofah sponges, derived from natural vegetable fiber of plants in the cucumber family, are used extensively as cleaning tools in domestic kitchens in Mexico. They have been shown to harbor potentially pathogenic bacteria (1) and cause skin infections (2).

Previous studies on kitchen cleaning tools were conducted in developed countries, where food products, cleaning tools, and habits may be different from those in other parts of the world. The objective of the present study was to determine the microflora of cleaning tools in household kitchens in Culiacan, Mexico.

MATERIALS AND METHODS

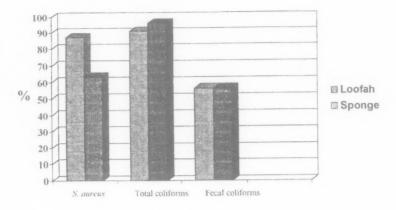
Fifty cleaning tools were collected from household domestic kitchens in Culiacan, located in northwest Mexico. The cleaning tools were collected in sealable plastic bags, which were placed immediately in an ice chest. Within 72 h, the samples were taken to the University of Arizona for bacteriological analysis. Of the 50 cleaning tools collected. 23 were natural fiber sponges (loofah) and 27 were commercial cellulose sponges.

The bacteriological analyses were conducted on the liquid obtained by extracting liquid samples from the cleaning tools, utilizing manual compression. Twenty-five ml sterile Tris-buffered saline (Sigma Chemical, St. Louis, MO) was added to the plastic bag containing the cleaning tool and serially diluted 10-fold in Tris-buffered saline; and 0.1 ml aliquots were placed onto the selective media and assayed by the spread plate technique.

Total coliforms were enumerated by using m-Endo agar, and fecal coliforms and S. aureus were enumerated by use of mFC and mannitol salt agar (MSA) media, respectively. The incubation for m-Endo and mFC was carried out for 24 h at 35°C and 44.5°C, respectively, and MSA plates were incubated at 35°C for 36 h.

Further identification was made by the Biolog GN microplates™ (Biolog Inc., Hayward, CA) by a method identical to procedures described by Enriquez et al. (5). Colonies (200) of all morphology and color were picked from m-Endo

Figure 1. Average frequency of isolation of S. oureus, total coliforms, and fecal coliforms in kitchen cleoning tools



plates, placed onto tripticase soy agar (TSA), and incubated at 35°C for 24 h. Bacterial cells were harvested and re-suspended in sterile saline solution and inoculated into Biolog GN microplates, which were incubated at 35°C for 24 h. The microplates were read at 6 and 24 h. The results were analyzed by the microlog I computer program, version 3.50 (Biolog Inc., Hayward, CA). Total and fecal coliform bacteria data obtained from the two types of sponges were analyzed using the Z-test to assess whether the differences in numbers were statistically significant.

RESULTS

The identified bacterial species and their percentage frequency of occurrence in the cleaning tools are presented in Table 1. The organisms most frequently identified by the Biolog method were Aeromonas hydrophila (19.5%), Pseudomonas pseudoalcaligens (12.2%), and Burkhordelia cepacia (9.8%). The most frequently occurring enterobacteria were Salmonella spp. and Klebsiella pneumoniae, which were isolated from 9.8% and 4.9%, respectively, of the cleaning tools analyzed. Members of the coliform group were also detected, including

Serratia spp. and Enterobacter spp. Presumptive Staphylococcus aureus (92%) was frequently isolated from both cellulose and loofah sponges. The isolation was based on the yellow pigment produced by S. aureus on mannitol salt agar (MSA). No specific identification method was employed.

The occurrence of S. aureus and of total and fecal coliforms in both cellulose and loofah sponges is shown in Fig. 1. S. aureus was isolated more frequently in loofah sponges than in cellulose sponges, while the two types of sponges did not differ for coliforms and fecal coliforms. The geometric average of S. aureus in the two types of sponges was similar (cellulose 300 CFU/ml vs loofah 600 CFU/ml). However, numbers of coliforms were greater in the cellulose sponges, with a geometric average of 1.5 × 105 CFU/ml for cellulose and 1.4×10^4 CFU/ml for loofah. In contrast, for the fecal coliform bacteria, the geometric means in cellulose sponges and loofah were 1×10^3 and 1.5×10^4 CFU/ ml, respectively.

Although the geometric average of coliform bacteria was greater in cellulose sponges than in loofah sponges, the difference was not statistically significant at the 0.001 level (z-test).

DISCUSSION

This study was intended to determine the occurrence of bacteria in household cleaning tools in a developing country. In the course of the study, one of the major findings was the large variety of bacteria isolated from both celloluse and natural fiber sponges (loofah). Pseudomonas spp. were the most common genus of bacteria isolated from the cleaning tools. This result coincides with those of studies conducted by Enriquez et al. (5), in which Pseudomonas spp. were frequently isolated from cleaning materials collected in the United States. Pseudomonas spp., a ubiquitous inhabitant of moist environments, have been recovered from sinks, baths, and tap water in the domestic environment (7). However, in our study, P. pseudoalcligens was the most common isolate, rather than P. putida, as in the United States.

The most common bacterial species identified was Aeromonas hydrophila. This species was not identified in cleaning tools in the U.S. study, in which samples were collected from four major cities. Since 1968, A. hydrophila species have been recognized as an opportunistic pathogen that affects young children, elderly people, and the immunocompromised host and that is a suspected foodborne pathogen involved in gastroenteritis (16). A. hydrophila is an ubiquitous bacterium frequently isolated from food, drinking water, and aquatic environments (8).

Loofahs have gained immense popularity as exfoliative beauty aids in the United States. In contrast, loofah is used basically as kitchen cleaning material in Mexico. Loofahs are derived from gourds of the cucumber family that, through a drying process, result in a fine network of woven (cellulose) fibers (1). Loofahs were found to be heavily contaminated by bacteria and were shown

to play host to a variety of bacterial species, suggesting that bacteria can use loofah components or nutrients from the kitchen as growth materials. Although Bottone and Perez (2) did not observe the persistence of S. aureus in loofahs, we found that S. aureus was common in loofahs used in the kitchen. Loofahs may provide a good habitat for the persistence or growth of S. aureus and could serve as a reservoir in the kitchen environment. The presence of S. aureus could result from transfer of the bacteria from dirty hands to the kitchen's cleaning materials (10). Levels of coliform and fecal coliform bacteria were slightly higher in the cellulose sponges than in cotton dish clothes in a study conducted in the United States (5).

This study confirmed previous work (5) that suggested that kitchen cleaning materials can be an important source of bacterial contamination. However, the dominant types of bacteria may vary, depending on the types of sponge material, cooking habits, and cleaning habits, as well as climate. Although these environmental factors were not studied specifically, our data suggest that types of bacteria as well as the numbers present, may differ in cleaning tools from different regions of the world. Because identical methods were used in both studies, the results suggest true differences.

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REFERENCES

- 1. Bottone, E. J., A. A. Perez II, and J. L. Oeser. 1994. Loofah sponges as reservoirs and vehicles in the transmission of potentially pathogenic bacterial to human skin. J. Clin. Microbiol. 32:469-472.
- 2. Bottone, E. J., and A. A. Perez II. 1993. Pseudomonas aeruginosa folliculitis acquired through use of a contaminated loofah sponges: An unrecognized potential public health problem. J. Clin. Microbiol. 31:480-
- 3. Davis, J. G., J. R. Blake, and C. M. Woodall. 1968. A survey of hygienic condition of domestic dishcloths and tea-towels. Medical Officer. 120:29-32.
- 4. Enriquez, C. E., V. E. Enriquez, and C. P. Gerha. 1997. Reduction of bacterial contamination in the household kitchen environment through the use of self-disinfecting sponges. Dairy Food Environ. Sanit. 17:20-24
- 5. Enriquez, C. E., R. Enriquez-Gordillo, D.1. Kennedy, and C. P. Gerba. 1997. Bacteriological survey of used cellulose sponges and cotton dishcloths from domestic kitchens. Dairy Food Environ. Sanit. 17:20-24.
- 6. Finch, J. E., J. Prince, and M. Hawksworth. 1978. A bacteriological survey of the domestic environment. J. Appl. Bacteriol. 45:357-364.

- 7. Gustafon, T. L., J. D. Band, R. H. Hutcheson, Jr., and W. Schanffner. 1983. Pseudomonas folliculitis: an outbreak and review. Rev. Infect. Dis. 5:1-8.
- 8. Holmberg, S. D., W. L. Shell, G. R. Fanning, I. K. Wachsmoth, I. Hickman, F. W. Brenner, and P. A. Blake. 1986. Aeromonas intestinal infections in the United States. Ann. Intern. Med. 105:109-114.
- 9. Klontz, K. C., B. Timho, S. Fein, and A. Levy. 1995. Prevalence of selected food consumption and preparation behaviors associated with increased risks of food-borne disease. J. Food. Prot. 58:927-930.
- 10. Roberts, D. 1982. Factors contributing to outhreaks of food poisoning in England and Wales 1970-1979. J. Hvg. Camb. 89:491-498.
- 11. Roberts, D. 1990. Sources of infection: food. The Lancet. 336:859-861.
- 12. Scott, E., S. F. Bloomfield, and C. G. Barlow. 1982. An investigation of microbial contamination in the home. J. Hyg. Camh. 89:279-293.
- 13. Scott, E., S. F. Bloomfield, and C. G. Barlow. 1984. Evaluation of disinfectants in the domestic environment under "in use" conditions. J. Hyg. Camb. 92:193-203.
- 14. Scott, E., and S. F. Bloomfield, 1990. The survival and transfer of microbial contamination via cloths, hands and utensils. J. Appl. Bacteriol. 68:271-278.
- 15. Speirs, J. P., A. Anderton, and J. G. Anderson. 1995. A study of the microhial content of the domestic kitchen. Intl. J. Environ. Hthl. Res. 5.109-122
- 16. Von Gravenitz, A., and A. H. Mensh. 1968. The genus Aeromonas in human bacteriology: Report of 30 cases and review of the literature. N. Engl. J. Med. 278:245-249.

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Handwashing, Gloving, and Disease Transmission by the Food Preparer

Daryl S. Paulson

SUMMARY

Issues of foodborne disease tranmission continue to be of frontline importance to the restaurant industry. A well-designed, vigorously maintained program incorporating proper handwashing and/or gloving practices with control of the work environment can provide consistent assurance that patrons are served safe-to-eat food.

A peer-reviewed article.

INTRODUCTION

One of the most controversial issues in the food industry is legislation that prohibits bare-hand contact with ready-to-eat foods. Advocates of this legislation argue that, because vinyl gloves provide a microbiologically impenetrable physical barrier between food workers' hands and the food they handle, and because a significant number of food workers do not wash their hands adequately to remove potentially pathogenic microorganisms, wearing gloves should be mandatory. On the other hand, opponents argue that an effective handwash is sufficient, and glove-wearing is not necessary because the wash removes diseasecausing microorganisms from the hands. Additionally, they argue that relying on a glove barrier to prevent disease is unwise, because tears and rips to gloves are common. The tears and rips will readily allow microorganisms to pass through the gloves and onto the food.

Both views are correct, but only partially so.

MICROORGANISMS OF CONCERN

Generally, infectious diseases are spread in the food service environment in two ways: (1) hand contact with one's own infected feces and passage of microbial contaminants to prepared foods as a result of inadequate handwashing, and (2) handling of microbially contaminated objects (e.g., money, counters, soiled clothing, raw meats) and subsequent contamination of foods provided to the consumer (19).

In discussing disease transmission, it is useful to specify the types of microorganisms of concern. Table 1 presents the microorganisms most commonly involved in food-borne illnesses in New York State, 1975-98 (10).

Additionally, other microorganisms, such as enterotoxigenic strains of *Escherichia coli*, have been responsible for significant foodborne disease outbreaks in other parts of the United States.

Microorganisms that normally colonize hand surfaces pose little threat of infectious disease (20). There are situations, such as an infected cut, in which normal, resident microorganisms may cause disease; in such situations, however, washing serves to degerm the infected area, cleansing it of dead cells and exudative material (25).

ETIOLOGY OF INFECTIOUS DISEASE

For infectious diseases to be spread, the following five events must take place (23):

 The contaminating microorganisms must be physically transmitted to others. This can occur, when, for example, food workers contaminate their hands during defecation and pass the disease-causing microorganisms to consumers via hand-to-food contact.



TABLE 1. Organisms identified in foodborne outbreaks, New York State, 1975-1998

Agent	No. of Outbreaks	
Hepotitis A	28 (24.57%)	
Norwolk-like virus	21 (25.93%)	
Staphylococcus aureus	6 (7.41%)	
Shigella sonnei	5 (6.17%)	
Salmonella Typhimurium	5 (6.17%)	
Salmonella enteritidis	4 (4.94%)	
Group A Streptococcus	4 (4.94%)	
Giardia sp.	2 (2.47%)	
Salmonella paratyphi	1 (1.23%)	
Salmonella javiana	1 (1.23%)	
Vibrio cholerae	1 (1.23%)	
Shigella flexneri	1 (1.23%)	
Cryptosporidium parvum	1 (1.23%)	
Yersinia enterocolitica	1 (1.23%)	
Total	81 (100%)	

- 2. The contaminating microorganisms must physically enter a person. This can easily occur when food contaminated by enteric (intestinal) disease-causing microorganisms is ingested.
- 3. The contaminating microorganisms must spread from the anatomical site of entry to other areas of the body from the mouth to the intestinal tract - via food consumption.
- 4. The contaminating microorganisms must be able to multiply within the person. For example, Salmonella spp. and related microorganisms attach to the walls of the intestinal tract and subsequently colonize it.

5. Tissue damage must occur as a result of a combination of the microbial enzymes and toxins, as well as the person's immune response.

An effective handwash or intact barrier gloves disrupt the disease process after Event 1, either by removing the contaminating microorganisms from the hand surfaces or by imposing a physical barrier that prevents microorganisms from being transmitted from hands to foods (19).

DISEASE TRANSMISSION TO PATRONS VIA **FECALLYCONTAMINATED** HANDS OF FOOD WORKERS

Let us begin with the situation of infected food workers who may transmit infectious diseases by directly contacting food with contaminated hands.

Barrier gloves

The main purpose of barrier gloves is to prevent pathogenic microorganisms on the food workers' hands from being transmitted to patrons via bare-hand contact with food. A vinyl or latex barrier that is intact (no holes, rips, or punctures) will provide protection from microbial transmission of hand-contaminating microorganisms. However, vinyl food-grade gloves frequently have preexisting pinhole punctures that compromise the barrier protection (4). Further, food-grade vinvl gloves can easily be ripped, torn, or punctured while personnel perform their normal duties and, in many cases, such damage remains unknown to the wearer (5). Additionally, heat has been reported to alter significantly the integrity of barrier gloves, making them brittle and hence more prone to breakage. In practice, then, the actual protection provided by barrier gloves may be much less than many people assume.

In a study conducted at our laboratory facility, volunteer human subjects' hands were inoculated with a strain of Escherichia coli. The subjects then donned vinyl foodserver gloves that had four small needle punctures in each. Within five minutes, sampling of the outside of the gloved hands showed that E. coli had been transferred from the hands onto the outer surfaces of the gloves.

Wearing gloves may actually increase the potential for disease transmission. As one wears vinvl or latex barrier gloves over a period of time, microorganisms residing on the skin have a physical environment more favorable to growth than ungloved hands offer. This is because the gloves occlude the hands, thereby increasing the levels of moisture, nutrients, and other factors essential to microorganism growth (21, 23). This phenomenon has long been known in the medical field, in which antimicrobial handwashes are required prior to gloving. In studies conducted in our laboratory, we have observed that the population numbers of resident bacteria increase and that transient microorganisms, although not increasing in number, could maintain viability over a longer period of time than if they had been on bare hands. It appears that normal resident bacteria may crowd out the transient ones over time, via more efficient growth and attachment characteristics (17). Hence, relying solely on barrier gloves, without accompanying handwashes, to prevent disease is not prudent.

Handwashing

Two quantitative antimicrobial parameters are important when discussing handwashing: the immediate and the persistent antimicrobial effectiveness (19, 21).

Immediate antimicrobial effectiveness is the effectiveness of the handwash in terms of both the mechanical removal of contaminating microorganisms and the immediate inactivation of microorganisms through contact with the antimicrobial ingredient in the soap, lotion, or gel. Persistent antimicrobial effectiveness is the antimicrobial compound's ability to prevent transient microbial recolonization of the hand surfaces after handwashing because of either microbial inhibition or the compound's lethality.

A good handwash, then, has been shown in testing in our laboratory to be very effective in removing contaminating microorganisms. Assuring that food workers perform an effective handwash is another story.

RECOMMENDATIONS AND COMMENTS

Toward reducing the potential for disease transmission from food workers to patrons, I will make the following four recommendations:

> 1. Both gloving and handwashing should be required for those performing high-risk tasks such as handling, cooking, or wrapping food. Better yet, no direct hand/glove contact with the food should occur, with sanitized serving tongs or other utensils being used where possible;

- 2. Mandatory and ongoing sanitation training must be provided for all food workers;
- 3. High levels of personal hygiene must be enforced. Employees with an infectious disease (e.g., colds, flu, etc.) should not be allowed to have direct contact with food. with or without barrier gloves.
- 4. Monitoring and enforcement of, and accountability for, the three recommendations must be maintained.

Comment 1: Both glove-wearing and handwashing with an effective antimicrobial product prior to gloving should be required for those workers performing high-risk tasks involving direct hand/glove contact with food. Although neither is failsafe, it is probable that, used in conjunction, they will provide more protection against disease transmission than either used alone.

In a recent study at our facility, it was observed that gloving without performing a handwash supported prolonged survival of E. coli populations. When an effective handwash was performed prior to gloving, however, no prolonged growth promotion of the contaminative microbes was observed on the hand surfaces over the course of three consecutive hours of wearing.

It is recommended, therefore, that when gloves are worn, the gloving should be preceded by an effective handwash. It can be argued that, even when a handwash of only marginal quality is performed, if an effective antimicrobial soap is used, its antimicrobial properties (immediate and persistent), in combination with the glove barrier, will provide improved protection from disease transmission.

Comment 2: Sanitation training and education should be an ongoing and continuous effort, particularly with inexperienced and/or unmotivated workers. Unquestionably, in the absence of active participation of employees, achieving adequate sanitation standards will be very difficult.

Comment #3: A high degree of personal hygiene should be required of food workers. Employees should wear clean uniforms that are changed often, should bathe or shower often, and should not perform high-risk tasks when ill. Highrisk tasks include any hand/glove contact with food or with materials that come into direct contact with food

Comment #4: A quality control program supervised by qualified personnel should be initiated at each individual food service facility to monitor and enforce the handwash/ glove sanitation practices.

BEHAVIORAL ASPECTS

At a meeting of the National Advisory Committee on Microbiological Criteria for Foods, Dr. Dale Morse, New York State Department of Health, presented very sobering data concerning microbial contamination of food due to fecal contamination by food servers. His data indicated that, after New York State's prohibition of the touching of ready-to-eat food by bare hands, the incidence of foodborne disease dropped.

Does this mean that gloves are necessarily always safer than bare hands? It does not, if an employee performs an adequate handwash with an effective antimicrobial product, but it does suggest that such handwashes commonly did not occur. Hence, corrective measures that must be implemented by the food service industry are behavioral. And human behavior depends upon motivation, which depends upon values and meaning - both cultural (shared) and individual.

Shared values

Shared values are "cultural," or intersubjective, values (10, 11). Culture includes shared values not only of nations, but of an industry and of the members of a company. The importance of handwashing, gloving, and use of utensils to prevent microbial transfer to patrons must be a shared value among the members of the culture (8). It must

Figure 1. Behavioral aspects of good handwashing practices



have emotional meaning. The establishment of a set of values (e.g., to wash one's hands) can be effective coming from management in the form of policy. However, the policy must treat employees with dignity, with clear communication, with fairness, and with due process (1). The policy will then be translated into shared values that matter.

Sociologists and social psychologists tell us that cultural values (as well as shared beliefs, goals, and views) have meaning on at least two levels (15, 16). At the surface, or manifest, level, shared meaning and value is concrete (16). Regarding handwashing, it means to remove microorganisms from the hands after defecating, or else infections can be passed on to food consumers. Yet, if an employee is tired, sick, or harried, surface values are all too easily dismissed by rationalization and justification (14). That is, a person constructs a reason for not washing the hands properly or not washing them at all, for example, "There wasn't any soap," or "I forgot," or "John didn't wash his hands either." This is not meant to be judgmental, but to describe human behavior in terms of known psychological phenomena.

If shared meaning can be transferred to a deeper level, justification and rationalization are less likely to occur (22, 27). In such a case, one washes his/her hands because it is

important to feel part of a team, larger than the individual self. At this level, meaning binds individuals to one another. With deeper shared values, an individual is less likely to violate the rules (22).

Deeper shared values are instilled in employees when they not only understand, but feel personally that handwashing is important and not just another piece of red tape or another hoop to jump through. Additionally, the reinforcement of shared values must be an ongoing process, with positive, active managerial support of the in-house hygiene program.

Personal values

In addition to shared values, there are personal ones, which are likewise important. Unfortunately, to attain individual compliance with the handwashing codes, managers often take a "police state" stance toward handwashing (1): "If you don't wash your hands, you'll be fired." This, although initially effective, most probably will not be effective over the long run, particularly if nonhandwashing is used as a way to "passively aggress" an employer (1, 22). That is, if an employee feels betrayed or "screwed over" by an employer, s/he may semiconsciously respond by not washing his/her hands, to lash out at the employer to pay him or her back (6).

To counter and/or prevent passive/aggressive behavior, the work place must be psychologically safe enough for employees to voice their concerns and vent their frustrations (24), and food service employees must not feel psychologically belittled or threatened in doing so (18). Additionally, if employees are viewed merely as tools, all too often they go through the surface motions without really thinking or caring about their actions, because they know they are, after all, only tools (1).

Integration

The science we discussed initially - prevention of disease transfer from employees to patrons - must be linked to human behavior, which, as we also discussed, includes the shared and personal values that create meaning and are the basis for intentional behavior. A break in any of these three links blocks the desired behavior from occurring, but a strengthening of any of them promotes strength in the others (Fig. 1) (26). Clearly, changes in behavior require leadership from management and, fortunately, the same motivating behavior required to train and manage employees successfully can be applied equally effectively to a handwashing program.

DISEASE TRANSMISSION VIA CONTAMINATED OBJECTS

Let us now turn our attention to the situation in which disease is transmitted to patrons from food workers' hands that have become contaminated from direct contact with the work environment.

Etiology

The five events required for disease transmission, which were discussed earlier, (microorganisms are transmitted to a person, microorganisms enter a person, microorganisms spread from entry site, microorganisms multiply within a person, tissue damage results) are likewise relevant to this situation. but because the contaminative

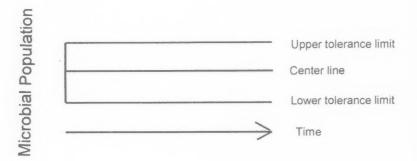
TABLE 2. Microbial counts per square foot of countertop after cleaning

100000								
	Week	1	2	3	4	5	6	
		150	285	72	352	225	63	
		272	195	195	495	132	395	
		171	162	87	168	151	195	
	$\bar{\times}$	198	214	118	338	169	218	

The grand average (average of the six weekly averages) is $\bar{\bar{x}}$ = 209, with a standard deviation of 66.76 * *

**The standard deviation in control chart methodology customarily calculates the variability by dividing by n, $\sum (\bar{x} - \bar{x})^2$ rather than n-1. (9)

Figure 2. Mean cantral chart farmat



process is one of "picking up" microorganisms from the work environment (money, countertops, wash sinks, clothing, nasal secreta, etc.) and passing them on via hand/glove contact with food, merely washing the hands before gloving or wearing barrier gloves will not prevent the process (2). The "clean" hands/ gloves become contaminated from the environment and provide a potential vehicle for disease transmission (4, 5, 19). Hence, the hands need to be washed and/or gloves changed frequently. Additionally, an effective program for disinfection of the work environment must be established (3, 19, 20).

Recommendations and comments

The following four recommendations will contribute to reducing the potential for this type of disease transmission.

- 1. Handwashing and barrierglove changing should be frequent.
- 2. An effective environmental disinfection/sanitation program must be established.
- 3. Restriction of tasks among workers must be practiced to prevent cross-contamination.
- 4. A program of sanitation training must be provided on a continuous basis.

Comment #1: Instead of merely requiring employees to wash and glove after using the toilet, employees must be encouraged to wash their hands and/or change their barrier gloves frequently. This is particularly true when workers move from one work task to another. For example, if an employee works at the french-fried potato fryer, then goes on a break, it should be mandatory that his/her hands be properly washed and a glove change performed prior to returning to the work station.

Comment #2: Countertops, refrigerator handles, floors, tables, and other equipment should be cleaned frequently with an effective hardsurface disinfectant. This process will inactivate and remove contaminating pathogenic microorganisms.

Comment #3: Responsibility for specific tasks must be clearly identified among members of the workforce to prevent cross-contamination. Those employees working directly with food (cooking, wrapping, dispensing, etc.) should not have direct hand contact with patrons, handle money, or pass food over a common counter.

Comment #4: Environmental air. countertops and other hard surfaces, and wash sinks should be sampled on a regular basis to determine both species and population numbers of microorganisms in these areas (2, 19). Normal environmental population numbers should be established. monitored, and controlled. One of the most effective ways to monitor microbial population numbers is to utilize quality control charts for each sampling area (9); that is, environmental samples taken at the various sites (e.g., wash sink, soap tray, wash sink water control knobs. service counter A, etc.) should be analyzed (19).

Control chart methodology

Control chart methods are very valuable for monitoring and controlling microbial contamination within a food establishment (9, 12). A control chart is a simple graph on which microbial population numbers at a specific environmental site (sink, countertop, etc.) are recorded over time (9, 12). The control chart's vertical axis most commonly is scaled to microbial population numbers (Fig. 2). It is termed a mean control

TABLE 3. Range of microbial counts from countertop Week 2 3 5 4 6

123

327

93

332

**Range = highest -lowest value (e.g., week 1, 272 - 150=122)

123

122

Figure 3. Mean chart of microbiol counts per squore of countertop ofter cleaning

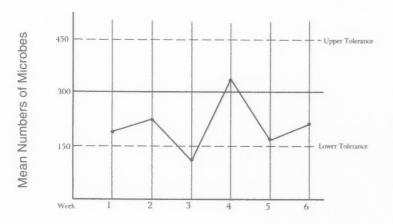


Figure 4. Ronge chart of microbiol counts from countertop

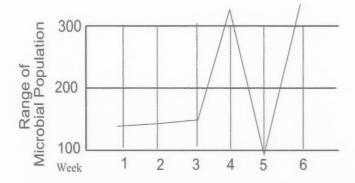


chart because the center horizontal line represents the average target value of the process being measured.

The upper and lower tolerance levels are customarily placed at ±3 standard deviations from the mean, based on the data generated. The tolerance limits should be tighter than the specification limits (i.e.,

allowable health code microbial limits). Then, if sample results begin to exceed the tolerance limits, the problem can be corrected before specification limits are exceeded.

An example of how it works may be useful: Three separate random samples (obtained by pressing Rodac plates onto the countertop randomly) are taken from a stainless steel countertop each week for six weeks (Table 2). Results obtained with the three samples per week are then averaged and plotted on a mean control chart (Fig. 3). The microbial tolerance levels are set using an internal quality control standard of, for example, 300 ± 150 microorganisms per square foot. Hence, the set upper tolerance limit is 450 microorganisms per square foot, and the lower tolerance limit is 150. The lower limit is a mathematical convention and is not really applicable to any loss of sanitation control. Additionally, swab samples of the countertop are taken and plated on selective media to screen for coliform bacteria (Escherichia coli, Shigella sp., and Salmonella sp.) (2, 7, 11).

The grand average (average of the six weekly averages) is $\bar{x} = 209$, with a standard deviation of 66.76. The data from Table 2, as presented in Fig. 3, demonstrate that the environmental cleaning process is within set corporate limits, as well as within regulatory code. Exceeding the lower tolerance level is of no practical concern, because it more than meets the governmental standard.

Range control chart methodology

The range chart is simply a graph on which the range (highest value minus the lowest value) of a sample set is plotted. Using the data from Table 2, we can generate the values presented in Table 3.

Corporate limits on the range are, for example, set at an average of 200 microorganisms per square foot, with 300 as the upper limit. Customarily, no requirements exist for the lower limit on the range, because it is irrelevant to the topic of excessive microbial contamination, the issue of concern. Figure 4 presents the plotted range chart.

Using the control charts

Standard quality control manuals provide detailed information on

Figure 5. Mean cantrol and range charts: Example 1

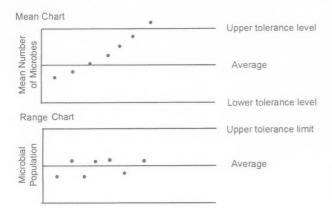
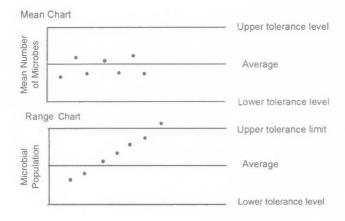


Figure 6. Mean cantral and range charts: Example 2



setting up and evaluating control charts. Generally, three situations can be detected and corrected by use of the mean and range charts in tandem:

- 1. Mean control chart values drift and, if corrective action is not taken, may eventually exceed tolerance limits; range chart data do not shift (no trend apparent) (Fig. 5).
- 2. The mean control chart does not show a shift (trend), but the range chart does (Fig. 6).
- 3. Both the mean and range charts show significant shifts over time (Fig. 7).

Shift in mean chart/range chart constant (Example 1, Fig. 5)

In this situation, the mean chart indicates that microbial count averages have increased over the seven weeks plotted. Perhaps the cleaning agent is ineffective, the exposure time to the disinfectant is too short, the active ingredient in the disinfectant is degrading too quickly, or there is a seasonal increase in microorganisms. However, because the variability of the microorganisms is constant, according to the range chart, it is doubtful that variability in the cleaning process is the problem.

Mean chart constant/range chart shifting (Example 2, Fig. 6)

In this situation, the Range Control Chart data suggest either a spotty, hasty cleaning process that has not covered the countertop uniformly or faulty microbial sampling procedures. Notice that, as the weeks go by, the range increases, i.e., the variability in the cleaning process is increasing. Because the mean chart is constant, the environmental sanitation program is probably still adequate (e.g., disinfectant is effective, there is no seasonal increase in microorganisms, etc.).

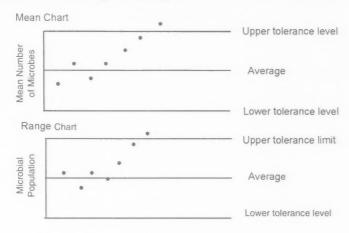
Both the mean and range charts shift (Example 3, Fig. 7)

In this situation, the environmental cleaning process is out of control; the microbial population countertop levels are increasing, as is the variability between samples. This indicates (mean chart) that the disinfectant may no longer be useful in the way it is being used and/or that a seasonal increase in contaminative microorganisms is occurring. Moreover, the range chart suggests that the cleaning procedure is disinfecting some countertop areas more effectively than others-for example, the procedure may be too hasty. Further, there may be a problem with the microbial sampling procedures if cleaning thoroughness and uniformity are thought to be satisfactory.

CONCLUSION

What has been presented is only a general outline for a hand and workplace sanitation program. The responsibility lies with managers, quality control personnel, and other investigators to "flesh out" this program with specific technical requirements that are appropriate to their particular work environments, and that will assure that patrons are served safe-to-eat food.

Figure 7. Mean cantral and range charts: Example 3



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REFERENCES

- 1. Anthony, W. P., P. L. Perrewe, and K. M. Kacmar. 1999. Human resource management, 3rded. Harcourt Brace & Company, NY
- 2. Baron, E. J., L. R. Peterson, and S. M. Finegold. 1994. Bailey and Scott's diagnostic microbiology, 9th ed. Mosby, St. Louis.
- 3. Bruch, M. I. 1991. Methods of testing antiseptics: antimicrobials used topically in humans and procedures for hand scrubs. In Block, S. S. Disinfection, sterilization and preservation, (ed.) 4th ed. Lea & Febiger, Philadelphia.
- Fendler, E. J., M. J. Dolan, and R. A. Williams. 1998. Handwashing and gloving for food protection, Part I. Dairy Food Environ. Sanit. 18:814-823.

- 5. Fendler, E. J., M. J. Dolan, R. A. Williams, and D. S. Paulson. 1998. Handwashing and gloving for food protection, Part II. Dairy Food Environ. Sanit. 18:824-829.
- 6. Fenichel, O. 1996. The psychoanalytic theory of neurosis. Norton, NY.
- Frazier, W. C., and D. C. Westhof. 1988. Food Microbiology, (rev. ed.). McGraw-Hill, NY.
- 8. Geertz, C. 1973. Interpretation of cultures. Basic Books, NY.
- 9. Grant, B. L., and N. S. Leavenworth. 1988. Statistical Quality Control, 6th ed. McGraw-Hill, NY.
- 10. Guzewich, R. S., and M. P. Ross. 1999. Evaluation of risks related to microbiological contamination of ready-to-eat food by food preparation workers and the effectiveness of interventions to minimize those risks. FDA Report, FDA Center for Food Safety and Applied Nutrition, Washington, D.C.
- 11. Joklik, W. K., H. P. Willett, D. B. Amos, and C. M. Wilfert. 1992. Zinsser microbiology, 20th ed. Appleton & Lange, Norwalk, CN.

- 12. Juran, I. M., and F. M. Geyna. 1980. Quality planning and analysis: from product development through use, 2nd ed. McGraw-Hill, NY.
- 13. Kaplan, R. S., and D. P. Norton. 1996. The balanced score card, Harvard Business School, Boston.
- 14. Kaplan, H. I., and B. J. Saddock. 1995. Comprehensive textbook of psychiatry, 6th ed. Williams and Wilkens, Philadelphia.
- 15. Lenski, G., P. Nolan, and J. Lenski. 1995. Human societies, 7th ed. McGraw-Hill, NY
- 16. Merton, R. K. 1957. Social theory and social construction. Free Press, Glencoe, IL.
- 17. Mims, C. A. 1987. The pathogenesis of infectious disease. 3rd ed. Academic Press, NY
- 18. Norcross, J. H., and M. R. Goldfried. 1992. Handbook of psychotherapy integration. Basic Books, NY.
- 19. Paulson, D. S. 1996. To glove or to wash: a current controversy. Food Quality, June/July, p. 60-63.
- 20. Paulson, D. S. 1996. A broad-based approach to evaluating topical antimicrobial products. In J. M. Ascenzi, (ed.). Handbook for disinfectants and antiseptics. Marcel-Dekker, NY.
- 21. Paulson, D. S. 1999. Handbook of topical antimicrobial testing and evaluation. Marcel-Dekker, NY.
- 22. Peterson, J. V., and B. Nisenholz. 1999. Orientation to counseling, 4th ed. Allyn and Bacon, Boston.
- 23. Schaechter, M., G. Medoff, and B. I. Eisenstein. 1993. Mechanisms of microbial disease, 2nd. ed. Williams & Wilkens, Baltimore, MD.
- 24. Shapiro, D. H., and J. Astin. 1998. Control therapy. John Wiley and Sons, NY.
- 25. Van Way III, C. W., and C. A. Buerk. 1978. Surgical skills in patient care. C. V. Mosby, St. Louis.
- 26. Wilber, K. 1996. A brief history of everything. Shambhala, Boston.
- Wolberg, L. R. 1977. The technique of psychotherapy, Part I, 3rd ed. Harcourt Brace and Company, NY.

Ivan Parkin Lecture

Reclaiming Dinner: Enhancing Food Safety and Consumer Confidence

Douglas A. Powell

ecision-making in Western democracies is increasingly driven by the public - and there is no one public but many - and consumers are, understandably, demanding more from people like the dedicated professionals of the International Association for Food Protection. When individuals or their families perceive risks or benefits from the food they eat, they will demand clear and concise communications and actions from those in charge. But the arcane language of probabilities and technological proficiency lends itself poorly to the public arena; facts alone are never enough. In short, trust is more important than science in establishing links with the community at large.

Media coverage and public interest in microbial food safety issues has been growing steadily, even dramatically, since the 1993 Jack-in-the-Box outbreak in the Pacific Northwest of the U.S. (Powell and Leiss, 1997), now at unprecedented levels. The outbreaks are now immediate fodder for public discussion — and in many cases a class-action lawsuit.

Producers, processors, distributors and retailers must remain vigilant about enforcing good management practices, and communicating about them. The public wants to know that you are listening to their concerns and are working to reduce a broad range of risks,

including food safety issues, but also broader social concerns such as agricultural biotechnology, environmental risks, animal welfare and dietary concerns.

The members of the International Association for Food Protection and IAMFES before that have a long and proud history of reaching out to those on the farm-to-fork food chain, as well as the broader public at large. But now that food protection is front and centre in public, political and personal discussions, that effort must be redoubled.

Further, there are some disturbing trends in the affluent West that amount to nothing more than new-age hucksterism about all things pure and natural. Of course, North American history is rich in fad diets that promise weight loss and spiritual health in one morally satisfying package. Dr. Kellogg's exploits detailed in The Road to Wellville, set the pattern: quack science, great PR, ritual purification of the sinful body and, in the end, a successful business (at least till the next fad).

Health, fat, diets are the consuming passion of North American society as the boomers hit 50. The generation that first discovered sex, drugs, rock & roll, free love, parenthood, the mid-life crisis and menopause — male and female — has now discovered death. And along with those who want to face biological realities

there will be those who desire to live beyond their biological means. We are still in the vitamin or the newest twist, nutraceutical, era and will soon be in the clean food era, - following previous attempts to prolong life through the pseudoscience of monkey glands, mother's milk, and, as King David tried, sleeping between two virgins.

Whether it's excess fat leading to cancer, heart trouble and diabetes, nasty bacteria leading to food poisoning, or unknowns surrounding the use of agricultural chemicals leading to fear, people are worrying about what they eat. Meals, it seems, are no longer gatherings at which friends and family share stories and food, but a crisis of introspection and guilt.

One result is the \$50-billion diet industry that has grown up in North America, attracting all manner of gurus, shaman and scientists intent on getting rich, famous, or both by telling people what and how to eat. One trend is that consumers, rightly or wrongly, believe that farmer's markets are sources of safer produce of higher quality. Conversely, food produced on large, so-called conventional farms, is bad. Beginning in the last week of May this year, the town of Walkerton, Ontario, about 60 miles northwest of Guelph, Ontario, experienced an outbreak of E. coli O157:H7 that has been linked to six deaths and approximately 2,000 illnesses. This in a town of 5,000. It has been devastating to say the least. Yet there has been no information from Health Canada and others as to the extent of testing, what or who has been tested, what happened and so on. Consumers are, understandably, skeptical.

Canadian pop-scientist David Suzuki and others say the culprit is factory farming and the answer is a return to the pastoral settings of vesteryear, without acknowledging that E. coli O157:H7 is present in one to 15 percent of all ruminants, cattle, sheep, deer, and that big facilities have access to more effective waste control measures. For example, during the weekend of May 26 and 27 2000, a group of youngsters attended a scout camp in New Deer, Aberdeenshire, Scotland.

They pitched their tents in a field and enjoyed the outdoors. However, by the end of the outing, some 35 had developed diarrhea and testing confirmed E. coli O157:H7 in 18 of the children. Health investigators found a flock of sheep that grazed in the field also tested positive for E. coli O157:H7, as did some surface puddles. Contact with fecal material and subsequent cross-contamination is the most likely explanation, as food and water consumed during the weekend tested negative. These are hardly what anyone would describe as factoryfarmed animals.

The danger is that people will become further impervious to risk; that is, if they don't live next to one of these factory farms, they won't be at risk. For example, unpasteurized apple cider has been recognized for years as a potential vehicle for E. coli O157:H7 and other pathogens. Yet in 1999, as part of a farm visit with my then five-year-old's kindergarten class, the hundreds of students were offered a beverage of unpasteurized cider, one that was fortunately (for me) served heated in a coffee urn. When asked if the cider was heated because of either microbial or litigacious concerns, or both, the owner responded, "No, all our food is fresh. But when the cider has sat around too long, heating removes that off-smell."

Genetic engineering, the latest in a long line of powerful technologies, has considerable regulatory oversight - much more so than conventional foods – to appropriately steward such a technology. Genetic engineering is powerful – and that is the source of potential benefit and unrestrained angst.

Revolutionary technologies have long created three public responses, in succession: unrealistic expectations (all new technologies are oversold), confusion and eventually finding a way to cope. In 1817, Mary Shelley, a member of England's radical intellectual elite, warned about science being out of control at a time when fundamental advances in organic chemistry led some charlatans to claim that they had discovered the secret of life.

Through the new-found wonders of chemistry, her Professor Frankenstein creates a monster that pursues him. He finally pays the price for his hubris with his life. But does that mean science should not improve either our understanding of the natural world or what some would deem life in its natural state - "nasty, brutish and short," as described by British philosopher Thomas Hobbes.

Anyone can say the sky is falling. But where are the solutions? They are to be found in here with the Members of IAFP; let me affirm that science has a responsibility to lead. There is a sizable challenge to integrate public perception and opinion into decision-making, but in our rush to embrace fuzzy notions of safety let's not abandon the leadership role that science has in public decision-making.

Through the 2000 growing season, I worked with a producer who farms 300 acres of fresh fruits and vegetables near Toronto, Ontario to establish a model farm where geneticallyengineered sweet corn and potatoes were grown side-by-side with conventional varieties. The project was publically announced on June 6, 2000, following public meetings and consultation with neighbors.

Once the crops began to emerge, a walking trail was opened – in response to customer demand – where visitors to the farm market were able to stroll amongst the crops and garner a better understanding of the trade-offs and technologies involved in food production.

To date, customers have been extremely supportive and curious; they have not expressed a desire to trample crops. When the corn and potatoes are ready for harvest whole foods that can easily be labeled and segregated – direct consumer testing for taste and purchasing preference will be conducted at the farm market and several other supermarkets in Ontario.

The research is designed to help farmers decide what technologies are most appropriate for their farming operations and to help consumers wade through the growing mythologies regarding various methods of crop production. For example, sweet corn is a nutritious vegetable that I can easily persuade my children to eat. However, sweet corn is also produced using a lot of chemical sprays. Field-trials in the U.S. have demonstrated a significant reduction in pesticide use on genetically-engineered Bt-

sweet corn. And rather than just lobbing soundbites, we are seeking to add some meaningful data to the public conversation about genetically-engineered foods, and food production in general. And rather than simply relying on visitors to the farm, we are using digital video and Internet-based technologies to bring the farm to consumers. Weekly video updates of the crops' development are available at www.plant.uoguelph.ca/safefood, under the Model Farm section.

I urge the Members of IAFP to reach out to all the various communities who need your expertise. If you better understand public concerns, and take actions to demonstrate that you understand, you as an individual, as an organization, will be deemed more credible. You will be deemed responsible.

You will be deemed trustworthy. And that is how to enhance both the safety of, and confidence in, the food supply. Trust, as any parent or spouse knows, is fragile. Paul Slovic of the University of Oregon, has noted that trust is created rather slowly, but can be destroyed in an instant. As Abraham Lincoln recognized over a century ago in a letter to Alexander McClure, "If you once forfeit the confidence of your fellow citizens, you can never regain their respect and esteem."

Or as Ivan Parkin said in his 1955 presidential address, we are dairy and food sanitarians, whether employed by regulatory bodies, industry or educational units, serving the public, and we are here to help in the betterment of our fellowmen... persons.

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Scenes from the 87th Annual Meeting



"hat a fabulous Meeting! Over 1,300 food safety professionals from more than 30 countries traveled to "Hotlanta" Georgia to make the International Association for Food Protection's 87th Annual Meeting the best ever. All attendees were greeted with that warm southern hospitality by the Georgia Association of Food and Environmental Sanitarians volunteers. Under the leadership of Ed Giera, Judy Harrison and Pam Metheny, the local arrangements committee deserves a huge round of applause for all their hard work.

Pre-meeting Workshops

Hands-on training was provided to those who participated in two workshops preceding the Annual meeting. Dr. Joseph Eifert, Dr. W. Payton Pruett, Jr, and Gary Smith presented the workshop "Microbiological Sampling Plans and Sample Col-

lection for Food Processors". "Using Information Technology to Manage Food Safety Risks" was presented by Dr. Arthur Liang, Dr. John Griggs, Dick Ohaus, Karen Mullery and Frank Yiannas. All the participants gained valuable knowledge.

Committee Meetings

Committee Meetings started bright and early Sunday morning and ran throughout the day. The Affiliate Council Meeting was well attended with over 40 people present. Several Committees prepared Symposia for IAFP 2001. Under the direction of Scott Burnett and Kali Phelps a new Student Professional Development Group held its first meeting. Over 60 students were in attendance. For more Committee information, see the Committee Minutes beginning on page 867.

Opening Session

Attendees were welcomed to the Meeting by President Jack Guzewich and Local Arrangements Co-Chairperson Ed Giera. President Guzewich and Past President Robert Brackett then inducted four long-time IAFP Members as Fellows of the Association. John C. Bruhn, Cameron R. Hackney, Bruce E. Langlois, and Lloyd O. Luedecke were recognized for their contribution to the Association and our affiliates. Congratulations!











A slight twist was thrown into this year's Opening Session when the Ivan Parkin lecturer, Dr. Douglas Powell from the University of Guelph was unable to attend the Meeting. However, due to the wonderful world of technology that we live in, Dr. Powell was able to video tape his presentation "Reclaiming Dinner: Enhancing Food Safety and Consumer Confidence" and transmit it to us electronically. Amazing!

From the Opening Session everyone moved to the Exhibit Hall for the Cheese and Wine reception. The latest products, services, and equipment were demonstrated by 88 Exhibitors. A great time was had by all as both personal and business relationships were renewed and formulated.

Educational Sessions

The program was excellent. Thanks to David Golden, Program Committee Chairperson and his Committee for putting together this outstanding program. Thanks also to our presenters, organizers, and convenors for all your work. Consisting of 21 symposia, 5 technical sessions with 60 oral presentations and 139 poster presentations and the General Session "Bioterrorism and Food Protection" there were topics of interest to everyone.

Business Meeting

The Annual Business Meeting was held on Tuesday afternoon. President Guzewich reported on the various accomplishments over his year as President and recognized four individuals by awarding them the President's Recognition Award. Receiving the Awards were Earl Wright and Harry Haverland for their contributions to the IAFP history project, Larry Mendes for his involvement in the formation of two Canadian affiliates, and Scott Burnett for his active involvement in establishing the Student Professional Development









Group. A special award was presented to Julie Cattanach, Membership Services, for her 15 years of service to IAFP. The Meeting continued with various reports from the Committees, Affiliate Council Chairperson, and the Executive Director. As an item of new business, Affiliate Charters were presented to Quebec, Canada; Mexico and the Capital area (Washington, D.C.) Affiliates. We welcome these affiliates to the IAFP family. See page 864 for the Business Meeting minutes.









Foundation Fund Contributions

At the IAFP Annual Meeting in 1999, Anne Quilter Goldstein, then 1st Vice President of the California Association of Dairy and Milk Sanitarians (CADMS), presented the Foundation Fund a check for \$1,000. CADMS then challenged other affiliates to do the same.

At the 2000 Annual Meeting in Atlanta, that challenge was made again after Giselle Puckett, 1st Vice President of CADMS, gave another \$1,000 to the Foundation Fund on behalf of her Affiliate. For the first time ever, another Affiliate stepped forward, when Members of the Florida Association for Food Protection Executive Board donated \$1.001 to the Foundation Fund.





Awards Banquet

The grand finale of the Meeting was the Awards Banquet. After an excellent dinner, several individuals were awarded for their contributions to "Advancing Food Safety Worldwide." See page 855 for a listing of award recipients.

Social Events

All work and no play is not the way to spend your time at any meeting. Therefore, we offered several opportunities for people to get together in a more informal setting to network and socialize. The highlight was the Monday night social, which was a trip to the Fernbank Museum of Natural History. The Museum is a beautiful facility featuring unique state-of-the-art galleries and exhibitions including a magnificent display of Egyptian art.





Thanks for being a part of the world's leading food safety conference. We look forward to seeing you next year in Minneapolis, Minnesota August 5 - 8, 2001.



• The Annual Meeting was held in Atlanta, Georgia August 6-9, 2000 •

















Golf Tournament Prizes

	Team		Prize	Final Score	
1st Flight					
1st	Patrick Killorin/G	reg Fingar	\$200.00	73	
2nd	Robert Jenne/Mar	k Jenne	\$120.00	74	
2nd Flight					
1st	Tom Brant/Jim Ca	mp	\$100.00	75	
2nd	Marty Gushwa/La	cie Thrall	\$ 80.00	76	
Hole Prize Compe	tition	Winner		Prize	
Closest to the Pin		Greg Fingar		\$ 50.00	
Longest Putt		Frank Pool		\$ 50.00	
Longest Drive		Greg Fingar		\$ 50.00	

• Fellows •

The IAFP fellows program was established in 1998. This prestigious honor is for individuals who have contributed to IAFP and our affiliates with quiet distinction over a prolonged period of time. John C. Bruhn, Cameron R. Hackney, Bruce E. Langlois, and Lloyd O. Luedecke were inducted as Fellows at the Opening Session of the 2000 Annual Meeting. Each Fellow received a marble plaque. Congratulations and thank you for your dedication.



IAFP President Jack Guzewich (left), and Past President Robert Brackett (far right) present this year's Fellows. From left to right are John C. Bruhn, Cameron R. Hackney, Bruce E. Langlois, and Lloyd O. Luedecke.

2000 Award Winners



IAFP Past President Robert Bracket (left) and Wilbur Feagan pose with Frank Pool and Richard Manning of Zep Manufacturing Company, the 2000 recipient of the Black Pearl Award. Sponsored by Wilbur Feagan and F & H Equipment Company.

Black Pearl Award

Zep Manufacturing Company Atlanta, Georgia, USA

The Black Pearl Award recognizes a company for its outstanding commitment to, and achievement in corporate excellence in food safety and quality. Zep Manufacturing Company is this year's honored recipient of the Black Pearl Award. The award sponsored by Wilbur S. Feagan and F&H Food Equipment Company, is awarded to a company for its efforts in advancing food safety and quality through consumer programs, employee relations, educational activities, adherence to standards and support of the goals and objectives of the International Association for Food Protection.

Zep Manufacturing Company, headquartered in Atlanta, Georgia, is a unit of National Services Industries, Inc., a publically-held company listed on the New York Stock Exchange. The company operates manufacturing plants and distribution facilities throughout the United States, Canada, Europe and Australia. Products include disinfectants, detergents, lubricants, maintenance products, insecticides, and a wide assortment of specific and general application cleaners and sanitizers.

Zep Manufacturing Company coordinates its operations from coast to coast and throughout the world to provide prompt, quality service to over 400,000 customers. The customers are as diverse as the product line, and include schools, hospitals, hotels, municipalities, manufacturing and food processing plants, restaurants, supermarkets and public utilities. The company's history dates back to 1937 when founder, Mandle Zaban, decided to pursue his lifetime dream and start his own business. Mr. Zaban's business philosophy was centered on three basic precepts: (1) customer satisfaction, (2) exceptional products, and (3) an educated

Zep is a 63-year-old company and has nine manufacturing facilities under ISO 9000 and 66 branches throughout the world. Zep manufactures over 2,000 products and has one of the largest lines of food products in the industry. The 2,000-member sales force allows for each facility to have local representation to provide superior service.



IAFP President Jack Guzewich (left), presents this year's Honorary Life Membership Award. Accepting the award for William L. Arledge is Earl Wright.

Honorary Life Membership Award

This prestigious honor is awarded to long-time IAFP Members for their dedication to the high ideals and objectives of IAFP and for dedicated service to the Association. The winners of the Honorary Life Membership Aware are William L. Arledge and Robert L. Sanders.

William L. Arledge Loudon, Tennessee, USA

Mr. William L. Arledge was Corporate Director of Quality Assurance for Dairymen, Inc. in Louisville, Kentucky, and was responsible for administering policies and training related to the overall quality control programs and laboratories in Dairymen, Inc. and its subsidiaries, Flav-O-Rich and D. I. Manufacturing. He was also responsible for coordinating all supply and equipment programs for member dairymen as an adjunct to the Quality Program and was responsible for the Health and Safety Program of Dairymen, Inc. and subsidiaries. He wrote a monthly article titled "Quality and You" for over 20 years for the membership of Dairymen, Inc. in their magazine, Dairymen News.

Except for a term of active duty in the United States Army of four years as an Army Aviator, Mr. Arledge has spent his entire working life in the dairy industry. He graduated from the University of Tennessee in Knoxville with a degree in dairy manufacturing and a minor in dairy microbiology and mechanical engineering.

Mr. Arledge's work in the dairy industry started in 1945, during his high school and college years, with Mayfield Dairy in Athens, Tennessee. During college, Mr. Arledge also worked at the University of Tennessee Creamery. After a tour of active duty, he returned to the University of Tennessee, followed by a year's experience selling dairy equipment and supplies. In 1960 he joined Southeast Milk Sales in Bristol, Virginia, as Director of Quality Control, remaining in this capacity until the formation of Dairymen, Inc. in September 1968.

Mr. Arledge has been a Member of IAFP since 1957, having served as President in 1981. He served as Chairperson of two separate subcommittees of the Farm Methods Committee and as a member of the Applied Laboratory Com-

Mr. Arledge has also been very active in many other phases of the dairy industry. He has been a member of the National Mastitis Council Board of Directors since 1964, serving as NMC President in 1971. He has been an active participant of the Interstate Milk Shipments Conference and a member of its Executive Board since 1969. Mr. Arledge has also served as Chairman of the Standards and Research Committee of the American Dry Milk Institute and Chairman of the IMS Committee of the National Milk Producers Federation.

Robert L. Sanders Pensacola, Florida, USA



IAFP President Jack Guzewich (left), presents Robert L Sanders (right) with the 2000 Honorary Life Membership Award.

Mr. Robert L. Sanders has worked in the dairy industry for most of his life. After service in World War II, he attended Iowa State University and graduated with a B.S. in dairy industry in 1950. Mr. Sanders worked in the cheese industry for Kraft Cheese Co. for three years, was employed by the Des Moines City Health Department as a Milk Sanitarian for eight years, five of which he was Chief Milk Sanitarian, and then worked as a Milk Sanitation Rating Officer for the Iowa State Department of Health for two years.

In 1963 Mr. Sanders was called to active duty as a Sanitarian by the United States Public Health Service. He was assigned as a Milk Consultant to the Region V office in Chicago for four years. After obtaining his M.S. in public health in 1968 from the University of Michigan, he was assigned as Regional Milk and Food Consultant in the New York regional office for four years. In 1972 he was assigned to the headquarters staff in Washington, D.C. and worked there in various capacities until his retirement in 1992.

During his career, Mr. Sanders was awarded several public health service awards including the Individual and Unit Citations and the Commendation Medal, which he received on two separate occasions for his work in milk sanitation. He has been involved in several organizations including the National Mastitis Council, where he served on the Board of Directors, the Northeast Dairy Practice Council, of which he was a founding member and the first Secretary, and the American Academy of Sanitarians, Inc. of which he is a Founder Diplomat. Mr. Sanders was also the principle author in the 1978 and 1981 revisions of the U.S.P.H.S. Grade "A" Pasteurized Milk Ordinance and is a Registered Sanitarian.

Mr. Sanders became a Member of 1AFP in 1954 and served as 1AFP President in 1991. He has served on several committees including the Journal Management Committee (1972-1981), Farm Practices, the DFES Management Committee since its inception in 1981 and represented 1AFP on the Sanitarians Joint Council. At the affiliate level, Mr. Sanders is a member and Past President of the Iowa Association of Milk, Food and Environmental Sanitarians.

Mr. Sanders has been active in the 3-A Sanitary Standards program for almost 30 years. He was first appointed as a member of the IAFP Committee on Sanitary Procedures while working with the lowa Department of Health. Mr. Sanders has represented the PHS/FDA for over 18 years as their representative on the 3-A Steering Committee. After retirement in 1992 he was appointed a Trustee of the 3-A

Mr. Sanders and his wife Grace currently reside in Pensacola, Florida. They have two married sons and five grandchildren.

Harry Haverland Citation Award

Ann Draughon Knoxville, Tennessee, USA



Carl Groenewegen, DiverseyLever/U.S. Food Group presents Ann Draughon with the 2000 Harry Haverland Citation Award. DiverseyLever/U.S. Food Group sponsors this award.

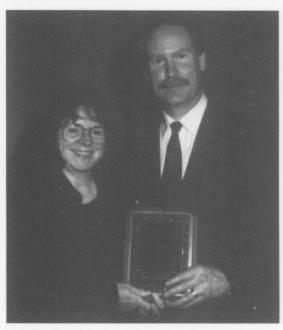
Dr. Ann Draughon has been awarded the Harry Haverland Citation Award for her years of devotion to the ideals and objectives of IAFP. Dr. Draughon is Professor in the Food Science & Technology Department at the University of Tennessee and Co-Director of the Tennessee Food Safety Initiative. She received her B.S. in microbiology in 1973 from the University of Tennessee, her M.S. in food technology in 1976 and her Ph.D. in food science/food microbiology in 1979 from the University of Georgia. Dr. Draughon's career began at Stokely Van Camp and she took her first faculty position at the University of Tennessee in 1979.

Dr. Draughon has published over 100 scientific papers, technical reports, position papers and popular articles on food safety and food protection and made hundreds of presentations. Her publications can be found in the Journal of Food Protection; Dairy, Food and Environmental Sanitation; Applied Environmental Microbiology; Food Microbiology; Journal of Food Science; Journal of Food and Agricultural Chemistry, etc. She currently holds over \$500,000 in extramural grant funding from FDA and USDA to evaluate the etiology and ecology of foodborne pathogens beginning at the farm and moving through the food processing system.

Dr. Draughon joined IAFP in 1973 and began attending the Annual Meeting regularly in Kansas City in 1983. She served as President of the International Association for Food Protection in 1996 and has been active as a Chairperson of the Program Committee, Developing Scientist Awards, Applied Lab Methods Committee and numerous other groups

within IAFP. She also co-chaired the Local Arrangements Committee for the Nashville IAFP Annual Meeting in 1998. Her favorite President's column describes her feelings about our Association: "Commitment is a Gift We Give Ourselves."

Harold Barnum Industry Award Kenneth Anderson Northfield, Illinois, USA



IAFP President Elect Jenny Scott presents Kenneth Anderson with the 2000 Harold Barnum Industry Award. Nasco International sponsors this award.

Mr. Kenneth Anderson is the recipient of the Harold Barnum Industry Award for his service to the public, the Association and the food industry. Mr. Anderson has been an active Member of IAFP since 1975. He has attended many Annual Meetings and has given a number of presentations on HACCP, GMPs and other dairy related subjects. As a past president of the Illinois affiliate, he has been very supportive of his local affiliate and played an active role in hosting two memorable Annual Meetings.

Prior to joining Harold Wainess & Associates, Mr. Anderson worked nine years for the Illinois Department of Public Health - Division of Food, Drugs & Dairies where he inspected dairy farms and processing plants in Northern Illinois. As an FDA Certified Rating Officer, he also conducted surveys for the Interstate Milk Shippers (IMS) Program. Now with Harold Wainess & Associates for 16 years, Mr. Anderson is a consultant to a number of dairy processors, manufacturers of dairy processing & packaging equipment and fabricators of single-service containers throughout the United States, Canada and Europe.

Mr. Anderson serves on the IMS Single-Service Container Committee and the Technical Engineering Review Committee of IMS. He is a member of the 3-A Steering Committee and serves on a number of 3-A equipment task committees.

Educator Award

Susan S. Sumner Blacksburg, Virginia, USA



Fritz Buss, Nelson-Jameson, Inc. presents Susan Sumner with the 2000 Educator Award. Nelson-Jameson sponsors this award.

Dr. Susan S. Sumner has been awarded the Educator Award. This Award recognizes an IAFP Member for outstanding service to the public, the Association and the arena of education in food safety.

Dr. Sumner received her B.S. in food science from North Carolina State University and her M.S. and Ph.D. in food science from the University of Wisconsin. She joined the microbiology staff of the National Food Processors Association in 1987 as a Project Microbiologist. In 1990, she joined the food science and technology faculty at the University of Nebraska-Lincoln. In August 1996, Dr. Sumner joined the faculty at Virginia Tech as an Associate Professor and Extension Project Leader.

Dr. Sumner is a dedicated professor, who cares about her students, her stakeholders, and her profession. She has been a leader for IAFP and exemplifies the best of the tripartite mission of the Department of Food Science and Technology and has demonstrated excellence in teaching, extension and research. Dr. Sumner has taught courses and workshops in quality assurance, food microbiology, food product development, sanitation, and HACCP.

Dr. Sumner's many years of dedication to the Association are reflective of her integrity and skill as an educator. She strives for the best and has attained it in many aspects. Dr. Sumner serves on the Journal of Food Protection Editorial Board and the Dairy, Food and Environmental Sanitation Management Committee. Her past involvement in the Association includes serving on the JFP Management Committee, chairing the 1998 Program Committee, and serving as the Affiliate Council Chairperson. Dr. Sumner is a member of several Professional Development Groups within IAFP and is an active member of her local affiliate.

Sanitarian Award

Norris A. Robertson, Jr. Gaithersburg, Maryland, USA



IAFP President Jack Guzewich (left), presents Norris A. Robertson, Jr. (right) with the 2000 Sanitarian Award. Ecolab Inc., Food and Beverage Division sponsors this award.

Mr. Norris A. Robertson is the recipient of the Sanitarian Award. This Award honors an IAFP Member for his/her service to the public, the Association and the profession of the Sanitarian. Mr. Robertson was born in Denver, Colorado where his father was serving in the military. He grew up on a small farm in the Macedonia Community of Union County in North Mississippi. He started school at Macedonia and graduated in the last class from Macedonia High School in 1961. He entered college for a short time and then was off to the Army with tours of duty in Germany and Korea.

Upon completion of military duty in 1969, Mr. Robertson began work in public health with the Chickasaw County Health Department. His career in public health was interrupted for completion of his B.S. and M.S. in dairy science at Mississippi University. That career in public health was revived as a Milk Sanitarian with the Mississippi State Department of Health (MSDH) in 1979. The MSDH furthered that career by making Mr. Robertson the Milk and Shellfish Sanitation Program Director in 1981. He continued to direct milk program responsibilities until retiring from the state in 1996. In that same year, the FDA placed Mr. Robertson on the staff of the Milk Safety Team.

Mr. Robertson has been active in IAFP, the Committee on Sanitary Procedures for the 3-A Sanitary Standards, and represented the state at the National Conference on Interstate Milk Shipments (NCIMS) for virtually his entire career in the State Milk Program. He continues to represent FDA on committees of the NCIMS.

Developing Scientist Winners



Developing Scientist Poster and Oral Winners: (front left) Lee-Ann Jackson; (right) Madonna Cate, 3rd Place Oral; (back row, left to right) William Weissinger, 1st Place Poster; Robert Williams, 3rd Place Poster; and Peter Taormina, 1st Place Oral. (Not pictured: Marlene Janes, 2nd Place Poster and Nathanon Trachoo, 2nd Place Oral.)

Innovations in Food Microbiology Award



Innovations in Food Microbiology Award, (front left)
Tri Wirjantoro, Silver; (right) Karen Middleton, Gold;
(back row, left to right) Tec Fawcett, Seward Limited;
Roy Betts, Camden and Chorleywood Research Assn.;
and James Knowles, Silver.

Developing Scientist Awards

The Developing Scientist Awards Competition is sponsored by the International Association for Food Protection Foundation Fund. The program was developed to encourage and recognize the work of students and recent graduates in the field of food safety research. This program has been very successful and has increased the participation by students and recent graduates in the Association and the Annual Meeting.

Innovations in Food Microbiology Award

The Innovations in Food Microbiology Award, sponsored by Seward Limited, London, United Kingdom, recognizes representatives of University departments working on the development of new technologies or methodologies for use in the microbiological safety and quality of food. Receiving the Gold Award was Karen Middleton of the University of Wolverhampton, Wolverhampton, United Kingdom. Silver Award recipients were Tri Wirjantoro of the University of Reading, Reading, United Kingdom and James Knowles of the University of Southbank, London, United Kingdom.

NFPA Food Safety Award

Elmer H. Marth Madison, Wisconsin, USA



President-Elect Jenny Scott presents this year's NFPA Food Safety Award to Elmer H. Marth. Accepting the award is Eric Johnson. National Food Processors Association sponsors this award.

Dr. Elmer H. Marth is this year's recipient of the National Food Processors Association's (NFPA) Food Safety Award for his outstanding contribution to food safety research and education. Dr. Marth was born on a farm near Jackson, Wisconsin. After graduating from a rural one-room grade school and the West Bend (Wisconsin) High School, he enrolled at the University of Wisconsin-Madison where he received his B.S. (1950), M.S. (1952), and Ph.D. (1954) degrees, all in bacteriology

After three years of post-doctoral work at University of Wisconsin-Madison, Dr. Marth joined the Research and Development Division of Kraft Foods in Glenview, Illinois. In 1966, when he was Associate Manager of the Microbiology Laboratory, Dr. Marth left Kraft Foods and returned to the University of Wisconsin-Madison as Associate Professor of Food Science with joint appointments in Bacteriology and Food Microbiology and Toxicology (Food Research Institute). He was promoted to Professor in 1971 and was named Emeritus Professor upon retirement in 1990. In 1981, Dr. Marth was a Visiting Professor at the Swiss Federal Institute of Technology-Zurich.

At University of Wisconsin-Madison, Dr. Marth was Major Professor for 32 M.S. students and 32 Ph.D. students. He is the author, co-author and editor of over 660 scientific publications, including research papers, review papers, books, chapters in books, patents, and abstracts of papers given at professional meetings. Of these, over 500 dealt with food safety. From 1967 to 1987 he was editor of the Journal of Food Protection.

Dr. Marth's research on food safety dealt with aflatoxin, aflatoxin M., patulin, rubratoxin, Escherichia coli, Listeria monocytogenes, Salmonella, Staphylococcus aureus and degradation of sorbic acid. He also taught courses in food sanitation, food fermentations, writing scientific reports, and foodborne disease hazards.

The Crumbine Award **Olmstead County Public Health Services** Rochester, Minnesota, USA



President Jack Guzewich (left), presents Stephen Lackore (right) with the 2000 Crumbine Award.

The Crumbine Award recognizes excellence and continued improvement in a comprehensive program of food protection at the local level. The winner of the 2000 Samuel J. Crumbine Consumer Protection Award is the Olmstead County Public Health Services in Rochester, Minnesota.

This year's sponsors include: the Conference for Food Protection in cooperation with American Academy of Sanitarians; Association of Food and Drug Officials; Foodservice & Packaging Institute, Inc.; International Association for Food Protection; International Food Safety Council; National Association of County and City Health Officials; National Environmental Health Association; NSF International; and Underwriters Laboratories, Inc.



President Jack Guzewich presents Jill Snowdon, Capital Area Food Protection Association with an Affiliate Charter.



President Jack Guzewich (right), presents Alex Castillo (left), Mexico Association for Food Protection with an Affiliate Charter.



President Jack Guzewich, presents Gisele LaPointe of Quebec Food Potection Association with an Affiliate Charter.



Affililate Council Chairperson Randy Daggs (left), presents Michael Juhasz, Michigan Environmental Health Association (right) with the 2000 C. B. Shogren Award.

AFFILIATE AWARDS

MEMBERSHIP ACHIEVEMENT AWARD

Highest Percentage Increase: Alberta Association of Milk, Food and Environmental Sanitarians

Kansas Association of Sanitarians

Highest Number Increase: California Association of Dairy and Milk Sanitarians

BEST COMMUNICATIONS MATERIALS FOR AFFILIATES AWARD

New York State Association of Milk and Food Sanitarians

BEST EDUCATIONAL CONFERENCE FOR AFFILIATES AWARD

Associated Illinois Milk, Food and Environmental Sanitarians

BEST ANNUAL MEETING FOR AFFILIATES AWARD

Florida Association for Food Protection

C. B. SHOGREN AWARD

Michigan Environmental Health Association

Annual Meeting Sponsors

3-A Sanitary Standards Symbol Administrative Council

3M Health Care

3M Microbiology Products

ABC Research Corporation

Abell Pest Control

American Egg Board

American Institute of Baking

Atlanta Convention & Visitors Bureau

BD Biosciences

bioMérieux. Inc.

Capitol Vial, Inc.

DQCI Services, Inc.

DiverseyLever/U.S. Food Group

Electrol Specialties Company

Ecolab, Inc.

Ecolab, Inc., Food and Beverage Division

Ecology and Environment, Inc.

F&H Food Equipment Company

Wilbur Feagan

FoodHandler

GENE-TRAK Systems

Georgia Peanut Commission

Gold Kist, Inc.

Guardian Food Group, Inc.

IAFP Foundation Fund

International Life Sciences Institute, N.A. (ILSI, N.A.)

International Packaged Ice Association

Jack in the Box, Inc.

Ken's Foods

Kraft Foods, Inc.

The Kroger Co.

Massey Services Inc.

Mayfield Dairy

Nabisco, Inc.

NASCO International

National Food Processors Associacion

Nature's Purest

Nelson-Iameson, Inc.

NESTLÉ USA, Inc.

NSF International

Orkin Pest Control

Parmalat New Atlanta Dairies

Pepsi-Cola Company

Principato Wines

Publix Super Markets Inc.

Qualicon, A DuPont Subsidiary

Rich Sea Pack Corp.

Silliker Laboratories Group, Inc.

Southern Ice Cream Specialties

Sterigenics International, Inc.

Strausburger & Siegel, Inc.

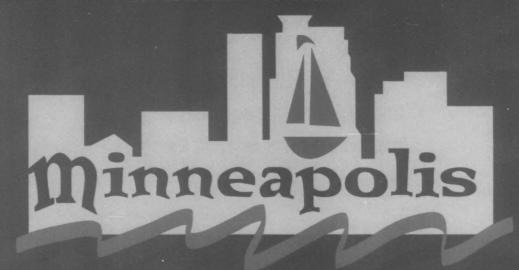
SUDIA (Southeast United Dairy Industry Association)

USDA/Partnership for Food Safety Education

Warren Analytical Laboratory

Woodson-Tenent Laboratories Inc.

Zep Manufacturing Company



IAFP 2001

88th Annual Meeting

Experience the City of Lakes

August 5-8, 2001



Hilton Minneapolis

• Minutes •

of the 87th Annual Business Meeting August 8, 2000 • Atlanta, Georgia

President-Elect Jenny Scott welcomed attendees and introduced President Jack Guzewich.

Moment of Silence

President Jack Guzewich asked those present to observe a moment of silence in memory of departed colleagues.

Call to Order

The Annual Business Meeting of the International Association for Food Protection was called to order at 4:22 p.m. at the Hilton Atlanta in Atlanta, Georgia. A quorum was present as defined by the IAFP Constitution.

With the approval of the Executive Board, Randy Daggs was appointed as Parliamentarian for the Business Meeting by President Guzewich.

Minutes

Minutes from the IAFP 86th Annual Business Meeting were approved as they appeared in the November 1999 *Dairy, Food and Environmental Sanitation.* The motion was made by Michael Brodsky and seconded by Ewen Todd.

President's Report

President Jack Guzewich reported on programs and activities of IAFP over the past year. He noted that the name change was approved by 94% of the voting members. Membership is now over 3,000, the History Project was completed and booklets are available to members, and *JFP* experienced growth in the number of manuscript submissions and in the number of international submissions. He also reported that the 2000 Annual Meeting had over 1,300 attendees, over 300 presentations, 97 exhibitor booths, and two workshops. He noted an increase in the number of Affiliates sponsoring students to attend the Meeting and he acknowledged those present.

President Guzewich reported that a Student PDG was started, a new award called the "Innovations in Food Microbiology Award" sponsored by Seward Limited of London, United Kingdom, was created and three new Affiliates were formed. He thanked

members who served on Committees, Professional Development Groups and Task Forces during the past year and also thanked the IAFP staff for their work on behalf of the Association.

President Guzewich informed the membership that Frank Bryan, Chairperson of the Committee on Communicable Diseases Affecting Man, had submitted his resignation. He thanked Frank for his many years of service to the Committee and the Association.

President Guzewich then presented the new, President's Recognition Awards to five individuals for their efforts on behalf of the Association.

- Scott Burnett, Graduate Student at University of Georgia, for his efforts in creating the Student Professional Development Group.
- Larry Mendes, J.M. Schneider of Kitchener, Ontario, for his assistance in the formation of two Affiliates: British Columbia and Quebec.
- Harry Haverland for his work on the History Project.
- Earl Wright for his work on the History Project.
- Julie Cattanach, IAFP Membership Services, for 15 years of service to the Association.

Tellers Committee Report

Teller Dec Clingman reported that 1,118 votes were received on the question of accepting a revised Constitution which effectively changed the name of the Association to the International Association for Food Protection. There were 1,049 votes for, 67 votes against and 2 illegal votes. A total of 744 were needed for acceptance. A motion by Jill Snowdon and seconded by Earl Wright to destroy the ballots was approved.

Dee also reported that Paul Hall had been elected as Secretary for the 2000-2001 year. A motion by Carl Custer and seconded by Bob Sanders to destroy the ballots was approved.

JFP Management Committee Report

Don Conner reported that manuscript turn around is now accomplished in a 7-10 month time frame, over 400 manuscripts were submitted last year, 276 have been received so far during 2000 and there has been an increase in international submissions. He also reported that Larry Beuchat will resign as Scientific Editor effective December 31, 2001.

DFES Management Committee Report

Linda Harris reported that although we continue to print two to three articles per month in *DFES*, submissions are down for the year 2000. She encouraged colleagues to submit papers for publication and to encourage others to do the same. "Thoughts on Food Safety," the last page column in *DFES* has provided current opinion on timely topics in food safety this past year. Committee discussion centered on making a change to *DFES*" name. A subcommittee was established to make recommendations at the 2001 Committee meeting. It was recommended the journal switch to perfect binding with the next volume to accommodate additional pages. In addition, the Committee recommended printing the *Journal of Food Protection's* Table of Contents each month in *DFES*.

Foundation Fund Report

Harry Haverland reported on the programs supported by the IAFP Foundation Fund. He reported the goal of \$100,000 in 2000 had not yet been achieved and suggested that if each member contributed at least one dollar it could be achieved. Giselle Puckett, on behalf of the California Affiliate, presented a \$1,000 donation check to the Foundation Fund and challenged other Affiliates to do the same or more. Frank Yiannas and members of the Florida Affiliate then met that challenge with a pledge for \$1,001.

Affiliate Council Report

Randy Daggs reported on the Affiliate Council Meeting. With 25 Affiliates present, Peter Hibbard from Florida was elected as the new Affiliate Council Secretary and revised Affiliate Guidelines were approved. Recommendations to the Executive Board include reconsidering Toronto as a future Annual Meeting site, moving the time of the Affiliate Educational Session and investigating insurance coverage for Affiliates. Fred Weber will serve as Affiliate Council Chairperson for 2000-2001.

Executive Director's Report

David Tharp introduced staff present and recognized their efforts and the efforts of the staff at the Des Moines office in carrying out the business of the Association in the most professional manner. He said it had been a very busy year taking care of details related to the Association name change. Recently, e-commerce and an online Membership Directory were added to the Web site. About 20% of this year's registrations were received online.

David reported a 15% increase in Annual Meeting attendance and 15% increase in exhibitors over 1999. Also, more than a 28% increase in abstracts received for the 2000 Annual Meeting was reported. He stated that with this growth, it is important to recognize that the Association is committed to the dairy industry. It was pointed out that continued involvement from the Dairy Quality and Safety PDG will drive our dairy programming.

David reported that 28 of 34 Affiliate organizations submitted their required Annual Report. This was a large increase over past years and he expected 100% participation in 2001. Efforts have been made to improve communications between IAFP and its Affiliates over the past few years and it is now paying off.

The General Fund Statement of Activity for the year ending August 31, 1999 was distributed showing results adding almost \$32,000 to the General Fund. David expected the Association would end the current year with net results exceeding budget, thus further reducing the negative fund balance. A seven-year trend for revenue and expense was also distributed and discussed.

Unfinished Business

No unfinished business was brought before the Annual Business Meeting.

New Business

Affiliate Charters

President Guzewich presented Affiliate Charters to Alex Castillo, President of the Mexico Association for Food Protection, Gisele LaPointe, President-Elect of the Quebec Food Protection Association and Jill Snowdon, President of the Capital Area Food Protection Association.

Bylaws Amendments

Michael Brodsky presented four proposed amendments to the Association Bylaws as printed in the June 2000 *Dairy, Food and Environmental Sanitation*. President Guzewich requested a motion to accept the amendments as proposed. The motion made by Michael Brodsky and seconded by John Bruhn was approved.

Adjournment

President Guzewich adjourned the meeting at 5:29 p.m.

Respectively Submitted,

Anna Lammerding, Secretary

• Highlights • IAFP Executive Board Meeting August 4-10, 2000 • Atlanta, Georgia

Following is an unofficial summary of actions from the Executive Board Meeting held August 4-10, 2000 in Atlanta, Georgia:

Approved the following:

- Minutes of March 31-April 2, 2000 Executive Board Meeting
- Issuance of Affiliate charter to the Quebec Food Protection Association (QFPA) as the 36th Affiliate
- Issuance of Affiliate charter to the Capital Area Food Protection Association (CAFPA) as the 37th Affiliate
- Issuance of a Certificate of Merit to Robert Hennes, Washington Association for Food Protection

Discussed the following:

- Communication Update: Reports on DFES, JFP
 and the Web site were accepted. Journal
 production on schedule, manuscripts needed for
 DFES, manuscript processing time for JFP
 continues to shorten, online Annual Meeting
 registration and online Membership directory
 very successful
- Membership Update: Membership increasing at 3.5% over same period one year ago. New name and Annual Meeting cited as factors
- Advertising Update: Ad sales outpace prior year by 20%, Exhibit Hall to have 97 exhibit booths, Annual Meeting sponsorship received excellent response
- Financial Update: June financial statements reviewed, results continue ahead of budget
- Affiliate Newsletter mailed early July
- Prospective new Affiliate organizations in United Kingdom, Brazil, Philippines, Portugal, and Manitoba
- IAFP Officer presentations to Affiliate organizations
- Need to have a local leader to promote International Association for Food Protection at Affiliate meetings
- Board liaison-Committee meeting schedule

- Committee Member appointments for 2000
- Retail Food Safety and Quality PDG development of technical guidelines for retail operations
- Maurice Weber Laboratorian Award criteria
- 3-A Task Force report
- Journal Scientific Editor terms
- Committee Chairpersons' reports
- Preparations for the 2000 Annual Meeting in Atlanta
- Review of the 87th Annual Meeting
- Planning for 2001 and 2002 Annual Meeting
- Future Annual Meeting sites and site selection issues
- Begin using IAFP 2001-the 88th Annual Meeting
- Annual Meeting Workshops
- Produce Safety Workshop to be November 12, 2000 in Guadalajara, Mexico
- Co-sponsorship of Japan PC2000, and ASAE 2000
- IAFP on the Road American Society of Agricultural Engineers, October 9, NSF Food Safety Conference October 11, United Fresh Fruit & Vegetable Association March 17, Food Safety Summit April 17
- History project completed
- 3-A Administrative Symbol Council discussion with Warren Clark, Council Chair
- 3-A Administrative Trustee appointments
- 3-A Administrative Symbol Council-house offices at IAFP?
- World Health Organization-process to become a non-governmental organization designee
- World Association of Veterinary Food Hygienists joint efforts
- International Association for Food Safety Professionals changed name
- Committee and PDG guidelines for Web site usage
- Pertinent Committee recommendations

Next Executive Board meeting: November 12-13, 2000, Des Moines, Iowa

Committee Minutes IAFP 87th Annual Meeting August 6. 2000 • Held at the Hilton Atlanta • Atlanta. Georgia

STANDING COMMITTEES

Dairy. Food and Environmental Sanitation **Management Committee**

Called to order: 1:35 p.m.

Present: Linda Harris, Christine Bruhn, William LaGrange, Larry Bell, Harold Bengsch, Bob Gravani, Doug Holt, LeeAnne Jackson, Karen Mullery, Christopher Newcomer, Catherine Nnoka, Robert Sanders, Susan Sumner, Fred Weber, Alex Von Holy, Peter Hibbard, and Ken Priest.

Board Members/Staff Present: Jack Guzewich, Donna Bahun, and Lisa Hovey.

Agenda was reviewed. Call for workshops and symposium was added. Agenda was approved.

Recording Secretary: Doug Holt was appointed.

Minutes of 1999 meeting were reviewed and accepted.

The Scientific Editor Report, Bill LaGrange

Bill LaGrange reviewed the submissions for 1999 and 2000 to date. He noted that there was a problem getting reviewers to return reviews in a timely manner. There are 25 members of the editorial board for DFES. There are no terms for reviewers. It was suggested that term limits be considered. It was also suggested that accurate record keeping was needed to identify chronically "late" reviewers. The staff now sends manuscripts to a third reviewer if one of the first two chosen does not respond in a timely manner. They strive to get a return review in six to eight weeks total

In addition, submissions are down for the journal. It was suggested that the staff should write letters to PDGs encouraging manuscript submissions from their members as well.

The difference between DFES and JFP manuscripts was discussed. Articles for *DFES* should be general. The materials submitted to JFP are usually more in depth and more technical in nature. The original intent of DFES was to create a bridge from information presented at the annual conference to individuals working in the field. The overall goal was to have

a balance of submissions from different types of membership groups.

Production Editor Report, Donna Bahun

Donna Bahun reported that publication dates have been moved to allow journal mailing at the first of the month. Abstracts are now posted on the IAFP Web site. The journal has added a career service section for employment ads. They are also posted on the IAFP Web site at no additional charge. "Spot color" is used throughout the journal. This serves to make the journal in general more attractive.

Executive Board Report, Jack Guzewich

Jack Guzewich offered his thanks to Chairperson and Vice Chairperson, all Committee Members and the DFES Board. He reiterated that the articles in IFP are often not directly applicable to field members and that DFES serves an important function, to bridge to individuals in the "field."

Jack reported on the accomplishments of the organization over the past year.

The history of IAFP has been published with help of past presidents covering the periods from 1911 to

There was a discussion about who was the editor of DFES from 1993 through 1996. After some discussion it was decided that John Bruhn was the editor during that period and that this should be noted in the next revision of the history.

IAFP Report, Lisa Hovey

In addition to a general overview of the organization, Lisa noted that the Membership directory is online now, is searchable, and will be updated bi-monthly. This met with very favorable response from the committee.

Old Business:

"Thoughts on Food Safety" column has been part of the back page of journal for the last 1.5 years. The "Thoughts on Food Safety" column ran eleven times in the past year. This is good, but it is hard to get enough submissions. The column has served as a great way to focus on issues – "hot topics." On the other hand, the column requires a lot of effort to get the articles. Finding 12 topics and getting people to submit articles are the most difficult issues. Last year

a subcommittee was established to help keep the column going. This committee had a conference call in February. Twenty-five to thirty topics were generated and potential authors were identified. The committee then worked on contacting potential authors. Linda Harris invited participation from other committee members in the subcommittee or just with ideas. Donna Bahun reported that the last submission will be published in September, and there are no others currently available for use.

The Membership of IAFP is not generally invited to submit articles. A discussion of the rationale for inviting submissions ensued among the committee. The decision was made to continue to invite rather than solicit articles was made to help keep the column focused and in control.

Linda Harris will prepare a list of published topics and a list of topics being pursued. This will be distributed to the DFES management committee.

Subcommittee members of the "Thoughts of Food Safety" column are: Linda Harris (Chairperson), Christine Bruhn, Robert Gravani, and Christopher Newcomer. Karen Mullery and Doug Holt volunteered to participate as well.

Arrangements were made for the subcommittee to meet Tuesday, August 8 at 7:00 a.m.

Business Plan:

This was a recommendation made by the DFES committee last year. The IAFP Board's response was to ask Donna Bahun and David Tharp to prepare the document. Donna Bahun shared a draft of the business plan, but noted that they wanted additional input from the committee as to what was required.

A subcommittee was established consisting of Fred Weber (Chairperson), Chris Newcomer, Robert Sanders, and Karen Mullery. It was noted that there was some concern about keeping the journal solvent and making it more in line with the new image and focus of IAFP. It was thought that a mission or vision statement for the journal would help. Others noted that the recommendation for a business plan was in part stimulated by the need for a strategic plan and how the DFES committee's work fits into the overall IAFP mission statement. The committee stressed the need for the DFES Business Plan subcommittee to consider the IAFP business plan in their plan. It was decided that this subcommittee would work towards preparing a business plan for consideration at next year's DFES committee meeting.

New Business:

A name change for DFES was considered. A new name could help the journal fit with the overall organization name change. It was noted that the new name should have a broader scope to reflect the broad Membership of IAFP. It would also be nice if the new name were short and easy to say. Two possibilities: Food Protection Communiqué and Communications

on Food Protection were offered by Christine Bruhn. Someone suggested that the word "Journal" needs to be in the title, but there was not a consensus about this. Christine felt strongly that the idea of communication should be in the title. After some additional discussion about name possibilities the committee was cautioned to not make a hasty decision about the name change and to carefully consider the audience for the journal. It was suggested that while Membership increased with overall organization name change that does not necessarily follow that purpose served by the DFES should also change. The name change subcommittee was enjoined to consider the changing demographics of the organization as well as the past readers of the journal. Subcommittee: Christine Bruhn (chairperson), Chris Newcomer, Karen Mullery.

Linda Harris proposed that the committee prepare a report and recommendation to the committee at the next Annual Meeting.

The IAFP Board requested that Committees and PDGs consider developing ideas for workshops or symposia. General discussion of the committee revealed that most members were working on these with other PDGs. No ideas were offered.

Perfect Binding

There was discussion about changing the binding style and the paper type used to publish DFES. A technical discussion ensued. Of prime importance to many was the opacity of the paper to reduce the tendency of text and figures to "bleed through" especially during copying. After some additional discussion it was moved and seconded that the IAFP staff would be allowed to change binding style (to "perfect binding") and paper quality after they have considered the issues of opacity.

Christine Bruhn suggested that the table of contents for JFP be published in DFES. After a short discussion, the committee agreed that this was a good idea.

Summary of Recommendations to the Board:

1) Table of contents for JFP added to DFES on a monthly basis.

There was a short discussion about getting access to back issues of DFES and JFP. The IAFP staff indicated that they could help find specific articles for members. Others suggested that it would be good to have the last couple of years of the journal on the Web. It was noted that abstracts are available now.

Linda Harris noted that three members are leaving the DFES Management Committee: Robert Byrne, John Bruhn, and Pete Cook. She offered her thanks to them for their service to the committee.

Meeting adjourned: 3:00 p.m.

Linda Harris, Chairperson

Journal of Food Protection **Management Committee**

Members Present: Roger Cook, Maria Destro, LeeAnn Jaykus, J. Eric Line, Alejandro Mazzotta, Servé Notermans, E. Jeffrey Rhodehamel, Richard Whiting, Donald Connor, Isabel Walls, Larry Beuchat, and John

Members Absent: Jinru Chen, Martin Cole, Jeffrey Farber, Mansel Griffiths, and Ailsa Hocking.

Board Members/Staff Present: Jack Guzewich, Jenny Scott, Bev Corron, and Didi Loynachan.

Meeting called to order: 3:05 p.m.

Recording Secretary of Minutes: Isabel Walls.

Old Business:

- 1. Minutes of the 1999 meeting were reviewed and approved (Motion by Jeff Rhodehamel, seconded by Roger Cook).
- 2. Costs/benefits of offering electronic/online delivery of JFP were investigated. Allen Press will charge \$35,000 per year, for prior volumes. Therefore this is not cost effective at this time.
- 3. Staff investigated the opportunity of offering retrospective issues of JFP to be indexed in Index Medicus. To do this, JFP would have to be edited into a specific format. This would cost \$14,000. This was considered cost prohibitive.

New Business:

- 1. Report from Scientific Co-editors: Increased number of manuscripts published in 2000 (the first seven issues of volume 63) contained 143 research papers and 13 review papers, compared with 134 research papers, 3 review papers and 1 letter to the editor published in the first seven issues of Volume 62. Turn-around time for publication of manuscripts has decreased with the shortest time from submission to publication being 5 months. The rejection rate for manuscripts is around 40%. In 1999, 48.1% of articles published were submitted by researchers from countries other than the U.S.
- 2. Report from Administrative Editor. There is a 10% increase in submissions over last year. 66% of IAFP Members subscribe to the journal and there are over 1,140 Institutional Subscribers. An increase in subscription rates has been implemented for fiscal year 2000-2001, but page charges and reprints remain the same.

Summary of Activities and Action Taken:

- 1. To consider whether we should invite articles with no page charges.
- 2. Discussion on putting journals online.
- 3. President Jack Guzewich reported on the status of the Association.

- 4. Complaint about manuscript published with many grammatical errors. Isolated incident, but we may need to provide assistance to non-English speaker authors. So far, 2/3 of all submitted abstracts in 2000 are from authors outside USA. From non-English speaking countries, most came from Spain. Committee will consider seeking volunteers who would be willing to help researchers who do not come from English speaking countries with editing of manuscripts.
- 5. Discussion on use of Salmonella nomenclature. Concensus was to use short form of CDC nomenclature for Salmonella, i.e., Salmonella Typhimurium (species name omitted).
- 6. Discussion on copyright permission to publish article on Internet. Concensus was to continue IAFP policy on copyright permission for publication on the Internet i.e., after the article has been in print for one year.
- Larry Beuchat will not seek an additional term as Scientific Editor in December 2001. Also as there is an increase in submissions to the Journal, we may need a third Scientific Co-Editor.

Recommendations to Executive Board:

- 1. To consider whether we should continue to invite review articles with no page charges.
- 2. To continue assessing the costs/benefits of putting the journals online-explore other suppliers of online publishing.
- 3. To move to having three Scientific Co-Editors and to start recruiting one for Jan. 2001, and to seek a replacement for L. Beuchat.
- 4. Use the short form of CDC nomenclature for Salmonella, i.e., Salmonella Typhimurium (Salmonella Serovar, omit the species name).
- 5. To continue the current policy.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 4:40 p.m.

Don Conner, Chairperson

Program Committee

Members Present: Stan Bailey, Don Breiner, Donald Connor, Frank Yiannis, Jeff Farrar, LeeAnne Jackson, Lynn McMullen, and M. Nazarowec-White.

Board Members/Staff Present: Paul Hall, Jenny Scott, Bev Corron, and Fred Weber.

Meeting Called to Order: 4:30 p.m.

Recording Secretary of Minutes: Stan Bailey.

Summary of Activities and Actions Taken:

Symposia for 2001

The committee is aware of about 18 symposia that are proposed for next year. These include three from the dairy group and three from ILSI. Everyone was

encouraged to solicit more potential symposia and to report them at the Wednesday meeting.

2001 Meeting Workshops

Three potential workshops have been submitted topics are Crisis Management, Risk Assessment, and HACCP.

Off-site Workshops

Two or three offsite workshops are planned this year. One in Guadalajara, Mexico, on produce issues and one or two on Risk Assessment. Committee members were asked to think about suggestions for next year's Ivan Parkin Lecture and to bring these suggestions to the Wednesday meeting.

Being no further business the meeting was adjourned. The committee will reconvene for a meeting Wednesday at 12:30 p.m.

Stan Bailey, Chairperson.

SPECIAL COMMITTEES **Audiovisual Library Committee**

Members Present: Judy Harrison, Harry Haverland, Thomas McCaskey (Vice Chairperson), and Robert Sanders.

Members Absent: Kenneth Anderson, Debbie Cherney, John Christy (Chairperson), Warren Clark, Alice Haverland, Howard Malberg, David McSwane, Ellen Morton, Marsha Robbins, and P.C. Vasavada.

Retired from Committee: Thomas Gilmore, Bruce Langlois, and Ron Schmidt.

Board Members/IAFP Staff: Anna Lammerding, Lucia Collison, Frank Zuehlke, and Lisa Hovey.

Guests Present: John Bruhn and Earl Wright.

Meeting Called to Order: 10:15 a.m.

Recording Secretary of Minutes: Anna Lammerding.

Old Business:

International Association of Food Industry Suppliers (IAFIS) funding for AVL support no longer available.

Staff reports: All materials > 5 years old have been reviewed; all materials now reviewed on an ongoing

Requests for AVL materials increased from approximately 700 requests per year to 923 in past fiscal year. Approximately \$1,000 estimated for postage to countries outside of the USA.

New Business:

Discussion of need for increased hours to be devoted for AVL to track down over-due returns and handle increased volume.

Users' evaluation form revised, and comments will be databased to collate evaluations about materials held by the AVL. A summary will be provided to committee members.

Abbreviation used to denote "reviewed" in AVL listings (i.e. "rev.") is inappropriate as it is generally interpreted as "revised." Staff will spell out "reviewed" in future listings.

Summary of Activities and Action Taken:

Reviewed minutes of last year's meeting and actions of Executive Board on 1999 recommendations; new recommendations formulated.

Recommendations to Executive Board:

- 1. To approve proposed budget, an increase of \$1,700 (from \$10,500 to \$12,200) to cover increase salary costs and increased postage for shipping to International Members.
- 2. To have staff identify high frequency users from monthly usage reports, and report to Committee so that those individuals may be considered for participation on AVL Committee.
- 3. To profile need for new Committee members in Affiliate Newsletter.
- 4. To highlight to Members the need to obtain (preferably donated) multi-lingual AV materials. Particularly noted was Spanish, French, Chinese (Cantonese and Mandarin), and non-verbal/ closed-captioned materials.
- 5. To include on the AV Lending Library request form a statement asking for users to identify potential AVL materials.
- 6. That staff be authorized to make decisions about and act on obtaining more copies of high usage materials.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 12 noon.

Thomas McCaskey, Chairperson for John Christy

Committee on Communicable Diseases Affecting Man

Members Present: Ewen Todd, Judy Greig, O. D. (Pete) Cook, Daniel J. Maxson, Barry S. Michaels, Bert Bartleson, and Leslie Wisniewski.

Members Absent: Richard C. Swanson, Lawrence Roth, and Michael MacFarland.

Board Members/Staff Present: Jack Guzewich and Didi Loynachan.

Meeting Called to Order: 10:00 a.m.

Recording Secretary of Minutes: Bert Bartleson and Ewen Todd.

Old Business:

- 1. The Committee felt it was appropriate to consider articles on risk assessment and the role of the infected food worker in the transmission of foodborne disease. The former will be done in collaboration with the Microbial Risk Analysis PDG.
- 2. The manual on Procedures to Investigate Arthropod-borne and Rodent-borne Illnesses needs updating. The Committee felt that this should be done even though it is not specifically food related. However, potential food relatedissues include rodents and SE in poultry; recycled food contaminated by rodents, insects and birds; beavers, other rodents, and parasites; and use of manure in agriculture, and transfer by flies.

New Business:

- 1. The Committee and the Board received the resignation of its Committee Chairperson, Dr. Frank Bryan, by letter. It was regretted by the Committee, but it understood the reasons why this occurred. Dr. Ewen Todd was appointed Chairperson by the Board, with the Committee agreeing that Mr. Bert Bartleson would be Vice Chairperson.
- 2. A memo has been written to address comments from Committee members, as requested by the IAFP President, on the draft document "Multi-State Foodborne Outbreak Investigations" to be forwarded to Richard Barnes, FDA.

Summary of Activities and Action Taken:

- 1. The Committee plans to write articles on role risk assessment (Lead, Ewen Todd) and the role of infected food worker in the transmission of foodborne disease (Lead, Barry Michaels). Draft outlines by January 1, 2001.
- 2. Revise the existing manuals electronically over the next few years - Arthropod Vector-borne illness manual (Lead: Dan Maxson), and waterborne and disease manual (Leads: Pete Cook and Judy Greig).

Recommendations to the Board:

- 1. Whereas the Committee recognizes the tremendous contribution that Dr. Frank Bryan has made as a Committee member for 40 years, and the Chairperson for 30 years, as a leader in the development of four procedures manuals, and writing articles on communicable diseases, it is moved that there should be public recognition of his contribution by the Board in DFES.
- 2. The Committee requests that the manuals be put in electronic format to facilitate updates and revisions, especially the tables and diagrams.
- 3. The Committee requests that all data relative to existing manuals be obtained by the Board from the resigning Chair, including hard copies and electronic formats.

- 4. The Committee requests that electronic marketing or distribution of the manuals be explored by the Board and continue dialogue with the Committee on this issue. One suggestion is that manuals could be downloadable in components, e.g., text, tables forms, references, appendices, for convenience of the user.
- 5. The Committee requests from the Board a decision on whether to update Procedures to Investigate Arthropod-borne and Rodent-borne Illnesses, and if so, what should be included.
- 6. The Committee requests that one meeting each year, not during the Annual Meeting, be budgeted for to allow updates of manuals and drafting of articles.
- 7. The Committee requests that the article of the Association's history of the Committee prepared by Dr. Frank Bryan be published on the Web site, and that the Board consider appointing an historian or archivist to collect and retain archival documents relating to the history of the organization and its committees.

Next Meeting Date: To be determined, but before IAFP 2001 (see recommendation #6).

Meeting Adjourned: 5:00 p.m.

Ewen Todd, Chairperson

Constitution and Bylaws Committee

Members Present: Michael Brodsky, David Fry, Robert Sanders, and Ron Case.

Members Absent: Charles Price.

Board Members/Staff Present: Paul Hall and David Tharp.

New Business:

The Committee met briefly to ratify the proposed changes to the Bylaws. There were no further comments. The changes as proposed were ratified. The Committee recommended putting the changes to the Members for a vote at the Business Meeting on Tuesday.

Summary of Activities and Action Taken:

Michael Brodsky was appointed Chairperson for 2000-2001.

Dave Fry was appointed Vice Chairperson for 2000-2001.

Next Meeting Date: IAFP 2001.

Michael Brodsky, Chairperson

Foundation Fund Committee

Introductions and Role Call:

Members Present: Harry Haverland, Chairperson; Robert T. Marshall, Vice Chairperson; Jack Guzewich, Jenny Scott, Jim Dickson, and C. Dee Clingman.

Advisor: Earl Wright.

Board Liaison: Anna Lammerding.

IAFP Staff Liaisons: Lisa Hovey, Frank Zuehlke, and David Tharp.

Meeting Called to Order: 1:30 p.m.

Recording Secretary of Minutes: Robert Marshall.

Old Business:

The minutes of the 1999 meeting were read and approved.

New Business:

Harry Haverland reviewed the responses the IAFP Executive Board had made to the recommendations of this committee to the Board in 1999. Each of the recommendations were approved.

The committee reviewed progress of the programs and activities supported by the Foundation Fund. The Ivan Parkin Lecture speaker chosen was Douglas Powell. The Lending Library fulfilled about 90% of the requests for materials during the past year, a number that exceeded the previous year.

The Developing Scientists Poster Program is a successful effort. Twenty-five sets of the Journal of Food Protection and Dairy, Food and Environmental Sanitation were shipped to developing countries during the year. The Crumbine Award will be presented this year at the Awards Banquet.

Discussion was held regarding how the Foundation Fund endowment can be increased. A new effort by the IAFP Board to increase income from Sustaining Members should provide increased monies for the Foundation Fund. The discussion resulted in the following recommendations to the IAFP Executive Board:

- 1. That the Board instruct the Executive Director to evaluate potential ways to increase the Foundation Fund including the use of a fundraising consultant.
- 2. That the IAFP office develop promotional materials for the Foundation Fund to include for example, table tents, posters, slides, and/or brochures.
- 3. That the proposed budget for 2000-2001 year be approved. The budget includes an increase of \$1,700 for the Audiovisual Library.
- 4. Extend our thanks to the IAFP office staff.

The committee supports efforts of the Audiovisual Committee to make available multilingual visual aids for the audiovisual library.

Harry Haverland, Chairperson

IAFP Foundation Fund Budget Year Ending 8-31-01

Revenue:	
Interest Income	\$6,500
Contributions:	
Sustaining	10,000
Other	5,000
Total Revenue	\$21,500
Expense:	
Postage/Shipping	\$1,000
Speaker Travel	2,000
Awards	3,000
Ivan Parkin Lecture	1,800
Crumbine Award Support	1,000
Lending Library	12,200
Total Expense	\$21,000
Revenue Less Expense	\$500

Nominating Committee

Members Present: Randy Daggs (Vice Chairperson), Jeff Farber, Bob Gravani, and John Cerveny.

Members Absent: Russ Flowers and Catherine Nnoka.

Meeting Called to Order: 3:38 p.m.

Summary of Activities and Action Taken:

The committee reviewed its charge to develop the slate of the candidates for the Secretary from Education sector. The committee discussed the timetable for the task and developed a list of potential candidates. The committee then discussed criteria for selection and narrowed down the initial list to a shorter working list. The committee will consider the candidates on this list along with any nominations submitted by the Membership and select a slate of candidates for submission to the Association.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 4:40 p.m.

Randy Daggs, Chairperson

Past Presidents' Committee

New Business:

The Past Presidents' Committee met on Sunday, August 6, 2000. They were briefed on the status of the Association. The group reported very favorable comments related to the name change of the organization. The group also discussed in light of the name change if it were necessary to change the name of *DFES*. The group concluded the key focus of the publication should continue. The group felt the key word "sanitation" was very important in the title and should continue. The group also suggested the Executive Board review the liability insurance coverage of the Association in order to protect the financial health of the Association and its Membership.

Gale Prince, Chairperson

Committee on Sanitary Procedures

Members Present: Dan Erickson, Ron Schmidt and Steve Sims.

Board Members/Staff Present: Paul Hall and David Tharp.

New Members: Lynn Wilcott.

Other IAFP Members Present: Don Kimball, Chris Newcomer, Patrick Boyle, Jiaming Ye, and Jack Ulrich.

Meeting Called to Order: 10:00 a.m.

Recording Secretary of Minutes: Ron Schmidt.

Old Business:

Direction of 3-A Standards Development Organization and 3-A Symbol Authorization.

New Business:

- · Renewal of committee appointments
- Discussion of restructuring and/or change of committee name
- Discussion of third party audit system for symbol authorization
- Request for candidate names for trustee appointment

Summary of Activities and Action Taken:

- Nominations for committee appointments accepted
- Committee membership list amended and updated
- Discussion of future standards writing activities for food products other than dairy
- Candidate names for symbol council trustee appointment forwarded to IAFP Executive Board

Recommendations to Executive Board:

- Recommend approval of committee appointment nominations for renewed terms
- Recommend that the committee name be changed to "3-A Committee on Sanitary Procedure"
- Recommend that the board investigate forming a PDG on "Food Equipment Design and Construction Standards and Practices"

Next Meeting Date: April 2001, Milwaukee, WI. Meeting Adjourned: 12:01 p.m.

Dan Erickson, Chairperson

PROFESSIONAL DEVELOPMENT GROUPS

Applied Laboratory Methods Professional Development Group

Members Present: Robert Brooks, Yuon-Louis Trottier, Donna Christensen, Tim Jackson, Kim Lor, Claire Lee, Deog-Hwan Oh, and Frederick Leung.

Members Absent: Catherine Bowyer, Michael Brodsky, Musa Dahal, Lee-Ann Jaykus, Lee Jensen, Elizabeth Johnson, Claire Lee, Robert Marshall, Shelagh McDonagh, Douglas McDougal, Linda Polzin, Mary Robart, Lawerence Roth, Chris Wilkins, Rick Zampa, and Melissa Newman.

Board Members/Staff Present: Jim Dickson and Didi Loynachan.

Meeting Called to Order: 10:05 a.m.

Recording Secretary of Minutes: Melissa Newman.

Old Business: Rapid Methods Workshop – Development and expansion of 1999 proposal for a workshop associated with the IAFP Annual Meeting.

New Business:

- Election of a Vice Chairperson for the Applied Laboratories Methods PDG – Robert Brooks.
- Discussion of a proposed IAFP award recognizing outstanding laboratory contributions.

Summary of Activities and Action Taken:

The committee discussed the reasons that last year's proposal for a "Rapid Methods Workshop" was not accepted by the Program Committee. The general consensus was that the committee needed to commit to a long-term vision in order to develop a useful series of workshops and /or symposia about laboratory methods. This vision included a workshop for 2001 on *Listeria* Detection Methods, 2002 on *Campylobacter* Detection Methods, and a symposium for 2002 focused on Microbiological Data Validation and Statistical Acceptability. Modifications were made in the initial proposal to enhance the possibility of including a workshop for the 2001 IAFP Meeting. The following information will be submitted to the program committee for review:

Workshop Proposal:

Title – Critical Control Points in *Listeria* Detection **Organizers' Names:** Melissa Newman/Tim Jackson. **Preliminary Outline:** The workshop will be a one-day program dealing with the critical features of both culture and rapid methods currently used for the detection of *Listeria* in foods. The program will be

divided into two sections: the morning lecture/ discussion to be held at the host hotel, and the afternoon laboratory section at a nearby academic or commercial laboratory.

Presentations will include:

- 1) Critical Control Points in General Laboratory Techniques
- 2) Critical Control Points of Cultural Methods
- 3) Critical Control Points of Immunological Methods
- 4) Critical Control Points of Nucleic Acid-based Methods
- 5) Emerging Methods and Technologies Implications and Challenges
- 6) Laboratory Demonstrations/Exposure to Critical Control Points

Recommendation to Executive Board:

A series of workshops focused on the critical control points associated with microbiological analysis of foods. The first workshop developed for 2001 will focus on *Listeria* detection.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 11:35 a.m.

Melissa Newman, Chairperson

Dairy Quality and Safety Professional Development Group

Members Present: Gaylord Smith, Dan Erickson, Don Kimball, Kay Sadler, Barbara Lund, Helene Uhlman, Ron Schmidt, Ginny McArthur, Stephanie Olmsted, Sylvie Cantin, Giselle Puckett, Jack Ulrich, Kevin Hagen, Steven Sims, Gene Frey, Jeff Bloom, Yvon-Louis Trottier, Paul Dersam, Steven Murphy, Patrick Boyle, Lynn Wilcott, and Don Breiner.

Board Members/Staff Present: Paul Hall and David Tharp.

New Member: Lynn Wilcott.

Meeting Called to Order: 1:30 p.m.

Old Business: The meeting was called to order by Acting Chairperson, Don Breiner. Minutes from the previous meeting in 1999 were read and accepted. Prior to the minutes being read, each attendee was asked to introduce themselves and give their affiliation. The status of the "The Fieldman's Handbook" developed by Charlie Price was discussed and needs to be followed up by the Chairperson.

Symposia for the 2001 dairy sessions were then discussed. A symposium submitted on the overview of the dairy HACCP program as a voluntary alternative to traditional regulatory audits was accepted and would be forwarded to the Program Committee.

A second symposium on extended shelf life (ESD) of dairy products was discussed and accepted and

would be taken to the Program Committee. The symposium topics suggested involved system, theories, packaging, regulatory outlook, IDFA outlook, quality control/assurance and an overview introduction.

A third symposium on allergens was discussed and it was agreed that this should be taken to the Program Committee. The subject matter suggested for this symposium were an overview, a discussion of consumer awareness, recalls, regulatory status/concerns, processors concerns/policies, labeling/color coding and suppliers outlook.

It was also suggested that the idea of a workshop on Crisis Management/Response in regard to dairy/food areas. Chris Newcomer will look into the workshop and develop this concept.

Possible future symposia that were suggested were a look at alternatives to current pasteurization methods and a probiotic symposium, food supplements.

Another subject matter was expressed by Steve Sims regarding antibiotics on the increase. It was suggested that this could possibly be done at the Minnesota Sanitarians Sessions.

Being no other business the meeting was adjourned.

Next Meeting Date: IAFP 2001.

Chairperson, Gaylord Smith (for Wallace Jackson)

Food Safety Network Professional Development Group

Members Present: Gisele LaPointe (Chairperson) and Dion Lerman.

Board/Staff Members Present: Anna Lammerding (Board Liaison) and Bey Corron (Staff Liaison).

New Members: Kathleen O'Donnell, Wegman's Food Markets, Inc. Susan Ciani, Marriott International Doris Wo, Student, University of Hong Kong.

Meeting Called to Order: 10:05 a.m.

Recording Secretary of Minutes: Gisele LaPointe.

Old Business: None discussed.

New Business:

Nomination of Chairperson – Gisele LaPointe accepted this nomination. No further nominations were received.

Election of Vice Chairperson – Dion Lerman was unanimously elected to this position.

Summary of Activities and Action Taken:

New members were welcomed and the focus and prior activities of the Food Safety Network PDG were briefly presented by Gisele LaPointe. The importance of recruiting new members was stressed.

Possible future activities were discussed in relation to the concerns of the members present, resulting in the recommendations presented below.

Dion Lerman suggests the organization of a hands-on demonstration of electronic tools with two Internetconnected computers at a kiosque in the Exhibit Hall for the 2001 Annual Meeting. In preparation for this activity, he would like to collate specialized Internet sites of interest to food safety professionals submitted by the members-at-large of IAFP following a published request, possibly in DFES.

Bev Corron then suggests to make these links available on the IAFP Web site by the date of the Annual Meeting.

Doris Wo suggests that a question could be added to the membership application/renewal form to inquire whether Members would accept to receive E-mail in the specific categories of "General Announcements," "Messages" and "News."

Recommendations to Executive Board:

To include a question on the Membership application/renewal form inquiring whether Members are interested in receiving E-mail in specific categories.

For the 2001 Annual Meeting, that the Food Safety Network PDG, in collaboration with the Staff Liaison (Bev Corron) and the student PDG, organize a kiosque for hands-on demonstration of electronic tools of interest to food safety professionals.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 11:15 a.m.

Gisele LaPointe, Chairperson

Food Sanitation Professional Development Group

Members Present: Gloria Swick, Larry Mendes, Susan Ciani, Veny Gapud, Pete Snyder, Fred Reimers, Sheryl de Cabrerg, and Frank Yiannes.

Members Absent: Alex Van Holy, Alice Haverland, Brian Anderson, Brian Turner, Chris Remus, Dennis Thayer, Didi Loynachan, Myung-Woo Byun, Gordon Mowart, Howard Mahlberg, Marty Gushwa, Patrick Killorin, Phil Ventresca, Robert Tiffin, Sherman McDonald, and Thomas Schwarz.

Board Members/Staff Present: Paul Hall and Didi Loynachan.

Meeting Called to Order: 1:30 p.m.

Recording Secretary of Minutes: Frank Yiannas.

Old Business:

The group made plans to complete the following

- 1. Update the booklet "Before Disaster Strikes"
- 2. Develop a booklet to address food safety and sanitation in the home
- 3. Create several simple recipes for the preparation of high risk products

New Business:

- 1. Mission Statement
 - The group decided to create its own mission statement to more clearly communicate its role and purpose. The following mission statement was proposed "To make food safety information simple."
- 2. International Food Safety Icons The group decided that a team should be assembled to explore the possibility of developing International Food Safety Icons which would be visual representations of important food safety tasks that could be recognized regardless of a person's native language.
- 3. Vice Chairperson

It was proposed that Veny Gapud serve as Vice Chairperson of the Food Sanitation PDG, since this position was open. All of the members present were in favor.

Recommendations to Executive Board:

Because there appears to be several PDGs that could be working on similar projects, the group recommends that each PDG develop a brief mission statement to more clearly communicate to new Members their purpose and function.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 2:50 p.m.

Frank Yiannis, Chairperson

Fruit and Vegetable Safety and Quality **Professional Development Group**

No minutes submitted.

Meat and Poultry Safety and Quality Professional Development Group

Members Present: Chairperson, Norman Stern; Vice Chairperson, Ann Marie McNamara; plus thirty-three Members.

Meeting Called to Order: 10:00 a.m.

Recording Secretary of Minutes: Ann Marie McNamara.

Old Business: N/A

New Business:

Solicited ideas for symposia for 2001 IAFP Meeting. Elected Vice Chairperson for 2001-Ruff Lowman, Agriculture Canada. We discussed five topics circulated by the Chairperson prior to the meeting. Topics included:

(1) "Educating consumers and news media without destroying the food industry";

- (2) "Are we providing an ample, educated workforce for our food safety needs?"
- (3) "Could there be professional exchanges between industry, researchers, and government personnel?"
- (4) "Development of Risk Assessment Activities," and
- (5) "How do we optimally identify and deal with a new pathogen in the future?"

Summary of Activities and Action Taken:

Four symposia were developed, one (water and its effect on food supply) was given to another PDG for development. Three topics were brought to the Board for consideration.

Recommendations to Executive Board:

- The PDG would like to host a meeting between regulatory, industry and academic personnel to discuss internship programs in each others disciplines to encourage understanding of the issues each faces. This could be held at ILSI head-quarters. Volunteers are ready to help if the Board approves.
- There is a concern that IAFP have a more visible role in presenting safety issues to Congress, consumers, and news media.
- There is a need to improve the image of food safety professionals by promoting national food safety month and a registering exam for food safety professionals.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 3:30 p.m.

Norman Stern, Chairperson

Microbial Food Safety Risk Assessment Professional Development Group

Members Present: Don Schaffner, Richard Whiting, Lee-Ann Jaykus, Servé Notermans, and Ewen Todd.

Members Absent: Nina Parkinson, Morris Potter, O. Peter Snyder, Paul Vanderlinde, Dianne Peters, Tom Ross, Susan Sumner, Suzanne Van Gerwen, Alex Von Holy, Michael McElvaine, Barry Michaels, Roberta Morales, Pekka Pakkala, Tom McMeekin, Arthur Miller, Deog-Hwan Oh, Greg M. Paoli, Aamir Fazil, B. J. Hartog, Bonnie Humm, Melvin Kramer, Yanbin Li, Leon Gorris, Allan Hogue, Maria Lourdes Costarrica, Robert Buchanan, Mark Cullison, Patricia Desmarchelier, Michael Cassin, Mura Dahdal, Jeffery Farber, Isabel Walls and Frank Yiannis.

Board Members/Staff Present: Jenny Scott and Frank Zuehlke.

New Members: Kay Sadler, Fred Breidt, Joan Rosen, Keith Ito, Jennylynd James, Philip Blagoyevich, Michael Brodsky, Barbara Lund, Karen Mullery, Manuel Garcia, Judy Greig, Arthur Hinton, Jr., Yuhuan Chen, Avalee Gehman, Kevin Hagen and Joseph Eifert.

Meeting Called to Order: 10:10 a.m.

Record Secretary of Minutes: Don Schaffner.

Old Business:

Officer approval: Members present were asked to approve additional 2-year terms for Chairperson Don Schaffner and Vice Chairperson Dick Whiting. Those present were in agreement that Schaffner and Whiting should serve an additional 2 years, with Whiting succeeding Schaffner as Chairperson at that time. Schaffner will serve as Chairperson of the 2000 and 2001 PDG meetings, Whiting will serve as Chairperson of the 2002 and 2003 meetings, with a new Vice Chairperson taking office in 2002, and succeeding Whiting to serve as Chairperson at the 2004 PDG meeting.

2000 Workshop: Don Schaffner briefed the group on the successful Risk Assessment workshop held in College Park, Maryland earlier this year. Schaffner is working with IAFP staff, Bev Corron to coordinate a West-Coast site for the workshop in 2001. Schaffner is also working with PDG members Dick Whiting and Greg Paoli to organize an advanced hands-on computer based workshop to be held at Rutgers University in the next year.

2000 Symposium: Lee-Ann Jaykus briefed the group on the PDG organized symposium on "Relevance of Testing to Reduce Risk" to be held Monday, August 7. The symposium includes five speakers from academia and industry, followed by a panel discussion.

Risk Assessment Manual: The Committee on Communicable Diseases Affecting Man (CCDAM) committee approached the PDG last year about putting together a Risk Assessment Manual. Ewen Todd, Chairperson of CCDAM suggested on behalf of CCDAM that perhaps a manual would be premature, and that time would be better spent on preparing an article for *DFES*. Todd agreed to develop a draft outline for the PDG to consider by January 2001.

New Business:

Other PDG Activities: The group discussed what activities the PDG might undertake in addition to the development of workshops and symposia. Ideas included: setting up an E-mail distribution list and/or an E-mail listserve, sharing membership contact information, sharing hard to find or otherwise unavailable electronic documents including draft risk assessments and links to interesting Web sites and setting up a web page on the IAFP Web site. It was decided that the PDG would ask the board for permission to set up a page on the IAFP Web site.

Schaffner will also E-mail a revised membership list to PDG members once the additions and corrections are finalized

2001 Symposia Ideas: Several ideas were discussed by the group regarding potential 2001 symposia. Servé Notermans suggested that a symposium on "Early warning systems in food safety microbiology" be developed. While the group was receptive to the general idea, they encouraged Notermans to develop the idea further before presenting it to the program committee.

Karen Mullery suggested a symposium on "Using technology to manage risk" building on a successful workshop held yesterday. Mullery suggested six different topics and speakers. The group suggested several modifications, including a FDA speaker to address electronic record keeping requirements, but was generally receptive. The group encouraged Mullery to take their recommendations under advisement and go forward with a proposal to the program committee.

Michael McElvaine approached Don Schaffner prior to the Annual Meeting with an idea to develop a symposium on "Choice of dose-response models as a factor in risk assessment" and Schaffner presented this to the group. While the group felt the topic was important, the general feeling was that such a topic might find a more appropriate audience at SRA rather than IAFP. Schaffner will share these sentiments with McFlyaine

Vijay Junenja also spoke with Schaffner prior to the Annual Meeting regarding a symposium on modeling microbial inctivation. Schaffner shared this idea with the group, and the group thought that the idea required further development, and asked Schaffner to respond to Junenja with a request to develop the idea further for consideration in 2001 and presentation in 2002.

Ewen Todd suggested to the group that a symposium on the Risk Assessments on Salmonella and Listeria sponsored by FAO/WHO be developed. Todd suggested five topics each with potential speakers. The group endorsed the idea and encouraged Todd to submit his proposal the program committee.

Several miscellaneous topics were also discussed as possible 2002 symposia idea: Risk assessment of GM foods, risk ranking, and TSE risk assessment. These ideas will be reconsidered in 2001.

Name change: Don Schaffner suggested the group consider several possible name changes. After surprisingly brief conversations, Ewen Todd moved and Avalee Gehman seconded the motion that the PDG ask the Board to change its name to "Microbial Risk Analysis." The motion passed unanimously.

Summary of Activities and Action Taken:

Officer approval: Schaffner and Whiting approved as Chairperson and Vice Chairperson.

2000 Workshop: Successful Risk Assessment workshop held in College Park, Maryland.

2000 Symposium: Symposium on "Relevance of Testing to Reduce Risk" on Monday afternoon.

Risk Assessment Manual: Changed from manual to DFES article. Todd: draft outline by January 2001.

Other PDG activities: Ask board for permission to set up a page on the IAFP Web site. Schaffner will E-mail revised membership list to PDG members.

2001 Symposia ideas: Notermans will develop the "Early warning systems in food safety microbiology" idea further before presenting it to the program committee. Mullery will go forward with proposal on "Using technology to manage risk," considering minor revisions. Schaffner will communicate to McElvaine that "Choice of dose-response models as a factor in risk assessment" might find a more appropriate audience at SRA rather than IAFP. Schaffner will to respond to Junenja with a request to develop the "Modeling microbial inactivation" for consideration in 2001. Todd will submit symposium proposal on the FAO/WHO Risk Assessments on Salmonella and Listeria.

Name change: The group is unanimously in favor changing its name to "Microbial Risk Analysis."

Recommendations to Executive Board

Support the PDG name change to "Microbial Risk Analysis."

Grant our request for a "Microbial Risk Analysis" PDG Web page on IAFP Web site.

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 11:30 a.m.

Don Schaffner, Chairperson

Retail Food Safety and Quality Professional Development Group

Members Present: Carl Custer, Dean Cliver, Aaron Brody, Pete Snyder, Doug Holt, Fred Reimers, Al Fain, Kristel Hauben, Norman Marriott, Michael Brennan, Keith Schneider, Wofe Burbori, Ruth Yong, Frank Yiannas, Louise Blanchet, Sandy Custer, Eric Carre, John Sofos, Sheryl deCabrera, Alex VonHoly, Mike Juhasz, Loyce Robinson, and Kathleen O'Donnell.

Board Members/Staff Present: Jack Guzewich, Jenny Scott, and Bob Brackett.

Members Absent: Cameron Hackney, Howard Malberg, Pravate Tuitemwong, Brian Turner, Suree Wongpiyachon, and Jintanart Wongetiawolit.

Other IAFP Members Present: Don Kimball, Chris Newcomer, Patrick Boyle, Jianming Ye, and Jack Ulrich.

Meeting called to order: 10:00 a.m.

Recording Secretary of Minutes: Carl Custer.

Old Business:

- A. Progress of IAFP Retail guidelines. Get ready for IAFP submission.
 - 1. August-September all PDG members review and comment on specific sections as they wish to Pete Snyder who will make change (find a unique type style. Frank Yiannis assist).
 - 2. October 15 to Dean Cliver for editorial review (15 days).
 - 3. August-September depending on what the HACCP Task Force/Peter Slade asks for submit the one page "Retail Food Total Quality Management" NACMCF Prerequisite Programs (GMP's) plus HACCP, to them for review.
 - 4. November present the PDG Guidelines, process guidelines, and HACCP-TQM Retail Food Operations manual to board for approval.

New Business:

Symposium for next year. "Food Preparation Risk and Best Control Practices" Workshop/Short course: "Using the IAFP Guidelines to develop a HACCP Program." Research needs for long term retail food system advancement.

Summary of Activities and Action Taken:

- 1. Get comments for PDG Members and finalize the Retail Foods Operations HACCP-TOM Technical Guidelines. Get final review and submit to IAFP.
- 2. Submit symposium and workshop.
- 3. Begin to develop research needs for retail food

Recommendations to Executive Board:

Questions: Do the guidelines need to be IAFP copyrighted?

Next Meeting Date: April 2001 plus Web interaction.

Meeting Adjourned: 11:48 a.m.

Pete Snyder, Chairperson

Seafood Safety and Quality Professional Development Group

Members Present: Carlos Abeyta, Jr. and Custy Fernandes.

Board Members/Staff Present: Anna Lammerding.

New Members: Alfred R. Fain and Veny Gapud.

Other IAFP Members Present: Gary Richardson.

Meeting Called to Order: 1:30 p.m.

Recording Secretary of Minutes: Carols Abeyta, Jr.

Old Business:

- A. Discuss symposium for August 2000
 - 1. The role of Molecular Techniques for Vibrios and Viruses in Making Risk Management Decisions.

- 2. HACCP-based Strategies for Cooked Ready-to-eat Seafoods Based on Quantitative Risk Assessment.
- B. Membership update

New Business:

- A. Teleconference call in February 2001.
- B. Discuss symposium topics for IAFP 2001.

Summary of Activities and Action Taken:

During the year the committee will meet in February 2001 to discuss SSQ PDG issues. Focus on increase in Membership and participation.

Recommendations to Executive Board:

Symposium for next year IAFP-SSQ PDG on Microbial and Chemical Concerns in Seafood.

Next Meeting Date: February 2001–Teleconference

Meeting Adjourned: 3:30 p.m.

Carlos Abeyta, Jr., Chairperson

Student **Professional Development Group**

As this is the first meeting there is not a complete or current list of members; however, over 70 people were signed up to participate in the luncheon.

Members Present: Scott Burnett, Chairperson Kali Phelps, Vice Chairperson, Anna Lammerding, Executive Board Liason, Lisa Hovey, Staff Liaison.

Meeting Called to Order: 12:05 p.m. brief welcome given by Scott Burnett, 12:45 p.m. introduction of speakers Anna Lammerding and Gale Prince.

Recording Secretary of Minutes: Kali Phelps.

Old Business: No old business at this time.

New Business: Welcome address to luncheon. Brief mention of SPDG goals and booth in the exhibit hall.

Summary of Activities and Action Taken:

Luncheon was successful and two speeches given. which filled the entire time alloted for the meeting. Student Members were approached that may be interested in contributing to the SPDG through acting as editors for an electronic newsletter and aiding in development of the Web page.

Recommendations:

- · Continue to have a SPDG luncheon
- · Add a SPDG mixer later in the meeting to accomadate those students that do not arrive until then
- · Continue to develop the SPDG, through creation of the electronic newsletter, and additional functions

- Elaborate upon the career board and add other opportunities for students to interact with companies, and vice versa in interview situations, perhaps by reserving a room that would be dedicated for this purpose
- · Develop ideas for a symposium topic for SPDG sponsorship at 2001 Annual Meeting

Next Meeting Date: IAFP 2001.

Meeting Adjourned: 1:27 p.m.

Scott Burnett, Chairperson

Viral and Parasitic Foodborne Disease Professional Development Group

Members Present: Dean Cliver, Pete Cook, Theresa Cromeans, Lee-Ann Jaykus, Daniel Maxson, Christine Moe and Gary Richards.

Members Absent: Mosffer Al-dagal, William Burkhardt, Frank Bryan, Howard Malberg, Musa J. Dahdal, Charles Gerba, James Hartman, Jack Guzewich, Craig Hedberg, Ivan Linjacki, Thomas Schwarz, Bert Bartleson, and Mark Sobsey.

Board Members Present: Anna Lammerding.

New Members: Ken Green, Carl Custer, Judy Greig, Laureutiu Plaian, Nancy Reimer, Parmesm Saini and Kali K. Phelps.

Meeting Called to Order: 3:32 p.m.

Recording Secretary of Minutes: Daniel J. Maxson.

Introductions and Sign-in

Old Business:

Corrected and approved 1999 Minutes. Discussed 1999 Proposed Symposium entitled: "Small Round Structured Virus Outbreak Control Strategies." Members present were polled and indicated that a Parasitic Agent issue was more desirable for a new symposium. Concept dropped for now.

New Business:

A proposed 2001 symposium was planned and submitted to the Program Committee.

The symposium is entitled: "Update on Parasitic Agents in Food and Water."

Presentations include:

Overview of Foodborne Parasite Epidemiology Public Health Risks associated with Nematodes in Seared Seafood

Parasitic Agents in Seafood

Dose-Response Relationships

Overview of Cyclospora Outbreaks

Cryptosporidium in Shellfish

Dean O. Cliver and O. D. "Pete" Cook volunteered to convene the 2001 symposium if accepted by the Program Committee.

The Chairperson asked if anyone had any new workshop, publication, or other ideas to discuss.

Ken Green brought up the idea of doing a project or other activity regarding the purification of water for fountain soda machines in countries where the water may be contaminated. This issue was well received. however due to the lack of a working concept, the project was tabled.

The chairperson opened the meeting to general comments. There were no additional comments.

Summary of Activities and Action Taken:

A symposium on parasitic agents in food and water was submitted to the Program Committee.

Recommendations: None.

Next Meeting Date: IAFP 2001.

Adjournment: 4:21 p.m.

Daniel J. Maxson, Chairperson

TASK FORCES

HACCP Task Force

Members Present: Dane Bernard, Ann Marie McNamara, Merle D. Pierson and Peter J. Slade (Chairperson).

Members Absent: Don Kautter, Jr. and Don R. Ward.

Others in Attendance: Louise Blanchet, Mike Brennan, Shervl de Cabrera, Manuel M. Garcia, Ken Green, Chris Newcomer, Kevin Hagen, Jennylynd James, Mariza Landgraf, Kim L. Lor, Ginny McArthur, Ernie McCullough, Lynn McMullen, Jim Price, Kay Sadler, O. Pete Snyder, Mariette d'Souza, Doris Wo, and Ruth Yong.

Meeting Called to Order: 3:36 p.m.

Recording Secretary: Peter J. Slade.

Old Business: None.

New Business:

a. Discussion of HACCP review for Retail Food Safety and Quality PDG (hereafter referred to as "the PDG") document "NACMCF Prerequisite Programs (GMPs) Plus HACCP"

Summary of Activities and Action Taken:

Slade summarized the communications in the past year between Pete Snyder, Jack Guzewich and Task Force members relating to the above document.

Pete Snyder requested that consideration be given the Task Force to determine that the three volumes meet NACMCF guidelines with respect to content of HACCP documents. Pete concurred that the manuals were "too thick" for thorough review by the Task

Force, and that the PDG will review for scientific content and accuracy.

Peter Slade read excerpt (second paragraph) from letter of July 18, 2000 from Jack Guzewich to Pete Snyder on this issue, to orientate the committee on the direction of the discussions. Pete Snyder asserted that the PDG will not be writing HACCP plans for individual recipes so, this direction was irrelevant.

Pete Snyder requested that the output from the PDG will need to be posted on the IAFP Web site for worldwide access.

Ann Marie McNamara proposed that this Task Force cannot endorse any HACCP document as meeting "NACMCF requirements" and that only NACMCF itself could do so. Merle Pierson and Dane Bernard agreed.

Merle Pierson sought clarification on the scope of the HACCP documentation. Pete Snyder explained that three documents were under review, on policy, procedures and standards, respectively. Pete reiterated that review (and approval) of the content is all that is being sought from this Task Force. Peter Slade suggested that the existing documents appear too prescriptive and perhaps a more general and open framework would be more appropriate, in any case.

It was proposed that this Task Force would seek clarification from the President of IAFP and the Executive Board, and possibly IAFP legal counsel, with respect to this matter.

A motion was proposed (by Dane Bernard) and seconded to the effect that: "at the approval of the Executive Board this Task Force will prepare an outline for the content of a model retail HACCP (TQM) policy, procedures and standards manual."

The motion was passed with one abstention (Merle Pierson).

Recommendation to the Executive Board: as stated in the motion, above.

Next Meeting Date: As necessary and at IAFP 2001.

Meeting Adjourned: 4:41 p.m.

Peter J. Slade, Chairperson

SUPPORT GROUPS

Affiliate Council

Affiliates Present:

Affiliate	Representative
Alabama	Thomas McCaskey
Alberta	Lynn McMullen
British Columbia	Clive Kingsbury
California	John Bruhn
Capital Area	Jenny Scott (for Faye Feldstein)
Carolinas	Elizabeth Johnson
Florida	Peter Hibbard
Georgia	David Fry

Illinois	Don Kimball
Indiana	Helene Uhlman
Iowa	Bill LaGrange (for Randy Hanson)
Kansas	Ron Tubb
Korea	Dong Jeong

Metropolitan Fred Weber Michigan Michael Juhasz Upper Midwest Paul Nierman (for Jack Ulrich)

(formerly Minnesota)

Missouri Linda Wilson New York Steven Murphy Ohio Gloria Swick Robert Tiffin Ontario Pennsylvania Gene Frey Quebec Gisele LaPointe Texas Janie Park Stephanie Olmsted Washington Wisconsin Randy Daggs

Affiliates Not Present: Connecticut, Idaho, Kentucky Massachusetts, Mexico, Mississippi, Nebraska, North Dakota, South Dakota, Tennessee, Virginia, and Wyoming.

IAFP Board Members Present: Jack Guzewich, Jenny Scott, Jim Dickson, Anna Lammerding, Paul Hall, and Bob Brackett.

IAFP Staff Present: David Tharp, Lisa Hovey, Didi Loynachan, and Lucia Collison.

Guests: Michael Rhodes (Carolinas), Joseph Huseman (Georgia), Wavne Sprung (Ontario), and Larry Mendes (Ontario).

Call to Order

Meeting Called to Order 7:13 a.m. by Council Chairperson Randy Daggs.

Recording Secretary

Recording Secretary of Minutes: Fred Weber, Council Secretary.

Agenda

Chairperson Daggs presented the agenda. It was moved that agenda be accepted (1st, McCaskey, 2nd Park). Motion passed by unanimous consensus.

Acceptance of Minutes

Chairperson Daggs called for a presentation of the minutes from the 1999 Affiliate Council Meeting in Dearborn. It was moved that the minutes be accepted as published in DEFS (1st, Johnson; 2nd, Nierman). Motion passed by unanimous consensus.

Report from the IAFP Executive Board

IAFP President Jack Guzewich introduced the Board Members present. He acknowledged Randy Daggs for his service as Affiliate Council Chairperson and as a Member of the Executive Board the past year, and acknowledged the Georgia Local Arrangement Committee for their efforts. Jack discussed a number of IAFP issues including the recent name change from

IAMFES; Association growth to currently 3,043 Members; the record growth of our Annual Meeting, with the current meeting expected to have 1,200-1,300 attendees, 300 presenters and 95 exhibitors; the development of a Student PDG with 50 participants anticipated; the publication of the IAFP History booklet and acknowledged Helene Uhlman for her contribution; and the fact that the Executive Board attended 21 affiliate meetings over the past year.

Jack mentioned that the Association has seen increased submissions for IAFP awards but wants to encourage more submissions from outside North America. He also discussed several new awards: the Seward Innovations in Food Microbiology Award and the Maurice Weber Laboratorian Award.

Special mention was made of the three new affiliates receiving their charter at this meeting: Quebec, Mexico and the Capital Area. It was also noted that there is ongoing interest from a number of potential Affiliates worldwide.

Report from the IAFP Staff

Executive Director David Tharp also mentioned the name change and introduced the staff that was present: Assistant Director Lisa Hovey, Didi Loynachan, Administrative Assistant, and Affiliate Liaison Lucia Collison. David made special acknowledgment of Lucia's return and Lucia spoke briefly expressing her gratitude to be back at work after experiencing her lifethreatening injuries. She also requested that all Affiliates submit her information for publication in our newsletters. David thanked Didi for filling in while Lucia was off work.

David said that IAFP exhibited at both Worldwide Food Expo and International Fresh-Cut Produce meetings over the past year. He mentioned that the IAFP Web site now has several new features including online registration and a Members only Membership directory. David emphasized several changes to the IAFP bylaws that affect affiliates, particularly that the affiliate president must be an IAFP Member effective by December 31, 2000. He solicited information from the affiliates for publication in *DFES* and our own newsletter, and reminded all affiliates that their reports for 2000 must be in to Lucia by mid-February, 2001. These reports are the basis of our affiliate awards.

Discussion on Annual Meeting Site Selection

The site for 2001 is Minneapolis and 2002 is San Diego. Jack Guzewich discussed, since our meeting has grown and is projected to keep growing that there are fewer facilities that meet our needs if we are to remain a single-facility meeting. In 1971 there were 300 attendees, 1978 – 400; 1986 – 850; 1994 – 921, and estimated to be nearly 1,300 this year.

David Tharp stated that the Board wants the meeting to stay self-contained at this time with a gradual transition to multiple facility sites, to avoid some the problems and concerns a multiple site may entail. It appears inevitable that our meeting will need to move to a multi-facility site. He requested that

everyone complete the evaluation form in their registration packet to give direction regarding future meeting dates.

Bob Tiffin expressed profound disappointment that Toronto is not going to host the 2003 meeting because of these facility concerns. He doesn't want the Board to lose sight of how much work the affiliates have traditionally done in supporting these meetings, and the support that the Ontario Affiliate has given to IAFP. Bob also mentioned that site is important because it should be some place that families want to attend as well. He requested that the selection process remain transparent in the future. Bob wants Toronto to be considered again in the future.

Election of Affiliate Council Secretary

Chairperson Daggs indicated that Peter Hibbard was the selection of the nominating committee for Affiliate Council Secretary. He then called for other nominations from the floor. No additional nominations were made. It was moved to close calls for nominations (1st, Bruhn; 2nd, Fry). An amendment to this motion was then made for a vote to be cast (1st, Bruhn; 2nd, Fry). Motion passed by unanimous consensus electing Peter Hibbard.

Adoption of Revised Affiliate Operating Guidelines

Chairperson Daggs had previously sent all Affiliate Delegates a copy of the proposed revised guidelines. The purpose of the revisions was to make them a more complete, freestanding document. In discussion, John Bruhn voiced support that the proposed revisions be adopted. Steve Murphy indicated a minor discrepancy. A motion was made to accept the Revised Operating Guidelines with the correction as noted (1st, Bruhn; 2nd, Nierman). Motion passed by unanimous consensus.

1st Annual Affiliate Educational Seminar

Randy led a discussion of the Affiliate Educational Seminar held on Saturday August 5th between 2:00 and 4:00 p.m. Although the seminar was sparsely attended, the speaker, J. Phil Harrison – an accredited adviser in insurance from Atlanta – gave a pertinent and informative presentation. It was recommended that all affiliates continue to become more knowledgeable on this matter for further pursuit. Fred Weber suggested that a recap of this meeting and the publication of some of the handouts be a basis for a forthcoming newsletter article, particularly since most delegates could not attend. It was agreed to look into expanding IAFP's liability insurance to cover affiliates as well.

John Bruhn led further discussion indicating that a 2:00 p.m. start is too early, especially for those arriving from the west coast. Something later would be much better. The Council wants to continue having educational seminars but would like it to be early Saturday evening in combination with a dinner buffet. Helene Uhlman mentioned that this would also allow for more social interaction between delegates. It was

suggested that sponsorship for this dinner should be solicited.

The Council needs a topic for next year and welcomes suggestions from all affiliates.

Award Recipients

Chair Daggs recognized the following affiliates: Shogren - Michigan Best Meeting - Florida Best Educational Meeting - Illinois Best Communication Material - New York Highest Number Membership Increase - California Highest Percentage Membership Increase - Alberta & Kansas

Larry Mendes was recognized for his role in starting both the British Columbia and Quebec affiliates.

Affiliate Reports

The representatives of all affiliates present gave a two-minute report highlighting their past year's activities. Special note was made of the growing number of affiliate Web sites.

Recommendations to Executive Board

- Reconsider Toronto as an Annual Meeting site in the future.
- The time of the Affiliate Education Symposium be changed to Saturday evening and combined with a dinner reception.
- That sponsorships be solicited to help off set the costs of this dinner reception.
- The IAFP staff explore the possibility of expanding their liability insurance coverage as an umbrella for the affiliates.

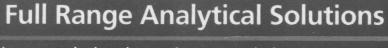
Pass Gavel

Chairperson Daggs expressed his appreciation to the IAFP Executive Board, the IAFP staff and the entire Affiliate Council for their support this past year and how gratifying and educational he found the experience. He then presented a gavel to Fred Weber, symbolically beginning his term as Chairperson of the Affiliate Council.

Meeting Adjourned: 10:07 a.m.

Fred Weber, Affiliate Council Secretary

Randy Daggs, Affiliate Council Chairperson



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ABC Research Corporation

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American Engineering Corporation

P.O. Box 336 Collegedale, TN 37315 Phone: 423.396.3666 Fax: 423.396.3668 Web site: www.americanengr.com

American Proficiency Institute

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ASI Food Safety Consultants, Inc.

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Celsis, Inc.

1801 Maple Ave. Evanston, IL 60201 Phone: 847.467.7870 Fax: 847.467.6602 Web site: www.celsis.com

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Route 28 Calverton, VA 20138 Phone: 540.788.9026 Fax: 540.788.4856

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DQCI Services, Inc.

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DSM Food Specialties

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200 C St., S.W. Washington, D.C. 20204 Phone: 202.205.4220 Fax: 202.401.3532

Food Processors Institute

1350 I St., NW Washington, D.C. 20005-3377 Phone: 202.393.0890 Fax: 202.639.5941 Web site: www.fpi-food.org

Food Quality Magazine

Yardley, PA 19067 Phone: 215.860.7800 Fax: 215.860.7900 Web site: www.foodquality.com

Food Safety Net Services, Ltd.

221 W. Rhapsody San Antonio, TX 78216 Phone: 210.384.3424 Fax: 210.308.8730

Food Safety Summit

Eaton Hall Expositions 256 Columbia Turnpike Florham Park, NJ 07932 Phone: 800.746.9646 Fax: 973.514.5977

Food Testing & Analysis Magazine

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514 Grand Blvd. Westbury, NY 11590 Phone: 800.338.4433 Fax: 516.338.5486 Web site: www.foodhandler.com

Foss North America, Inc.

7682 Executive Drive Eden Prairie, MN 55344 Phone: 952.974.9892 Fax: 952.974.9823 Web site: www.fossnorthamerica.com

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94 South St. Hopkinton, MA 01748 Phone: 508.435.7400 Fax: 508.435.0025

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P.O. Box 967 Tifton, GA 31793 Phone: 912.386.3470 Fax: 912.386.3501 Web site: www.gapeanuts.com

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Web site: www.glogerm.com

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16020 Industrial Drive Gaithersburg, MD 20877 Phone: 301.869.9800 x2127 Fax: 301.947.6990 Web site: www.igen.com

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1600 Duke St., Suite 440 Alexandria, VA 22314-3421

Phone: 703.299.6282 Fax: 703.299.6288

Web site: www.fresh-cuts.org

JJ Keller & Associates, Inc.

3003 W. Breezewood Lane

Neenah, WI 54957

Phone: 920.727.7318

Fax: 920.727.7526

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Phone: 450.649.7343

Fax: 450.649.3113

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Fax: 440.327.7286

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Fax: 301.662.8096

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901 Janesville Ave.

Fort Atkinson, WI 53538-0901

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Fax: 920.563.8296

Web site: www.nascofa.com

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720 South Colorado Blvd.

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Denver, CO 80246-1925

Phone: 303.756.9090

Fax: 303.691.9490

Web site: www.neha.org

The National Food Laboratory, Inc.

6363 Clark Ave.

Dublin, CA 94568-3097

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Fax: 925.833.8795

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2400 E. 5th St., P.O. Box 647

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Fax: 715.387.8746

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Durham, NC 27712

Phone: 919.620.2343

Fax: 919.620.2615

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Fax: 404.888.2012

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Nepean, Ontario K2G 1E8 Canada

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Fax: 613.226.3728

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Marietta, GA 30062

Phone: 678.355.1692

Fax: 678.355.9840

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Phone: 44.19242.77631

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Fax: 800.447.5750

Web site: www.remelinc.com

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Madison, WI 53718

Phone: 630.916.9660

Fax: 630.916.0393 Web site: www.us.rhodia

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Fax: 716.467.4406

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650 "O" St. Greeley, CO 80631 Phone: 800.945.6669 Fax: 970.351.6648 Web site: www.warrenlab.com

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2732 Kuser Road Hamilton, NI 08691 Phone: 800.328.8378 Fax: 609.584.8388

Web site: www.weberscientific.com

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1310 Seaboard Industrial Blvd. Atlanta, GA 30318 Phone: 404.352.1680 Fax: 404.350.2742 Web site: www.zepmfg.com

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1742 Henry G. Lane St. Maryville, TN 37801 Phone: 865.379.6016 Fax: 865.379.6018 Web site: www.zvlux.com

MANUSCRIPTS

The Editors are seeking articles of general interest and applied research with an emphasis on food safety for publication in Dairy, Food and Environmental Sanitation.

Please submit three copies of your manuscript along with a fourth copy on a disk saved as an ASCI or RTF, or text formats.

Submit your articles to:

International Association for Food Protection Donna Bahun, DFES Production Editor 6200 Aurora Ave., Suite 200W Des Moines, IA 50322-2863 Phone: 800.369.6337; 515.276.3344

Fax: 515.276.8655

E-mail: dbahun@foodprotection.org



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Award Nominations

The International Association for Food Protection welcomes your nominations for our Association Awards. Nominate your colleagues for one of the Awards listed below. You do not have to be an IAFP Member to nominate a deserving professional. To request nomination criteria, contact:

IAFP

6200 Aurora Ave., Suite 200W

Des Moines, Iowa 50322-2863

Phone: 800.369.6337; 515.276.3344

Fax: 515.276.8655

Web site: www.foodprotection.org E-mail: info@foodprotection.org

Nominations deadline is February 19, 2001. You may make multiple nominations. All nominations must be received at the IAFP office by February 19, 2001.

- Persons nominated for individual awards must be current IAFP Members. Black Pearl Award nominees must be a company employing current IAFP Members. NFPA Food Safety Award nominees do not have to be IAFP Members.
- Previous award winners are not eligible for the same award.
- Executive Board Members and Awards Committee Members are not eligible for nomination.
- Presentation of awards will be during the Awards Banquet at the IAFP Annual Meeting in Minneapolis, Minnesota on August 8, 2001.



Nominations will be accepted for the following Awards:

Black Pearl Award – Award Showcasing the Black Pearl

Presented in recognition of a company's outstanding achievement in corporate excellence in food safety and quality.

Sponsored by Wilbur Feagan and F&H Food Equipment Company.

Fellows Award – Distinguished Plaque

Presented to individuals for their contribution to the Association and its Affiliates with quiet distinction over a prolonged period of time.

Sponsored by the International Association for Food Protection.

Honorary Life Membership Award – Plaque and Lifetime Membership in IAFP

Presented to Member(s) for their devotion to the high ideals and objectives of IAFP and for their service to the Association.

Harry Haverland Citation Award – Plaque and \$1,000 Honorarium

Presented to an individual for years of devotion to the ideals and objectives of IAFP.

Sponsored by DiverseyLever/U.S. Food Group.

Harold Barnum Industry Award – Plaque and \$1,000 Honorarium

Presented to an individual for outstanding service to the public, IAFP and the food industry.

Sponsored by NASCO International, Inc.

Educator Award – Plaque and \$1,000 Honorarium

Presented to an individual for outstanding service to the public, IAFP and the arena of education in food safety and food protection.

Sponsored by Nelson-Jameson, Inc.

Sanitarian Award – Plaque and \$1,000 Honorarium

Presented to an individual for outstanding service to the public, IAFP and the profession of the Sanitarian.

Sponsored by Ecolab, Inc., Food and Beverage Division.

Maurice Weber Laboratorian Award – Plaque and \$1,000 Honorarium

Presented to an individual for outstanding contributions in the laboratory, recognizing a commitment to the development of innovative and practical analytical approaches in support of food safety.

Sponsored by Weber Scientific

NFPA Food Safety Award – Plaque and \$3,000 Honorarium

Presented to an individual, group, or organization in recognition of a long history of outstanding contribution to food safety research and education.

Sponsored by National Food Processors Association.



Call for Abstracts



IAFP 2001
The Association's 88th Annual Meeting
August 5-8, 2001
Minneapolis, Minnesota

General Information

- 1. Complete the Abstract Submission Form.
- All presenters must register for the Annual Meeting and assume responsibility for their own transportation, lodging, and registration fees.
- There is no limit on the number of abstracts registrants may submit. However, the presenter must present their presentations.
- Accepted abstracts will be published in the Program and Abstract Book. Editorial changes will be made to accepted abstracts at the discretion of the Program Committee.
- 5. Photocopies of the abstract form may be used.
- Membership in the Association is not required for presenting a paper at the International Association for Food Protection Annual Meeting.

Presentation Format

- Technical Oral presentations will be scheduled with a maximum of 15 minutes, including a two to four minute discussion. LCD and 35-mm slide projectors will be available. Other equipment may be used at the presenter's expense. Prior authorization from the office must be obtained. Overhead projectors will not be allowed.
- 2. Poster Freestanding boards will be provided for presenting posters. Handouts may be used, but audiovisual equipment will not be available. The presenter will be responsible for bringing pins and velcro.

Instructions for Preparing Abstracts

- Title The title should be short but descriptive. The first letter in each word in the title and proper nouns should be capitalized.
- Authors List all authors using the following style: surname followed by a comma then the first name.
- Presenter Name & Title List the full name and title of the person who will present the paper.
- Presenter Address List the name of the department, institution and full postal address (including zip/postal code and country).
- 5. Phone Number List the phone number, including area, country, and city codes of the presenter.
- Fax Number List the fax number, including area, country, and city codes of the presenter.
- 7. E-mail List the E-mail address for the presenter.
- Format preferred Check the box to indicate oral or poster format. The Program Committee makes the final decision on the format of the abstract.
- 9. Developing Scientist Awards Competitions Check the box to indicate if the paper is to be presented by a student in this competition. A signature and date is required from the major professor or department head. See "Call for Entrants in the Developing Scientist Awards Competitions."
- Abstract Type abstract, Double-spaced in the space provided or on a separate sheet of paper using a 12-point font size. No more than 250 words.

Abstract Submission

Abstracts submitted for the International Association for Food Protection 88th Annual Meeting in Minneapolis, Minnesota August 5-8, 2001 will be evaluated for acceptance by the Program Committee. Please be sure to follow format instructions above carefully; failure to do so may result in rejection. Information in the abstract data must not have been previously published in a copyrighted journal.

Submit your abstract to the office. Abstracts must be received no later than January 8, 2001.

Return the completed abstract form through one of the following methods:

- Regular mail: Abstracts may be sent by post or express courier along with a disk copy (text or MS Word[™] format) to the following address:
 - Abstract Submission International Association for Food Protection 6200 Aurora Avenue, Suite 200W Des Moines, Iowa 50322-2863, USA
- E-mail: Submit via E-mail as an attached text or MS Word document to abstracts@ foodprotection.org.
- 3. Online: Use the online abstract submission form located at www.foodprotection.org.

Selection Criteria

- 1. Abstracts must accurately and briefly describe:
 - (a) the problem studied and/or objectives;
 - (b) methodology;
 - (c) essential results; and
 - (d) conclusions and/or significant implications.
- 2. Abstracts must report the results of original research pertinent to the subject matter. Papers should report the results of applied research on: food, dairy and environmental sanitation; foodborne pathogens; food and dairy microbiology; food and dairy engineering; food and dairy chemistry; food additives and residues; food and dairy technology; food service and food administration; quality assurance/control; mastitis; environmental health; waste management and water quality. Papers may also report subject matter of an educational and or nontechnical nature.
- 3. Research must be based on accepted scientific practices.

- Research should not have been previously presented nor intended for presentation at another scientific meeting. Papers should not appear in print prior to the Annual Meeting.
- 5. Results should be summarized. Do not use tables or graphs.

Rejection Reasons

- 1. Abstract was not prepared according to the "Instruction for Preparing Abstracts."
- 2. Abstract does not contain essential elements as described in "Selection Criteria."
- Abstract reports inappropriate or unacceptable subject matter, is not based on accepted scientific practices, or the quality of the research or scientific approach is inadequate.
- 4. Work reported appears to be incomplete and/or data are not presented. Indication that data will be presented is not acceptable.
- The abstract was poorly written or prepared including spelling and grammatical errors.
- 6. Results have been presented/published previously.
- The abstract was received after the deadline for submission.
- 8. Abstract contains information that is in violation of the International Association for Food Protection Policy on Commercialism.

Projected Deadlines/Notification

Abstract Submission Deadline: January 8, 2001. Acceptance/Rejection Notification: March 1, 2001.

Contact Information

Questions regarding abstract submission can be directed to Bev Corron, 515.276.3344 or 800.369.6337; E-mail: bcorron@foodprotection.org.

Program Chairperson:

Stan J. Bailey USDA-ARS-RRC P.O. Box 5677

Athens, GA 30604-5677 Phone: 706.546.3356

Fax: 706.546.3771

E-mail: jsbailey@ars.usda.gov

Abstract Form

DEADLINE: Must be Received by January 8, 2001

Follow instructions on page 890

(1) Title of Paper
(2) Authors
(3) Full Name and Title of Presenter
(4) Institution and Address of Presenter
(5) Phone Number:
(6) Fax Number:
(7) E-mail:
(8) Format preferred: Oral Poster No Preference
NOTE: Selected presentations may be recorded (audio or visual). The Program Committee will make the final decision on presentation format.
(9) Developing Scientist Awards Competitions Yes Graduation date:
Major Professor/Department Head approval (signature and date):
(10) TYPE abstract, DOUBLE-SPACED, in the space provided or on a separate sheet of paper using a 12-point font size. No more than 250 words.

Call for Entrants in the **Developing Scientist Awards Competitions**

Supported by the International Association for Food Protection Foundation

he International Association for Food Protection is pleased to announce the continuation of its program to encourage and recognize the work of students and recent graduates in the field of food safety research. Qualified individuals may enter either the oral or poster competition.

Purpose

- 1. To encourage students and recent graduates to present their original research at the Annual Meeting.
- 2. To foster professionalism in students and recent graduates through contact with peers and professional Members of the Association.
- 3. To encourage participation by students and recent graduates in the Association and the Annual Meeting.

Presentation Format

Oral Competition – The Developing Scientist Oral Awards Competition is open to graduate students enrolled or recent graduates from M.S. or Ph.D. programs or undergraduate students at accredited universities or colleges. Presentations are limited to 15 minutes, which includes two to four minutes for

Poster Competition - The Developing Scientist Poster Awards Competition is open to students enrolled or recent graduates from undergraduate or graduate programs at accredited universities or colleges. The presenter must be present to answer questions for a specified time (approximately two hours) during the assigned session. Specific requirements for presentations will be provided at a later date.

General Information

- 1. Competition entrants cannot have graduated more than a year prior to the deadline for submitting
- 2. Accredited universities or colleges must deal with environmental, food or dairy sanitation, protection or safety research.
- 3. The work must represent original research completed and presented by the entrant.
- 4. Entrants may enter only one paper in either the oral or poster competition.
- 5. All entrants must register for the Annual Meeting and assume responsibility for their own transportation, lodging, and registration fees.
- 6. Acceptance of your abstract for presentation is independent of acceptance as a competition finalist. Competition entrants who are chosen as finalists will be notified of their status by the chairperson by June 1, 2001.

- 7. All entrants with accepted abstracts will receive complimentary, one-year Association Membership, which includes their choice of Dairy, Food and Environmental Sanitation or Journal of Food Protection.
- In addition to adhering to the instruction in the "Call for Abstracts," competition entrants must check the box to indicate if the paper is to be presented by a student in this competition. A signature and date is required from the major professor or department head.

Judging Criteria

A panel of judges will evaluate abstracts and presentations. Selection of up to ten finalists for each competition will be based on evaluations of the abstracts and the scientific quality of the work. All entrants will be advised of the results by June 1, 2001.

Only competition finalists will be judged at the Annual Meeting and will be eligible for the awards. All other entrants with accepted abstracts will be expected to be present as part of the regular Annual Meeting. The presentations will not be judged and they will not be eligible for the awards.

Judging criteria will be based on the following:

- 1. Abstract clarity, comprehensiveness and conciseness.
- Scientific Quality Adequacy of experimental design (methodology, replication, controls), extent to which objectives were met, difficulty and thoroughness of research, validity of conclusions based upon data, technical merit and contribution to science.
- 3. Presentation Organization (clarity of introduction, objectives, methods, results and conclusions), quality of visuals, quality and poise of presentation, answering questions, and knowledge of subject.

Finalists

Awards will be presented at the International Association for Food Protection Annual Meeting Awards Banquet to the top three presenters (first, second and third places) in both the oral and poster competitions. All finalists will receive a complimentary Awards Banquet ticket and are expected to be present at the banquet where the awards winners will be announced and recognized.

Awards

First Place - \$500 and an engraved plaque Second Place - \$300 and a framed certificate Third Place - \$100 and a framed certificate

Award winners will also receive a complimentary, one-year Membership including Dairy, Food and Environmental Sanitation and Journal of Food Protection.

Policy on Commercialism

1. INTRODUCTION

No printed media, technical sessions, symposia, posters, seminars, short courses, and/or all related type forums and discussions offered under the auspices of the International Association for Food Protection (hereafter referred to as to Association forums) are to be used as platforms for commercial sales or presentations by authors and/or presenters (hereafter referred to as authors) without the expressed permission of the staff or Executive Board. The Association enforces this policy in order to restrict commercialism in technical manuscripts, graphics, oral presentations, poster presentations, panel discussions, symposia papers, and all other type submissions and presentations (hereafter referred to as submissions and presentations), so that scientific merit is not diluted by proprietary secrecy.

Excessive use of brand names, product names or logos, failure to substantiate performance claims, and failure to objectively discuss alternative methods, processes, and equipment are indicators of sales pitches. Restricting commercialism benefits both the authors and recipients of submissions and presentations.

This policy has been written to serve as the basis for identifying commercialism in submissions and presentations prepared for the Association forums.

2. TECHNICAL CONTENT OF SUBMISSIONS AND PRESENTATIONS

2.1 Original Work

The presentation of new technical information is to be encouraged. In addition to the commercialism evaluation, all submissions and presentations will be individually evaluated by the Program Committee chairperson, technical reviewers selected by the Program Committee chairperson, session convenor, and/or staff on the basis of originality before inclusion in the program.

2.2 Substantiating Data

Submissions and presentations should present technical conclusions derived from technical data. If products or services are described, all reported capabilities, features or benefits, and performance parameters must be substantiated by data or by an acceptable explanation as to why the data are unavailable (e.g., incomplete, not collected, etc.) and, if it will become available, when. The explanation for unavailable data will be considered by the Program Committee chairperson and/or technical reviewers selected by the Program Committee chairperson in order to ascertain if the presentation is acceptable without the data. Serious consideration should be given to withholding submissions and presentations until the data are available as only those conclusions that might be reasonably drawn from the data may be presented. Claims of benefit and/or technical conclusions not supported by the presented data are prohibited.

2.3 Trade Names

Excessive use of brand names, product names, trade names, and/or trademarks is forbidden. A general guideline is to use proprietary names once and thereafter to use generic descriptors or neutral designations. Where this would make the submission or presentation significantly more difficult to understand, the Program Committee chairperson, technical reviewers selected by the Program Committee chairperson, session convenor, and/or staff will judge whether the use of trade names, etc., is necessary and acceptable.

2.4 "Industry Practice" Statements

It may be useful to report the extent of application of technologies, products, or services, however, such statements should review the extent of application of all generically similar technologies, products, or services in the field. Specific commercial installations may be cited to the extent that their data are discussed in the submission or presentation.

2.5 Ranking

Although general comparisons of products and services are prohibited, specific generic comparisons that are substantiated by the reported data are allowed.

2.6 Proprietary Information (See also 2.2.)

Some information about products or services may be proprietary to the author's agency or company, or to the user and may not be publishable. However, their scientific principles and validation of performance parameters must be described. Conclusions and/or comparisons may only be made on the basis of reported data.

2.7 Capabilities

Discussion of corporate capabilities or experiences are prohibited unless they pertain to the specific presented data.

3. GRAPHICS

3.1 Purpose

Slides, photographs, videos, illustrations, art work, and any other type visual aids appearing with the printed text in submissions or used in presentations (hereafter referred to as graphics) should be included only to clarify technical points. Graphics which primarily promote a product or service will not be allowed. (See also 4.6.)

3.2 Source

Graphics should relate specifically to the technical presentation. General graphics regularly shown in, or intended for, sales presentations cannot be used.

3.3 Company Identification

Names or logos of agencies or companies supplying the goods or services must not appear on the graphics, except on the first slide of the presentation. Slides showing products may not include predominant nameplates. Graphics with commercial names or logos added as background borders or corners are specifically forbidden.

3.4 Copies

Graphics that are not included in the preprint may be shown during the presentation only if they have been reviewed in advance by the Program Committee chairperson, session convenor, and/or staff, and have been determined to comply with this policy. Copies of these additional graphics must be available from the author on request by individual attendees. It is the responsibility of the session convenor to verify that all graphics to be shown have been cleared by Program Committee chairperson, session convenor, staff, or other reviewers designated by the Program Committee chairperson.

4. INTERPRETATION AND ENFORCEMENT

4.1 Distribution

This policy will be sent to all authors of submissions and presentations in the Association forums.

4.2 Assessment Process

Reviewers of submissions and presentations will accept only those that comply with this policy. Drafts of submissions and presentations will be reviewed for commercialism concurrently by both staff and technical reviewers selected by the Program Committee chairperson. All reviewer comments shall be sent to and coordinated by either the Program Committee chairperson or the designated staff. If any submissions are found to violate this policy, authors will be informed and invited to resubmit their materials in revised form before the designated deadline.

4.3 Author Awareness

In addition to receiving a printed copy of this policy, all authors presenting in a forum will be reminded of this policy by the Program Committee chairperson, their session convenor, or the staff, whichever is appropriate.

4.4 Monitoring

Session convenors are responsible for ensuring that presentations comply with this policy. If it is determined by the session convenor that a violation or violations have occurred or are occurring, he or she will publically request that the author immediately discontinue any and all presentations (oral, visual, audio, etc.), and will notify the Program Committee chairperson and staff of the action taken.

4.5 Enforcement

While both technical reviewers, session convenors, and/or staff may check submissions and presentations for commercialism, ultimately it is the responsibility of the Program Committee chairperson to enforce this policy through the session convenors and staff.

4.6 Penalties

If the author of a submission or presentation violates this policy, the Program Committee chairperson will notify the author and the author's agency or company of the violation in writing. If an additional violation or violations occur after a written warning has been issued to an author and his agency or company, the Association reserves the right to ban the author and the author's agency or company from making presentations in the Association forums for a period of up to two (2) years following the violation or violations.

NewMembers

BRAZIL

Marta Hiromi Taniwaki Inst De Tecnologia De Alimentos Campinas

CANADA

Steven A. Wright Hiram Walker & Sons Ltd. Windsor, Ontario

ITALY

Giuseppina Tantillo Universita Valenzano, Bari

KOREA

Hyun-Dong Paik Kyungman University Masan Kyungsangnamp-Do

NEW ZEALAND

Gail E. Greening Institute of Environmental Science & Research Ltd., Wellington

Shane Hopgood Auckland

UNITED KINGDOM

Roy Betts Campden & Chorleywood Res. Assn., Chipping Campden, Gloucestershire

Tec Fawcett Seward Ltd. London

F. Fernandez University of Bristol Langford-Bristol

UNITED STATES Armed Forces

Thomas D. Praino US Army, APO

David S. Rolfe CENPAC DVC Food Analysis Lab Tripler AMC

California

Frank Espinoza Ecolab, Cerritos

David R. Hoffmann Ice Cream Partners Bakersfield

District of Columbia

Wendy Fanaselle FDA/CFSAN/DCP/RFITT Washington

Steven E. Tome National Park Service Washington

Georgia

Jun Sup Lee UGA, Griffin

Mary Jo Smith Fieldale Farms Corporation Baldwin

Florida

Krista M. Heine Gainesville

Illinois

Jack A. Riser Keebler Co., Elmhurst

Maryland

David D. Wagner **USFDA** Laurel

Massachusetts

Karen S. Gwozdowski Gene-Trak Systems Hopkins

Bertil Lind PIAB USA, Inc. Rockland

Rick Potter Ken's Foods Inc. Marlhoro

Michigan

Mary C. Ballenger **Amway Corporation** Rockford

Thomas A. Watkins House of Flavors, Inc. Ludington

Minnesota

Carolyn McLachlan Northern Star Foods Minneapolis

Tracy K. Smith Cargill, Wayzata

Missouri

Joe W. Hainline Jefferson Co. Health Dept. Hillsboro

New Jersey

Michael J. Patracuollo Nu Products Seasoning Co. S. Hackensack

New York

Frank A. DeLapa Zweigle's Inc., Rochester

William E. Fredericks, Jr. NYS Dept. of Agriculture Albany

Oklahoma

Peter M. Muriana Oklahoma State University Stillwater

Pennsylvania

Vivian P. Chang Penn State University State College

Connie A. Kuhlman Dairy Farmers of America Rome

South Carolina

Brian Golbus ChemStation of SC Columbia

South Dakota

Kelly M. Namminga Avon

Tennessee

Mark Carter McKee Foods Corporation Collegedale

Kari Russell University of Tennessee Knoxville

Texas

Valerie B. Henderson City of Plano Health Dept. Plano

Elizabeth L. Holmes Amedo Center & School San Antonio

Linda Jimenez La Espiga De Oro, Inc. Houston

Barbara E. Martindale City of Granbury Fort Worth

Virginia

Robert Collette National Fisheries Institute Arlington

Elizabeth T. Steele VA Dept. of Agri. & Consumer Services Lynchburg

Washington

Stephanie Clark Washington State University Pullman

Wisconsin

Charles H. Eckermann Miller Brewing, Milwaukee

Linda Madson USDA Food Safety & Inspection Madison Dist. Office Madison

Peggy Mak Barbara Ingham, Madison

Wyoming

George A. Larsen Wyoming Dept. of Agriculture Thermopolis

US TERRITORIES

Puerto Rico

Carol L. Harper University of Puerto Rico Mayagüez

UpDates

Susan S. Sumner and Cameron R. Hackney **New Appointments**

Qusan S. Sumner has been Dappointed head of the department of food science and technology at the Virginia Polytechnic Institute and State University. She succeeds Cameron R. Hackney.

Prior to joining Virginia Tech, Susan was an assistant/associate professor in the food science and technolgy department at the University of Nebraska from 1990 to 1996, and a project microbiologist at the National Food Processors Association in Washington, D.C. from 1987 to 1990.

Ms. Sumner earned her B.S. in food science from North Carolina State University in 1982, and her master's (1984) and doctoral (1987) degrees in food science from the University of Wisconsin-Madison.

Cameron Hackney is now dean and director of the College of Agriculture, Forestry and Consumer Sciences at West Virginia University. He will remain active in the food science and technology department as an adjunct professor.

Peter Horvath Named Managing Director of Quality Chekd Dairies. Inc.

The Board of Directors an-**I** nounced the appointment of Mr. Peter Horvath to the position of managing director of Quality Chekd Dairies, Inc. effective January 1, 2001.

Horvath has spent the last 14 years working with the worldwide Tetra Pak, Inc. organization, which is headquartered in Chicago. During that time his responsibilities included work as regional sales manager, general manager of the West Region and the Long-Life Dairy and, most recently, as director of marketing and national

President. CEO Named at Renaissance Industries

ichard Dye has been named Richard Dye Has Deep President and CEO of Renaissance Industries, Inc. He replaces Randy P. Lachowski who recently became President and CEO of CSC. Ltd. in Warren, OH.

A mechanical engineer with more than 30 years of experience, Dye managed manufacturing, quality, sales and engineering operations for Purolator, Inc., Borden International; Inmont Corporation; General Foods, and Curtis-Wright. He is a graduate of Farleigh Dickinson University in Teaneck, NJ and has an engineering degree from S2 Handsworth Technical College in England.

Snowdon Joins IFT as Director of Science and Technology Projects

Till Snowdon, Ph.D. became the director of science and technology projects for the Institute of Food Technologists (IFT) on Oct. 1, 2000 in its Washington D.C. office.

Snowdon received a bachelor's degree in biology from Millersville State University (Millersville, PA), and a master's degree in food chemistry and a doctorate in food safety/environmental toxicology from the University of Wisconsin-Madison.

In addition, effective Sept. 1st, Mary K. Schmidl, Ph.D. began her one year term as the 61st president of the Institute of Food Technologists (IFT), and Philip E. Nelson, Ph.D. began his oneyear term as president-elect.

Gangar Promoted at Silliker

Silliker Laboratories announced the appointment of Vidhya V. Gangar as laboratory director of its Carson, CA testing facility.

Prior to her promotion, Gangar served as Carson Microbiology operations manager and an operations manager at Silliker's corporate research center in South Holland, IL, from 1994 to 1999. She has led collaborative studies on leading rapid detection methods and possesses an extensive knowledge of qualitative and quantitative test methods. Gangar will manage the lab's scientific operations, quality systems, and personnel to ensure accurate, timely services for the food industry in the western United States. She is a graduate of the University of Florida with a master of science degree in food science.

Food Irradiation Processing Alliance Targets Food

n response to increased interest in food safety, the Food Irradiation Processing Alliance - a new chapter of the Association of International Industrial Irradiation – has been formed to promote understanding of food irradiation and to facilitate adoption of this safe and effective technology. The Food Irradiation Processing Alliance (FIPA) will also establish new quality standards and a code of good practice for companies using food irradiation technology in North America. In addition, the Alliance will address regulatory issues and provide information to the public on food irradiation.

"As more and more foods receive regulatory approvals for irradiation, we're excited about the formation of the Food Irradiation Processing Alliance. We're going to work with the food industry to provide them with the support and information they need to use irradiation in order to deliver the best possible products to consumers," said John Masefield, FIPA's chairman and founder of STERIS Isomedix Services.

The U.S. Food and Drug Administration (FDA) has recently approved the use of food irradiation for a variety of products such as chicken, red meats and eggs. Other approvals are expected soon for ready-to-eat meats and seafood. Food irradiation is a safe and effective way to eliminate food pathogens to successfully prevent foodborne illness and death. The World Health Organization declares that irradiated food is "safe and wholesome" and many other organizations, including the American Medical Association and the Mayo Clinic, support the use of irradiation to protect consumers. Although the United States has one of the safest food supplies in the world, it is estimated that 76 million Americans become ill and as many as 5,000 people die each



year as a result of bacterial contamination in food. Children, the elderly, and people being treated for serious illness are most at risk and will especially benefit from the introduction of irradiated food. "We want to be sure that the food industry has the support they need to introduce this beneficial technology in whichever form best suits their needs," added Mr. Masefield. Food processors can rely on one of three different source irradiation technologies, gamma rays, x-rays, or high-energy electron beams. With increasing acceptance of food irradiation, manufacturers and processors can choose the technology that is most appropriate for their product characteristics, package configuration, throughput and cost per unit.

The Food Irradiation Processing Alliance's (FIPA) members include food irradiation technology companies that represent or supply over 95% of microbial control irradiation services in North America. FIPA is a chapter of the Association of International Industrial Irradiation, an organization with over 65 members around the world which provides information and advice to promote ionizing radiation for many uses, including the control of microbes, modification of materials, and reduction of pollutants.

Health Canada **Launches New Policy** for Unpasteurized

ealth Canada launched a consumer awareness campaign aimed at informing consumers about the risk of illness from consuming unpasteurized juices and ciders which may be contaminated with diseasecausing bacteria. Raising public awareness is part of a new policy to reduce the risks associated with consuming unpasteurized juices. The policy also encourages producers of unpasteurized juice and cider to follow a Code of Practice for the Production and Distribution of Unpasteurized Apple and other Fruit Juice/Cider.

The Code encourages the hygienic production and distribution of products and the voluntary labelling of products as "unpasteurized/non pasteurizé." It outlines the steps that should be implemented by producers, processors, distributors and retailers to reduce the possibility of contamination of unpasteurized juices. It also recommends that these products be labelled as "unpasteurized." The Code has been widely distributed to the juice industry, the fruit processing industry and provincial govern-

Fruit juices and ciders can become contaminated with harmful bacteria. Pasteurized juices and ciders undergo a heat treatment to destroy these bacteria, while unpasteurized juices and ciders do not. Unpasteurized juices and ciders have been connected to several recent outbreaks of gastrointestinal illness in Canada and the United States. Most often. the identified cause is a strain of bacteria called Escherichia coli O157:H7, commonly known as E. coli. Symptoms can include stomach cramps, vomiting, fever, and bloody diarrhea. In a small percentage of people, the condition can lead to severe kidney damage and can be fatal in some cases.

Young children, the elderly and people with weakened immune systems are at highest risk. Consumers in this group should only drink pasteurized products.

Health Canada is providing consumers with the following tips on how to reduce their risk of *E. coli* contamination: Boil fresh unpasteurized juice or cider before consuming as an extra precaution.

Avoid serving unpasteurized products to those most at risk, e.g., children, the elderly, and people with weakened immune systems. Do refrigerate unpasteurized juice products and respect the best before dates. Don't rely on freezing or refrigeration to make unpasteurized juices or ciders safe.

Hazard Characterization and Exposure Assessment of Listeria Monocytogenes in Ready-to-Eat Foods and Salmonella spp. in Broilers in Eggs

echnical documents on hazard characterization and exposure assessment of Listeria monocytogenes in readyto-eat foods and Salmonella spp. in broilers in eggs, which were reviewed and evaluated during the Joint FAO/WHO Expert Consultation on Risk Assessment of Microbiological Hazards in Foods that took place on 17-21 July 2000 in Rome, have now been posted on both the FAO www.fao.org/ WAICENT/FAOINFO/ECONOMIC/ ESN/pagerisk/riskpage.htm) and WHO www.who.int/fsf/ mbriskassess/index.htm> Web

A "Call for Public Comment, Scientific Data and Information" has also been issued (www.fao. org/WAICENT/FAOINFO/ECO-NOMIC/esn/pagerisk/call.htm) (www.who.int/fsf/mbriskassess/ Call_for_Public_comment.htm).

This invites all interested parties to review these documents and provide FAO and WHO with their comments as well as any pertinent data and information that they may have.

If you have further comments on these documents, please submit them to FAO and WHO for consideration in the revision of the technical documents next year.

America's Dirty Little Secret: Second Handwashing Survey Reveals Americans Still Don't Get It

espite an ever-increasing threat from antibiotic resistant "superbugs" and emerging new microbial illnesses, at least one third of Americans appear to have forgotten the single best piece of infection control advice Mom ever gave them - always wash your hands after you go to the bathroom. While 95 percent of men and women surveyed say they wash their hands after using a public restroom, only 67 percent of people actually do wash before leaving the restroom, according to the results of a new survey and observational study conducted for the American Society of Microbiology's Clean Hands Campaign released at the ASM's Interscience Conference on Anti-microbial Agents and Chemotherapy meeting (ICAAC).

Despite increased publicity over the past several years about the importance of basic handwashing in limiting the spread of infectious disease, men and women in several American cities are even less likely to wash today than they were four years ago. "While it may seem amusing at first, this is really a very serious issue. We really need to help the public understand the significance of these findings and the importance of handwashing," said Judy Daly, Ph.D., Secretary of the American Society of Microbiology (ASM). "The more people do their part to control the spread of infections, the less we have to use antibiotics, which lose their potency over time as bacteria develop resistance to them."

ASM's Clean Hands Campaign is designed to remind Americans that "Mom was right" — it is important to wash one's hands before and after handling food products, after handling pets, before eating, and whenever one is sick, or is around people who are. Despite the generally held belief that cold germs are spread through sneezing and coughing, the majority of transmission comes from hand-to-hand contact and transfer of germs.

"Handwashing is the simplest, most effective thing people can do to reduce the spread of infectious diseases," according to Julie Gerberding, M.D., Director of the Hospital Infections Program, Centers for Disease Control and Prevention.

The new findings about hand washing come from a national telephone survey of 1,021 adults and observations of 7,836 persons made in public restrooms in New York, Atlanta, New Orleans, Chicago and San Francisco.

Observers found that those least likely to wash in public restrooms were men in Atlanta, while those most likely to wash were women in Chicago.

Women surveyed were significantly more likely than men to at least say they wash their hands after various activities or events. For instance, 40 percent of women reported washing after

sneezing or coughing, compared to 22 percent of men; 54 percent of women say they wash after petting a dog or cat, while only 36 percent of men say they do so; and 86 percent of women, compared to 70 percent of men, say they wash their hands after handling a

The Clean Hands Campaign is a key component of ASM's ongoing efforts designed to spread the "importance of handwashing" message. The campaign will consist of educational materials designed for healthcare professionals and consumers including posters, a brochure, stickers and a Web site destination, www. washup.org for downloading information and educational materials.

FSIS Proposes to Share Recall Information to **Enhance Public Health**

he U.S. Department of Agriculture's Food Safety and Inspection Service (FSIS) is proposing to share some proprietary information with state and other federal government agencies when a recall of meat or poultry products is being conducted.

"Sharing recall information helps all government agencies involved work together more professionally to ensure the effectiveness of a recall," said Thomas J. Billy, administrator of FSIS. "Such cooperation helps to find solutions to provide consumer protection from foodborne illnesses, enhances public health, and contributes to the higher efficiency of government."

Under this proposed rule, published in the Federal Register, FSIS may, in the interest of public health, share some confidential proprietary information with

other government agencies in connection with the recalls of meat, poultry and egg products.

Under the Freedom of Information Act, Congress recognizes the need for the federal government to withhold certain categories of information from public disclosure. Therefore, agencies receiving the information would provide written agreements not to disclose proprietary information without the company's written permission or written confirmation from FSIS.

FSIS will continue to issue a news release for all meat and poultry recalls, as was stated in its Jan. 19 directive updating FSIS recall procedures and outlining a new policy. Releases reflect the health risk posed by the product, and indicate whether the product is identifiable to consumers. The directive and this proposal grew out of recommendations made by an FSIS Recall Working Group.

FSIS has issued a guide that outlines the actions industry can take before a recall occurs and the step-by-step procedures a firm should follow when recalling a product. These materials are available on the FSIS Web site at www.fsis.usda.gov.

Recalls are voluntary actions by plants or distributors in cooperation with federal and state agencies. Products are recalled if they are found to be contaminated. adulterated or misbranded according to provisions of the Federal Meat Inspection Act or the Poultry Products Inspection Act. Although FSIS cannot order a recall, the agency does have the authority to detain and seize the product after it is located.

Recalls of meat and poultry products are coordinated and monitored by FSIS or state agencies, depending on whether the products are distributed in interstate or intrastate commerce.

Written comments should be mailed by Nov. 20 to the FSIS Docket Clerk, Docket #99-029P, U.S. Department of Agriculture, Food Safety and Inspection Service, Room 102, Cotton Annex. 300 12th St., S.W., Washington, D.C. 20250-3700.

NFPA Announces New Food Safety and Quality Systems Supplier **Audit Program**

he National Food Processors Association (NFPA) has announced a new program to coordinate food safety audits of suppliers on behalf of food processors. "The Food Safety and Quality Systems Supplier Audit Program has a simple but very important purpose: to enhance food safety standards and create efficiencies in the way audits for suppliers and processors alike," said Kelly Johnston, NFPA's Executive Vice President for Government Affairs and Communications, who has served as the program's coordinator since its inception. "We believe the program has great potential to benefit everyone in the industry."

NFPA, a trade group representing food makers, formed a 27company task force earlier this year to establish audit standards, qualifications for independent auditors, and processes to coordinate the scheduling of audits and distribution of reports.

Under this program, NFPA will coordinate the scheduling, conduct, review, and distribution of food safety and quality system audits of food industry suppliers. Once a pilot phase of the program is completed, participating processors will likely ask suppliers to conduct an annual NFPA audit of their facilities. The supplier

will contact NFPA to contract for and schedule the audit, and will be provided with a short list of trained and qualified auditors to choose from.

The auditor will then work with the supplier to schedule a time for the audit. Once the audit is completed - including any corrective action planned by the supplier - NFPA will review the report for completeness, and then distribute copies to processors as authorized by the supplier. An appeal procedure to handle disputes also will be established.

"An auditing standard accepted by the food processing industry would dramatically reduce the number of audits required (currently an average of nine audits per year per facility) and create other efficiencies," Johnston noted.

The program will start with a pilot phase in 2001, when it is estimated that several hundred audits could be conducted. The program is expected to grow to several thousand audits annually over the next five years. Initially, the program will be designed for suppliers to food processors in North America, but eventually could become an international program. The program will be open to both NFPA members and non-members alike.

"Eventually, it will be attractive to other segments of the food industry who have or want to establish quality assurance programs for their suppliers, including retailers, restaurants, food service companies, and distributors," Johnston said.

FDA Database of Foodborne Illness Risk **Factors Released**

he Food and Drug Administration (FDA) has announced the release of the Report of the FDA Retail Food Program Database of Foodborne Illness Risk Factors. This report establishes a baseline to measure how effective industry and regulatory efforts are in changing behaviors and practices that directly relate to food-borne illness in the retail food industry.

FDA advises state and local governments on food safety standards for institutional food service establishments, restaurants, retail food stores, and other retail food establishments. By establishing a baseline. FDA will be better able to measure compliance with its Food Code, a food safety guideline developed by FDA for maintaining food safety in restaurants, grocery stores, nursing homes, and other institutional and retail settings.

Data collected from nearly 900 institutional food service establishments, restaurants, and retail food stores showed that the risk factors in need of greatest attention were: Improper Holding Times and Temperatures, Contaminated Equipment/Cross Contamination, and Poor Personal Hygiene.

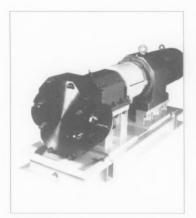
It is expected that an improvement in compliance with the Food Code provisions that address these risk factors may have a direct impact on reducing the occurrence of foodborne illness.

On the other hand, risk factors which were revealed not to require increased attention included: Foods from Unsafe Sources and Inadequate Cooking.

Future studies planned for 2003 and 2008 are expected to provide input into one of Healthy People 2010's food safety objectives. Healthy People 2010 is a national health promotion and disease prevention initiative with the objective to improve the health of all Americans. One objective is to improve food preparation practices and food employee behaviors at institutional food service establishments, restaurants, and retail food stores.

A Federal Register notice announcing the availability of the report was published September 6, 2000. A public meeting was held on October 27, 2000. The purpose of the meeting was to present the methodology used for developing the baseline and inspectional data

Industry **Products**



Viking Pump, Inc.

Viking Pump and Top Line Process Equipment Announce New SteriLobe™ 1.000 GPM Rotary Lobe Pump

To provide greater pumping capacity for sanitary/hygienic applications, Viking Pump, a Unit of IDEX Corporation and Top Line Process Equipment announce the SteriLobe[™] series of positive displacement rotary lobe pumps. The first pump in the series, with sixinch ports, nearly doubles the capacity of Viking's existing rotary lobe pump lines.

With capacities to over 1,000 gallons per minute (230m³/h), the SteriLobe pump handles fluid viscosities up to 2,000,000 SSU (440,000 cSt), and develops pressures to 220 psig (15 bar). A fully swept pumping chamber and temperature capabilities to 300°F (150°C) ensure these pumps are

suitable for both Clean-In-Place and Sterilize-In-Place installations. The 316L SS pumps are designed to conform to 3-A standards for sanitary applications, and special finishes are available for ultrapure applications.

The unique four-lobe rotor design provides nearly pulseless transfer or metering of virtually any fluid, from ultrapure water to viscous or shear-sensitive liquids. Common sanitary applications include sugar magmas, food slurries, dairy and brewing. A simple gear timing mechanism eliminates shimming, and frontloading seals make service fast and easy. Single or double mechanical seals are available for nearly any fluid application.

Viking Pump, Inc., Cedar Falls, IA

Reader Service No. 314

New Zeiss Automated Cell Scan System for Monitoring Life Cycle of Cultured Cells and Apoptosis

arl Zeiss introduces the new Automated Cell Scan (ACS) System for life cell studies. It incorporates a comprehensive environmental incubation and temperature control system allowing the use of multi-well plates for the simultaneous monitoring of multiple or single experimental variables.

The ACS System is ideally designed to study reporter gene expression in living cells using fluorescent proteins (FPs) as markers, or to monitor sub cellular localization of chimeric proteins in a cell-cycle/time dependent manner. The system allows tracing of the direct lineage of a single cell expressing a gene of interest or which has been treated with a specific compound that may affect cell-cycle progression, and time dependent variations in cell morphology or cytokinesis. It also permits the monitoring of accumulated cell deaths following various experimental treatments.

The ACS system's ability of scanning multi-well plates under full environmental control and creation of time-lapse sequences can be streamlined to accommodate high-throughput screening for compounds that regulate cell growth or apoptosis.

The ACS System is based on the Axiovert 100M inverted research microscope with fully programmable motorized control functions of Z-focus, objective nosepiece, X-Y stage, and epifluorescence filter block slider. Zeiss Vision software fully supports all computer and microscope functions such as Z-focus; automatic x-y scanning stage control for Mark & Find applications; image capture for 5D timelapse studies; autofocus capability supporting digital cameras including epi-fluorescence, and data acquisition of single or multiple populations in multi-well plates.

Carl Zeiss, Inc., Thornwood, NY

Reader Service No. 315

The publishers do not warrant, either expressly or by implication, the factual accuracy of the products or descriptions herein, nor do they so warrant any views or opinions offered by the manufacturer of said articles and products.

New Analytical System from Foss Electric **Dramatically Improves Food Quality Management**

ith MicroFoss, the new analytical system from Foss Electric A/S, food products and raw materials can be screened for bacteria much faster than traditional methods, thus allowing for improvements in the quality of meat and milk products for example. The result can be fresher. safer products for the consumer.

Foss Electric has a new analytical system for the detection and enumeration of microorganisms: the MicroFoss. Within the food production and processing industries, rapid, reliable testing of food products and raw materials is vitally important. In order to ensure that consumers get fresh, uncontaminated products, thorough analysis is necessary. This is provided by the new MicroFoss system. With screening times as low as seven hours, the MicroFoss system requires less labor inputs than any other product in the market, thus allowing food companies to improve their surveillance programs without additional staff.

Faster food testing allows the industry to reduce the total processing time, and also reduces storage delays. This offers financial benefits to the producers, and increases the product shelf life. Most importantly for the consumer, products can be delivered fresher to the point of purchase.

"During the processing stage, food is vulnerable to bacterial contamination. Shortened screening times mean faster clearance of raw materials and finished products. MicroFoss increases efficiency in the QC laboratory, by reducing hands-on time, greatly improves the implementation and monitoring of HACCP (Hazard Analysis Critical Control Point)

programs, and reduces quarantine storage requirements.

The MicroFoss system measures TVCs (Total Viable Count). coliform count, E. coli bacteria, and yeasts & molds, in both raw materials and finished products. This is vital to the meat, dairy, food, and beverage industries. New tests which offer utility and value to food manufacturers, will be developed for the MicroFoss system in the future.

Foss Microbiology, Hillerod, Denmark

Reader Service No. 316



Raytek Corporation

A New Noncontact Infrared Thermometer for Food Handling and **Preparation Applications** from Ravtek Corporation

Raytek Corporation has designed a new noncontact infrared thermometer specifically for the food service industry. The new Mini-Temp-Food Safety (FS) model infrared thermometer is calibrated to meet 1 percent (±1°C/2°F) accuracy in the 32° to 150°F (0° to 65°C) temperature range exceeding the critical 40° to 140°F (4° to 60°C) food safety zone. That makes the new MiniTemp-FS model an excellent companion to a traditional probe thermometer to meet a Hazard Analysis Critical Control Point (HACCP) program. As a scanning tool, MiniTemp FS can quickly

and accurately identify potential problem areas, which can then be confirmed using a traditional probe thermometer to take internal temperatures. It also has a laser sighting system that helps pinpoint the measurement area on the cooking, processing or preparation surface. Now users have the ability to instantly and conveniently take more temperatures more often and significantly increase food preparation safety. The MiniTemp-FS includes these features: 1 percent accuracy within the critical food safety temperature zone: Distance to Spot ratio of 4:1 measures a 1 to 2 inch diameter spot when working 4 to 8 inches from the intended target; Calibration to 0.97 emissivity for greater food measurement accuracy; and temperature range from -25° to 400°F (-30° to 200°C) to meet most food applications.

In addition to the enhancements, all MiniTemp-FS models include the field-proven features of backlit display, low battery indicator, automatic off, and 7-second display hold.

Raytek Corporation, Santa Cruz, CA

Reader Service No. 317

Goring Kerr Offers Product Inspection Services

oring Kerr-A Thermo Sentron Company provides on-site or off-site Product Contamination Inspection utilizing the Goring Kerr X-Ray system. The USDAapproved system offers the fastest and most dependable way to inspect packaged goods.

In the case of a known product contamination, the Goring Kerr Product Inspection Service will thoroughly inspect product for a variety of dense contaminants including metal. glass, PVC, mineral stone, shell

and bone, regardless of packaging material. The system can also detect missing or mispackaged product non-destructively.

The X-Ray inspection system is available for short- or long-term rental at a customer's facility or can be used at Goring Kerr's facility where professional labor and materials are provided to examine and re-pack product. Customers can take advantage of the Priority Customer Registration System for quick action when their product is in jeopardy. Once registered, Priority Customers can bypass the process of product and account set-up when they make a call for action - when time delays can be most critical.

Goring Kerr - A Thermo Sentron Company, Westmont, IL

Reader Service No. 318



seepex, Inc.

seepex New Chopper **Pump Needs No Carrier** Liquid

Ceepex has a new chopper D pump. The inlet hopper is rectangular and axially spaced set of rotary and stationary tungsten carbide knives are used to chop, crush and feed products into the pumping elements.

Rotating knives, symmetrically arranged on the feed screw, in conjunction with stationary knives fixed to the compression-housing, chop and crush the fed product. The macerated products can be transported without iamming or clogging the pump or discharge pipes.

The inlet hopper of the pump can be fabricated to the specific dimension required by the customer. Current users have applied this pump on waste potatoes, beets, whole waste chickens, and potatoes for starch production and apples. Certain products, like potatoes and apples, can be pumped without adding carrier liquids.

This pump has many applications in fruit, vegetable and meat processing industries and starch production plants. This new system now permits the oxidation free crushing of whole and partially chopped foods with simultaneous transport within a closed system.

The BTM pumps are available in various capacity and pressure choices for lows to 70 m³/h (300 USGPM) at pressures up to 48 bar (720 psi).

seepex, Inc., Enon, OH

Reader Service No. 319

Rvan Instruments Expands Multi-Channel Logger Series with Heavy Duty Models

Ryan Instruments has expanded its MultiChannel Logger (MCL) line of products to include a

heavy-duty model in a NEMA 4X enclosure specifically designed for external environments with resistance to direct rain, wind. heat, cold, dust and hose spray. A variety of sensor types and cable lengths are available.

An indispensable tool for the produce, perishable food and horticultural industries, the MCL offers both versatility and flexibility. Each version of the instrument monitors a programmed temperature range, collecting up to 16,000 temperature samples; the instrument provides a visual alert when temperatures in any one of up to four locations fall outside the specified temperature boundaries. Data is held in a data key that is removed from the MCL and inserted in the Kev Down Loader (KDL) connected to a PC for a full graphical or tabular display of the data. Insertion of an additional programmed data key in the MCL means continuous, uninterrupted monitoring of temperatures.

The MCL provides two ways to view out-of-bounds conditions. There's an on-board LED (green/ red) bar easily visible locations such as outside a cold room. The standard MCL features a remote display option for less visible locations such as inside a display

The MCL line monitors temperatures between -20°F and 199°F, with accuracy of ±.5°F. Programmed sample rates are 1, 5, 10, 15, 30 or 60 minutes.

Ryan Instruments, Redmond, WA

Reader Service No. 320

How the Audiovisual Library Serves IAFP Members

Purpose ...

The Audiovisual Library offers International Association for Food Protection Members an educational service through a wide variety of quality training videos dealing with various food safety issues. This benefit allows Members free use of these videos

How It Works ...

- 1) Members simply fill out an order form (see page 907) and fax or mail it to the IAFP office. Members may also find a Library listing and an order form online at the IAFP Web site at www.foodprotection.org.
- 2) Material from the Audiovisual Library is checked out for a maximum of two weeks (three weeks outside of North America) so that all Members can benefit from its use.
- 3) Requests are limited to five videos at a time.

How to Contribute to the Audiovisual Library ...

- 1) As the IAFP Membership continues to grow, so does the need for additional committee members and materials for the Library. The Audiovisual Committee meets at the IAFP Annual Meeting to discuss the status of the Audiovisual Library and ways to improve the service. New Members are sought to add fresh insight and ideas.
- 2) Donations of audiovisual materials are always needed and appreciated. Tapes in foreign languages (including, but not limited to Spanish, French, Chinese [Manderin/Cantonese]), are especially desired for International Members who wish to view tapes in their native language.
- 3) Members may also make a financial contribution to the Foundation Fund. The Foundation Fund sponsors worthy causes that enrich the Association. Revenue from the Foundation Fund supports the IAFP Audiovisual Library. Call Lisa Hovey, Assistant Director or Lucia Collison, Association Services at 800.369.6337 or 515.276.3344 if you wish to make a donation.



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		& How It Works-(1) Changes in the	0	F2130	Food Safety: You Make the Difference			for Food Processing Employees
		Remedial Process: Clean-up Standards		F2135	Get with a Safe Food Attitude		M4060	Psychiatric Aspects of Product Tampering
		& State Involvement Requirements		F2140	GMP Basics: Employee Hygiene Practices		M4070	Tampering: The Issue Examined

Visit our Web site at www.foodprotection.org for detailed tape descriptions

Coming Events

DECEMBER

· 4-5, Food Safety Objectives: Public Health, HACCP and Science Conference, Georgetown University, Washington, D.C. For further information, contact Phillipa Orme, FSO 2000 Conference Secretariat, 12 Church St., West Hanney, Wantage, Oxon OX12 OLN, UK: Phone: 44.01235.868811. Fax: 44.01235.868811; E-mail: p.orme@ dial.pipex.com.

· 4-5. Advanced HACCP Workshop, Phoenix, AZ. This workshop will educate participants on design and implementation of scientificallybased HACCP systems to meet the highest food safety standards. For additional information, contact AIB, 1213 Bakers Way, P.O. Box 3999, Manhattan, KS 66505-3999; Phone: 785.537.4750; Fax: 785.537.1493.

· 4-6, InterBev 2000, Morial Convention Center, New Orleans, LA. For more information call Joe Nemchek at 203.840,5949.

· 4-6. Thermal Process Development Workshop, Monarch Hotel, Dublin, CA. Presented by National Food Processors Association. Participants will generate heat penetration data in the pilot plant of NFPA's research laboratory. For more information, call Customer Service at 202.639.5954.

· 5-7, HACCP, A Basic Concept for Food Protection, Cornell University, Ithaca, NY. This course is designed to meet the educational requirements cited in both the FDA regulation requiring HACCP for seafoods (21CFR123) and the USDA rule on Pathogen Reduction and HACCP (9CFR304 et al.). For further information, contact Food Processors Institute, 1350 I St., Suite 300,

Washington, D.C. 20005; Phone: 202.393.0890; Fax: 202.639.5941.

· 13-14, HACCP IV: Train the Trainer, Guelph, Ontario, Canada. For more details, contact Marlene Inglis, Guelph Food Technology Centre at Phone: 519.821.1246; Fax: 519.836.1281; E-mail: gftc@ uoguelph.ca.

· 18-20, Pflug's Microbiology and Engineering of Sterilization Processes Course, St. Paul, MN. The objective of this three-day lecture problem-solving course is to help the student develop an understanding of the basic principles of both the microbilogy and engineering aspects of sterilization processes. For further information. contact Ann Rath at 612.626.1278; Fax: 612.626.1278; 612.625.5272; or mail to Food Science & Nutrition Bldg., University of Minnesota, 1334 Eckles Ave., St. Paul, MN 55108.

JANUARY

·20-21, New HACCP Workshop for International Poultry Processors, Atlanta, GA. Sponsored by The US Poultry and Egg Association. Leading the workshop will be Dr. S. F. Sarge Bilgili and Dr. Donald E. Conner. For more information, contact US Poultry & Egg Association, 1530 Cooledge Road, Tucker, GA 30084-7303; Phone: 770.493. 9401; Fax: 770.493.9257; E-mail: training@poultryegg.org.

· 29-31, Second NSF International Conference on Indoor Air Health, Radisson Deauville, Miami Beach, FL. For additional information, contact Cherrie Bacon at Phone: 734.827.6865; Fax: 734.827.6840/ 6831; E-mail: bacon@nsf.org.

FEBRUARY

·11-14, National Mastitis Council 40th Annual Meeting, Reno, Nevada. For additional information, contact NMC, 2820 Walton Commons West, Suite 131, Madison, WI 53718-6797; Phone: 608.224. 0622; Fax: 608.224.0644; E-mail: nmc@nmconline.org.

· 20-22, Kentucky Association of Dairy, Food and Environmental Specialists, Executive West, Louisville, KY. For additional information, contact Tim Wright at 606.873.4541, or Kenny Ratliff at 502.255.7701.

· 21-22, California Association of Dairy and Milk Sanitarians Annual Meeting, Ontario, CA. For further information, contact John Bruhn at 530.752.2192.

· 26-28, Food Irradiation 2001 Conference, Washington, D.C. This conference on food safety will be directed at food safety managers and executives, import/export firms, growers, ranchers, and food processors wishing to integrate this technology into an overall food safety program for meats, poultry, produce, spices, eggs and/or processed foods. For further information, contact Janine Scheld, Intertech, 19 Northbrook Dr., Portland, ME 04105; Phone: 207.781.9617; Fax: 207.781. 2150; E-mail: jscheld@intertechusa. com.

MARCH

·14-16, Idaho Environmental Health Association Annual Spring Conference, Owyhee Plaza Hotel, Boise, ID. For further information, contact Angela Markham at 208.233.9080 ext. 231.

•14-16, Michigan Environmental Health Association's 57th Annual Educational Conference, Holiday Inn West, Lansing, MI. For further information, contact Keith Krinn at 248.424.7099.

•17-19, United Fresh Fruit and Vegetable Association International Convention, Tampa, FL. For additional information, phone 703.836.3410.

·22, Ontario Food Protection Association Spring Meeting, Delta Meadowvale, Mississauga, Ontario, Canada. For further information, contact Glenna Haller at 519.823.8015.

APRIL

•4-6, Missouri Milk, Food and Environmental Health Association Annual Educational Conference, Ramada Inn, Columbia, MO. For additional information, contact Steve St. Clair at 573.221.

•5-7, International Fresh-cut Produce Association 14th Annual Conference, Phoenix, AZ. For more information, call Stephanie Grunenfelder at 703.299.6282.

•16, 3-A Sanitary Standards Committee Annual Meeting, Sheraton Four Points Hotel, Milwaukee Airport. For more information, contact Tom Gilmore at 703.761. 2600; E-mail: tgilmore@iafis.org or Philomena Short at 703.761.2600; E-mail: pshort@iafis.org.

· 24-30, 16th International Trade Fair for Packaging Machinery, Packaging and Confectionery Machinery, Düsseldorf, Germany. For more information, contact Messe Düsseldorf North America, 150 N. Michigan Ave., Suite 2920, Chicago, IL 60601; Phone: 312.781.5180; Fax: 312.781.5188.

• 26, Guelph Food Technology Centre Trade Show — Innovation & Change in the Food Industry. For further information, contact Cliona Reeves at Phone: 519.821. 1246; Fax: 519.836.1281; E-mail: gftc@ uo guelph.ca.



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For information on membership with the International Association for Food Protection, Circle #100 on this card.

Another problem with the Precautionary Principle, as discussed in an essay by Gary Marchant of the Arizona State University College of Law, is that it represents a step backward from a focus on "risk" to a focus on "hazard". A hazard represents a potential adverse effect of a product or activity while the risk is the likelihood that the hazardous effect will occur in a real-world situation. Driving a car can be hazardous but the benefits of driving outweigh the risks (unless you're at the intersection of I-4 and I-275 in Tampa at rush hour).

Risk Assessment does not preclude the **Precautionary Principle**

Supporters of the Precautionary Principle attempt to portray the current debate as Risk Assessment vs. the Precautionary Principle. In other words, you are in one camp or the other. It is important to understand, however, that the two principles are not mutually exclusive. Indeed, the U.S. actively pursues precaution in regulations that involve health and safety of consumers and the environment.

Rather than de-emphasize Risk Assessment in favor of the EU's position on the Precautionary Principle, the U.S. has another sensible option. When applied on a case-by-case basis, a precautionary regulatory approach could be used as a temporary stop-gap measure until

enough data are collected to support valid, defensible, science-based Risk Assessment. This, of course, requires flexibility by federal agencies and a willingness to move from a precautionary stance to one based on Risk Assessment when appropriate.

One example of such a scenario is the U.S. zero tolerance policy for Listeria monocytogenes in readyto-eat foods. This policy was implemented as a precaution by FDA and FSIS at a time of well publicized outbreaks and minimal knowledge about the importance of this organism to food safety. Since that time, extensive data have been collected such that other countries have set tolerance levels for L. monocytogenes in certain RTE products rather than ban its presence totally. IF scientifically justifiable, a movement by our federal agencies away from zero tolerance toward establishment of tolerance levels might demonstrate a useful purpose for the Precautionary Principle in regulatory activities, assuming a definition can be established.

Although this is a rather complex issue, the bottom line is that the U.S. cannot and should not accept arbitrary application of a vaguely defined idea that has a large potential for abuse as a technical trade barrier. The U.S. policy of basing food safety regulations on fundamentally sound science is appropriate and should be supported. For further information on this topic, visit www.biotech_info.net/precautionary.html.

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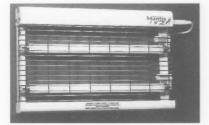
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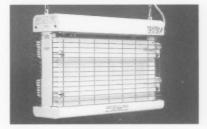


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CareerServices Section

McCormick & Company, Inc., a worldwide leader in the spice and flavoring markets, has an opening for a Manager Food Safety/Microbiology at its Technical Innovation Center located in Hunt Valley, Maryland, a suburb of Baltimore. McCormick has been recognized as a "100 Best Company To Work For in America," and offers competitive salary, benefits, Company-funded pension, and profit sharing.

Candidate will provide leadership to McCormick's Food Safety program. Working closely with Corporate OA, responsibilities will include managing proactive research, investigating, and reporting on food safety issues to appropriate Company, customer and governmental officials. In addition, coordinating the testing, refining, developing and implementing microbiological methods, as well as management of departmental staff and projects will be necessary.

Skills and experience which qualified candidates will possess include:

- 1) Master's Degree or Ph.D. (Ph.D. preferred) in Microbiology or related science and 10-year's experience.
- 2) Food safety expertise with a strong practical microbiological knowledge.
- 3) Significant experience in microbiological methodology and interpretation.
- 4) Demonstrated ability to establish health risk (Quantified Risk Assessment).
- 5) Ability to apply good business judgment toward rendering direction and understanding in management product safety decision making.
- 6) Front line/production QC experience required.
- 7) Ability to manage and coach staff and provide directional leadership to corporate scientific professionals.
- 8) Experience testing, refining, developing and implementing microbiological methods.
- Assessment of potential risk of emerging pathogens
- 10) HACCP
- 11) Laboratory Integrity w/experience in a food processing lab is essential.
- 12) QA, operations experience and/or lab management background are a plus.
- 13) Strong presentation skills, written and verbal communication and teamwork skills are required.

Interested candidates should fax their resume and salary history to McCormick & Company, Inc.; Attention: Microbiologist Search at 410-771-7649 or mail to: McCormick & Company, Inc., 204 Wight Ave., Hunt Valley, Maryland 21031.

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Journal of Food Protection



Vol. 63 November 2000 No. 11 The Effect of Different Grain Diets on Fecal Shedding of Escherichia coli O157:H7 by Steers S. J. Buchko, R. A. Holley, W. O. Olson, V. P. J. Gannon, and D. M. Veira* 1467 Comparison of Aqueous Chemical Treatments To Eliminate Salmonella on Alfalfa Seeds W. R. Weissinger and L. R. 1475 Enrichment Procedures and Plating Media for Isolation of Yersinia enterocolitica G. C. Jiang, Dong-Hyun Kang,* and Daniel 1483 Genotypes and Enterotoxicity of Staphylococcus aureus Isolated from the Hands and Nasal Cavities of Flight-Catering Employees M. Hatakka,* K. J. Björkroth, K. Asplund, N. Mäki-Petäys, and H. J. Korkeala...... 1487 Stimulation of Starter Culture for Further Reduction of Foodborne Pathogens during Salami Fermentation Dong-Hyun Kang* and Daniel Y. C. Fung.. 1492 Bacillus cereus Group Strains, Their Hemolysin BL Activity, and Their Detection in Foods Using a 16S RNA and Hemolysin BL Gene-Targeted Multiplex Polymerase Chain Reaction System Hau-Yang Tsen, Ming-Lun Chen, You-Miin Hsieh, Sen-Je 1496 Bacterial Spore Inhibition and Inactivation in Foods by Pressure, Chemical Preservatives, and Mild Heat Adrienne E. H. Shearer, C. Patrick Dunne, Anthony Sikes, and Dallas G. Hoove 1503 Nonproteolytic Clostridium botulinum Toxigenesis in Cooked Turkey Stored under Modified Atmospheres Kathleen A. Lawlor,* Merle D. Pierson, Cameron R. Hackney, James R. Claus, and Joseph E. Marcy Detection of Gualacol Produced by Alicyclobacillus acidoterrestris in Apple Juice by Sensory and Chromatographic Analyses, and Comparison with Spore and Vegetative Cell Populations Rachel V. Orr, Robert L. Shewfelt, C. J. Huang. Sebhat Tefera, and Larry R. Beuchat Aerobiology of a High-Line Speed Cattle Abattoir K. W. F. Jericho,* J. Ho, and G. C. Kozub. The Synergistic Effect of Excimer and Low-Pressure Mercury Lamps on the Disinfection of Flowing Water Ian A. Ramsay, Jean-Christophe Niedziela, and Iain D. Ogden' 1529 Ultraviolet Spectrophotometric Characterization and Bactericidal Properties of Electrolyzed Oxidizing Water as Influenced by Amperage and pH Soo-Voon Len, Yen-Con Hung, Marilyn Erickson, and Chyer Kim 1534 Prevalence of High-Risk Food Consumption and Food-Handling Practices among Adults: A Multistate Survey, 1996 to 1997 Beletshachew Shiferaw.* Samantha Yang, Paul Cieslak, Duc Vugia, Ruthanne Marcus, Jane Koehler, Valerie Deneen, Frederick Angulo, and the FoodNet Working Group. 1538 1544 Formation of Biogenic Amines in Raw Milk Hispanico Cheese Manufactured with Proteinases and Different Levels of Starter Culture E. Fernández-García,* J. Tomillo, and M. Nuñez 1551 Mixed Starter Cultures To Control Biogenic Amine Production in Dry Fermented Sausages Sara Bover-Cid, Maria Izquierdo-1556 Pulido, and M. Carmen Vidal-Carou Detection of Radiation-Induced Hydrocarbons and 2-Alkylcyclobutanones in Irradiated Perilla Seeds Hae-Jung Lee, Myung-1563 Woo Byun, and Kyong-Su Kim' A Differential Medium for the Enumeration of the Spoilage Yeast Zygosaccharomyces bailii in Wine D. Schuller, M. Côrte-1570 Norwalk-like Virus Sequences Detected by Reverse Transcription-Polymerase Chain Reaction in Mineral Waters Imported into or Bottled in Switzerland Christian Beuret,* Dorothe Kohler, and Thomas Lüthi ... 1576 Research Notes Prevalence and Characteristics of Shiga Toxin-Producing Escherichia coli in Beef Cattle Slaughtered on Prince Edward Island R. Douglas Schurman, Harry Hariharan,* Susan B. Heaney, and Kris Rahn. Analysis and Modeling of the Variability Associated with UV Inactivation of Escherichia coli in Apple Cider Siobain Duffy, John Churey, Randy W. Worobo, and Donald W. Schaffner* Yersinia enterocolitica Biogroup 1A, Serotype O:5 In Chicken Carcasses Mirtha E. Floccari, Maria M. Carranza, and Jose L. Reduction of Campylobacter jejuni in a Simulated Chicken Digestive Tract by Lactobacilli Cultures M. H. Chang and T. C. Thermal Stability of Moniliformin at Varying Temperature, pH, and Time in an Aqueous Environment Graciela Pineda-Review Detection and Analysis of Animal Materials in Food and Feed Momcilovic Dragan and Avraham Rasooly*

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Capitol Vial, Inc	
DQCI Services, Inc823	
DiverseyLever Dubois Back Cover	
Ecolab Inside Front Cover	
Electro Steam Generator825	
Food Processors Institute821	
Foss North America, Inc	
Gardex Chemicals	
Kness Mfg. Co., Inc	
Medallion Laboratories823	
Michelson Laboratories, Inc823	
Qualicon Inside Back Cover	
Seiberling Associates, Inc	
Sneezeguard Solutions	
Weber Scientific825	

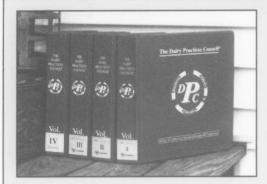
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The symposium, jointly sponsored by the American Association of Bovine Practitioners (AABP) and the NMC, is being held in conjunction with the AABP 34th Annual Conference, September 13-15, 2001 in Vancouver, British Columbia.

All abstracts must be submitted electronically through the National Mastitis Council Web site at www.nmconline.org. Complete instructions will be under the "meetings and registration" section of the Web site. Abstracts should NOT be E-mailed to NMC as an attachment. The deadline for abstract submission is November 30, 2000. Authors will be notified of acceptance as an oral or poster presentation by January 1, 2001.



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- Fundamentals of Cleaning & Sanitizing Farm Milk Handling Equipment
 Maintaining & Testing Fluid Milk Shelf-Life
- 11 Sediment Testing & Producing Clean Milk 12 Tunnel Ventilation for Dairy Tie Stall Barns
- 13 Environmental Air Control and Quality for Dairy Food Plants
- 14 Clean Room Technology15 Milking Center Wastewater
- 16 Handling Dairy Products from Processing to Consumption
- 17 Causes of Added Water in Milk
- 18 Fieldperson's Guide to Troubleshooting High Somatic Cell Counts
- 21 Raw Milk Quality Tests
- 22 Control of Antibacterial Drugs & Growth Inhibitors in Milk and Milk Products
- 23 Preventing Rancid Flavors in Milk
- 24 Troubleshooting High Bacteria Counts of Raw Milk
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- 27 Dairy Manure Management from Barn to Storage
- 28 Troubleshooting Residual Films on Dairy Farm Milk Handling
- 29 Cleaning & Sanitizing in Fluid Milk Processing Plants
- 30 Potable Water on Dairy Farms
- 31 Composition & Nutritive Value of Dairy Products
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- 33 Brucellosis & Some Other Milkborne Diseases
- 34 Butterfat Determinations of Various Dairy Products
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- 36 Dairy Farm Inspection
- 37 Planning Dairy Stall Barns 38 Preventing Off-Flavors in Milk
- 39 Grade A Fluid Milk Plant Inspection
- 40 Controlling Fluid Milk Volume and Fat Losses
- 41 Milkrooms and Bulk Tank Installations
- 42 Stray Voltage on Dairy Farms
- 43 Farm Tank Calibrating and Checking 45 Gravity Flow Gutters for Manure Removal in Milking Barns
- 46 Dairy Odor Control
- 48 Cooling Milk on the Farm
- 49 Postmilking Teat Dips 50 Farm Bulk Milk Collection Procedures
- 51 Controlling the Accuracy of Electronic Testing Instruments for Milk Components
- 52 Emergency Action Plan for Outbreak of Milk-borne Illness in the Northeast 53 Vitamin Fortification of Fluid Milk Products
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- 58 Sizing Dairy Farm Water Heater Systems
- 59 Production and Regulation of Quality Dairy Goat Milk
- 60 Trouble Shooting Microbial Defects: Product Line Sampling & Hygiene Monitoring
- 61 Frozen Dessert Processing
- 62 Resources For Dairy Equipment Construction Evaluation
- 63 Controlling The Quality and Use of Dairy Product Rework
- 64 Control Points for Good Management Practices on Dairy Farms
- 65 Installing & Operating Milk Precoolers Properly on Dairy Farms
- 66 Planning a Dairy Complex "100+ Questions To Ask" 69 Abnormal Milk Risk Reduction and HACCP
- 71 Farmers Guide to Somatic Cell Counts In Sheep
- 72 Farmers Guide to Somatic Cell Counts In Goats
- 73 Layout of Dairy Milk Houses for Small Ruminant Operations
- 80 Food Allergen Awareness in Dairy Plant Operations

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THOUGHTS on Today's Food Safety...

Precautionary Principle and Risk Assessments: The International Debate

Mickey Parish University of Florida Lake Alfred, Florida

o quote Marx and Engels, "A spectre is haunting Europe," except this time the spectre isn't communism... it's the Precautionary Principle. The Precautionary Principle is a vaguely defined regulatory mechanism used by the European Union to justify bans on products or activities that it considers risky to human or environmental health. The regulatory use of this principle is of considerable international debate since it could potentially be used as a trade barrier. In fact, the current EU bans on U.S. beef produced with hormones as growth promotants, and certain transgenic crops is based largely on the Precautionary Principle.

A bit of history

Although some people trace the origin of the Precautionary Principle to the 1930s German environmental movement, it may actually have first appeared in a 1976 West German law designed to mandate caution in activities that might cause environmental damage. It has also been associated with the 1982 U.N. World Charter for Nature, the 1987 Ministerial Declaration of the Second Conference on the Protection of the North Sea, the 1992 Rio de Janeiro U.N. Conference on Environment and Development, the 1992 Maastricht Treaty that established the European Union, the 1997 International Joint Commission 9th Biennial Report on Great Lakes Water Quality, and the 2000 Cartagena U.N. Protocol on Biosafety. However, despite the fact that the Precautionary Principle is invoked by numerous international entities, many observers still cannot define it in terminology useful for regulatory purposes.

What is the Precautionary Principle?

In general, the Precautionary Principle requires banning a product or activity when evidence suggests it is harmful to humans or the environment even if there is no definitive scientific proof of harm. While

this sounds sensible and laudatory, actual application in legal terms is not so simple. Part of the problem is that there is no single, accepted definition of the Precautionary Principle

According to the 1992 Rio Declaration and the 2000 Cartagena Protocol, the Precautionary Principle is defined thusly: "In order to protect the environment, the precautionary approach shall be widely applied by States according to their capabilities. Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."

The 1992 Maastricht Treaty that established the EU states that environmental policy "shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay."

In 1998, a group of environmental representatives, including academic scientists and lawyers, met in Racine, Wisconsin to discuss application of the Precautionary Principle. Known as the Wingspread Statement on the Precautionary Principle, the consensus opinion from this meeting describes the Precautionary Principle as: "When an activity raises threats of harm to human health or the environment, precautionary measures should be taken even if some cause and effect relationships are not fully established scientifically."

While the "spirit" of precaution is evident in these statements, a true legal definition is lacking. Currently, U.S. and EU representatives are engaged in discussions regarding use of the Precautionary Principle in Codex negotiations. The U.S. maintains that international agreements and regulations must have a solid basis in valid Risk Assessments based on fundamentally sound science while the EU argues that the Precautionary Principle is well-established in European and international law and should be applied more broadly outside the boundaries of science-based regulations.

Critics of the Precautionary Principle are concerned that it is not sufficiently grounded in science and that strict adherence will stifle innovation and development of new technologies, and hinder trade. One wonders if the internal combustion engine would have survived the Precautionary Principle had it been around in the early 1900s. Opponents are also concerned that the Precautionary Principle's focus on hypothetical, unproven risks will distract consumers and regulators from policies needed to address known foodborne threats to human health.

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