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DAIRY, FOOD AND ENVIRONMENTAL

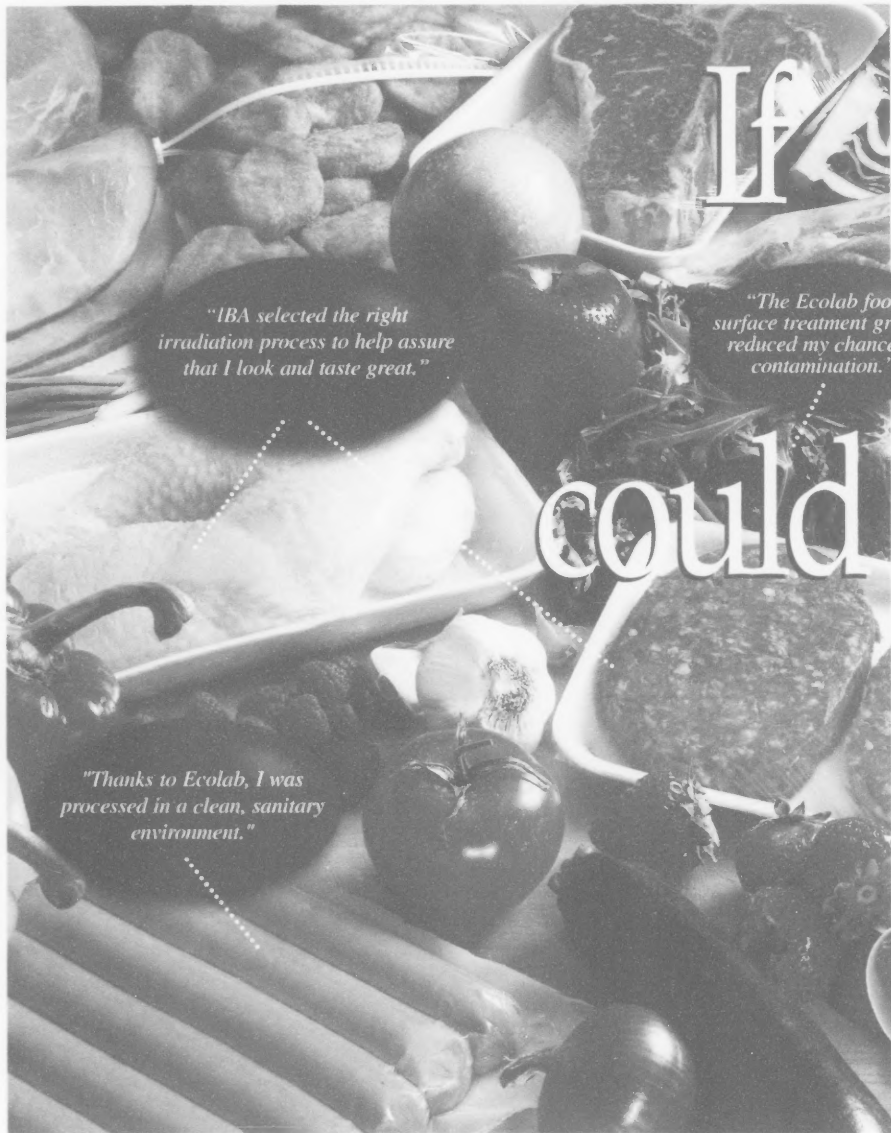
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A PUBLICATION OF THE INTERNATIONAL ASSOCIATION FOR FOOD PROTECTION, INC.

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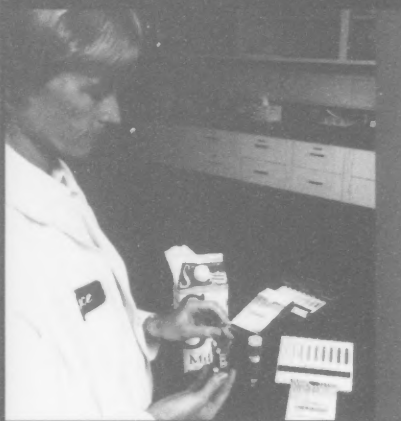
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By JAMES DICKSON
President

“Reflecting on ‘our’ year at IAFP, things have been very good”

As we move into fall, we have the opportunity to spend a little time reflecting on the events of the year. And by that I mean the events that have occurred in addition to the tragedy that occurred on September 11th. Reflecting on

“our” year at IAFP, things have been very good, from our very narrow perspective. For example, if you take the time to review our Award winners from the Annual Meeting, you will see some of those who represent the best of IAFP. The spectrum reaches from those who have contributed for most of their professional careers (Honorary Life Members) to the newest Members of IAFP, our student awardees. I would ask you to consider those that you know, and see if any of your colleagues are deserving of these awards for next year. It is not too early to begin the nomination process for these awards. I met the award winners and know how much winning his or her award meant to the individual. Think of what winning an award would mean to one of your colleagues.

In this spirit of reflection, take some time to read through some of the reports on the Committee meetings. Yes, I know what you’re thinking “Sure, I know what you’re thinking “Sure. Some night when I can’t fall asleep!” But the reports give you the opportunity to understand how YOUR organization works. How do you know what goes on in a journal management committee if you don’t read the report? Many of our current committee members became part of a specific committee because they learned what the committee did, thought that they could contribute in some way, and then volunteered. That makes the organization stronger; interested people contributing their time and talents to benefit everyone in IAFP.

I think it is also appropriate to say a few words about our exhibitors. Our exhibitors make an investment to come and display at our Annual Meeting, and no one would deny that they hope to recover that investment through future sales. But many of our exhibitors also take an active part in the meeting. Take a look around in the next technical session that you attend, and don’t be surprised if you see several people with “Exhibitor” ribbons on their name badges. Many of our exhibitors come not only to display their material, but also to hear the latest information on food safety. That makes IAFP somewhat unique among the professional meetings, and also indicates the level of competence of the people on the exhibit floor. We’re not “just another meeting” for many of them.

As the seasons of the year change and we move towards Thanksgiving, we also have time to reflect on our own lives. People say that the world seems “different,” that the events of September have forever changed the way we look at the things in our lives. But we should not let the deeds of a few individuals, who were themselves deceived by others, cloud our vision. The world is what we make of it. In the words of Dag Hammarskjöld, “Do not look back. And do not dream about the future. It will neither give you back your past nor satisfy your daydreams. Your duty, your reward – your destiny – are here and now.”

Same time, next month.

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COMMENTARY

From the Executive Director



By DAVID W. THARP, CAE
Executive Director

“You can make a difference”

In this issue of *Dairy, Food and Environmental Sanitation*, we report on IAFP 2001 – the 88th Annual Meeting which was held last August. If you were unable to be with us in Minneapolis, 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 Minneapolis meeting. The report begins on page 901 and includes many pictures, a narrative of events, minutes of committee meetings

and the Annual Business Meeting, and pictures of award recipients. We hope that you enjoy the review of IAFP 2001. Mark your calendars now for June 30 – July 3 for IAFP 2002 in San Diego. You won't want to miss this one!

This issue of *DFES* is dedicated to the memory of all of the innocent victims of the September 11th tragedies in New York City and Washington, D.C. Our minds are etched with the shocking pictures from that fateful day, but our hearts continue to go to the families and friends directly affected by this terrible day in American history. We appreciate the outpouring of support from around the United States and most certainly, around the world. Never before have we seen this country bond together in support of families and friends of the victims. The country is also unified behind the President and our governmental leaders in an unprecedented manner. With a goal of eradicating terrorism, we do not know where our journey will take us. One thing is for certain; we cannot live our lives in fear of the next attack that might take place!

What can we do, you might ask? Everyone wants to feel like they have done the best they can to provide help to those who need it. One way to help is by making a direct contribution to the American Red Cross. The Red Cross takes your donations and helps those affected by natural disasters such as hurricanes, tornadoes, earthquakes and floods. Most certainly, you have seen how the American Red Cross is providing help to the

workers in New York City and to the victims' families. We encourage you to make a contribution in what ever amount possible to your local Red Cross.

Don't think that just because September 11th was almost two months ago that your contribution is not needed. The Red Cross will serve the affected families for months to come. Many people will continue to need assistance for years and years. There will be mental health counseling, medical problems, and basic needs of food and shelter. So as you can see, there is still a need for your assistance. You can make a difference!

You can also make a difference at IAFP. By becoming actively involved in the Association; you can lead by example by working on a Committee or Professional Development Group, or by making a presentation at IAFP 2002, or even through submitting an article for publication in *DFES* or *JFP*. Have you considered mentoring a student or newly employed professional into IAFP? In many ways you can help the Association achieve its mission of providing food safety professionals with information to protect the food supply. You can help to “Advance Food Safety Worldwide” and I guarantee you will feel good about what you have accomplished.

Don't limit yourself to what you have always done before. More and more we recognize how fragile life really is and that we are not always in control of our fate.

You can make a difference, but only if you start today!

In Loving Memory



September 11, 2001

The purpose of the Fellows Award is to honor and recognize Association Members who have contributed to the International Association for Food Protection and its Affiliates with quiet distinction over an extended period of time.

Nominate a Colleague Today for the Association Fellows Award

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This is the second part of a two-part series. Part I appeared in the October 2001 issue of *DFES*.

The Emergence of Food Microbiology: From Dairy Microbiology to Food Microbiology

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SUMMARY

Courses in food microbiology were first taught in the 1930s, and the first text on the subject appeared in 1944. Gradually, dairy industry departments evolved into food science departments, which prompted increased interest in food microbiology. The content of food microbiology courses changed over the decades as new information became available. This information increased to the point where additional courses were created in many universities to deal with such topics as food fermentations, food sanitation, foodborne illnesses, and food quality control. As course offerings grew, so did extension work, and many universities added food microbiologists for this activity. Great progress has been made in understanding and controlling food spoilage, canned food processing, preservative use, pasteurization of eggs, application of the concept of water activity in food processing, mycotoxins, foodborne illnesses, psychrotrophic bacteria, food fermentations, and test method development. Food microbiologists have participated in activities of various professional societies, some serving as president of these societies, and many have been recognized by the societies for their contributions to the discipline.

A peer-reviewed article.

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INTRODUCTION

Teaching and research in dairy microbiology was carried out in departments of dairy industry or in closely related departments. As time went on, faculty in dairy industry departments were often consulted when problems occurred in other segments of the food industry. In some instances, existing faculty responded to the new challenges; in others, faculty were added to work in various non-dairy segments of the food industry. Eventually, most dairy industry departments evolved into food science departments, which included programs of teaching, research, and extension in food microbiology. Work in dairy microbiology is described in a separate article (16). Teaching in food microbiology, as we understand the term, began in the late 1930s and early 1940s. Food microbiology research, however, can be traced back at least to 1895, when the work of H. L. Russell rescued the fledgling canning industry by prescribing the time and temperature of heat treatment needed to prevent gaseous spoilage of canned vegetables (23).

TABLE 1. Content of courses on food microbiology taught at the University of Wisconsin-Madison in the 1950s and 1999

Taught by Professor William C. Frazier (1950s)		Taught by Professors Eric Johnson and Charles Kaspar (1999)	
I.	Molds	I.	Evolution of food microbiology
	A. Characteristics	II.	Microbial ecology of foods-factors affecting growth and survival
	B. Classification	III.	Microbial spoilage of foods
	C. Importance in food microbiology		A. Significance of food spoilage and microbiological criteria
II.	Yeasts and yeast-like fungi		B. Spoilage of dairy products
	A. Characteristics		C. Spoilage of fresh meats and poultry
	B. Classification		D. Spoilage of fruits and vegetables
	C. Importance in food microbiology		E. Indicator organisms
III.	Preservation by asepsis	IV.	Methods in food microbiology
IV.	Preservation by heat*		A. Sampling procedures
V.	Preservation by cold*		B. Methods of enumeration
VI.	Storage of meats		C. Rapid methods
VII.	Storage of fish and shellfish		D. Molecular typing
VIII.	Storage of fruits and vegetables	V.	Microbial foodborne illness
IX.	Preservation of foods by drying		A. Foodborne diseases-epidemiology and significance
X.	Preservation by heat*		B. <i>Salmonella</i>
XI.	Preservation by fermentation		C. <i>Escherichia coli</i> and <i>Shigella</i>
	A. Sauerkraut		D. <i>Campylobacter</i> and <i>Vibrio</i>
	B. Miscellaneous fermented products		E. <i>Bacillus cereus</i> and <i>Clostridium perfringens</i>
	C. Cucumber pickles		F. <i>Clostridium botulinum</i>
	D. Green and ripe olives		G. <i>Listeria monocytogenes</i>
XII.	Preservation by added preservatives		H. <i>Staphylococcus aureus</i>
XIII.	Preservation by rays, sound waves, pressure, etc.		I. Foodborne parasites and protozoa
XIV.	Spoilage of foods		J. Foodborne viruses
	A. Cereals, flours, baked goods		K. Prions
	B. Sugar and sugar products		L. Mycotoxins
	C. Vegetables and fruits*		M. Naturally occurring toxins
	D. Meats*		N. Antibiotics and immunity
	E. Eggs		O. Food allergens
	F. Milk and milk products (not covered, covered in separate course on dairy microbiology)	VI.	Miscellaneous topics
	G. Fish and seafood		A. HACCP and risk analysis
	H. Miscellaneous foods		B. Cleaning and sanitation
	I. Canned foods*		C. Food preservation
XV.	Food Fermentations		D. Microbial modeling
	A. Bread	VII.	Food fermentations
	B. Beer		A. Introduction to food fermentations
	C. Wine		B. Dairy fermentations
	D. Acetic Acid		C. Fermented vegetables and meats
	E. Tea, coffee, cocoa, citran		D. Beer, wine and spirits
	F. Tobacco		E. Food biotechnology/future trends
	G. Oriental fermented foods		
	H. Organisms used for food		
	I. Enzyme production		
XVI.	Bacteriology of air		
XVII.	Bacteriology of water		
XVIII.	Foods in relation to disease		
	A. Botulism		
	B. Staphylococcus poisoning		
	C. Salmonellae		
	D. Streptococci		
	E. Trichinosis		
XIX.	Investigation of food poisoning outbreaks		
XX.	Food control, inspection and sanitation		
XXI.	Disposal of food wastes		

*Major emphasis given to topics marked with an asterisk.

This article will first describe teaching in food microbiology; it will then highlight some of the major contributions of food microbiology to advances in the food industry and conclude with comments on food microbiologists and professional societies.

TEACHING IN FOOD MICROBIOLOGY

Courses in food microbiology were first taught in the late 1930s and early 1940s. It was in 1936 that William C. Frazier left the U. S. Department of Agriculture to return to the University of Wisconsin-Madi-

son for the specific purpose of developing a teaching and research program in food microbiology, and a course in food microbiology likely was taught within a year or two. Likewise, Fred W. Tanner at the University of Illinois taught a course in food microbiology that served as

TABLE 2. Table of contents of three books on food microbiology published over a 56-year period

The Microbiology of Foods (1944) ^a	Food Microbiology (1958) ^b	Modern Food Microbiology (2000) ^c
1. Food Preservation	1. Molds	1. History of Microorganisms in Food
2. The Bacteria	2. Yeasts and Yeastlike Fungi	2. Taxonomy, Role, and Significance of Microorganisms in Foods
3. Yeasts and Molds	3. Bacteria	3. Intrinsic and Extrinsic Parameters of Foods that Affect Microbial Growth
4. Bacteriology of Water and Sewage	4. Contamination of Food from Natural Sources	4. Fresh Meats and Poultry
5. Microbiology of Milk	5. Contamination of Food during Handling and Processing	5. Processed Meats
6. Bacteriological Milk Analysis	6. General Principles of Food Preservation – Asepsis, Removal, Anaerobic Conditions	6. Seafoods
7. Pasteurization of Milk	7. Preservation by Use of High Temperatures	7. Fermentation and Fermented Dairy Products
8. Microbiology of Cream and Butter	8. Preservation by Use of Low Temperatures	8. Fruit and Vegetable Products: Whole, Fresh-Cut and Fermented
9. Microbiology of Cheese	9. Preservation by Drying	9. Miscellaneous Food Products
10. Microbiology of Frozen Desserts, Ice Cream and Similar Products	10. Preservation by Preservatives	10. Culture, Microscopic and Sampling Methods
11. Microbiology of Concentrated Milks	11. Preservation by Radiations and Pressure	11. Physical, Chemical, Molecular and Immunological Methods
12. Fermented Milks	12. Preservation of Cereals, Sugars, Vegetables, and Their Products	12. Bioassay and Related Methods
13. Intestinal Microbiology	13. Preservation of Fruits and Fruit Products	13. Food Preservation with Chemicals
14. Microbiology of Fruits and Fruit Products	14. Preservation of Meats and Seafood	14. Food Preservation with Modified Atmospheres
15. Microbiology of Vegetables and Vegetable Products	15. Preservation of Eggs and Poultry	15. Radiation Preservation of Foods and Nature of Microbial Radiation Resistance
16. Microbiology of Tomato Products	16. Preservation of Milk and Milk Products	16. Low-Temperature Food Preservation and Characteristics of Psychrotrophic Microorganisms
17. Microbiology of Bread	17. General Principles Underlying Spoilage	17. High-Temperature Food Preservation and Characteristics of Thermophilic Microorganisms
18. Fermented Foods	18. Spoilage of Cereals and Cereal Products	18. Preservation of Foods by Drying
19. Microbiology of Sugar and Sugar Products	19. Spoilage of Sugars and Sugar Products	19. Other Food Preservation Methods
20. Microbiology of Fish and Shellfish	20. Spoilage of Vegetables and Fruits	20. Indicators of Food Microbial Quality and Safety
21. Meat and Meat Products	21. Spoilage of Meats and Meat Products	21. The HACCP System and Food Safety
22. Microbiology of Eggs and Egg Products	22. Spoilage of Fish and Other Seafood	22. Introduction to Foodborne Pathogens
23. Microbiology of Canned Foods	23. Spoilage of Eggs and Poultry	23. Staphylococcal Gastroenteritis
24. Microbiology of Miscellaneous Food Products	24. Spoilage of Milk and Milk Products	24. Food Poisoning Caused by Gram-Positive Sporeforming Bacteria
25. Microbiological Methods of Assaying Foods for Vitamins	25. Spoilage of Miscellaneous Foods	25. Foodborne Listeriosis
26. Culture Media	26. Spoilage of Heated Canned Foods	26. Foodborne Gastroenteritis Caused by <i>Salmonella</i> and <i>Shigella</i>
	27. Production of Cultures for Food Fermentations	27. Foodborne Gastroenteritis Caused by <i>Escherichia coli</i>
	28. Food Fermentations	28. Foodborne Gastroenteritis Caused by <i>Vibrio</i> , <i>Yersinia</i> and <i>Compylobacter</i> Species
	29. Foods and Enzymes from Microorganisms	29. Foodborne Animal Parasites
	30. Food Poisonings and Infections	30. Mycotoxins
	31. Investigation of Foodborne Disease Outbreaks	31. Viruses and Some Other Proven and Suspected Foodborne Hazards
	32. Microbiology of Food Plant Sanitation	
	33. Microbiological Laboratory Methods	
	34. Food Control	

^aTanner, F. W. 1994. The microbiology of foods. Garrard Press, Champaign, IL.

^bFrazier, W. C. 1958. Food microbiology. McGraw-Hill Book Company, Inc., New York, NY.

^cJay, J. M. 2000. Modern food microbiology, 6th ed. Aspen Publishers, Inc., Gaithersburg, MD.

the basis for his book, *The Microbiology of Foods*, published in 1944 (30). What was taught in a course on food microbiology 50 years ago and how has the content of the course changed from then to the present? Table 1 gives the syllabus of each of two courses at the University of Wisconsin-Madison, taught in the 1950s and in 1999. To

be sure, the content of each course reflects, in part, the interests of the instructor, but beyond that it reflects what was believed to be important in the discipline at the time the course was taught. Further, the contents of courses taught then and now at other institutions are likely to differ somewhat from the examples given here.

An examination of the content of the course taught by Professor Frazier in the 1950s (Table 1) indicates that major emphasis was on molds, preservation of foods (especially preservation by heat and cold), and spoilage of foods (especially vegetables and fruits, meats, and canned foods). Additionally, some emphasis was given to yeasts

TABLE 3. A representative list of food microbiologists and departments in which they received their doctorate

Name	Department
Deceased or retired persons	
F. J. Babel	Dairy Industry
E. B. Collins	Dairy Industry
B. E. Ellickson	Dairy Industry
P. R. Elliker	Bacteriology
E. M. Foster	Bacteriology
W. C. Frazier	Bacteriology
L. G. Harmon	Dairy Industry
R. V. Hussong	Dairy Industry
E. H. Marth	Bacteriology
F. E. Nelson	Dairy Industry
J. C. Olson, Jr.	Dairy Industry
R. B. Read, Jr.	Microbiology
G. W. Reinbold	Dairy Industry
H. L. Russell	Bacteriology
J. R. Troller	Bacteriology
E. A. Zottola	Dairy Industry
Persons currently active	
L. R. Beuchot	Food Science
R. E. Brockett	Food Science
L. B. Bullerman	Food Science
M. A. Cousin	Food Science
M. P. Doyle	Food Science
J. F. Frank	Food Science
B. A. Glatz	Bacteriology
S. C. Ingham	Food Science
E. A. Johnson	Food Microbiology
L. L. McKay	Microbiology
E. T. Ryser	Food Science
W. H. Sperber	Bacteriology
J. L. Steele	Genetics
A. E. Yousef	Food Science

and yeast-like fungi, food fermentations, bacteriology of air and water, and disposal of food wastes. Foodborne illness received little attention, with the discussion limited to botulism, staphylococcal poisoning, salmonellosis, streptococcal illness, and trichinosis. In contrast, the 1999 version of the course emphasized spoilage of foods, methods of microbial analysis, foodborne illness, and food fermentations, with food preservation receiving only passing attention. Foodborne illnesses occupied more than one-third of the course, and along with testing methods, comprised about one-half of the lectures in the course. The section on foodborne illness covered an array of topics unknown in the 1950s; to accommodate such an expansion, other topics (spoilage, preservation, fermentation, etc.) received abbreviated treatment.

The change in what was considered important in food microbiology over the years is also evident from the contents of three textbooks, one published in 1944, another in 1958, and the third in 2000 (Table 2). The book by F. W. Tanner, published in 1944, contained 26 chapters, of which eight were devoted to dairy microbiology (30); this, of course, reflects the importance of that discipline in 1944. Other chapters, except three, covered topics that might be expected in a text on food microbiology. The three unique chapters are on culture media, intestinal microbiology, and microbiological methods of assaying foods for vitamins. It is noteworthy that this book did not contain a separate chapter on foodborne illness.

The book by W. C. Frazier, published in 1958, heavily reflects the content of his course on food microbiology (see earlier discussion and Table 1) (10). The book emphasized preservation and spoilage of foods (21 of 34 chapters) and included little information on food fermentations, foodborne illnesses, food plant sanitation, laboratory methods, and regulatory food control (Table 2).

Food preservation (7 of 31 chapters) and foodborne illnesses (10 of 31 chapters) are the topics emphasized most in the book by J. M. Jay, published in 2000 (14). Three chapters are devoted to testing methods and six to the microbiology of various groups of foods (Table 2). The contents of the textbooks, as is true of the courses, reflect the expansion of knowledge as well as what is deemed important in the field as perceived by the authors when they prepared their books.

Many food science departments have realized that a course in food microbiology no longer can cover all the subject matter in the discipline that should be available to students. To overcome this problem, such courses as food fermentations, food sanitation, and foodborne diseases have been introduced. In addition, a course on food quality control likely includes a discussion of the microbiological aspects of that topic.

Since H. L. Russell did his classic demonstrations of tubercular lesions in dairy cows (16), extension work by food microbiologists has been common even in the absence of an extension appointment. In recent years, some food science departments have recognized the value of an extension food microbiologist as a faculty member. Examples include Joellen M. Feirtag at the University of Minnesota, Kathryn N. Boor and Robert B. Gravani at Cornell University, Steven C. Ingham at the University of Wisconsin-Madison, Pernendu C. Vasavada at the University of Wisconsin-River Falls, Stephen J. Knabel at the Pennsylvania State University, Susan S. Sumner at Virginia Polytechnic Institute, Richard H. Linton at Purdue University, and Donald W. Schaffner at Rutgers University. This list is not intended to be exhaustive; there are still other food microbiologists whose primary responsibility is extension work.

What about food microbiologists who earned a doctorate — where were they trained? Earlier,

food microbiologists were trained in bacteriology/microbiology and dairy industry departments both of which contributed a substantial proportion of persons in the field (Table 3). In contrast, more currently active food microbiologists received their training in food science departments, with bacteriology/microbiology departments, contributing relatively few (Table 3). This is to be expected, because most bacteriology/microbiology departments have abandoned teaching and research in food microbiology in favor of the more basic aspects of the science.

MAJOR ADVANCES IN FOOD MICROBIOLOGY

Examples of advances in food microbiology are described in the following paragraphs. Another author might have chosen other examples.

Spoilage of foods

Microorganisms commonly responsible for spoilage of meats, poultry, seafood, fruits and vegetables, confectionery products, dairy products, and baked goods have been isolated, characterized and identified. Knowledge of their sources and of factors that govern their behavior has made possible development of techniques such as sanitation, modified-atmosphere packaging, heat treatments when appropriate, refrigeration, and application of preservatives to extend the shelf life of most products.

Canned foods

Preservation of food by canning was patented in 1810 by Nicholas Appert in France. Afterward, various attempts were made in the United States to can vegetables. However, it was not until 1895 that Russell reported on "gaseous ferments in the canning industry" (23). His work was instrumental in establishing times and temperatures needed for heating canned foods to

preclude spoilage. In 1922, Esty and Meyer (7) reported on the thermal death time of *Clostridium botulinum*, which work led to development of the 12 D heat treatment to insure safety of canned low-acid foods. The virtual absence of cases of botulism attributable to canned foods (in intact cans) speaks to the success of the 12 D heat treatment.

Preservatives

Benzoic acid, propionic acid, and sorbic acid, and their salts are the most common and widely used preservatives that are added to foods to inhibit growth of molds, yeasts and, to a lesser degree, bacteria. Other organic acids — acetic (and its salts), citric, and lactic — also are of major importance in controlling bacterial growth in some foods. Likewise, the antibiotic pimaricin and some free fatty acids play a role in controlling growth of molds. Although many bacteriocins have been isolated and described, nisin is the only one, so far, to have become commercially useful as a preservative. However, preservatives do have limitations. Thus, for example, some penicillia can degrade sorbic acid to produce the toxic 1, 3-pentadiene, which has a kerosene-like odor (17).

Eggs

In addition to gaining an understanding of spoilage of shell eggs and ways to minimize it, a major advance was development of a way to free dried egg products from salmonellae, by storing drums of dried product at about 52°C for 3 weeks. The next major advance was the development of technology that would allow liquid egg products to be pasteurized (without coagulating them) to free them from viable salmonellae. Thus liquid whole egg is pasteurized at 60°C for at least 3.5 minutes, plain liquid yolk at 61.1°C for at least 3.5 minutes, or at 60°C for at least 6.2 minutes, liquid yolk with added sugar at 63.3°C for at least 3.5 minutes or at 62.2°C for at least 6.2 minutes, and

yolk with salt at 63.3°C for at least 3.5 minutes or at 62.2°C for at least 6.2 minutes (11).

Another major advance was to recognize that the interior of the egg, specifically the yolk, can be contaminated with *Salmonella* Enteritidis when the hen carries *Salmonella* and transfers the bacterium to the yolk as it is formed. As a consequence of this recognition, stringent guidelines have been developed for preparing various egg dishes (3).

Water activity

The concept of water activity was brought to the attention of food microbiologists in 1957 by Scott (28) in an article entitled "Water Relations of Food Spoilage Microorganisms." Water activity is a numerical expression of the amount of water in a food (or culture medium) that is available to a microorganism for growth. With such knowledge, it became possible to formulate (or process) foods so that particular microorganisms of concern would be unable to grow because insufficient water was available. In time, instruments were developed to conveniently and accurately determine the water activity of foods.

Mycotoxins

For years, food microbiologists considered molds as spoilage agents that softened food and made it organoleptically unacceptable; additionally, some molds were recognized as beneficial in producing certain fermented foods. The importance of molds changed dramatically in 1961 when Sargeant et al. (25, 26) described the toxicity of molded peanut meal to turkey poult and ducklings. Large numbers of these animals died in England in 1960 after consuming the toxic meal. Because the mold that produced the toxicant was *Aspergillus flavus*, the toxic substance was named "aflatoxin." When aflatoxin is ingested by lactating mammals such as dairy cows,

a portion of the toxin in modified form appears in milk (1). Aflatoxin proved to be both toxic and carcinogenic to animals; this mycotoxin thus became of great concern to the food industry, regulatory agencies, and ultimately consumers.

Since discovery of aflatoxin, numerous other mycotoxins have been found. Examples include citrinin (wheat, oats, rye, rice), ochratoxins (cereal grains, nuts, cottonseed meal, citrus fruits, coffee), patulin (apple juice, processed fruits), penicillic acid (corn, various cereal grains), sterigmatocystin (grains, green coffee), tremorgens (peanuts, rice), trichothecenes (corn, various grains), and zearalenone (corn, various grains) (4). This, of course, is not an exhaustive list of recognized mycotoxins. The aforementioned mycotoxins are produced by molds in the genus *Aspergillus*, *Fusarium* or *Penicillium*; molds in these three genera are responsible for producing many of the known mycotoxins.

Foodborne illness

When Frazier (10) published the first edition of his book on food microbiology (Table 3), only three forms of bacterial foodborne illness — botulism, salmonellosis, and staphylococcal food poisoning — were well recognized. That list has grown mightily and now we know that numerous other forms of foodborne illness can be caused by *Bacillus cereus*, *Shigella*, *Escherichia coli* (several forms of illness), *Campylobacter jejuni*, *Yersinia enterocolitica*, *Clostridium perfringens*, *Vibrio*, *Listeria monocytogenes*, viruses, and other agents (14). Some have assumed so much importance that an entire book may be devoted to the microorganism, foods involved, and the illness (18, 24, 29). Additionally, chapters on the various forms of foodborne illness have appeared in a plethora of books.

Several particularly noteworthy specific advances need to be mentioned. First, all known staphylococcal enterotoxins have been

isolated and characterized, and reliable and reasonably convenient methods to detect them have been devised. Second, the botulinus toxin has been shown to have therapeutic applications and can be used to treat segmental movement disorders such as blepharospasm, adult onset spasmodic torticollis, spasmodic dysphonia, oral mandibular dystonia, and strabismus (27).

Psychrotrophic bacteria

Recognition that some bacteria can grow at refrigeration temperatures is a major advance in that it explains how, through production of proteolytic and lipolytic enzymes, these bacteria spoil an array of foods even when these are refrigerated. Included are red meats, poultry, fish, some vegetables, and milk and some milk products. Also important is recognizing that some foodborne pathogens, specifically *Aeromonas hydrophila*, some strains of *Bacillus cereus*, *Clostridium botulinum* type E, some strains of *Escherichia coli*, *Listeria monocytogenes*, and *Yersinia enterocolitica*, are psychrotrophs and thus can grow at refrigeration temperatures. This, of course, means that although refrigeration will retard growth of psychrotrophic spoilage and pathogenic bacteria, it will not do so indefinitely. Thus, unless care is exercised, refrigerated food can become spoiled, unsafe, or both.

Fermented foods

Numerous advances in the microbiology of fermented foods, including alcoholic beverages, have been made in the last 70 or more years. Perhaps most noteworthy is unraveling the sequential growth of bacteria in cabbage during the making of sauerkraut (15, 19, 21). First coliform bacteria attain appreciable numbers. Soon after, *Leuconostoc mesenteroides* begins to outgrow all other microorganisms; this is followed by development of *Lactobacillus plantarum*, which completes the fermentation. Each type of organism creates conditions favorable for the next one and as well as con-

TABLE 4. Food/dairy microbiologists who served as president of four major scientific societies

ADSA ¹	ASM ²	IAFP ³	IFT ⁴
J. M. Shermom (1930)	H. W. Conn (1903)	C. L. Roadhouse (1921)	S. C. Prescott (1939)
C. L. Roodhouse (1935)	E. O. Jordan (1905)	C. K. Johns (1935)	S. C. Prescott (1940)
A. C. Dohlberg (1944)	H. L. Russell (1908)	F. W. Fobion (1942)	W. V. Cruess (1944)
F. E. Nelson (1966)	S. C. Prescott (1919)	F. W. Borber (1959)	F. W. Tonner (1946)
L. G. Hormon (1976)	L. A. Rogers (1922)	J. Sheuring (1961)	C. N. Frey (1952)
J. H. Mortin (1982)	E. G. Hostings (1923)	W. C. Lowton (1965)	E. M. Mrok (1958)
R. T. Marshall (1984)	K. F. Meyer (1935)	P. R. Elliker (1967)	I. J. Hutchings (1961)
N. F. Olson (1986)	R. S. Breed (1937)	A. N. Myhr (1968)	J. M. Jackson (1963)
G. H. Richardson (1988)	J. M. Sherman (1937)	H. V. Atherton (1977)	C. F. Niven, Jr. (1975)
R. L. Sellors (1990)	G. M. Dack (1952)	R. T. Marshall (1983)	J. C. Ayres (1977)
S. E. Gilliland (1992)	E. M. Foster (1970)	A. R. Brozis (1984)	H. E. Boumon (1978)
W. E. Sondine (1994)		R. B. Grovoni (1989)	J. H. Litchfield (1992)
C. H. White (1998)		D. A. Gobis (1992)	F. F. Busto (1996)
		M. P. Doyle (1993)	M. K. Wagner (1998)
		F. A. Droughon (1996)	
		M. H. Brodsky (1997)	
		R. E. Brackett (1999)	
		V. Scott (2001)	

¹American Dairy Science Association, organized in 1907.

²American Society for Microbiology, formerly Society of American Bacteriologists, organized in 1899; E.O. Jordan was primarily a medical bacteriologist but did some work on foodborne illness.

³International Association for Food Protection, formerly International Association of Milk, Food and Environmental Sanitarians, organized in 1911; many presidents were regulatory or industrial sanitarians who likely did some work in food/dairy microbiology but listed here are those whose primary professional activity is/was food/dairy microbiology.

⁴Institute of Food Technologists, organized in 1939.

tributing compounds that make up the flavor of sauerkraut. The microflora that develops during natural fermentation and its contribution to the finished product have been described for cucumber pickles (8, 20), green olives (31), tea (11), coffee (22), cacao (2) and wild rice (9).

Early in the 20th century, it was discovered that bacteria in sausage were responsible for lactic acid production and nitrate reduction. Sausages that undergo an acidic fermentation include Thüringer, cerevelat, Lebanon bologna, salamis, and dry and semidry summer sausages. For years, it was common to inoculate today's batch of sausage with some of yesterday's sausage so as to carry over a mixed lactic flora from one lot of sausage to another, a process that did not always give the desired result.

By 1957, *Pediococcus cerevisiae* was isolated from fermenting sausage, and eventually a pure cul-

ture of the bacterium was used as a starter culture by producers of fermented sausages (5, 6). Thus the approach pioneered by the dairy industry was now successfully adapted to the sausage industry.

Vinegar (acetic acid), widely used in the food industry as a flavoring agent and an acidulant with antimicrobial properties, was for years produced by trickling an alcoholic solution over *Acetobacter* bacteria attached to beechwood shavings, corn cobs, or other carrier material. This was a slow process. In 1949, a major advance was made when the submerged fermentation process, heretofore used for antibiotic production, was successfully adapted to vinegar manufacture (12, 13). Since then, appropriate equipment has been developed for highly efficient production of vinegar using the principle of submerged fermentation.

Methods

The quest is continuous for faster, cheaper, more accurate methods to determine the microbiological condition of foods. This quest is motivated industrially by the desire to promptly release safe foods to the market place and avoid expensive storage while time-consuming tests are completed. New methods of food processing, new products, and the appearance of heretofore unrecognized foodborne pathogens all prompt development of new or modified test methods. Evidence for ongoing activity in this area is the appearance of papers on methods in virtually each issue of journals that deal with food microbiology. Microbiological tests also are described in current editions of *Bacteriological Analytical Manual*, *Compendium of Methods for the Microbiological Examination of Foods*, *Official Methods of Analy-*

TABLE 5. Food microbiologists who received awards from the American Dairy Science Association

Award of Honor (excellence in contributions to the association): F. E. Nelson (1971), H. Macy (1976), L. G. Hormon (1979), R. L. Sellors (1992), J. H. Martin (1995), R. T. Morsholl (1996), N. F. Olson (1997)

Distinguished Service Award (excellence in contributions to the dairy industry): A. C. Dohlberg (1961), L. A. Rogers (1962), G. W. Reinbold (1981)

Dairy Research Foundation Award (excellence in research on dairy ingredients): R. T. Morsholl (1976), G. W. Reinbold (1977), N. F. Olson (1978), W. E. Sandine (1979), E. H. Marth (1980), L. L. McKoy (1982), G. H. Richardson (1984), S. E. Gilliland (1987), T. R. Kloenhammer (1990)

Borden Award (excellence in research on dairy foods): L. A. Rogers (1937), B. W. Hommer (1940), A. C. Dohlberg (1944), F. E. Nelson (1953), P. R. Elliker (1954), M. L. Speck (1959), E. H. Marth (1986), N. F. Olson (1988), L. L. McKoy (1990), T. R. Kloenhammer (1996), W. E. Sandine (1997)

Richard M. Hoyt Memorial Award (excellence in research by a graduate student working on a problem of concern to the dairy industry): T. E. Minor (1973), M. S. Reddy (1974), M. A. Cousin (1977), G. M. Kempler (1980), R. S. Applebaum (1983), M. E. Sonders (1984), E. T. Ryser (1988), R. B. Byrne (1993)

Pfizer Award (excellence in research on cheese or cultured products): F. J. Bobel (1961), E. B. Collins (1962), W. E. Sandine (1964), L. G. Hormon (1966), M. L. Speck (1967), G. W. Reinbold (1970), N. F. Olson (1971), H. C. Olson (1972), J. A. Elliott (1973), E. M. Mikolajcik (1974), E. H. Marth (1975), L. L. McKoy (1976), G. H. Richardson (1978), S. E. Gilliland (1979), T. R. Kloenhammer (1984), C. H. White (1991), M. E. Johnson (1992)

Milk Industry Foundation and Kroff Foods Teaching Award (excellence in teaching of dairy foods subjects): F. J. Bobel (1973), P. R. Elliker (1974), R. T. Morsholl (1975), J. H. Martin (1980), E. H. Marth (1988), C. H. White (1993), S. E. Gilliland (1999)

International Dairy Foods Association Award in Dairy Foods Processing (excellence in research on dairy foods processing): E. R. Vedomuthu (1993), S. E. Gilliland (1998)

Cultor Food Science Award (replaced Pfizer Award): G. A. Somkuti (1996)

Gist-brocades Award (replaced Pfizer and Cultor Food Science Awards): J. F. Frank (1997)

DSM Food Specialities Award (replaced Gist-brocades Award): J. L. Steele (2000)

Fellows: L. G. Hormon (1997), R. T. Morsholl (1997), J. H. Martin (1997), F. E. Nelson (1997), R. L. Sellors (1997), S. E. Gilliland (1998), E. H. Marth (1998), N. F. Olson (1998)

sis, and *Standard Methods for the Examination of Dairy Products*.

FOOD MICROBIOLOGISTS AND PROFESSIONAL SOCIETIES

Professional societies have contributed appreciably to the growth of food microbiology as a discipline. Most notable are the American Dairy Science Association (ADSA), American Society for Microbiology (ASM), Institute of Food Technologists (IFT), and International Association for Food Protection (IAFP). Each of these organizations provides food microbiologists with opportunities to exchange information through publishing journals, holding national (and sometimes regional) annual meetings, and sponsoring a variety of workshops, often in conjunction with annual meetings. Programs of annual meetings commonly include symposia

on timely topics and afford researchers an opportunity to present results of their work either orally or as a poster. The paragraphs and tables to follow mention the names of numerous food microbiologists. Although efforts were made to insure the completeness of these lists, it is possible that a name was overlooked. The author apologizes for any oversights that may have occurred.

Journals of interest to food microbiologists and published by the aforementioned associations include the following (sponsoring association and food microbiologists who were or are editors in parenthesis): *Journal of Food Protection* (IAFP; J. C. Olson, Jr., E. H. Marth, M. P. Doyle, L. B. Bullerman, L. R. Beuchat, J. N. Sofos, J. F. Frank, P. M. Davidson), *Applied and Environmental Microbiology* (ASM; R. H. Deibel, M. E. Stiles, E. A. Johnson), *Journal of Dairy Science*

(ADSA; F. E. Nelson, N. F. Olson, W. E. Sandine), *Journal of Food Science* (IFT; E. T. Ryser), *Dairy, Food and Environmental Sanitation* (IAFP; W. S. LaGrange), and *Food Technology* (IFT; J. B. Klis).

Presidents of societies

Food microbiologists also have served professional associations as members of various committees and as officers, including president. Table 4 lists food/dairy microbiologists who served as president of each of the four associations since each was organized. Thus 13, 11, 18, and 13 food microbiologists served as president, respectively, of ADSA, ASM, IAFP, and IFT. More food microbiologists served as president of IAFP than of any of the other organizations. Food microbiologists who served as president of ASM were primarily dairy microbiologists and held office during the first few

TABLE 6. Food microbiologists who received awards from the International Association for Food Protection

Educator Award (excellence in teaching and research in food safety): E. H. Marth (1977), F. F. Busta (1981), R. B. Maxcy (1984), L. B. Bullerman (1985), R. T. Marshall (1986), E. A. Zottola (1988), M. Stiles (1990), W. E. Sandine (1991), W. S. LaGrange (1992), R. B. Gravani (1995), C. R. Hackney (1996), P. C. Vasovado (1997), R. H. Schmidt (1998), E. A. Johnson (1999), S. Sumner (2000)

Horry Haverland Citation Award (excellence in contributions to the association and to food sanitation): C. K. Johns (1954), L. A. Black (1960), F. W. Barber (1962), M. P. Baker (1963), J. C. Olson, Jr. (1966), L. W. Brown (1971), A. R. Brazis (1975), H. V. Atherton (1981), E. H. Marth (1984), R. B. Read, Jr. (1985), C. Vanderzont (1988), F. L. Bryon (1991), E. C. D. Todd (1992), A. Lammerding (1998), F. A. Draughon (2000)

Harold Barnum Industry Award (excellence in contributions to food safety by an industry member): J. H. Silliker (1987), R. B. Tompkin (1994), D. A. Gabis (1995), D. T. Bernard (1996), J. G. Cerveny (1997), R. S. Flowers (1999)

NFPA Food Safety Award (excellence in contributions to food safety over an extended period): Food Research Institute at the University of Wisconsin-Madison (1998), M. P. Doyle (1999), E. H. Marth (2000)

Sanitarian Award (excellence in contributions to food safety by persons in regulatory agencies): P. J. Pace (1981), L. A. Roth (1993)

Honorary Life Member Award (excellence of contributions to the association): C. K. Johns (1963), H. Macy (1963), L. A. Black (1967), W. C. Frazier (1968), M. P. Baker (1968), J. C. Olson, Jr. (1979), L. G. Harmon (1980), P. R. Elliker (1984), F. W. Barber (1985), E. H. Marth (1987), J. J. Jezeski (1987), P. J. Pace (1988), A. R. Brazis (1992), L. B. Bullerman (1995), R. T. Marshall (1995), R. C. Swanson (1996), F. L. Bryon (1997), H. V. Atherton (1998), M. H. Brodsky (1999), J. L. Smith (1999)

Fellows: L. R. Beuchat (1998), L. B. Bullerman (1998), F. L. Bryon (1998), M. P. Doyle (1998), E. H. Marth (1998), E. A. Zottola (1998), A. R. Brazis (1999), M. H. Brodsky (1999), J. M. Joy (1999), L. A. Roth (1999), C. R. Hockney (2000), B. E. Longlois (2000), L. O. Lueddecke (2000)

decades of the organization's existence. E. M. Foster, ASM president in 1970, was the last food microbiologist to serve in that capacity. Several food microbiologists served two organizations as president: J. M. Sherman (ADSA and ASM), C. L. Roadhouse (ADSA and IAFP), S. C. Prescott (ASM and IFT) and R. T. Marshall (ADSA and IAFP). F. A. Draughon was the first female food microbiologist to serve as president of any of the four organizations when she held that office in IAFP in 1996. She was followed by M. K. Wagner, who was president of IFT in 1998. To date no female food microbiologist has served as president of ADSA or ASM.

Awards from societies

Each of the four professional societies recognizes outstanding contributions by its members to the science or sciences they represent, and food microbiologists have frequently received awards from these organizations, primarily from ADSA, IAFP, and IFT. Some have been recognized by two or three of the associations for their contributions to research, teaching, or both. This, of course, indicates that award

selection committees value highly the contributions to science, industry and society that have been and continue to be made by food microbiologists.

For years, the Borden Award was considered the most prestigious of the awards given by ADSA, and 11 food microbiologists were honored with this award, over the years (Table 5). Other awards given by ADSA and food microbiologists who received them also are listed in Table 5.

As with ADSA, IAFP annually gives a series of awards, some of which have gone to food microbiologists (Table 6). A unique feature of IAFP is that it presents awards for excellence specifically to members in academia, industry, and regulatory agencies; food microbiologists have received each of these awards (Table 6).

The Nicholas Appert Award is the most prestigious award given by the IFT; 11 food microbiologists have received this honor (Table 7). Food microbiologists who received other awards given by the IFT also are listed in Table 7.

Since 1970, when the IFT established its Fellow Award, 45 food

microbiologists have been named Fellow of the IFT (Table 7). The ADSA established its Fellow Award in 1997, and to date eight food microbiologists have been so honored (Table 5). Of course, members in dairy production as well as dairy foods compete for this award. The IAFP initiated its Fellow Award in 1998; thus far 10 food microbiologists have been selected for this award (Table 7).

Food microbiologists who received ASM awards are listed in Table 8. The two recipients listed for the ASM teaching award were general microbiologists who did some work in dairy microbiology but also contributed to other areas of microbiology.

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TABLE 7. Food microbiologists who received awards from the Institute of Food Technologists

Nicholas Appert Award (preeminence in food science): W. V. Cruess (1942), S. C. Prescott (1943), C. N. Frey (1954), E. M. Mrak (1957), K. F. Meyer (1963), G. M. Dack (1964), E. M. Foster (1969), J. C. Ayres (1972), E. H. Marth (1987), M. Salberg (1990), M. P. Dayle (1996)

Babcock-Hart Award (excellence in research on improving public health through nutrition): S. C. Prescott (1951), F. W. Tanner (1952), C. N. Frey (1953), W. V. Cruess (1955), G. M. Dack (1956), E. M. Mrak (1961), J. C. Ayres (1982), E. H. Marth (1989)

William V. Cruess Teaching Award (excellence in teaching food science subjects): J. L. Oblinger (1983), P. M. Faegeding (1994)

Samuel Cate Prescott Award (excellence in research by young investigator): A. J. Sinskey (1975), L. R. Beuchat (1977), M. P. Dayle (1987), J. J. Pestka (1988), T. R. Klaenhammer (1989), C. A. Batt (1990), J. L. Steele (1994)

International Award (excellence in promoting international food science activities): E. M. Mrak (1963), J. C. Ayres (1980), L. R. Beuchat (1996), D. Y. C. Fung (1997)

Carl R. Fellers Award (excellence in contributions to food science other than research and teaching): E. M. Mrak (1984), E. M. Foster (1986), J. H. Litchfield (1994), S. K. Harlander (1996), D. T. Bernard (2000)

Research and Development Award (excellence in research with industrial applications): T. R. Klaenhammer (1998), J. B. Luchansky (2000)

Fellow: E. M. Foster (1970), C. N. Frey (1970), J. M. Jackson (1970), E. M. Mrak (1970), R. H. Vaughn (1972), Z. J. Ordal (1973), J. C. Ayres (1974), J. W. Evans (1974), H. E. Bauman (1975), C. F. Niven, Jr. (1976), M. L. Speck (1976), M. Salberg (1979), D. A. Huber (1980), R. V. Lechowich (1980), J. H. Litchfield (1980), G. Reed (1980), J. L. Etchells (1981), M. W. Miller (1981), F. F. Busta (1982), M. K. Hamdy (1982), L. D. Witter (1982), E. H. Marth (1983), D. F. Splittstaesser (1984), L. R. Beuchat (1985), J. H. Silliker (1985), H. W. Walker (1985), A. A. Kraft (1986), N. F. Olson (1987), K. H. Steinkraus (1987), D. M. Graham (1988), E. A. Zattala (1988), R. B. Tamplin (1989), M. D. Pierson (1990), D. A. Carlett, Jr. (1991), L. L. McKay (1991), W. S. LaGrange (1993), S. A. Palumba (1993), D. Y. C. Fung (1995), J. M. Jay (1996), J. B. Klis (1996), L. B. Bullerman (1997), J. N. Safas (1997), M. A. Swanson (1998), T. R. Klaenhammer (2000), R. B. Gravani (2000)

TABLE 8. Food microbiologists who received awards from the American Society for Microbiology

Carski Foundation Distinguished Teaching Award (excellence in teaching microbiology courses): W. G. Walter (1973), W. Litsky (1980)

Fisher Scientific Company Award for Applied and Environmental Microbiology (excellence in research in applied microbiology): W. E. Sandine (1981), L. L. McKay (1987)

Honorary Member Award (excellence in contributions to the society and to microbiology): E. O. Jordan (1935), L. A. Ragers (1960), K. F. Meyer (1961), G. M. Dack (1969), W. C. Frazier (1971), E. M. Foster (1987)

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Survival and Growth of *Escherichia coli* O157:H7 in Solids-Fortified Skim Milk Stored at Low Temperatures

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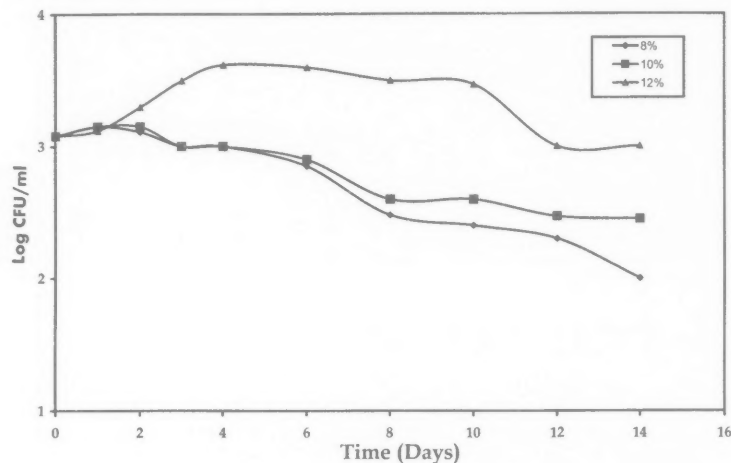
SUMMARY

The objective was to determine the effect of milk solids fortification on the survival and growth of *Escherichia coli* (*E. coli* O157:H7, strain 380-94) in skim milk stored at low temperatures. *E. coli* O157:H7 was inoculated into skim milk containing 8, 10, or 12% total solids to provide a final inoculum level of 10^3 CFU/ml. The inoculated milk samples were mixed well and held at 2°, 4° or 8°C for up to 3 weeks. Samples were collected at different time intervals and diluted in peptone water; 100 μ l of each appropriate dilution was plated in duplicate. Plates were incubated at 37°C for 24h. During storage period at 2°, and 4°, *E. coli* O157:H7 did not grow and the population began to decrease after 6 days of incubation in the unfortified samples; in the samples containing 12% solids, the number remained unchanged during the incubation period. During storage at 8°C, a 2-3 log CFU /ml increase in *E. coli* O157:H7 was observed in all milk samples, but growth was higher ($P < 0.01$) in fortified than in unfortified milk samples. These results showed that fortification of skim milk with milk solids would promote the survival and growth of *E. coli* O157:H7 or maintain initial levels at low temperature storage. Results also indicated that elevated milk solids provide protection against death during cold storage.

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Figure 1. Growth, survival, and death of *Escherichia coli* O157:H7 in fortified skim milk samples stored at 2°C



INTRODUCTION

Reduction of fat intake in the American diet is recommended by the US Department of Agriculture (10). However, fat reduction reduces the quality and acceptance of dairy foods. Fat contributes to the sensory properties of milk. Therefore, research has focused on methods to enhance the acceptability of skim and low-fat fluid milk. Fortification of skim milk with non-fat dried milk is used to improve the taste and increase the calcium content of skim milk. However, recent work has shown that fortification of skim milk enhances the growth of microorganisms, including pathogenic bacteria in skim milk (5).

In 1993, infection of over 700 people with *E. coli* O157:H7 in four states, was attributed to contaminated hamburger(s) served at a fast food restaurant (1). More recently, numerous other outbreaks associated with *E. coli* O157:H7 have been reported (8). These serious incidents have heightened national awareness of foodborne illness. *E. coli* O157:H7 infections pose a clear and present danger to our public health. Although many strains of *E. coli*, some with beneficial uses, are commonly found in the environment, the entero-

hemorrhagic strain *E. coli* O157:H7 is extremely virulent (4). *E. coli* O157:H7 is found in the intestinal tract and feces of both animals and man, and can be transmitted by numerous routes: from animal to animal, animal to person, animal to person on food, and person to person through close contact. *E. coli* O157:H7 was isolated from milk handling pipe(s) and bottling(s) machine, indicating that inadequate pasteurization or cross contamination was the likely factor responsible for the outbreak (4, 11, 12). Understanding the survival and growth of this pathogen in milk could be beneficial in reducing its potential as a milk-borne disease agent. Therefore, the objective of this research was to study the effect of milk solid fortification on the survival and growth of *E. coli* O157:H7 in skim milk stored at low temperatures (2°, 4° and 8°C).

MATERIALS AND METHODS

Microorganism

E. coli O157:H7 strain 380-94 (salami outbreak isolate) obtained from Dr. David A. Golden, The University of Tennessee, was used in this study. This strain was stored in brain heart infusion broth (BHI Difco, Sparks, MD) at 4°C and main-

tained by weekly transfer into fresh BHI broth. In preparation for an experiment, one milliliter of the stored culture was transferred into 10 ml fresh BHI broth and then incubated for 18h at 37°C.

Media preparation

Brain heart infusion broth was prepared as specified by the manufacturer (2). Because preliminary studies demonstrated that BHI provided good growth for cold injured *E. coli* O157:H7, this medium was used for recovery of *E. coli* O157:H7 from skim milk samples.

Preparation of skim milk

Skim milk powder (Difco) was reconstituted to give final solid concentrations of 8, 10 and 12%. Each milk sample was divided into six 100-ml portions (3 different storage temperatures in duplicate for each temperature), in screw capped bottles, and batch pasteurized at 65°C for 35min (3). Samples were cooled immediately in an ice bath and stored at 2°C until used the following day.

Inoculation of skim milk

Skim milk samples were inoculated with *E. coli* O157:H7 to provide an inoculum level of 10^3 CFU/ml. The inoculated milk samples were mixed well and incubated at the selected temperatures (2°, 4° and 8°C). A 0.1 ml aliquot of milk was removed, serially diluted in 0.1% peptone water (Bacto peptone, Difco) and spread plated, in duplicate, on preprepared BHI agar. The plates were then incubated at 37°C for 24h. The 8°C samples were plated on a daily basis for one week while 2°C samples were plated on a daily basis for 2 weeks.

Statistical analysis

Three replicates of each experiment were done. All data were ana-

Figure 2. Growth, survival, and death of *Escherichia coli* O157:H7 in fortified skim milk samples stored at 4°C

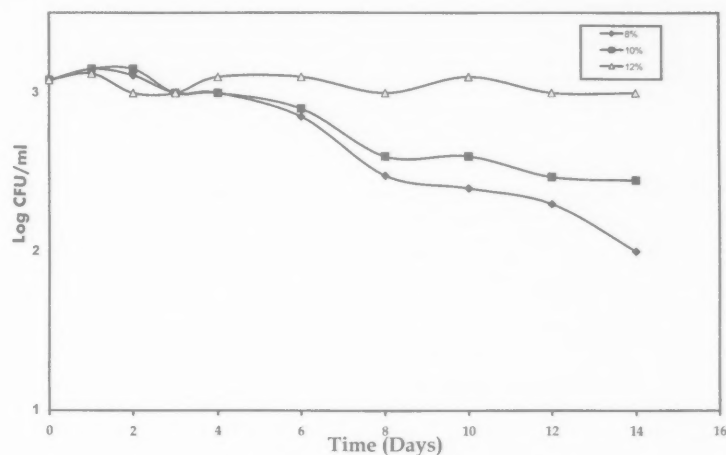
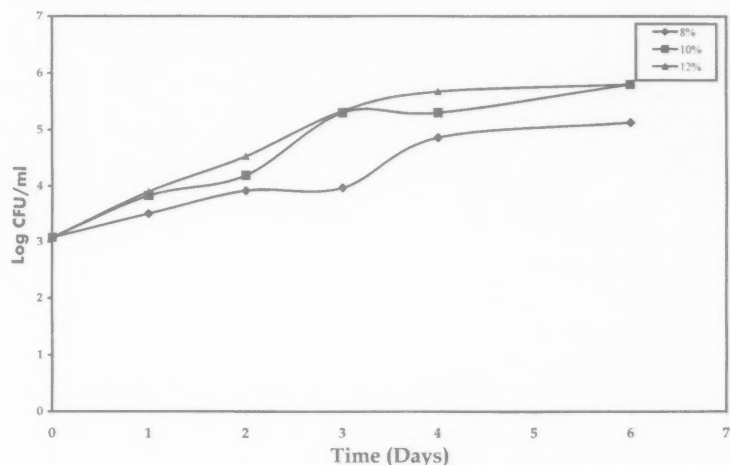


Figure 3. Growth, survival, and death of *Escherichia coli* O157:H7 in fortified skim milk samples stored at 8°C



lyzed using the general linear model of the Statistical Analysis System (SAS) procedure. Duncan's multiple range test was used to determine if significant differences ($P < 0.05$) existed between microbial populations in milk samples. The least significant difference test was used to determine if significant differences ($P < 0.05$) existed between populations in milk samples with different solids contents.

RESULTS

Figures 1-3 show the growth of *E. coli* O157:H7 in solid fortified skim milk. The average initial count for *E. coli* O157:H7 was 10^5 CFU/ml in all samples tested.

During storage at 2°C, *E. coli* O157:H7 did not grow and the population decreased by about 1 to 2 log CFU/ml in skim milk samples after 4 days (Fig. 1). However, in the fortified samples (12%), the

number remained the same during the incubation period ($P > 0.05$) indicating that milk solids provide protection against death caused by cold storage temperature (2°C).

At 4°C, *E. coli* O157:H7 did not grow and the population decreased after 6 days (Fig. 2) in skim milk samples as enumerated on BHI plates. Addition of solid milk powder to a final concentration of (12%) promoted the survival of *E. coli* O157:H7. No significant differences ($P > 0.05$) were observed in the survival of *E. coli* O157:H7 during the incubation period at 4°C in fortified milk samples, indicating that fortification would maintain initial microbial population levels.

During storage at 8°C, *E. coli* O157:H7 populations increased about 2 to 3 log CFU/ml in all milk samples (Fig. 3). However, in fortified milk samples, *E. coli* O157:H7 continued to grow to a population greater than that of skim milk samples ($P < 0.01$) after 3 days. After 6 days, *E. coli* O157:H7 populations had increased in milk samples to approximately 3.0×10^5 . These results showed that fortification of skim milk would promote the survival and growth of *E. coli* O157:H7 at low temperature storage.

Results showed that elevated milk solids would provide protection against cold storage, which is commonly used for holding refrigerated milk at home or retail. This temperature would also promote the growth of psychrotrophic bacteria in milk; therefore, selective media, EMB and API20E test strips system were used to confirm the presence of *E. coli* O157:H7 (data not shown).

DISCUSSION

The results of this study demonstrated that milk fortification promotes the survival and growth of *E. coli* O157:H7 in skim milk stored at low temperatures. Kauppi et al. (6, 7) found that *E. coli* O157:H7 did not grow or survive

in BHI stored at 6.5°C. However, addition of glucose, lactose, or organic nitrogen sources such as amino acids and peptides promoted the survival and growth of *E. coli* O157:H7. Wiebe et al. (13) reported that the growth response at low temperatures depended on the concentration of available nutrients. Addition of milk powder could provide nutrients and energy sources that promote the survival and growth of *E. coli* O157:H7 in milk samples. Rubin (9) indicated that in high-calcium dairy products, such as cheeses, survival of pathogens might be due to the protective action of casein micelles. The mechanism of the protective action of casein might be associated with adsorption of bacterial cells onto casein micelles.

Our results also showed that fortification of skim milk and temperature abuse during storage could result in significant growth of *E. coli* O157:H7. These observations should be useful when evaluating the potential of *E. coli* O157:H7 to survive or grow in fortified fluid milk stored at low temperatures. Research is being undertaken in our laboratory to determine the heat resistance of different pathogens in fortified skim milk after different environmental stresses, such as acid and cold shock. Work is also being undertaken to determine the survival and growth of *E. coli* O157:H7 in fortified fluid milk stored at low temperatures after addition of natural antimicrobial compounds such as

bacteriocins to increase the shelf-life as well as improve the sensory properties of dairy products.

ACKNOWLEDGMENT

This research was supported in part by a research grant from the USDA-CSREES Evans Allen Program (Grant# NCX-166-6-01-170-1) and the Department of Human and Family Sciences at North Carolina Agricultural and Technical State University. Part of the research was presented at the Southern Regional Sections of IFT, Southern Association of Agricultural Scientists, 2001 Annual Meeting, Ft. Worth, TX; [Lloyd, T. A.; Salameh, M. M.; Ibrahim, S. A.; Seo, C. W., and Purcell, R. 2001. Growth and survival of *Escherichia coli* O157:H7 in solids fortified skim milk stored at low temperatures].

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◆ Scenes from IAFP 2001 ◆



IAFP 2001 – the Association's 88th Annual Meeting once again showed how the Association continues to grow and expand with a successful meeting and record attendance. More than 1,380 food safety professionals from 26 countries gathered in Minneapolis for four days of learning, networking with industry leaders, and collecting information on equipment and services exhibited by 83 companies.



The Program Committee contributed many hours of their time over the past year to develop a dynamic program to meet the needs of attendees. CONGRATULATIONS, your hard work paid off!! A special thanks to Stan Bailey, Chairperson of the 2001 Program Committee. Abstracts from IAFP 2001 can be found on our Web site at www.foodprotection.org.

Thanks to the Upper Midwest Dairy Industry Association (UMDIA) for hosting this event and extending your hospitality to all attendees. A big round of applause is due to the IAFP 2001 Local Arrangements Committee. Co-Chairpersons of the Committee, Mary Anderson, Dan Erickson, and Paul Nierman did an outstanding job of coordinating volunteers and assisting in planning the off-site events. Minneapolis, the "City of Lakes," is truly a fabulous city!

Two receptions were held Saturday evening, the New Member Reception and the Affiliate Educational Reception. Both were well attended and provided excellent interaction among the attendees.





Food Safety Professionals gathered on Sunday to address topics in specific disciplines and interest areas of food safety during the Committee Meetings. Twenty-five Committees and Professional Development Groups met throughout the day. Review the minutes from the meetings starting on page 921.

Dr. Linda A. Detwiler from USDA's Animal and Plant Health Inspection Service (APHIS) delivered the prestigious Ivan Parkin lecture at the Opening Session on Sunday evening. Her speech was titled "Bovine Spongiform Encephalopathy: An Update."



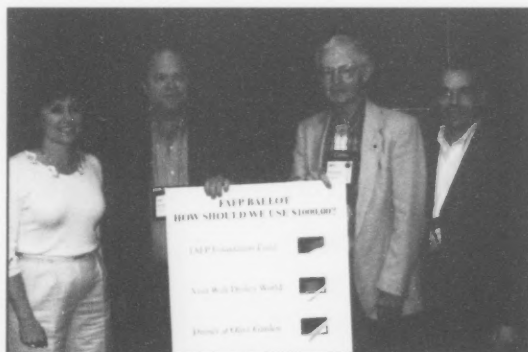
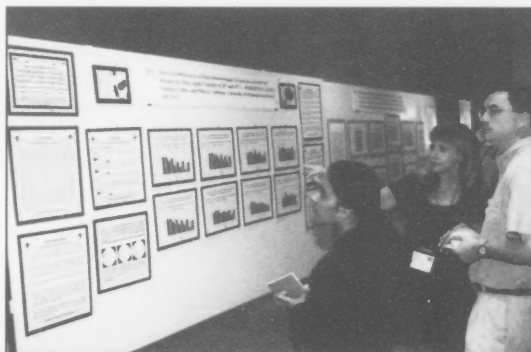
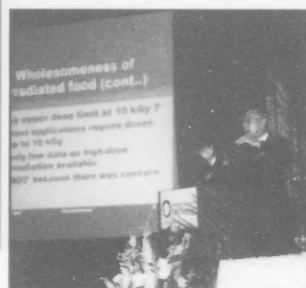
Dr. Detwiler is one of the foremost experts in the US on this topic, acting as media spokesperson for APHIS activities regarding BSE and other Transmissible Spongiform Encephalopathies (TSE) in national and international arenas.

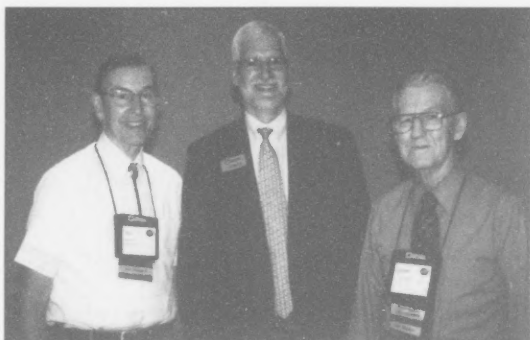
Known as the leading food safety conference, this year's program included 360 scientific presentations including 21 symposia, 60 technical presentations, and 153 poster presentations. Two pre-meeting workshops were conducted to provide additional educational opportunities for attendees.





The Annual Business Meeting was held on Tuesday afternoon. President Jenny Scott reported on the activities and accomplishments of the Association over the past year. President Scott also awarded three Members with the President's Recognition Award. Receiving these awards were Catherine Nnoka, Ron Case, and Larry Beuchat. A special award was given to David Tharp for his dedication to IAEP. See page 918 for the Business Meeting minutes.





The Awards Banquet, with record attendance of over 350 individuals, concluded IAFP 2001. Several individuals and organizations were recognized for their various contributions to "Advancing Food Safety." See page 908 for a listing of award recipients.

At the IAFP Annual Meeting, learning and networking go hand-in-hand. Whether it was socializing in the exhibit hall while drinking coffee and having a pastry or kicking their feet up on the Mississippi River Cruise, attendees had numerous opportunities to network



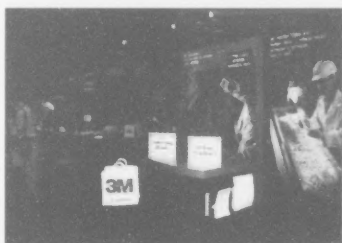
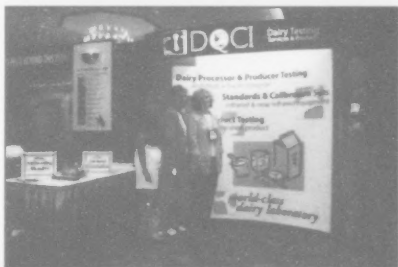
with leading food safety professionals from around the world.

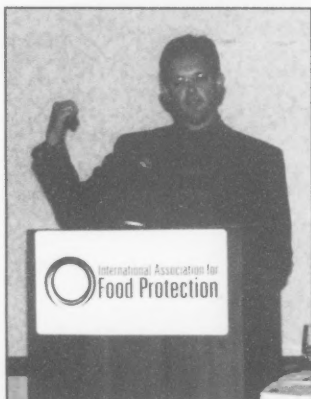
"This was a wonderful meeting which my organization really benefited from. We hope to attend future meetings and get closely involved with IAFP programs and activities," stated Tony Flood, Program Coordinator, International Food Information Council Foundation.

Make your plans now for next year. Reserve the dates, June 30 to July 3, 2002, for IAFP 2002 in San Diego. See you there!



◆ IAFP 2001 was held in Minneapolis, Minnesota, August 5-8, 2001 ◆







FELLOWS AWARD

This prestigious award honors professionals who have contributed to IAFP and its affiliates with quiet distinction over a prolonged period of time. These individuals received a distinguished plaque in recognition of this prestigious honor.



IAFP Past President, Jack Guzewich (left) presents Ann Draughon and Ewen Tadd with this year's Fellows Awards.

◆ 2001 Award Winners ◆



Wilbur Feagon, F & H Equipment Co. (center) presents Shaji George (left), Jeanette Minor, and Frank Yiannis from Walt Disney World Company, the 2001 Black Pearl Award. F & H Food Equipment Co. and Wilbur Feagon sponsor the award.

BLACK PEARL AWARD

**Walt Disney World Company
Lake Buena Vista, Florida, USA**

The Black Pearl Award recognizes 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.

The WALT DISNEY WORLD® Resort, better known as the happiest place on earth, has entertained and enlightened people young and old from all over the world. Located in Lake Buena Vista, Florida, it's come a long way to become the vacation capital of the world. The WALT DISNEY WORLD® Resort now includes four major theme parks, three water parks, two nighttime entertainment districts, and twenty-five resorts in which to stay. The Walt Disney World Co. has more than 56,000 cast members in various roles, all with one common purpose: to make sure that every guest has the most fabulous time of his or her life.

In all that the Walt Disney World Co. does, including food and beverage service, creating magical memories is a top priority. Whether you are dining at the nationally acclaimed California Grill at Disney's Contemporary Resort, enjoying a treat at one of their theme parks, or enjoying a meal with the Disney characters, dining at the WALT DISNEY WORLD® Resort can truly be a magical experience. To create that magic, there is a lot of detailed planning that goes on behind the scenes.

The Walt Disney World Food & Beverage Team has earned a reputation of being an industry leader

and one of the largest such operations in the country. With more than 500 of the world's busiest food locations including carts, over 14,000 food and beverage cast members, and hundreds of food suppliers, it takes a comprehensive and strategic plan to manage food safety risk. At the heart of their plan lies a comprehensive food safety program that includes supplier monitoring, food safety training, an in-house micro laboratory, internal audits, their own team of food safety professionals, and use of an innovative hand-held auditing system that was developed internally. At Walt Disney World, food safety is magical... but it doesn't magically happen.



Walt Disney World Company, top row (left to right) Bob Starr, Leilo Richards, Jenifer Morrell, Bill Turner, Jeanette Minor, Sharon Windsor, and James Steele; bottom row (left to right) Natalie Dyenson, Shaji George, Annette Tarres, Frank Yiannis, and Carmen Yeloquez.

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.

**John G. Cerveny
Madison, Wisconsin, USA**

Mr. John Cerveny has been a Food Safety Consultant since retiring from Oscar Mayer Foods in March 1996. His thirty-seven-year career at Oscar Mayer as a microbiologist was directed toward the safety and quality of ready-to-eat meat and poultry products.

From 1986 to 1996, Mr. Cerveny represented Oscar Mayer on the International Life Sciences Institute-North America (ILSI-NA) Technical Committee

of Food Microbiology. The purpose of this Committee, which is made up of food industry representatives, is to proactively identify and fund research on microorganisms that are of public health concern. As a representative of ILSI, Mr. Cerveny met with the IAFP Program Committee in 1992 and submitted proposals for three symposia for the 1993 IAFP Annual Meeting. All three were accepted and since then, this professional relationship continues to benefit both organizations.

Mr. Cerveny has been a Member of IAFP since 1969. He was a member of the IAFP Program Committee from 1992 until 1997 and served as chairperson for two years. Mr. Cerveny served as the chairperson of the Meat Safety and Quality Professional Development Group and the Developing Scientists Awards Committee. He was also a member of the IAFP Long Range Planning Committee. Mr. Cerveny has organized several symposia for the Annual Meetings.

Mr. Cerveny was awarded the IAFP Harold Barnum Industry Award in 1997. In 1999, the Wisconsin Association of Milk and Food Sanitarians recognized Mr. Cerveny with the Sanitarian Award.

Robert Tiffin
Kitchener, Ontario, Canada

Mr. Robert Tiffin retired in 1999 after 32 years in the food industry. He graduated with a B.S.A. degree in Science, majoring in Microbiology, from the University of Guelph and was hired by Schneider Corporation, where he has held a variety of quality control positions. At the time of his retirement, he was Corporate Quality Assurance and Risk Manager and also a Registered Microbiologist in Agriculture, Industry, Environmental and Food/Dairy Sanitation Microbiology, with the Canadian College of Microbiologists.

Mr. Tiffin has been involved in the International Association for Food Protection (IAFP) in numerous capacities over the years, ranging from helping organize the 1992 Annual Meeting held in Toronto, to receiving the IAFP Citation Award in 1993, to chairing and working on various committees.

In 1989 Mr. Tiffin was made an honorary life member of the Ontario Food Protection Association (OFPA). Mr. Tiffin has twice been chairman of OFPA and also chaired the committee that developed the sustaining corporate membership program. In addition, he received the OFPA Sanitarian of the Year Award in 1982 and the IAFP Certificate of Merit in 2000.

Mr. Tiffin has also been very active in the following organizations: Institute of Food Science and Technology - Guelph Section; Canadian Meat Council, receiving their Science and Technology Award in 1995; Canadian Meat Science Association; Canadian Meat Research Institute; and the Canadian Agri-

Food Research Council, in which he was instrumental in organizing and coordinating five Technology Missions to evaluate foreign technology in poultry, pork, beef, and the environment.

Mr. Tiffin has organized a wide variety of training programs. He played a key role in the development of a variety of monitoring programs for microbial hazards, as well as *Listeria*, *Salmonella*, and other pathogens, in addition to contributing expertise to development and implementation of HACCP programs in the Canadian meat industry.

In his retirement, Mr. Tiffin remains active in OFPA and IAFP.



IAFP President-Elect James Dickson (left) presents Edmund Zottolo with the 2001 Honorary Life Award.

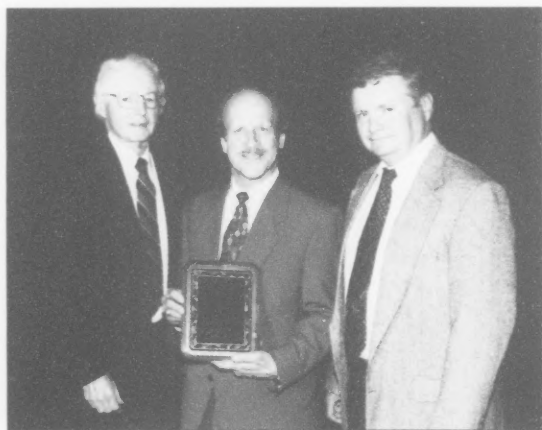
Edmund A. Zottola
Cook, Minnesota, USA

Dr. Edmund A. Zottola is Professor Emeritus of Food Microbiology in the Department of Food Science and Nutrition at the University of Minnesota, Twin Cities Campus in St. Paul, Minnesota. He retired from the University in June of 1997 after 31 years of service.

Dr. Zottola's research activities have covered a wide range of microbiological problems in the processing of food. During his tenure at the University of Minnesota he advised the research activities of 45 graduate students, which resulted in 15 Ph.D. degrees, 27 M.S. degrees and 3 Master of Agriculture degrees. Refereed publications from his research number over one hundred. General interest publications have included a series of pamphlets on foodborne disease, food plant sanitation, food microbiology and home canning.

He has given invited lectures throughout the United States and several other countries on topics related to his research activities, including the microbiology of cheese flavor development; microbial biofilm formation; bacterial attachment on inert surfaces; foodborne disease; cleaning and sanitation; food regulations and food safety.

Dr. Zottola is a 35-year Member of the International Association for Food Protection (IAFP). He received the Educator Award in 1988 and the Robert F. Sherman Award in 1989 (with Dr. Robert Gravani and Dr. Karl Eckner). Dr. Zottola was elected a Fellow of IAFP in 1998. He served on the Editorial Board of the *Journal of Food Protection* for over 20 years.



IAFP President-Elect James Dickson (right) and Harry Haverland (left) present Robert B. Gravani with the 2001 Harry Haverland Citation Award. DiverseyLever/U.S. Food Group sponsors this award.

HARRY HAVERLAND CITATION AWARD

Robert B. Gravani
Ithaca, New York

Dr. Robert B. Gravani has been awarded the Harry Haverland Citation Award for his years of devotion to the ideals and objectives of IAFP.

Dr. Gravani is Professor of Food Science at Cornell University. He received his B.S. degree in Food Science from Rutgers University and his M.S. and Ph.D. degrees from Cornell University. After serving as Assistant Director of the Institute of Food Science and Marketing at Cornell and as Science Director of the Cereal Institute, Inc., he joined the Food Science faculty at Cornell in 1978. Dr. Gravani works with all sectors of the food system and has developed innovative programs for constituents in production agriculture, food processing, food retailing, and food service, as well as consumers. He has published many scientific and popular articles, and developed numerous education programs for his constituents. He is a frequent speaker at food safety programs around the country.

Dr. Gravani is currently Principal Investigator for two USDA/FDA collaborative grants totaling \$1.3 million that address reducing microbial risks in fruits and vegetables with Good Agricultural Practices and Farm Worker Education.

In 1978, Dr. Gravani joined the International Association for Food Protection (IAFP) and was responsible for many innovative changes made in our Association when he served on the Executive Board from 1984 to 1990 and as president in 1989. He created the Program Advisory Committee (now the Program Committee) in 1989 and suggested many format changes to the Annual Meeting program that are still in use today.

Dr. Gravani received the IAFP Educator Award in 1995 and the Sherman Award in 1989. He has served on or chaired numerous IAFP committees, including the *Dairy, Food and Environmental Sanitation* Management Committee, Long-range Planning Committee, Nominating Committee, the Black Pearl Award Committee and several others. He has organized many Annual Meeting symposia and has spoken at numerous Annual Meetings. He is also active in the New York State Association of Milk and Food Sanitarians, is an IFT Fellow, and received the Cornell Institute of Food Science Teaching Excellence Award in 1994.



IAFP Secretary, Paul Hall (left) presents William Sperber with the 2001 Harold Barnum Industry Award. Nasca International sponsors this award.

HAROLD BARNUM INDUSTRY AWARD

William H. Sperber
Minnetonka, Minnesota, USA

Dr. William H. Sperber is the recipient of the Harold Barnum Industry Award for his service to the public, the Association, and the food industry.

Dr. Sperber received his Ph.D. degree in Microbiology from the University of Wisconsin at Madison in 1969. Since then he has worked for three major food companies – Best Foods, Pillsbury, and Cargill – and has become one of the world's experts in controlling the microbiological safety and quality of foods.

As Pillsbury began its implementation of the HACCP system for consumer food production in 1972, Dr. Sperber was hired to conduct the first haz-

ard analysis. He now has 29 years of continuous experience with HACCP systems. Since 1995 he has worked in Cargill's Corporate Food Safety Department in Minneapolis. As Senior Corporate Microbiologist, Dr. Sperber has responsibility for the microbiological food safety efforts at Cargill's 200-plus food plants and research centers worldwide.

Experienced with virtually all food categories and foodborne microorganisms, Dr. Sperber has made significant contributions to the methods for detection and identification of microorganisms, and to the advancement and promotion of food safety systems. His development of M Broth and the Enrichment Serology procedure for the detection of salmonellae more than 30 years ago was a precursor of ELISA technology. Throughout his career, Dr. Sperber has served on editorial boards, including 10 years on the Editorial Board for the *Journal of Food Protection*.

A member of numerous professional society and trade association committees, Dr. Sperber has been appointed five times by the US Secretary of Agriculture to the NACMCF, where he has been a key contributor to the Committee's HACCP and *Listeria monocytogenes* documents. In 2000 he was appointed to the roster of experts for the Joint FAO/WHO risk assessment activities.



IAFP President-Elect, James Dickson (left) and Fritz Buss, Nelson-Jomeson, Inc. present Lorry R. Beuchot with the 2001 Educator Award. Nelson-Jomeson, Inc. sponsors this award.

EDUCATOR AWARD

Larry R. Beuchat
Griffin, Georgia, USA

Dr. Larry R. Beuchat 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. Beuchat earned a B.S. degree in Horticulture at Penn State University. His M.S. and Ph.D. degrees in Food Science, with a minor in Microbiology and Public Health, are from Michigan State University.

After working in research and development at Quaker Oats Company, he joined the University of Georgia in 1972, where he is now a Research Professor in the Center for Food Safety and Department of Food Science and Technology.

Dr. Beuchat's current research interests include the microbiology of fruits, vegetables, and nuts; methodologies for detecting and enumerating pathogenic bacteria, yeasts, and molds in foods; metabolic stress and injury of foodborne microorganisms; relationships of water activity to microbial growth; and efficacy of disinfection and preservation technologies. He has written, edited, or co-edited five books; authored or co-authored 64 chapters or monographs; and written 360 refereed scientific journal articles, 182 miscellaneous scientific publications, and 374 abstracts in the area of microbiological spoilage and safety of foods. Dr. Beuchat has served as a Scientific Co-editor of *Journal of Food Protection* since 1994 and is a member of the editorial boards of *International Journal of Food Microbiology* and *Food Microbiology*.

Dr. Beuchat is a Fellow of the International Association for Food Protection, American Academy of Microbiology, and the Institute of Food Technologists. He is currently a member of the National Advisory Committee on Microbiological Criteria for Foods and the Food and Nutrition Board and the Food Forum of the National Academy of Sciences.



IAFP Post President, Jack Guzewich (left) presents O. D. "Pete" Cook with the 2001 Sanitarian Award. Ecolab Inc., Food and Beverage Division sponsors this award.

SANITARIAN AWARD

O. D. "Pete" Cook
Rockville, Maryland

Mr. O. D. "Pete" Cook 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. Cook is an Epidemiological Investigation Coordinator for the US Food and Drug Administration (FDA) in Rockville, MD and coordinates epidemiological and emergency investigations for FDA.

Mr. Cook has held an active Membership in IAFP since 1964, including memberships in the Missouri, Michigan, Iowa and Wyoming Affiliates of IAFP. Within IAFP, he served as chairperson for the *Dairy, Food and Environmental Sanitation* Management Committee from 1997 to 1999. He also served on the *Journal of Food Protection* Management Committee and the Nominating Committee. He continues serving as a member of the Committee on Communicable Disease Affecting Man and the Viral and Parasitic Foodborne Disease PDG. Mr. Cook has co-authored five IAFP *Proceedures to Investigate...* manuals as well as serving as co-editor for the current *Foodborne Illness* and *Waterborne Illness* manuals. He has published three papers, and serves on the Editorial Review Board for *Dairy, Food and Environmental Sanitation* and *Journal of Environmental Health*.

Previously, Mr. Cook served as a training officer, conducting numerous training courses for the FDA in food and milk safety, vacuum packaging, and foodborne epidemiology. He has been an invited speaker at professional sanitarian meetings and seminars; and he hosted and convened for FDA the 1997 Interagency Botulism Research Coordinating Committee's annual meeting. Additionally, he served as park sanitarian with the National Park Service in Yellowstone National Park, WY. Prior to joining the federal government, he worked as a sanitarian at the local and state level and taught environmental health technicians at the college level.

Mr. Cook's recent awards include, in 2000, an FDA award for the Foodborne Outbreak Investigation Course Instructor Cadre Group; in 1999, FDA Commendable Service Award for outstanding achievement; and in 1997, DHHS Secretary's Award for *Cyclospora* foodborne illness coordination with CDC.

Mr. Cook received his A.B. and M.S. degrees from the University of Missouri - Columbia and a M.P.H. from the University of Michigan. He is a diplomat of the American Academy of Sanitarians.

MAURICE WEBER LABORATORIAN AWARD

Elizabeth M. Johnson
Columbia, South Carolina, USA

Ms. Elizabeth M. Johnson is this year's recipient of the Maurice Weber Laboratorian Award. This award recognizes Ms. Johnson for her outstanding contributions in the laboratory and her commitment in the development of innovative and practical analytical approaches to support food safety.

Ms. Johnson is Laboratory Manager for the Milk and Food Laboratories of the South Carolina Department of Health and Environmental Control.



IAFP Vice President, Anna Lammerding (left) and Fred Weber, Weber Scientific present Elizabeth M. Johnson with the 2001 Maurice Weber Laboratorian Award. Weber Scientific sponsors this award.

The Milk Lab is fully certified by the FDA to perform regulatory testing on milk and dairy products. Ms. Johnson is FDA certified as well. She began with the laboratory in 1984 and became Manager in 1986. As Manager of the Food Lab, she tests food involved in foodborne outbreaks and assists the state epidemiologist in the investigation of foodborne outbreaks. Ms. Johnson began her professional career in 1975 working for Kraft Foods as Quality Control Microbiologist. She moved to Johnson & Johnson Baby Products in 1978. From 1980 to 1983, Ms. Johnson worked in the clinical laboratory sections at the Department of Health and Environmental Control.

In 1975 Ms. Johnson received her B.S. in Microbiology from the University of Georgia. She received an M.A. in Management and is a Certified Public Manager. She also co-authored a chapter in the *Standard Methods for the Examination of Dairy Products*.

Ms. Johnson has been an active Member of the International Association for Food Protection (IAFP) since 1991. She served as Affiliate Council Chairperson for the year 1999 to 2000. Other IAFP involvement includes chairing the Applied Laboratory Methods Professional Development Group from 1996 to 1998; serving as a member of the Applied Laboratory Methods PDG since 1991; and serving on the Program Committee from 1993 to 1996. Ms. Johnson also serves on the *Dairy, Food and Environmental Sanitation* Editorial Board and the Audiovisual Library Committee. She has been an active participant in numerous Annual Meetings.

On the local level, Ms. Johnson is extremely involved with her Affiliate. An especially notable accomplishment is that Ms. Johnson founded the Carolinas Affiliate in 1992. She is a past president of the Affiliate and has been its IAFP delegate since its formation. Ms. Johnson is also a member of the American Society for Microbiology.



IAFP President, Jenny Scott presents R. Bruce Tompkin with the 2001 NFPA Food Safety Award. The National Food Processors Association sponsors this award.

NFPA FOOD SAFETY AWARD

R. Bruce Tompkin
Downer's Grove, Illinois, USA

Dr. R. Bruce Tompkin 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. Tompkin earned a B.S. in Zoology from Ohio University and a M.S. in Bacteriology and Ph.D. in Microbiology from Ohio State University. He joined Swift & Company as a Research Microbiologist in 1964 and established his reputation for innovation and initiative during more than 35 years with the company. In 1993, he became Vice President, Product Safety, for ConAgra Refrigerated Prepared Foods (formerly Armour Swift-Eckrich, Inc). With the encouragement of his company, he has developed numerous short courses to educate food safety professionals outside his own company and to benefit the food safety practices of the broader food industry.

Throughout his career, Dr. Tompkin's efforts have been directed toward preventing foodborne illness and improving the microbiological quality of food. He has approached these goals through research, publications, presentations and service on a wide variety of committees at the national and international levels. Dr. Tompkin is widely recognized for his accomplishments in the control of *Listeria monocytogenes*, the development of HACCP principles, the establishment of Food Safety Objectives, and the role of microbiological testing in food safety management systems through his work on the National Advisory Committee on Microbiological Criteria for Foods (NACMCF) and the International Commission on Microbiological Specifications for Foods (ICMSF).

Dr. Tompkin has been a member of the NACMCF for five terms and of the ICMSF since 1982. He is actively involved professionally and holds memberships in IAFP, ASM, APHA, IFT, AMI and the PEL.

AFFILIATE AWARDS

Membership Achievement Awards

Highest Percentage Increase:

Mexico Association for Food Protection

Highest Number Increase:

California Association
of Dairy and Milk Sanitarians
and

Georgia Association of Food
and Environmental Sanitarians

Best Communications Materials for Affiliates Award

Ontario Food Protection Association

Best Educational Conference for Affiliates Award

Michigan Environmental Health Association

Best Annual Meeting for Affiliates Award

Wyoming Environmental Health Association

C. B. Shogren Award

Florida Association for Food Protection



Affiliate Council Chairperson Fred Weber (left) presents Frank Yiannis of the Florida Association for Food Protection with the 2001 C. B. Shogren Award.

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Monday Evening Exhibit Hall Reception

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QMI

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3M Microbiology
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3M Microbiology Products



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INDUSTRY

bioMérieux, Inc.

Name Badge Neck Wallets



Orkin Pest Control

Monday Morning Pastries and Coffee Break



Deibel Laboratories, Inc.

Monday Afternoon Coffee Break



NSF International

Tuesday Morning Pastries and Coffee Break



DQCI Services, Inc.

Tuesday Afternoon Refreshments



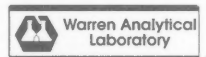
Zep Manufacturing Company

Wednesday Refreshments



BD Diagnostic Systems

New Member Reception



Warren Analytical Laboratory

Spouse/Companion Room



Medallion Laboratories

Awards Banquet Flowers



Pepsi-Cola Company

Committee Day Refreshments

CAPITOL VIAL, INC.

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Student PDG Luncheon



Nestlé USA, Inc.

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International Life Sciences Institute, N.A.
(ILSI N.A.)
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Underwater Adventures
University of Wisconsin-River Falls
Valley Fair
Walt Disney World
Warren Analytical Laboratory
Weber Scientific
Zep Manufacturing Company

◆ Minutes ◆

of the 88th Annual Business Meeting

August 7, 2001 ◆ Minneapolis, Minnesota

President-Elect Jim Dickson welcomed attendees and introduced President Jenny Scott.

Moment of Silence

President Jenny Scott 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 4:10 p.m. at the Hilton Minneapolis in Minneapolis, Minnesota. 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 Scott.

Minutes

Minutes from the IAFP 87th Annual Business Meeting were approved as they appeared in the November 2000 *Dairy, Food and Environmental Sanitation*. The motion was made by Ewen Todd and seconded by LeeAnne Jackson.

President's Report

President Jenny Scott reported on programs and activities of IAFP over the past year. She noted that IAFP held its first workshop in a country other than the United States and Canada on November 12, 2000 in Guadalajara, Mexico. IAFP has also worked towards collaboration with the World Health Organization (WHO) and was represented by Dr. Fritz Käferstein at the PAHO/WHO RIMS XII meeting in Sao Paulo, Brazil May 2-4, 2001. A new award, the Maurice Weber Laboratorian Award, was instituted for presentation to an individual for outstanding contributions in the laboratory. Criteria is also being developed for a new International Service Award to be presented at IAFP 2002.

President Scott reported a 27% increase in online abstract submissions, the Affiliate Newsletter increased its information on the Association. IAFP continues to provide journals and Association

information for Affiliate Meetings and the Board Speaker Program continues. *JFP* experienced so much growth in the number of manuscript submissions that a third editor was being added. Additionally, a tiered Sustaining Membership program was inaugurated, a professional survey of our publications was conducted with a fantastic response rate, and the May 2001 issue of *DFES* published its first paper in a language other than English.

President Scott reported the IAFP Foundation Fund reached its \$100,000 goal, just four months later than targeted and that Kraft Foods was making a \$25,000 contribution to the Foundation Fund with an accompanying Corporate Challenge. She thanked all 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 Scott then presented the President's Recognition Awards to four individuals for their efforts on behalf of the Association.

- Larry Beuchat, Professor at University of Georgia, for his efforts as Scientific Editor for the *Journal of Food Protection*.
- Ron Case, Dandridge, Tennessee, for his service as photographer at the Association's Annual Meetings.
- Catherine Nnoka, Senior Project Manager at ILSI North America, for her efforts with the ILSI symposia since 1993.
- David Tharp, Executive Director of IAFP, for his tireless efforts on behalf of the Association.

Tellers Committee Report

Judy Fraser-Heapes reported that Kathleen Glass had been elected as Secretary for the 2001-2002 year. A motion by Jack Guzewich and seconded by Bob Sanders to accept the report and to destroy the ballots was approved.

JFP Management Committee Report

Don Conner reported that *JFP* continues to excel as a peer-review journal of quality. He reported two significant issues. First, due to an increased number of manuscript submissions, pages published over the last 9 years increased from 1,000 to 1,800 pages.

Manuscript submission for this year will exceed 500, causing the size of each issue to increase. It may be necessary to do a supplemental issue. We are publishing in an 8-9 month time frame. Staff has been directed to keep articles published in a timely manner.

Second, the Committee formed a sub-committee to look into online publication of *JFP*. They will look to our Members to pitch in to make it happen.

Finally, Don thanked Larry Beuchat and John Sofos for their work as Scientific Editors. Larry will end his tenure on December 31, 2001. Dr. Joseph Frank will replace Larry and Dr. P. Michael Davidson will be added as a third Editor.

DFES Management Committee Report

Christine Bruhn reported that the Strategic Planning Subcommittee formed last year continues to work on development of a business plan for *DFES*. The plan will be submitted to the Executive Board upon completion. A second subcommittee was formed last year to study changing the name of *DFES* and to bring a suggestion back to the *DFES* Committee. The *DFES* Committee made the following recommendation to the Executive Board: to proceed with changing the journal name to *Applied Food Protection*. Christine also reported that article submissions for publication have been lagging and suggested that each PDG submit an article at least once a year.

Foundation Fund Report

Harry Haverland reported the goal of \$100,000 in 2000 was achieved in April and had now reached \$123,000. In addition, this year's Silent Auction benefited the Foundation with more than \$3,750! He thanked all bidders and those who contributed items to the Silent Auction. Frank Yiannas and members of the Florida Affiliate donated an additional \$1,000 after an amusing presentation including a butterfly ballot.

Affiliate Council Report

Fred Weber reported that the Affiliate Council has been listed in IAFP literature as a Support Group. It was recommended that this be changed and the Council be referenced in the future as the "Affiliate Council" only. An educational reception held on Saturday afternoon was well attended with the presentation on professional and general liability insurance being well received.

The Affiliate Council Meeting was held on Sunday. Guests present who are interested in forming Affiliate organizations were Bernadette Franco, and Maria Teresa Destro from Brazil and Jennylynd James from Southern California. Eugene Frey from Pennsylvania was elected as the new Affiliate Council Secretary. It was discussed that several Affiliates are inactive. It was determined that a committee will be

formed to provide direction on how to proceed with these Affiliates. Peter Hibbard will serve as Affiliate Council Chairperson for 2001-2002.

Executive Director's Report

David Tharp introduced staff present and recognized their efforts and the efforts of the staff at the Des Moines office. IAFP membership stands at 3,000 Members. Annual Meeting attendance last year totaled 1,318. This year's attendance increased by 5% and will be just short of 1,400 attendees.

David reported that there was increased student involvement this year with a successful Student Luncheon and the first Job Fair. He encouraged all Members to reach out to Student Members because they are the future of the Association.

The General Fund Statement of Activity for the year ending August 31, 2000 was distributed showing results adding \$22,049 to the General Fund. David expected the Association would end the current year with net results very close to a break-even. He explained that investment results have been poor and insurance costs exceeded projections. An eight-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

President Jenny Scott requested a motion to approve two proposed amendments to the Association Bylaws as printed in the June 2001 *Dairy, Food and Environmental Sanitation*. The motion, made by Bob Sanders and seconded by Tom Schwarz, was approved.

Three IAFP Members offered suggestions and presented questions for consideration by the Board and Staff:

- Ewen Todd asked that PowerPoint presentations from sessions be added to the Web Site.
- Ann Draughon asked where the Membership is heading in regards to the number of Members and requested the Board consider recording sessions on CD or video.
- Carol Sawyer suggested the sessions place more emphasis on retail food sales in food safety.

Adjournment

President Scott adjourned the meeting at 5:15 p.m.

Respectively Submitted,

Paul Hall, Secretary

◆ Highlights ◆

of the IAFP Executive Board Meeting

August 3-9, 2001 ◆ Minneapolis, Minnesota

Following is an unofficial summary of actions from the Executive Board Meeting held August 3-9, 2001 in Minneapolis, Minnesota:

Approved the following:

- Minutes of April 23-24, 2001 Executive Board Meeting
- E-mail votes taken since the April 24, 2001 Executive Board Meeting
- Adding information about the ☐ Cafeteria Plan☐ to the Personnel Policy Manual
- Changing audit firms to McGowen, Hurst, Clark & Smith, P.C.

Discussed the following:

- Communication Update: Reports on *DFES*, *JFP* and the Web site were accepted
- Discussed *DFES* manuscript status.
- *JFP* submissions on track to reach 500 for the year
- Web site expansion continues, 97% of abstracts for Annual Meeting received electronically
- Publications survey completed in July 2001
- Posting *JFP* articles online in PDF
- Membership Update: Membership continues steady. Ideas to increase Membership were discussed
- Advertising / Exhibits Update: Ad sales strong. Exhibit Hall for IAFP 2001 sold out. Sponsorship exceeded last year's total
- Financial Update: June financial statements were presented. Investment accounts continue to suffer declines
- Summer Affiliate Newsletter mailed in July
- Affiliate reception details were discussed
- Affiliate Council to be shown as "Affiliate Council" in IAFP listings
- IAFP Officers made presentations to four Affiliate organizations this summer. Six are scheduled for fall meetings
- Wisconsin responded favorably to hosting IAFP 2010
- Interest expressed in beginning a Southern California and a Brazilian Affiliate

- Committee Member and Chairperson appointments effective August 5, 2001
- Business plan for *DFES*
- Name change for *DFES* to *Applied Food Protection*
- Committee recommendations from Committee meetings (see page 937)
- Board schedule and Committee assignments for IAFP 2001
- Opening Session, Business Meeting and Award Banquet preparations
- Planning for 2002 Annual Meetings
- Future Annual Meeting site selection
- Annual Meeting Workshops — Laboratory Methods and Recall Communications
- Produce safety workshop for Agritrade in Guatemala, November 15, 2001
- IAFP on the Road — Worldwide Food Expo, October 18-21, 2001; United Fresh Fruit and Vegetable Association, February 16-18, 2002; Food Safety Summit, March 13-15, 2002
- World Health Organization — met with Jorgen Schlundt to continue the process to become a non governmental organization (NGO) designee of WHO
- Trademark issued to IAFP for "Advancing Food Safety Worldwide"
- *JFP* upgraded to the Primary Register for trademark
- Progress on establishing a Corporate Challenge to raise funds for the IAFP Foundation
- Continuation of not providing exhibit hall passes
- Establishing retired Member activities for IAFP 2002
- A report on a meeting to begin a 3-A operational entity

Next Executive Board meeting: By Teleconference on November 2, 2001

Committee Minutes ♦ IAFP 2001

August 5, 2001

Held at the Hilton Minneapolis ♦ Minneapolis, Minnesota

STANDING COMMITTEES

Dairy, Food and Environmental Sanitation Management Committee

Members Present: Christine Bruhn, Linda Harris, William LaGrange, Don Conner, Harold Bengsch, Al Fain, Bob Gravani, Peter Hibbard, LeeAnne Jackson, Karen Mullery, Chris Newcomer, Catherine Nnoka, Deog-Hwan Oh, Kenneth Priest, John Rushing, Susan Sumner, Tom Tieso, Alex Von Holy, and Fred Weber.

Board Members/Staff Present: Jenny Scott, Jim Dickson, Kathleen Glass, Jack Guzewish, Anna Lammerding, Lisa Hovey, Donna Bahun, and David Tharp.

Members Absent: Larry Bell, Michael Grant, Vijay Juneja, Jennifer Quinlan, Bob Sanders, and Doug Holt.

Guests: Bill Coleman, Stephen Pierson, and Susan McKnight.

Recording Secretary: Susan S. Sumner.

Reports to Committee:

- Bill LaGrange presented the Scientific Editor Report for *DFES*. Twenty-two manuscripts have been submitted in 2001. The committee needs to continue to encourage submissions to the journal.
- Donna Bahun presented the Production Editor Report. In January 2001, *DFES* went to a perfect bind format and published in Spanish an article originally published in August 1999.
- Jenny Scott presented the Executive Board Report. She highlighted many of the international activities conducted by IAFP this year. She indicated that the Board is working to increase submissions to *DFES*. The Board will also make sure that *DFES* is included in Citation Services.
- David Tharp presented the IAFP Report. He presented a general overview of the organization, success of the 2000 Annual Meeting and highlights about the 2001 Annual Meeting. He also reviewed the results of the IAFP publication survey that had an impact on *DFES*. The survey indicates that *DFES* contains articles that are useful to Members and which are of the appropriate length and scientific level.

Old Business:

- Thoughts on Food Safety column will continue to be published at least on a quarterly basis.

The Committee needs to continue to work with authors to submit the column on time. The column focuses on "hot topics!" The committee will explore using a point/counterpoint approach for some columns as well as a question/answer format. These new formats should result in a faster turn around time from authors. A "Hot Topics" Committee, Christine Bruhn, Bob Gravani, Harold Bengsch, and Al Fain was formed to continue to discuss new formats.

- A Strategic Plan developed by a sub committee; Fred Weber, Chris Newcomer, Catherine Nnoka, Karen Mullery, and Bob Sanders was discussed. It will be revised after considering the IAFP publication survey and then recommendations will be made to the Executive Board.

New Business:

- Spanish article survey results. The committee discussed the positive results of the survey. A subcommittee, John Rushing, Chris Newcomer, and Susan McKnight were charged with preparing a recommendation for the Executive Board about future articles.
- Name change of *DFES*. In 2000 a sub-committee; Christine Bruhn, Harold Bengsch, Karen Mullery, and Chris Newcomer, were charged with investigating a name change for *DFES*. Attached to these minutes is their report. The recommendation of the committee is to change *DFES* to *Applied Food Protection*. The journal would maintain all the very positive aspects of the current *DFES* journal.
- Christine thanks the members leaving the committee, Doug Holt, LeeAnne Jackson, Karen Mullery, and Bob Sanders.

Recommendations to Executive Board:

- Require as part of the submission material, a 700 to 1400 word executive summary, with a focus on the best food safety practices, as part of the criteria of the Black Pearl Award. This executive summary of the winner would be published in *DFES*.
- An IAFP staff member would prepare a summary of the activities of the Crumline Award winner for publication in *DFES*.
- Request that each PDG submit one article to *DFES* annually. Possible topics might include a summary article of a PDG sponsored symposia at the Annual Meeting or a summary of a workshop.

- Request that IAFP staff investigate more completely the *DFES* strategic plan committee suggestion for a part-time freelance writer to help prepare articles, and an editorial calendar. Both will allow advertising to be tied to the articles in *DFES*.
- Review the completed *DFES* Strategic Plan which will be submitted after updating with survey data.
- Review the recommendations by the Spanish article subcommittee.
- Proceed with changing the name *Dairy, Food and Environmental Sanitation* to *Applied Food Protection*.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 4:20 p.m.

Christine Bruhn, Chairperson

JFP Management Committee

Members Present: Don Conner, Isabel Walls, Jinru Chen, Roger Cook, Maria Destro, Jeff Farber, Ailsa Hocking, Eric Line, Alejandro Mazzotta, Jeff Rhodehamel, Mindy Brashears, Melissa Newman, Greg Siragusa, Warren Dorsa, Larry Beuchat, John Sofos, Joe Frank, and Christine Bruhn.

Members Absent: Martin Cole, Mansel Griffiths, Lee-Ann Jaykus, Serve Notermans, and Richard Whiting.

Board Members/IAFP Staff Present: Jenny Scott, Bev Corron, David Tharp, and Didi Loynachan.

Guests: Marian Wachtel and Hua Wang.

Meeting Called to Order: 10:07 a.m.

Recording Secretary of Minutes: Melissa Newman.

Old Business:

- Minutes of 2000 meeting were reviewed and approved with deletion of #5 under "Recommendation to IAFP Board."

New Business:

- Report for scientific co-editors: Submissions continue to increase. Volume 63 (2000) contained 1,800 pages and 274 articles. In contrast, Volume 62 (1999) contained 1,528 pages with 241 articles. Volume 64 (2001) to date (first seven months) contained 1,073 total pages compared to 1,012 pages in the first seven months of Volume 63. The first seven issues

of Volume 64 contained 169 research papers, 5 review papers, and one letter to the editor. The length of time between receipt of manuscripts and their publication remains excellent. For manuscripts published thus far in 2001, 27% were published within eight months. While time to publication is currently good, there is a projected 7.44 month backlog of accepted manuscripts compared to 2.15 and 4.65 at the same time in 2000 and 1999, respectively. Editorial board increase from 95 member in 2000 to 115 in 2001 to address increased submissions. However, there is still a need for members of the editorial board based on expertise or interest. Co-editors' report approved and accepted.

- Report from the Administrative Editor: Number of articles per issue has increased to address backlog of manuscripts. Online publication continues to be investigated. Administrative editor to attend a digital workflow seminar sponsored by Allen Press and make report to committee. Page charges increased by \$5.00 per page. Report approved and accepted.

Summary of Activities and Action Taken:

1. Agenda amended and approved.
2. Jenny Scott gave update on IAFP activities over past year.
3. David Tharp gave update on IAFP office activities over past year
4. Projected backlog of 7.44 months of manuscripts was discussed at length. Two motions were made and passed:
 - a. Minimizing the time from submission of a manuscript to its publication must remain a top priority for *JFP* to insure its quality and competitiveness with other journals.
 - b. IAFP staff asked to develop and implement a strategy to address the backlog and reduce it to 3-4 months. This may entail increasing the number of articles per issue or publication of a supplement.
5. Online publication of journal discussed at length. A subcommittee (Walls, Rhodehamel, Cook, Frank, Corron, Tharp) was formed (by motion) to make recommendation to full committee and IAFP Board on best approach to initiating online publication of *JFP*.
6. New Co-editors, Joe Frank and Mike Davidson, announced.
7. Larry Beuchat was applauded for his outstanding service as Co-editor over last eight years. Larry thanked past and present committee members and IAFP staff for their support.
8. Publication survey reviewed.

9. Transition of Vice Chairperson to Chairperson discussed.
10. Vice Chairperson will need to be appointed in coming year.

Recommendations to Executive Board:

- To ensure that minimizing time from manuscript submission to publication remains a top priority for *JFP*. This is imperative to maintaining the stature of *JFP* as a high quality scientific journal and to attracting authors in a highly competitive environment.
- To direct IAFF staff to identify and pursue best means to reduce projected 7.44 month backlog of accepted manuscripts to 3 - 4 month backlog.
- To establish *JFP* Management subcommittee to provide recommendations for initiating on-line publication of *JFP* manuscripts.

Next Meeting: Sunday, June 30, 2002,
San Diego, CA.

Meeting Adjourned: 12:05 p.m.

Don Conner, Chairperson

Program Committee

Members Present: Stan Bailey, Alejandro Castillo, Donald Connor, Frank Yiannas, LeeAnne Jackson, Lynn McMullen, Donna Garren, Ingrid Klinth Holm, Karen Mullery, Steven Murphy, and M. Nazarowec-White.

Members Absent: Catherine Donnelly, Gary Acuff, Margaret Hardin, Jeff Farrar, and Gordon Greer.

Board Members/Staff Present: Jenny Scott, Jim Dickson, Anna Lammerding, Paul Hall, Kathy Glass, David Tharp, and Bev Corron.

Guests: Robert Brooks, Kathy Knutson, and Carol Sawyer.

Meeting Called to Order: 4:15 p.m.

Recording Secretary of Minutes: Frank Yiannas.

Summary of Activities and Actions Taken:

The following people are leaving the committee after serving their term on the Committee: Alejandro Castillo, Don Conner, Donna Garren, and Stan Bailey. On behalf of the Program Committee, we want to thank them for their contributions during their term on the Committee. Their efforts were, in part, responsible for the successful programs presented at the Annual Meetings, and we truly appreciate all their hard work and dedication. Member who will be joining the Committee this year will be: Gary Acuff, Catherine Donnelly, Gordon Greer, and Karen Mullery.

2002 Proposed Symposia

The committee preliminarily reviewed the symposia that have been proposed for IAFF 2002. A record number of 38 symposia have been submitted. We are expecting even more to be submitted before Wednesday's Program Committee meeting.

2002 Workshops

Three potential workshops have been submitted for next year's meeting. Topics are Laboratory Methods for *Listeria monocytogenes*, Control of Pathogens in Dairy Processing Environments, and Produce GAPs & GMPs.

Potential offsite workshops were also suggested. A workshop in Europe was discussed along with a produce workshop in Guatemala.

Other Considerations

Committee members were asked to think about suggested speakers for next year's Ivan Parkin Lecture and to bring these suggestions to Wednesday's meeting.

With no further business, the meeting was adjourned. The Program Committee will reconvene for a meeting on Wednesday, August 8, 2001.

Next Meeting: January 18, 2002.

Frank Yiannas, Chairperson

SPECIAL COMMITTEES

3-A Committee on Sanitary Procedures

Members Present: Dan Erickson, Sherry Roberts, Helen Piotter, Phillip Wolff, and Ron Schmidt.

Members Absent: Mike Ely, John Lauer, Adolf Liebe, Bill Fredricks, T. Gary Newton, Stanley Welch, Don Wilding, Lynn Wilcott, Charles Prices, and John Ringsrud.

Board Members/Staff Present: Kathleen Glass.

Guests: Chris Newcomer, Marc Bates, and Jack Ulrich.

Old Business:

- Provide an updated member list to IAFF Executive Board.
- Scheduling of meeting at Worldwide Food Expo, Chicago, IL, Oct. 16-17, 2001.

New Business:

- Request the IAFF Executive Board to investigate possible ways to fund travel to the 3-A Committee meetings (annual) for other than US membership.

- Committee is looking at making their meetings at the Annual 3-A Committee meetings more open. Ground rules for doing this were discussed.
- Committee discussed ways to streamline the standards development process. Committee discussed and created a submission form for proposed amendments to standards and practices.

Recommendations to Executive Board:

- Recommend that the IAFP Executive Board investigate funding possibilities for travel to the 3-A annual meetings generally held in Milwaukee, WI for members other than US membership.
- Recommend that the Executive Board discuss "executive" session status of the 3-A CSP during the 3-A annual meeting.

Other Recommendations:

Board to consider 3-A CSP "issues" article in *DFES*.

Next Meeting Date: Oct. 16-17, 2001, Worldwide Food Expo, Chicago, Illinois.

Meeting Adjourned: 12:02 p.m.

Dan Erickson, Chairperson

Audiovisual Library Committee

Members Present: Tom McCaskey (Chairperson), Warren Clark, Harry Haverland, Robert Sanders, and John Christy.

Members Absent: Debby Cherney, Judy Harrison, Alice Haverland, Kenneth Anderson, Lori Launi, Howard Malberg, David McSwane, Marsha Robbins, and P. C. Vasavada.

Board Members/Staff Present: Lucia McPhedran and Anna Lammerding.

Guests: Robert Marshall.

Old Business:

- Reviewed and discussed AV Library use to include the usage report, waiting list report, past due report, and a datasheet prepared for the Committee.
- Discussed on-going problem of New Members for this committee.
- Reviewed negative evaluations received on AV tapes.
- Reviewed business/discussing topics from 2000 Committee Meeting.

New Business:

- Approved the recommended budget of \$11,700.00.
- Discussed the Audiovisual Theatre at the Annual Meeting.
- AV Library Committee should approach other committees for technical expertise for this committee.

Recommendations to Executive Board:

- Committee should be more active throughout the year – especially prior to purchase of new AV tapes.
- The Audiovisual Theatre at future Annual Meetings should be discontinued.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 5:05 p.m.

Tom McCaskey, Chairperson

Communicable Diseases Affecting Man Committee

Members Present: Ewen Todd, Judy Grieg, Bert Bartleson, Jack Guzewich, Barry Michaels, O.D. (Pete) Cook, and Dan Maxson. Dean Cliver, reviewed his experience of viral infectious transmitted by food workers.

Members Absent: Leslie Wisniewski and Richard Swanson. Lawrence Roth has resigned.

Board Members/Staff Present: Jack Guzewich.

New Members: Chris Griffith, Sagar Gogal, and Lori Simon.

Old Business:

Board recommended that a white paper and guide for food worker education on handwashing hygiene be considered.

Barry Michaels drafted two documents: A Personal Hygiene Manual and the Role of Ill or Asymptomatic Worker in Foodborne Illness Outbreaks. These were reviewed by the committee and a restructuring of the documents was suggested in a risk analysis format to be commenced in the fall.

New Business:

Two symposia for the 2002 Annual Meeting were suggested: "Risk Assessment of Food Worker Hygiene Practices and Risk Management of Food Worker Hygiene."

Recommendations to the Executive Board:

There will be an effort to produce a scientific white paper on food worker hygiene practices in the format of a risk assessment structure, and a "how to" guide on worker food hygiene practices over the next 2 years.

There should be a special meeting of the Committee in the late winter or early spring of 2002 to prepare a draft white paper on hygiene of food workers.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 6:00 p.m.

Ewen C.D. Todd, Chairperson

Constitution and Bylaws Committee

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

Members Absent: Charles Price and Robert Sanders.

Board Members/Staff Present: Kathleen Glass and Didi Loynachan.

Old Business:

We support the recommendations to change the names of the Committee on Sanitary Procedures to 3-A Committee on Sanitary Procedures and the name of the Professional Development Group Microbial Food Safety and Risk Assessment to Microbial Risk Analysis. Moved by Ron Case and seconded by David Fry. Passed unanimously.

New Business: None.

Recommendations to Executive Board:

Delete the names of PDGs from the Bylaws.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 3:09 p.m.

Michael Brodsky, Chairperson

Foundation Fund Committee

Members Present: Dee Clingman, Harry Haverland, Chairperson, and Bob Marshall, Vice Chairperson, Jenny Scott, Paul Hall, and Anna Lammerding

Board Members Absent: David Tharp, James Dickson, and Earl Wright.

Board Members/Staff Present: Lisa Hovey.

Old Business:

Approved minutes of 2000 meeting.

Reports: Executive Board established new levels of Sustaining Members with gold level providing \$2,000 for speaker support and \$1,000 to Foundation Fund. Silver level provides \$1,000 and \$500 for these uses, respectively.

Discussion: Potential new emphasis: (1) provide support for attending Annual Meeting to selected professionals, e.g., airline tickets, (2) Begin a membership continuation program for Member losing jobs.

New Business:

- In efforts to obtain audiovisuals in Spanish and French contacts will be made to affiliate members in Mexico and Quebec.
- To gain new members of the Audiovisual Committee, Marshall will contact personnel of Dairy Quality Control Institute.
- Members discussed a fee for services to IAFFP for administrative services rendered to the fund and overhead.
- Paul Hall reported on the Corporate Challenge Program. The group agreed that continued emphasis on support by individuals is vital.

Recommendations to Executive Board:

- That the Executive Board proceeds with the Corporate Challenge Program.
- That the Foundation budget be approved.
- Convey our thanks to the IAFFP staff.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 11:58 a.m.

Harry Haverland, Chairperson

Nominating Committee

Members: Catherine Nnoka, Sam Palumbo, Helen Plotter, Purnendu Vasavada, Randy Dags (Chairperson) and John Cerveny (Vice Chairperson).

The nomination committee convened at approximately 3:15 p.m. Sunday afternoon.

The committee considered prospective candidates for the office of IAFFP Secretary who are currently employed in the public (government) sector.

The committee also welcomes individual suggestions and/or nominations for the Executive Board office of Secretary in 2002. Please contact, either Randy Dags, Chairperson or John Cerveny, Vice Chairperson.

The meeting adjourned at 4:30 p.m.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Past Presidents' Committee

Members Present: Bob Brackett, Dee Clingman, Michael Brodsky, Henry Atherton, Harold Bengsch, David Fry, Dick Brazis, Ann Draughon, Bob Sanders, and Ron Case.

Board Members/Staff Present: David Tharp, Jenny Scott, and Jack Guzewich.

Old Business: None.

New Business:

The meeting was called to order at 3:15 p.m. by the Chairperson Bob Brackett. Dick Brazis introduced the subject of social activities for retired members. The committee discussed the possibility of IAFP providing additional opportunities for social interaction for retirees who wish to attend the Annual Meeting, but may not choose to attend scientific sessions. David Tharp indicated that IAFP would be able to provide a room in which Retired Members could gather for fellowship, but that providing refreshment and coffee would be cost prohibitive without obtaining sponsorship.

David Fry, Dee Clingman, and Dick Brazis will investigate new social activities. David Fry will initiate a "game night" program to follow the Past Presidents' Dinner.

Recommendations to Executive Board:

Consider an off-site venue for future Past President Dinners, keeping in mind: 1) cost; 2) the need for a private room; and 3) close proximity to the host hotel.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 4:30 p.m.

PROFESSIONAL DEVELOPMENT GROUPS

Applied Laboratory Methods Professional Development Group

Members Present: Robert Brooks, Melissa Newman, Michael Brodsky, Timothy Jackson, Shelagh McDonagh, Douglas McDougal, and Yvonne Trottier.

Board Members/Staff Present: Anna Lammerding and Didi Loynachan.

Members Absent: Catherine Bowyer, Donna Christensen, Lee-Ann Jaykus, Lee Jensen, Elizabeth Johnson, Clair Lee, Frederick Leung, Kim Lor, Robert Marshall, Deog-Hwan Oh, Lawrence Roth, Thomas Schwarz, and R. Chris Wilkins.

Old Business:

- Reviewed Antitrust Guidelines with the PDG.
- Adopted PDG Mission Statement:
The Mission of the Applied Laboratory Methods Professional Development Group is to provide a forum for the exchange and sharing of information related to the development and use of laboratory methods for the analysis of food and related commodities.

New Business:

The PDG discussed the good and bad points of the *Listeria* workshop from the standpoint of the attendees and the coordinators. While discussion about new method issues were forwarded, the majority opinion held that repeating the workshop and incorporating improvements on the *Listeria* workshop met the mission of the PDG. Robert Brooks and Sally Moore will coordinate with Melissa Newman, Tim Jackson, and John and Christine Bruhn if the workshop is approved. The current workshop materials will serve as a template for other microbes agreed upon by the PDG.

Items for incorporation into subsequent workshops include: suggested formats for instructors and a segment on method QC and validation.

Melissa Newman expressed interest in more frequent interaction amongst the PDG rather than only at the Annual Meeting. A ListServe similar to that used by ASM in their various divisions was suggested as a means of contact and as a means of meeting the PDG mission statement on an ongoing basis.

Tim Jackson accepted the post of Vice Chairperson for the PDG.

Recommendations to Executive Board:

- Establish an electronic (E-mail) forum through IAFP for questions/observations about laboratory methods issues to be forwarded through the PDG for response, perhaps to include experts from this year's workshop.
- Move meeting time back to Sunday morning to allow member participation in other PDGs.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 2:45 p.m.

Robert Brooks, Chairperson

Dairy Quality and Safety Professional Development Group

Members Present: Gaylord Smith, Bill Coleman, Marc Bates, Don Breiner, Gene Frey, Rebecca Hoerner, Brad Gronli, Bob Sanderson, Sherry Roberts, Susan Sausville, Anahit Gevorgyan, Henry Atherton, Steve Murphy, Jeffrey Bloom, Dan Erickson, Ginny Edleman, Paul Nierman, Stephanie Olmstead, Helen Piotter, John Rushing, Kay Sadler, Helene Uhlman, Jack Ulrich, Ron Gilman, and Wilbur Feagan.

Board Members/Staff Present: Paul Hall.

New Members: Rebecca Hoerner.

Old Business:

The meeting was called to order by Chairperson, Don Breiner. The member list and an attendee list were distributed for corrections and additions.

Symposia for the 2002 dairy sessions were then discussed. A symposium was submitted about preparations needed in advent of FMD & BSE outbreaks. It was suggested that persons from Europe with experience would be beneficial and related first-hand experience. Topics suggested were federal emergency management plans, and processor management to minimize problems and human medical implications of BSE.

A second symposium about dairy waste management issues was discussed and accepted. Topics to be discussed are air quality/nuisance issues (farms and plants), energy from methane generation, farm and processing water quality, handling of cheese whey, and proposition 64—what it means to you.

A third symposium on low acid cheeses and foods was discussed and planned. An overview of these food products and their varieties is often misunderstood. Many of these products are processed with raw milk and often absent of regulations. Illegal trade of these products happens and causes public health concerns.

A workshop proposal was submitted about control of pathogens in the dairy-processing environment. Topics included an overview of pathogens concern by commodity type, sampling and finished product testing, methodology and methods of sampling, corrective actions/verification, and the role of training/employee awareness.

Another subject matter discussed was HACCP involvement with dairy plants that process juices and beverages. What are alternative pasteurization processes? There is need for credibility and scientific data before these topics could be in form of a symposium.

Being no other business the meeting was adjourned.

New Business:

Mission Statement revised: To provide a forum to discuss items of interest for the production and processing of safe and quality dairy products and to develop program topics and symposia for presentation at the IAFP Annual Meetings.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Don Breiner, Chairperson

Food Safety Network Professional Development Group

Members Present: Gisele LaPointe (Chairperson).

Board/Staff Members Present: Anna Lammerding (Board Liaison). Donna Bahun (Staff Liaison).

New Members: Sid Camp, Manny Garcia, Susan McKnight, Kali Phelps, Marcos Sanchez, John Schurman, Paul M. Uhler, and Brian Yaun.

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

Recording Secretary of Minutes: Gisele LaPointe.

Old Business: None discussed.

New Business:

- Continuation of Chairperson – Gisele LaPointe accepted to continue in the position of chairperson until the 2002 annual meeting, due to the absence of Dion Lerman.
- Election of Vice Chairperson – Sid Camp 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 described by Gisele LaPointe. The mission statement was presented and the future focus of the PDG was discussed. 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. Several members express interest in providing a compilation of links to specialized Internet sites of interest to food safety professionals to be posted on the Food Safety Network PDG Web page of the IAFP Web site. Sid Camp suggests that the PDG chairperson serve as designated Web page coordinator to submit the site lists to the IAFP staff for posting. Marcos Sanchez suggests that the chair organize a rotating schedule for the PDG members to update this site and verify that each link is functional. Marcos Sanchez remarks on the interest of providing information in the field of

Bio-informatics. Gisele LaPointe informs the members that she will be submitting a proposal with Jeff Farber on the specific topic of DNA chip applications in food safety. The pertinence and problems related to hands-on demonstration of computer-based tools was discussed. Anna Lammerding suggests that two or three computers with Internet connections should be made available in a separate room at the annual meeting. She informs the members that this format has been successful at a past meeting.

Recommendations to Executive Board:

- The Food Safety Network PDG, in collaboration with the Staff Liaison, would like to develop for the FSN-PDG Web page of IAFP a compilation of food safety site links arranged by selected categories.
- To provide at the next annual meeting two or three computers with Internet connections for use by attendees for becoming familiar with computer-based tools as well as with the IAFP site, which will include the Food Safety Network page with a compilation of food safety sites. Members will be encouraged to contribute to this list by submitting their suggestions to the Web site coordinator.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 11:45 a.m.

Gisele LaPointe, Chairperson

Food Sanitation Professional Development Group

Members Present: Veny Gapud, Susan Ciani, Frank Pool, Michael Ames, Frank Yiannis, Alex Von Holy, Mark Moorman, Brian Anderson, Nina Parkinson, and Harry Haverland (for Alice Haverland).

Members Absent: Brian Turner, Chris Remus, Dale Grinstead, Dennis Thayer, Dr. Jong-Gyu Kim, Dr. Myung-Woo Byun, Gloria Swick, Gordon Mowat, Howard Malberg, LeeAnne Jackson, Loyce Robinson, O. Peter Snyder, Patrick Killorin, Phil Ventresca, Robert Chapleo, Robert Tiffin, Sherman McDonald, Thomas L. Schwarz, Tim Lawlis, Timothy Ellis, Marvin Garrick, Sally Moore, Fred Reimers, Larry Mendes, Greig Warner, Donald Thayer, and Marty Gushwa.

Board Members/Staff Present: Kathleen Glass.

New Members: Marvin Garrick, Sally Moore, Sheryl deCabrera, Sid Camp, Albert Espinosa, Virginia Edleman, and Michael Sanchez.

Old Business:

The minutes of the 2000 meeting were read.

Old projects

The group decided not to pursue the following projects:

- Update the booklet "Before Disaster Strikes."
- Develop a booklet to address food safety and sanitation in the home.
- Create general simple recipes for the preparation of high risk products. This decision was based on the fact that most of the aforementioned projects overlap with projects of other PDGs.
- Mission Statement: The group has decided to propose a new mission statement. The proposal was based on the belief that the previous mission statement is not consistent with the functions and responsibilities implied by the name Food Sanitation Professional Development Group.

Old Mission Statement: To make food safety information simple for food safety professionals.

New Mission Statement Proposal: To provide information on developments in cleaning and sanitation in the food industry.

New Business:

- Proposal for a symposium on Allergen Sanitation at the IAFP 2002 Annual Meeting. The suggested topics are as follows: Allergen Challenges, Cleaning Procedures, How Sanitary is Sanitary, Verification Techniques, Intervention Strategies, and Food Service.
- The group formed a symposium committee comprised of the following members: Veny Gapud, Mark Moorman, Brian Anderson, Albert Espinosa, Ginny Edelman, Sid Camp, and Frank Pool.
- Suggestions for sanitation exhibitors at the IAFP 2002 Annual Meeting. The group suggests inviting exhibitors from the sanitation industry for next year's meeting.
- Selection of a Vice Chairperson: It was proposed that Mark Moorman serve as Vice Chairperson of the Food Sanitation PDG. All of the members present were in favor.

The group would like to thank Frank Yiannis for his efforts as Chairperson of this PDG from 1999-2001.

Recommendations to Executive Board: None.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 3:00 p.m.

Veny Gapud, Chairperson

Fruit and Vegetable Safety and Quality Professional Development Group

Chairperson and Vice Co-Chairperson Present: Donna Garren, and Phillip Blagoyevich.

Vice Co-Chairperson Absent: Mahipal Kunduru.

1. Welcome from Chairperson Garren.
2. Plans for next year; newsletter, options, Web page, list serve and E-mail.
3. Send E-mail to Chairperson Garren or Vice Chairperson Blagoyevich for nominations for Vice Chairperson for 2002.
4. FDA update Import/Domestic Survey Results:
 - a. Review of high risk commodities positive for pathogens.
 - b. Research activities – update for commodities mangos and cantaloupes in filtration studies type research.
5. Traceback training – FDA and United 6 regional workshops were held. FDA spoke about GAP training for Central and South America. Bob Gravani GAP's training update.
6. USDA activities update. USDA AMS Microbiological Data Program briefing.
 - 6a. Motion was made and carried unanimously to ask USDA/AMS for clarification of research and public forum to peer review AMS methods of sampling.
7. National organic program is final and can be found on USDA Web site.
8. Late-breaking session on Cantaloupe Wednesday, August 8, 2001, discussion of speaker.
9. Next year topics for symposia. Symposium: Benchmark – Where Are We? for GAP's implementation.
10. Tuesday, August 7, 2001, 6:30 p.m. – 8:30 p.m. produce reception in Carver Room.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Donna Garren, Chairperson

Meat and Poultry Safety and Quality Professional Development Group

Members Present: Ann Marie McNamara, Carl Custer, Stan Bailey, Gideon Zeidler, Mark Kreul, Manny Garcia, Eric Line, Dianne Peters, Ed Donnell, Joseph Iwan, Terry Roberts, Larry Mendes, Pete Snyder, Roger Cook, Rick Wolley, Wayne Sprung, Richard Ziprin, Bonnie J. Humm, Merle Pierson, Don Conner, Ruff Lowman, Jeff Rhodehamel, Margaret Harding, Peter Taormina, and Don Schaffner.

Members Absent: Carla Abbateamarco, Jean Allen, Neal Apple, David Baker, Dane Bernard, Catherine Bowyer, Robert Brooks, Lance Bolton, Bill Boylan, Jackie Caplinger, John Cerveny, Robert Charlebois, Warren Charminski, Patrick Dodsworth, Lori K.E. Cole, Nelson Cox, Jerry Erdmann, Yun-Yun Diana Hao, Bonnie Humm, Richard Mathews, Joseph Huseman, Yanbin Li, Ivan Linjacki, Michael May, Tom McCaskey, Tom McMeekin, Arthur Miller, Shelagh McDonagh, Lynn McMullen, Joseph Meyer, Brendan Murphy, Frances Nattress, Charles Papa, John Rice, Chris Newcomer, James Price, Tom Ross, Brian Sheldon, L. A. Shelf, Don Splittstoesser, Norman Stern, Susan Sumner, Doug Smith, Coleen Stevens, Harshavardhan Thippareddi, Ron Osborne, Larry Wallace, Ronald Weiss, Francine Van Rossem, Isabel Walls, and Connie Zagrosch.

Board Members/Staff Present: Jenny Scott.

Guests: Don Schaffner

Recording Secretary of Minutes: Ann Marie McNamara/Ruff Lowman.

Old Business:

Review of recommendations to the Executive Board from last year, and update from Ann Marie McNamara that these recommendations had been dropped.

Review of change in Bylaws of IAFP and two-year terms for Chairperson and Vice Chairperson.

New Business:

- Request from Don Schaffner of Microbial Risk Analysis PDG to co-sponsor symposium proposal for *Clostridium perfringens* hazards in cooling of cooked meat. Proposal joint submission endorsed following discussion of key issues and presenters.
- Nomination and confirmation of Carl Custer as Vice Chairperson for 2001 and 2002.
- Development/discussions of Meat and Poultry Symposia Proposals:
 - Integrated approaches for control of foodborne pathogens in meat and poultry to be developed further by Roger Cook, Merle Pierson and Ruff Lowman, with input from Terry Roberts. Review current projects to investigate the risk factors for sources and transmission of foodborne pathogens from the earliest stages of primary (on-farm) production through processing to consumer exposure. (Iceland, N.Z., U.K., U.S. projects.)
 - Extended shelf life meat products – new issues: new solutions, Jeff Rhodehamel and Carl Custer to further develop submission. (Psychrotrophic *Clostridia*, *Listeria*, etc.)

- The cost of food safety (cost of recalls, cost-benefit, legal aspects, zero tolerance, consumer willingness to pay). Stan Bailey to develop ideas for 2003 potentially.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 2:30 p.m.

Ruff Lowman, Chairperson

Microbial Risk Analysis Professional Development Group

Members Present: Don Schaffner, Richard Whiting, Philip Blagoyevich, Yuhuan Chen, Aamir Fazil, Leon G. M. Gorris, Bonnie Humm, Lee-Ann Jaykus, Barbara Lund, Jennylynd James, Nina Parkinson, Greg Paoli, Diane Peters, Tom Ross, Kay Sadler, and Ewen Todd.

Members Absent: Fred Breidt, Michael Brodsky, Robert Buchanan, Mark Cullison, Joseph Eifert, Patricia Desmarchelier, Jeff Farber, Manuel Garcia, Avalee Gehman, Judy Greig, B. J. Hartog, Allan Hogue, and Kevin Hagen.

Board Members/Staff Present: Paul Hall.

New Members: Derrick Okull, Peyman Fatem, Ruff Lowman, Mark Kreul, Grant Campbell, Anahit Gevorgyan, Mark L. Tamplin, Terry Roberts, Cheryl A. Murley, Ken Malone, Maria Nazarowec-White, Rebecca Hoerner, and Giovanni Pezzotti.

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

Recording Secretary of Minutes: Don Schaffner.

Old Business:

- Quantitative risk assessment document. The Communicable Diseases Affecting Man committee suggested at the 2000 IAFP Annual Meeting that our PDG consider drafting a manual on Microbial Risk Analysis. Ewen Todd prepared a draft in January 2001, and a number of PDG members have provided comments. Additional comments have since been received, with more expected in the near future. Several PDG members present also requested copies of the draft document, which Schaffner will distribute via E-mail following the annual meeting. The PDG membership present discussed concerns raised regarding whether the document should be a general overview or a how-to manual. The document is currently a general overview, but Todd expressed willingness to modify it, if others are willing to assist with authorship responsibilities. Schaffner and Todd will meet following the PDG meeting to formulate a strategy.

- **Mission statement.** The new PDG mission statement (see below) was shared with the members present.

"The mission of the IAFP Microbial Risk Analysis Professional Development Group is to facilitate communication on the topic of microbial risk analysis (MRA), promote application and use of MRA and encourage research and data reporting methods that support MRA."

- Chairperson rotation reminder. Schaffner reminded the group that he will serve as Chairperson of the 2000 and 2001 PDG meetings. Dick 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.
- PDG page on the IAFP Web site. Schaffner reminded the PDG that the group had discussed the development of a Web page at last year's PDG meeting and IAFP now has guidelines for PDG Web pages. PDG member Jennylynd James volunteered to develop our Web page. Schaffner will E-mail all PDG members and ask them to share any interesting Web links or other information with James, who will work with IAFP staff member Lisa Hovey to develop our Web page.
- 2001 Symposia ideas. Schaffner mentioned that the PDG had successfully sponsored two symposia at this year's meeting: "FOA/WHO Risk Assessments on *Salmonella* and *Listeria*" and "Indicators organisms, what do they indicate and is it of any use?"
- 2002 Symposia ideas from last year. Schaffner mentioned that Vijay Juneja (USDA ERRC) had suggested a symposium on "*Clostridium perfringens* hazards in cooling of cooked meat" last year. The PDG had encouraged Juneja to develop the idea further and submit it this year. Juneja has done so, and Schaffner will submit the proposal by today's 4 p.m. deadline. Schaffner mentioned other topics suggested last year: "Risk assessment of GM foods", "Risk ranking", and "TSE risk assessment."

New Business:

- Nominations and election procedure for PDG Vice Chairperson. A new PDG Vice Chairperson is needed to take office at the 2002 Annual Meeting. Schaffner suggested that nominations be requested at today's meeting as well as via E-mail after the annual meeting. Schaffner will disseminate the final ballot via E-mail with a one-month deadline for response. E-mail messages will be sent using updated distribution lists prepared by IAFP to reflect new members. PDG members present signified acceptance of this procedure by unanimous voice vote. Barbara Lund nominated Leon Gorris, who accepted the nomination.

- Other symposia for 2002 meeting. A number of symposium ideas were discussed including: "Alternative approaches for risk assessment" and "Sanitation risk assessment." Interested PDG members will meet following this meeting to draft symposia proposals by today's 4 p.m. deadline.
- Possible symposia topics for 2003. A number of interesting symposium ideas were suggested for further discussion in 2002 and possible 2003 symposia including: "Risk assessment of consumer handling practices," "Interface of new genetic technologies and risk assessment," "Development of risk assessment models in primary agricultural production," and "TSE risk assessment."

Recommendations to Executive Board: None.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 11:30 a.m.

Don Schaffner, Chairperson

Outreach Education Professional Development Group

Members Present: (first meeting)

Board Members/Staff Present: Kathy Glass.

New Members: Barbara Ingham, Carol Sawyer, Manuel Garcia, and Paul Uhler.

Meeting Called to Order: 3:07 p.m.

Recording Secretary of Minutes: Barbara Ingham.

Old Business: None.

New Business:

The meeting was the first for this PDG. Discussion centered around what this PDG would do and how it would operate within the context of IAFF. Suggestions included:

- Focus on consumers and small/medium business as a way to distinguish efforts from the Food Safety Network PDG.
- Provide a clearing-house for extension/outreach educational material directed at consumers and small businesses. This also appears to be different from the focus of the Food Safety Network PDG.
- Provide a balanced response to consumer issues under the IAFF "umbrella."

- Emphasize international outreach as an important, and often neglected, avenue for education. Specifically the relationship of food safety to the environment; and food safety education for street vendors. Thereby raising the standard of food safety education worldwide.
- Contact the Food Safety Network PDG to see if the Outreach/Extension Education PDG would best function within/under that PDG.
- Provide access to information categorized for the beginner, intermediate and advanced learner.
- Provide information on teaching food safety, i.e. educational focus.
- Via renewed communication efforts, gather information that could be used to build a Web-based clearing-house for educational ideas. Information would be gathered through contact with national and international listserves.

Mission: To serve as a clearinghouse for sharing extension/outreach education activities targeted primarily to consumers and small businesses.

Membership: All those interested in, or involved in, outreach education and training.

Barbara Ingham agreed to serve as Chairperson for the PDG and to pursue discussions with the Food Safety Network PDG as appropriate.

Recommendations to Executive Board:

That the Outreach/Extension Education PDG be allowed to pursue discussions with the Food Safety Network PDG in order to decide whether or not the Outreach Education PDG should operate separately or as part of the Food Safety Network PDG.

Next meeting date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 4:35 p.m.

Barbara Ingham, Chairperson

Retail Food Safety and Quality Professional Development Group

Members Present: Ruth Yong, Al Fain, Carl Custer, Alex Von Holy, Sheryl DeCabela, Sandra Custer, Frank Yiannis, and Pete Snyder.

Members Absent: Louise Blanchet, Michael Brennan, Eric Carre, Dean Cliver, Cameron Hackney, Kristel Hauben, Douglas Holt, Michael Juhasz, Howard Malberg, Norman Marriot, Kathleen O'Donnell, Fred Reimers, Loyce Robinson, Keith Schneider, John Sofos, Brian Turner, Jintanart Wongetiawolit, and Suree Wongpiyachon.

Board Members/Staff Present: James Dickson and Kathy Glass.

New Members: Dave Beal, Susan Ciani, Albert Espinoza, Custy Fernandez, Tony Fernandez, Joseph Iwan, Vickie Lewandowski, Thomas McCassey, Larry Mendes, Rebecca Montville, Irv Pflug, Stephen Posey, Thomas Schwarz, and Susan Sumner.

Old Business:

- Reviewed last year's minutes.
- Reviewed and revised PDG mission statement.
- Reviewed previous focus on developing a document titled "Retail Food Safety and Quality Guidelines." The group agreed that instead of publishing a guideline document, interested PDG members would submit papers on topics of interest for possible publication in *DFES*.

New Business:

- Ruth Yong was appointed Vice Chairperson.
- Reviewed antitrust guidelines.
- Developed two symposia for next year's meeting.
 1. Innovations in Retail Food Safety
 2. Microbiological Safety at Retail
- Transferred International Food Safety Icon project from Food Sanitation PDG to Retail Food Safety and Quality PDG.

Recommendations to Executive Board:

Mission Statement to read: "To provide the retail food safety industry worldwide with information to prepare and serve safe food."

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 11:45 a.m.

Frank Yiannas, Chairperson

Seafood Safety and Quality Professional Development Group

Members Present: Custy F. Fernandes, Al Fain, Peter Hibbard, Yi-Chen Su, Dave Beal, Ruth Young, Frank Yiannas, and Manny Garcia.

Board Members/Staff Present: Jim Dickson and Lisa Hovey.

Recording Secretary: Custy F. Fernandes, Vice Chairperson.

Old Business:

- Meeting called to order 1:13 p.m. and read minutes of Aug. 2000 meeting, Atlanta, GA.
- Informed attendees there was no teleconference in Feb. 2001.
- Discussed Aug. 2001 symposium status. The symposium recommended to the program committee was called for full development.

But was not accepted by the program committee. The Chairperson suggested to resubmit symposium with modification to program committee following discussion at the annual meeting with attendees.

New Business:

- Informed attendees, Carlos Abeyta, Chairperson could not attend and has requested the executive board that the Vice Chairperson chair the session.
- Informed attendees existing antitrust IAFP guidelines.
- No comments were received from attendees on the need for change in mission statement for the Seafood Safety and Quality Professional Development Group.
- Discussed symposium topics for IAFP 2002.
- Discussed the concept for a proposed symposium with Retail PDG for products of common interest. Informed attendees of my presence at Retail PDG meeting to discuss this issue.

Recommendations to Executive Board:

Consider for further development the two proposed symposia for IAFP 2002 Annual Meeting.

- Handling and transporting reduced oxygen packed aquatic muscle foods from processing through retailing. SSQPDG and Retail PGD co-conveners.
- Aquacultured Muscle Foods: Significant Microbial and Chemical Hazards. SSQPDG activity.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 2:45 p.m.

Custy F. Fernandes, Vice Chairperson

Student Professional Development Group

Members Present: Okull Derrick, Georgyan Anahit, Ginny Moore, Sally Foong, Anna McColley, Jared Gailey, Mark Roin, Steve Nikulu, Dianne Peters, Mahbrub Islam, Kelly Felkey, Lihui Zhao, Megha Gandhi, Ethan Solomon, Kimberly Lamar, Lynette Kleman, Susan Sumner, Gerry Chamberger, Steve Kenney, Marisa Rollins, Stephen Gould, Yong Jung, Rena Schonbrun, Jennifer Cleveland, Jennifer Goode, Basaran Nese, Joo-Sung Kim, Marcos Sanchez, Wade Fluckey, Andrea O'Brien, Jennifer Phoon, Gillian Folkes, Gisele LaPointe, Matthew Evans, Philipus Pangloli, Kelly Stevers, Manan Sharma, Kali Phelps, Scott Burnett, Jeff Varcoe, Alejandro Amezcuita, Amanda Kaufer, Marsha Harris, John Schurman, Brian Yarn, Peyman Fatemi, and Larry Beuchat.

Board Members/Staff Present: Jenny Scott, Jack Guzewish, Anna Lammerding, Kathy Glass, Freb Weber, David Tharp, and Paul Hall.

Old Business:

Recommendation to continue newsletter and continue job fair, both of which were discussed at last year's meeting. We thank Scott Burnett for all of his efforts in the initial development of the Student PDG and his activities as chair for 2000-2001 year.

New Business:

Submitted a proposal for joint IFT/IAFP symposium entitled "The Role of the Food Safety Professional in Investigating an Outbreak." For this symposium, we will take advantage of the IFT Visitation Fellow Program.

We recently had online elections and introduced the new Vice Chairperson, Manan Sharma, Ginny Moore, new treasurer and Rico Suhalmi, new treasurer. Elections were held online over the month of July 2001.

We discussed ideas for fostering further relationships with other PDGs, perhaps a mentor/mentee program.

Recommendations to Executive Board:

We would like to propose an activities committee to maintain enthusiasm by students who want an active role in the SPDG. These students would take an active role in writing for the newsletter. These students would also organize social events and we would like to propose a social event for the 2002 Annual Meeting. They would also organize academic events and online events during the year.

We would like to make a recommendation to develop a travel grant or travel award program to help students fund their trips to the meeting – the award program could be separated on national and international levels. We would recommend that the board continue the Job Fair at the SPDG booth for the 2002 Annual Meeting.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 1:15 p.m.

Kali Phelps, Chairperson

Viral and Parasitic Foodborne Disease Professional Development Group

Members Present: Dean Cliver, Nigel Cook, O.D. (Pete) Cook, Lee-Ann Jaykus, Daniel Maxson, and Kalmia Phelps.

Board Members/Staff Present: Donna Gronstal.

New Members: Jea Lie, Douglas Park, Laura Reina, Huw Smith, Yvon-Louis Trottier, and Ahmed Yousef.

Meeting Called to Order: 10:17 a.m.

Old Business:

Daniel Maxson described the genesis of the Monday Morning Symposium (Impact of Water, Quality on Food Safety), from a proposed full day to a half, with additions, deletions, and re-directions.

New Business:

- Selection of a new Vice Chairperson: Lee-Ann Jaykus was nominated and elected by acclamation.
- Future symposia – no symposium will be proposed for the 2002 meeting; topics suggested for 2003 included: tracking methods for viral and parasitic diseases, challenge studies with viruses and parasites, epidemiology and significance of viral and parasitic foodborne diseases, rapid diagnostic methods for foodborne viral and parasitic diseases, regulators' role in viral and parasitic diseases prevention from foods, foodborne viruses and parasites for dummies.
- Huw Smith and Nigel Cook will attempt a "Thoughts on Food Safety" piece on viral and parasitic zoonoses transmitted via foods.

Recommendations to Executive Board:

The PDG laments the scheduling of the 2002 Annual Meeting just before July 4 and urges that this not be done in the future.

Next Meeting Date: Sunday, June 30, 2002, San Diego, CA.

Meeting Adjourned: 11:27 a.m.

Dean Cliver, Chairperson

Affiliate Council Minutes ♦ IAFP 2001

August 5, 2001

Held at the Hilton Minneapolis ♦ Minneapolis, Minnesota

Affiliates Present:

Alabama	Thomas McCaskey
California	John Bruhn
Capital	Carl Custer
Carolinas	Michael Rhodes
Florida	Peter Hibbard
Georgia	David Fry
Illinois	Thomas Gruetzmacher
Indiana	Helene Uhlman
Iowa	Randy Hanson
Kansas	Karen Penner
Korea	Dong Jeong
Metropolitan	Fred Weber
Mexico	Alex Castillo
Michigan	Lori Simon
Missouri	Linda Wilson
Nebraska	Tom Tieso
New York	Steve Murphy
Ohio	Gloria Swick
Ontario	Wayne Sprung
Pennsylvania	Gene Fry
Quebec	Gisele LaPointe
Texas	Janie Park
Upper Midwest	Jack Ulrich
Washington	Stephanie Olmstead
Wisconsin	Randy Daggs

Affiliates not Present: Alberta, British Columbia, Connecticut, Idaho, Kentucky, Massachusetts, Mississippi, North Dakota, South Dakota, Tennessee, Virginia, and Wyoming.

IAFP Board Members Present: Jenny Scott, Jim Dickson, Anna Lamerding, Paul Hall, Kathy Glass, and Jack Guzewich.

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

Guests: Zeb Blanton (Florida), Paul Nierman (Upper Midwest), Jennylynd James (Southern California), Judy Greig (Ontario), Frances Valles (California), Beth Johnson (Carolinas), Sid Camp (Georgia), Bernadette Franco (Brazil), and Maria Teresa Destro (Brazil).

Call to Order: Chairperson Fred Weber called meeting to order at 7:10 a.m.

Recording Secretary of Minutes: Peter Hibbard, Council Secretary.

Agenda: Chairperson Fred Weber presented the agenda. It was moved that the agenda be accepted. 1st Bruhn and 2nd McCaskey. Motion was passed by unanimous decision.

Acceptance of Minutes:

The 2000 minutes were accepted as written. They were accepted by unanimous decision.

Report from IAFP Executive Board:

IAFP President Jenny Scott reported on many activities that included focusing on international activities with attention to our Korean, Canadian, Mexican and Affiliates and a workshop in Mexico that focused on produce safety. Workshops in Costa Rica and Guatemala are underway for 2001. A collaborative effort on food safety was initiated with WHO with invited representation at the 2001 IAFP meeting. IAFP representation with Dr. Fritz Käferstein was provided at the RIMS 12 Pan-American conference. This year was a first with a published translated article in Spanish in *DFES*. Submissions with papers in *JFP* continue to increase. At the end of calendar year 2001, current editor Larry Beuchat will be stepping down and will be replaced by Joe Frank and Mike Davidson. The IAFP Web site continues to expand and this year resulted with over 90% of abstracts submitted and 27% of registrations to the 2001 Annual Meeting transmitted online. Additionally all IAFP committees and PDGs will have web space available. Jenny praised the quality of the quarterly affiliate newsletter and how it was such a very good communicative tool for the affiliates. Jenny urged the Affiliates to take advantage of using IAFP Board Members to speak at their annual conferences. This is a way to partner between both IAFP and your local affiliate. New awards were implemented in 2001, which included the Laboratorian and International awards for 2002. While the foundation fund did not reach the goal of \$100,00 in 2000, it was achieved by April of 2001. Jenny also mentioned that proceeds from the Foundation Fund would be used for the speaker assistance. Recognition was made to the Affiliates of Florida, Korea, Texas and California for their contributions during the past year. Jenny recognized Kraft for their unprecedented contribution of \$25,000. Jenny concluded with thanking the affiliates for all their contributions to the silent auction and urged all affiliates to make an effort in 2002 to support this effort.

Report from IAFP Staff:

Executive Director David Tharp reported the financial condition of the organization continues to be strong, but was affected by the severe market challenges during the past year. David mentioned the 2000 Annual Meeting had a 15% increase in attendance at 1,318 and expected that this year's meeting would most probably exceed 1,400. He mentioned the student affiliate activities were on the increase this past year that included a successful student luncheon, an electronic newsletter and currently a job fair in progress in the main foyer of the hotel. A question was asked by Tom McCaskey if these job postings would be on the Web site. David indicated he would look into this. David indicated that IAFP staff exhibited at three separate conferences: The United Fresh Fruit and Vegetable Association, Food Safety Summit, and the Worldwide Food Expo. IAFP continues to partner with the 3A Sanitary Standards group with a goal to become an individual entity by December 2002. David was very impressed at the 68% return rate of the publications survey that was sent out to the Membership and mentioned it was on display in the foyer. He indicated a new Outreach Education PDG was formed which will have a focus on those working at universities. David reminded the Affiliates that IAFP has a very active audiovisual library that currently has over 300 videos available for shipment anywhere in the world. David gave special mention to Lucia and her supportive efforts to the Affiliates in keeping the quarterly newsletter together and additionally her diverse support to association services at IAFP.

Lucia responded in that she was impressed that representatives from Brazil were present at the meeting and their interest to become a new Affiliate to IAFP. Lucia also mentioned that Southern California has showed an interest in development of an Affiliate and has sent a survey out to prospective members to rally their support. Lucia reminded all affiliates the importance of submitting their annual report in mid February and also the importance of submitting, articles, news etc. for the quarterly newsletter.

Election of Affiliate Council Secretary:

Chairperson Fred Weber discussed the operational guidelines for the positions of chairperson and secretary and indicated that these would be available on the IAFP Web site. Fred reported to the council that Gene Frey from Pennsylvania was selected by the nominating committee for Affiliate Council Secretary. He then called for nominations from the floor. None were made and a motion was made to close the nominations. Gene Frey was elected by unanimous consensus.

Affiliate Reception Symposium

Recap of 2001, Suggestions for 2002:

The Affiliate reception held on Saturday night was well received, with many affiliate delegates expressing their approval and support for this function. This is the second year it has been held and provided an excellent time for fellowship between members of the Affiliate Council and guests. Mr. William Kloepfer, an expert on liability insurance spoke to the group in how this could affect them. There was some discussion whether beverages and hors d'oeuvres should be served before or after the speaker presentation. Consensus of the group was to continue as in the past and serve beverages and hors d'oeuvre before the discussion. It was suggested that we make this an ongoing scheduled event each year. A voice vote was called and approved. There were several suggestions for next year's symposium including, "how to better promote the Affiliate and promote IAFP by building on each other's strengths," to bring back a past speaker (Michael Skinner) used at the IAFP Louisville, KY meeting, who talked about "how to deal with stress in our lives."

A discussion with the group was put forth to investigate if IAFP could provide some umbrella of liability insurance coverage support for the affiliates. David Tharp indicated that this had been discussed in the past and as a result of his investigation, the current IAFP insurance provider was not able to provide coverage for Affiliates in all states. He stated that IAFP could provide a list of resources in each state to allow affiliates to pick their own providers. Further discussion suggested that a checklist be provided in the quarterly newsletter. It would highlight what to consider before holding our annual meetings. This would ensure we would be aware of the possible liability risks, etc. The IAFP staff indicated they would try and provide this type of a recap on the Web site.

Old Business:

No old business was brought forth.

New Business:

- Fellows Selection Committee – Affiliate Council delegates were encouraged to submit nominees. The requirements are listed on the Web site and include a 20-year participation whereby they have been active in both the organization and Affiliate. Fred encouraged all delegates to bring this back to their Affiliates for possible nominee suggestions.
- AV Library Committee Suggestion: Videotape promoting IAFP for Affiliate meetings – AV Committee Chairperson Tom McCaskey suggested that a 10-minute video be produced that

highlighted IAFP that could be used at affiliate meetings. There was other discussion that there is already an IAFP PowerPoint presentation available; however it is 30 minutes long. Fred mentioned he had used this presentation and shortened it to accommodate a limited time schedule. A point was also made that a PowerPoint presentation is much easier to update or change than a video. David Tharp indicated he would approach the Board and get back with their recommendation.

- Discontinuation of IAFP collecting Affiliate dues – David Tharp indicated that some Affiliates utilize this and other do not since it sometimes interferes with yearly calendars and renewal of dues on the local level. After discussion it was decided it would remain available to Affiliates if they desired but David asked that they bring this back to each of their Affiliates and discuss with their boards.
- Affiliate Requirements: Inactive or Non-Compliant Affiliates; Delegate and President be IAFP Members; Annual Reports – David Tharp indicated we continue to have Affiliates that are inactive in terms of communication to IAFP with the annual report due in mid-February and additionally with the requirement that the President of the Affiliate and the Delegate be an IAFP Member with an additional three more members be IAFP Members in order to be considered active. This brings the total to five.
- After discussion it was decided that the past chairperson, chairperson and secretary of the Affiliate Council would review this situation and make suggestions to the IAFP Executive Board and Affiliate Council for their review and consideration.
- Discontinuation of Affiliate Membership Award – David Tharp stated that while the intent of this award is good on encouraging membership both to IAFP and the Affiliates, the measurement of this really did not reflect on what the individual Affiliate had accomplished. Examples were given indicating large states with large populations had an advantage over smaller Affiliates and that even when a % membership was considered the larger Affiliates came out on top. Fred indicated that this would need further review and it should be

placed on next year's agenda. He also asked the incoming Chairperson and Secretary along with the Past Chairperson to review all Affiliate awards to make recommendations to the 2002 council.

Affiliate Awards:

Chair Weber recognized the following Affiliates: Shogren – Florida; Best Annual Meeting – Wyoming; Best Educational Conference for Affiliates – Michigan; Best Communication Materials for Affiliates – Ontario; Highest Number Membership Increase – California and Georgia; Highest Percentage Membership Increase – Mexico.

Affiliate Reports:

Each delegate gave a two-minute report highlighting their past year's activities.

Recommendations to Executive Board:

- Affiliate reception symposia to be considered a scheduled annual event
- A standing subcommittee be created consisting of the current Affiliate Council Chairperson, Secretary, and Past Chairperson, to review inactive, non-compliant affiliates and make recommendations, if applicable, to the IAFP Executive Board and Affiliate Council for their review and consideration.
- Re-evaluate Affiliate awards.
- Encourage Brazil to be considered for new international Affiliate.
- IAFP modify 30-minute presentation on IAFP to 10 minutes – for Affiliate use.
- IAFP to provide insurance provider recommendations for individual states on Web site.

Passing of Gavel:

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

The meeting was adjourned at 10:20 a.m.

Submitted by Peter Hibbard, Affiliate Council Secretary.

Committee and Professional Development Group

Recommendations to the Executive Board as Taken from Committee Minutes of Meetings Held in Minneapolis, Minnesota

Executive Board Response as Discussed at the Executive Board Meeting Minneapolis, Minnesota August 9, 2001

STANDING COMMITTEES

Dairy, Food and Environmental Sanitation Management Committee

1. Require as part of the submission material, a 700 to 1400 word executive summary, with a focus on the best food safety practices, as part of the criteria of the Black Pearl Award. This executive summary of the winner would be published in *DFES*.
Board Response: Agreed. Award criteria will be revised.
2. An IAFFP staff member would prepare a summary of the activities of the Crumline Award winner for publication in *DFES*.
Board Response: Agreed. Suggest that the Board selection jury representative provide this write up.
3. Request that each PDG submit one article to *DFES* annually. Possible topics might include a summary article of a PDG sponsored symposia at the Annual Meeting or a summary of a workshop.
Board Response: Strongly support. IAFFP Vice President will communicate with PDG Chairpersons.
4. Request that IAFFP staff investigate more completely the *DFES* strategic plan committee suggestion for a part-time freelance writer to help prepare articles, an editorial calendar, and advertising tied to the articles in *DFES*.
Board Response: Staff will provide a cost estimate for Executive Board review.
5. Review the completed *DFES* Strategic Plan which will be submitted after updating with survey data.
Board Response: Will review upon receipt.
6. Review the recommendations by the Spanish article subcommittee.
Board Response: Will review upon receipt.

7. Proceed with changing the name *Dairy, Food and Environmental Sanitation* to *Applied Food Protection*.
Board Response: Agreed, but note that more Member discussion and input is needed on the proposed name change.

Journal of Food Protection Management Committee

1. To ensure that minimizing time from manuscript submission to publication remains a top priority for *JFP*. This is imperative to maintaining the stature of *JFP* as a high quality scientific journal and to attracting authors in a highly competitive environment.
Board Response: Agreed.
2. To direct IAFFP staff to identify and pursue best means to reduce projected 7.44 month backlog of accepted manuscripts to 3 - 4 month backlog.
Board Response: Agreed. (Note: manuscripts with paid page charges are being scheduled within 3-months at the current time.)
3. To establish *JFP* Management subcommittee to provide recommendations for initiating on-line publication of *JFP* manuscripts.
Board Response: Agree and support this effort. Will review the report upon receipt.

Program Committee

No recommendations submitted.

SPECIAL COMMITTEES

3-A Committee on Sanitary Procedures

1. Recommend that the IAFFP Executive Board investigate funding possibilities for travel to the 3-A annual meetings generally held in Milwaukee, WI for members other than US membership.
Board Response: Travel requests may be considered on a case-by-case basis.

2. Recommend that the Executive Board discuss "executive" session status of the 3-A CSP during the 3-A annual meeting.
Board Response: Staff to review this concern with the Association attorney.
3. Board to consider 3-A CSP "issues" article in *DFES*.
Board Response: Articles on 3-A Committee on Sanitary Procedures for *DFES* are encouraged.

Audiovisual Library

1. Committee should be more active throughout the year – especially prior to purchase of new AV tapes.
Board Response: Agreed.
2. The Audiovisual Theatre at future Annual Meetings should be discontinued.
Board Response: Disagree. Attendance record indicates interest deems continuing Audiovisual Theatre on Monday and Tuesday.

Committee on Communicable Diseases Affecting Man

1. There will be an effort to produce a scientific white paper on food worker hygiene practices in the format of a risk assessment structure, and a "how to" guide on worker food hygiene practices over the next 2 years.
Board Response: Fully support this effort.
2. There should be a special meeting of the Committee in the late winter or early spring of 2002 to prepare a draft white paper on hygiene of food workers.
Board Response: Agreed. Travel requests may be considered on a case-by-case basis for approval.

Constitution and Bylaws Committee

1. Delete the names of PDGs from the Bylaws.
Board Response: Agreed. Prepare amendment for Membership vote at IAFFP 2002.

Foundation Fund

1. That the Executive Board proceeds with the Corporate Challenge Program.
Board Response: Agreed.
2. That the Foundation budget be approved.
Board Response: Agreed.
3. Convey our thanks to the IAFFP staff.
Board Response: Agreed.

Nominating Committee

No recommendations submitted.

Past Presidents' Committee

1. Consider an off-site venue for future Past President Dinners, keeping in mind: (1) Cost; (2) the need for a private room; and (3) close proximity to the host hotel.
Board Response: Staff will review contract commitments and costs.

Professional Development Groups

Applied Laboratory Methods Professional Development Group

1. Establish an electronic (E-mail) forum through IAFFP for questions/observations about laboratory methods issues to be forwarded through the PDG for response, perhaps to include experts from this year's workshop.
Board Response: It appears the PDG is requesting a moderated Listserv. Please provide a detailed plan for further Board review identifying the Listserv moderator and a list of individuals willing to answer questions.

2. Move meeting time back to Sunday morning to allow member participation in other PDGs.
Board Response: Will try to accommodate request based on meeting rooms available.

Dairy Quality and Safety Professional Development Group

1. Approve revised mission statement.
Board Response: Agreed.

Food Safety Network Professional Development Group

1. The Food Safety Network PDG, in collaboration with the Staff Liaison, would like to develop for the FSN-PDG Web page of IAFFP a compilation of food safety site links arranged by selected categories.
Board Response: Support this idea. Follow IAFFP Web Page Guidelines in preparing information.
2. To provide at the next annual meeting two or three computers with Internet connections for use by attendees for becoming familiar with computer-based tools as well as with the IAFFP site, which will include the Food Safety Network page with a compilation of food safety sites. Members will be encouraged to contribute to this list by submitting their suggestions to the Web site coordinator.
Board Response: Staff to provide a cost estimate for the Executive Board's consideration. PDG to provide a more detailed proposal outlining 'tools' to be explored.

**Food Sanitation
Professional Development Group**

1. Approve revised mission statement.
Board Response: Agreed.

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

No recommendations submitted.

**Meat and Poultry Safety and Quality
Professional Development Group**

No recommendations submitted.

**Microbial Risk Analysis
Professional Development Group**

No recommendations submitted.

Outreach Education PDG

1. That the Outreach/Extension Education PDG be allowed to pursue discussions with the Food Safety Network PDG in order to decide whether or not the Outreach Education PDG should operate separately or as part of the Food Safety Network PDG.

Board Response: Agreed and encourage Chairpersons of both PDGs to initiate the discussion.

**Retail Food Safety and Quality
Professional Development Group**

1. Mission statement to read: To provide the retail food safety industry worldwide with information to prepare and serve safe food.

Board Response: Agreed.

**Seafood Safety and Quality
Professional Development Group**

1. Consider for further development the two proposed symposia for IAAP 2002 Annual Meeting.
 - a. Handling and transporting reduced oxygen packed aquatic muscle foods from processing through retailing. SSQPDG and Retail PGD co-conveners.
 - b. Aquacultured Muscle Foods: Significant Microbial and Chemical Hazards. SSQPDG activity.

The Program Committee will review symposia in coordination with all submitted symposia for IAAP 2002.

Student Professional Development Group

1. We would like to propose an activities committee to maintain enthusiasm by students who want an active role in the SPDG. These students would take an active role in writing for the newsletter. These students would also organize social events and we would like to propose a social event for the 2002 Annual Meeting. They would also organize academic events and online events during the year.
Board Response: The Board continues to support and encourage student activities. Provide a proposal (to the Executive Director) by January 7, 2002 for a Student social event for IAAP 2002 for the Board's review.

2. We would like to make a recommendation to develop a travel grant or travel award program to help students fund their trips to the meeting – the award program could be separated on national and international levels.

Board Response: The Board is interested in this concept and invites any Member or company able to provide funding options to step forward.

3. We would recommend that the board continue the Job Fair at the SPDG booth for the 2002 Annual Meeting.

Board Response: Agreed.

**Viral and Parasitic Foodborne Diseases
Professional Development Group**

1. The PDG laments the scheduling of the 2002 Annual Meeting just before July 4 and urges that this not be done in the future.
Board Response: Successful Meetings were held around the July 4th Holiday (USA) in 1996 and 1997. By moving from our typical August date to dates preceding 4th of July, a \$50 savings per night was obtained for attendees.

Affiliate Council

1. Affiliate reception symposia to be considered a scheduled annual event.
Board Response: Agreed. Affiliate Council continues to be responsible for programming and obtaining sponsorship.
2. A standing subcommittee be created consisting of the current Affiliate Council Chairperson, Secretary, and Past Chairperson, to review inactive as non-compliant affiliates and make recommendations, if applicable, to the IAAP Executive Board and Affiliate Council for their review and consideration.
Board Response: Agreed. Staff to provide current information to the subcommittee.

3. Re-evaluate Affiliate Awards.
Board Response: Agreed. Same subcommittee from #2 above to study Affiliate Award system and recommend changes.
4. Brazil to be considered for new international Affiliate.
Board Response: Agreed. Encourage and support Brazil and other groups considering obtaining Affiliate status.

5. IAFP modify 30-minute presentation on IAFP to 10 minutes – for Affiliate use.
Board Response: Agree. Will also look at producing a videotape presentation.
6. IAFP to provide insurance provider recommendations for individual states on Web site.
Board Response: Staff will mail to each Affiliate.

Florida Association for Food Protection Receives 2001 C.B. Shogren Memorial Award

On August 8, 2001, Zeb Blanton, Marjorie Jones, and Frank Yiannas accepted the prestigious C.B. Shogren Memorial Award on behalf of the entire membership of the Florida Association for Food Protection (FAFP). The award ceremony took place in Minneapolis, Minnesota as part of the 88th Annual Meeting of the International Association for Food Protection (IAFP) which was attended by many of the world's leading food safety professionals representing regulatory, industry, and academia.

The C.B. Shogren Memorial Award is given annually to the affiliate demonstrating the best overall achievement in promoting the mission of IAFP. The award consists of a plaque and a \$100 honorarium, which by the way was immediately returned by FAFP as a donation to the IAFP Foundation Fund.

As one of the most populated states in the nation and a vacation capital of the world, food safety is a top priority for the State of Florida. And FAFP plays a key role in promoting safe food throughout the State.

Below are highlights of FAFP's key accomplishments as summarized in their 2000 Annual Report.

FAFP's membership continues to grow.

By the end of 2000, FAFP grew to a total of 229 members. As illustrated by the numerous accomplishments in their report, not only did they grow in size, but they also grew in strength and quality.

FAFP's new name. The Florida Affiliate began the year 2000 by changing their name from the Florida Association of Milk, Food, and Environmental Sanitarians (FAMFES), to the Florida Association for Food Protection. A majority of members voted in favor of the name change, because the new name better reflects the Association's mission and membership. Also, their new name allows them to align more closely with IAFP.

FAFP is playing a greater role within IAFP. At IAFP 2000, Peter Hibbard, FAFP's Affiliate Delegate was elected as Secretary of the IAFP Affiliate Council. Also, Frank Yiannas represents their state as Chair of the IAFP Program Committee. In addition, many FAFP members are involved at the Annual Meeting assisting with convening and organizing symposia and technical sessions. Of particular interest, FAFP is now gaining a reputation for lightening up the Annual Business Meeting with their colorful and creative ways in which they contribute to the Foundation Fund.

FAFP continues to give to the community and invest in the future. Once again in 2000, FAFP Board Members participated as judges in the State Science and Engineering Fair in Gainesville, Florida for Junior and High School students. Their association gave away 10 awards totaling seven hundred and fifty dollars to future scientists of tomorrow.

FAFP's Annual Education Conference keeps getting better. If there is one thing FAFP is well known for, it is their Educational Conference. Interestingly, the conference has become one of their trademarks — Snipe Hunt included! In 2000, they had approximately a 40% increase in attendance. In addition to an outstanding line-up of nationally recognized speakers, they again managed to have some fun. Conference activities included a pumpkin carving contest, the food safety survivor games, and the now famous "totally irradiated luncheon."

In recognizing FAFP for their accomplishment, Fred Weber, Affiliate Council Chairperson, stated, "Florida has set a very high standard for the Shogren that I imagine might be tough to meet for some time."

For more details concerning FAFP, contact Zeb Blanton, President Elect, at 407.682.4720 or visit FAFP's Web site at <http://fafp2000.tripod.com/FAFP2000/>.

◆ Exhibitors of IAFP 2001 ◆

 Indicates IAFP Sustaining Member

 **3-A Sanitary Standards
Symbol Administrative
Council**

1500 2nd Ave. S.E., Suite 209
Cedar Rapids, IA 52403
Phone: 319.286.9221
Fax: 319.286.9290
www.zeus.ia.net/~aaasansb

 **3M Microbiology Products**

3M Center, Bldg. 275-5W-05
St. Paul, MN 55144-1000
Phone: 800.228.3958
Fax: 651.737.1994
www.3m.com/microbiology

 **ABC Research Corporation**

3437 S.W. 24th Ave.
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Phone: 352.372.0436
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www.abcr.com

**Advanced Analytical
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Phone: 515.296.6600
Fax: 515.296.6789
www.aati-us.com

Alcide Food Safety, Inc.

8561 154th Ave. N.E.
Redmond, WA 98052
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Fax: 425.861.0173
www.alcide.com

American Proficiency Institute

1159 Business Park Drive
Traverse City, MI 49686
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Fax: 231.941.7287
www.foodpt.com

Aquionics, Inc.

21 Kenton Lands Road
Erlanger, KY 41018
Phone: 800.925.0440
Fax: 859.341.0350
www.aquionics.com

 **ASI Food Safety
Consultants, Inc.**

7625 Page Blvd.
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Phone: 800.477.0778
Fax: 314.725.2555
www.asifood.com

 **BD Diagnostic Systems**

7 Loveton Circle
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Fax: 410.316.4906
www.bd.com

 **BioControl Systems, Inc.**

12822 S.E. 32nd St.
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www.rapidmethods.com

 **bioMérieux, Inc.**

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Fax: 314.731.8678
www.biomerieux.com

Bioscience International, Inc.

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Rockville, MD 20852-4365
Phone: 301.230.0072
Fax: 301.230.1418
www.biosci-intl.com

BioSys, Inc.

93 Hines Road #5
Kanata, Ontario K2K 2M5 Canada
Phone: 613.271.1144
Fax: 613.271.1148

Brain Wave Technologies, Inc.

124 Owen Road
Madison, WI 53716
Phone: 608.204.7440
Fax: 608.204.7445
www.thoughtforfood.org

Brinkmann Instruments, Inc.

One Cantiague Road
Westbury, NY 11590-0207
Phone: 800.645.3050
Fax: 516.334.7521
www.brinkmann.com

 **Capitol Vial, Inc.**

151 Riverside Drive, P.O. Box 446
Fultonville, NY 12072
Phone: 800.772.8871
Fax: 518.853.3409
www.capitolvial.com

Cepheid

1178 Bordeaux Drive
Sunnyvale, CA 94089
Phone: 408.541.4191
Fax: 408.734.1260
www.cepheid.com

Charm Sciences, Inc.

659 Andover St.
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Chemunex SA

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Copan Diagnostics, Inc.

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www.decadesoftware.com

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www.decagon.com

 **Deibel Laboratories, Inc.**

7120 N. Ridgeway
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 **DQCI Services, Inc.**

5205 Quincy St.
Mounds View, MN 55112
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www.dqci.com

 **DSM Food Specialties**
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Phone: 609.951.3651
Fax: 609.951.3668
www.fmc.com

 **FoodHandler, Inc.**
514 Grand Blvd.
Westbury, NY 11590
Phone: 516.338.4433
Fax: 516.338.5486
www.foodhandler.com

 **Food Processors Institute**
1350 I St. N.W., Suite 300
Washington, D.C. 20005
Phone: 800.355.0983
Fax: 202.639.5932
www.fpi-food.org


Food Quality Magazine
208 Floral Vale Blvd.
Yardley, PA 19067
Phone: 215.860.7800
Fax: 215.860.7900
www.foodquality.com

Food Safety Magazine
P.O. Box 5244
Glendale, CA 91221-1081
Phone: 818.842.4777
Fax: 818.769.2939

 **Food Safety Net Services, Ltd.**
221 W. Rhapsody
San Antonio, TX 78216
Phone: 888.525.9788
Fax: 210.308.8730
www.food-safetynet.com

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

 **Foss North America, Inc.**
7682 Executive Drive
Eden Prairie, MN 55344
Phone: 952.974.9892
Fax: 952.974.9823
www.fosnorthamerica.com

 **GENE-TRAK Systems**
94 South St.
Hopkinton, MA 01748
Phone: 800.338.8725
Fax: 508.435.0025
www.genetraksys.com

GSC Mobile Solutions
4660 S. Hagadorn Road
East Lansing, MI 48823
Phone: 800.333.9366
Fax: 517.337.2868
www.gscmobilesolutions.com

Hygiene
941 Avenida Acaso
Camarillo, CA 93012
Phone: 805.388.2383
Fax: 805.388.5531

IBA Food Safety Division
6000 Poplar Ave., Suite 426
Memphis, TN 38119
Phone: 800.777.9012
Fax: 901.681.9007
www.iba-guardian.com

**International Association for
Food Protection**
6200 Aurora Ave., Suite 200W
Des Moines, IA 50322-2863
Phone: 800.369.6337
Fax: 515.276.8655
www.foodprotection.org

**International Association for
Food Protection — Student PDG**
6200 Aurora Ave., Suite 200W
Des Moines, IA 50322-2863
Phone: 515.276.3344
Fax: 515.276.8655
www.foodprotection.org

 **International BioProducts**
P.O. Box 0746
Bothell, WA 98041-0746
Phone: 800.729.7611
Fax: 425.398.7973
www.intlbioproducts.com

International Food Hygiene
P.O. Box 4
Driffield, East Yorkshire YO25 9DJ
United Kingdom
Phone: 44.13.7724.1724
Fax: 44.13.7725.3640
www.positiveaction.co.uk

**International Food Information
Council Foundation**
1100 Connecticut Ave. N.W., Suite 430
Washington, D.C. 20036
Phone: 202.296.6540
Fax: 202.296.6547
www.ific.org

Interscience
30 Chemin Du Bois Des Arpents
St Nom La Breteche 78860 France
Phone: 331.34.62.62.61
Fax: 331.34.62.43.03

Johnson Diversified Products, Inc.
1408 Northland Drive, Suite 407
Mendota Heights, MN 55120-1013
Phone: 800.676.8488
Fax: 651.686.7670
www.jdpinc.com

**Laboratory Services,
University of Guelph**
95 Stone Road W., P.O. Box 3650
Guelph, Ontario N1H 8J7 Canada
Phone: 519.767.6299
Fax: 519.767.6240
www.uoguelph.ca/labserv

 **LabPlas, Inc.**
1950 Bombardier
Ste-Julie, Quebec J3E 2J9 Canada
Phone: 450.649.7343
Fax: 450.649.3113
www.labplas.com

**Medallion Laboratories**

9000 Plymouth Ave. N.
Minneapolis, MN 55427
Phone: 800.245.5615
Fax: 763.764.4010

MicroBiologics, Inc.

217 Osseo Ave. N.
Saint Cloud, MN 56303
Phone: 800.599.2847
Fax: 320.253.6250
www.mbl2000.com

Microbiology International

97H Monocacy Blvd.
Frederick, MD 21701
Phone: 301.662.6835
Fax: 301.662.8096
www.kr-technologies.com

Molecular Circuitry, Inc.

3400 Horizon Drive, Suite 400
King of Prussia, PA 19406
Phone: 877.773.3839
Fax: 610.313.9604
www.molc.net

**Nasco International, Inc.**

901 Janesville Ave.
Fort Atkinson, WI 53538
Phone: 800.558.9595
Fax: 920.563.8296
www.enasco.com

**The National Food Laboratory, Inc.**

6363 Clark Ave.
Dublin, CA 94568
Phone: 925.828.1440
Fax: 925.833.9239
www.thenfl.com

National Restaurant Association Educational Foundation

250 S. Wacker Drive, Suite 1400
Chicago, IL 60606
Phone: 800.765.2122
Fax: 312.715.0220
www.nraef.org

**Nelson-Jameson, Inc.**

2400 E. 5th St., P.O. Box 647
Marshfield, WI 54449
Phone: 800.826.8302
Fax: 715.387.8746
www.nelsonjameson.com

**Neogen Corporation**

620 Leshner Place
Lansing, MI 48912-1595
Phone: 517.372.9200
Fax: 517.372.2006
www.neogen.com

**NSF International**

789 N. Dixboro Road
Ann Arbor, MI 48105
Phone: 800.NSF.MARK
Fax: 734.769.0109
www.nsf.org

**Organon Teknika**

100 Akzo Ave.
Durham, NC 27712
Phone: 919.620.2298
Fax: 919.620.2615
www.organonteknika.com

Orkin Pest Control

2170 Piedmont Road N.E.
Atlanta, GA 30324
Phone: 800.ORKIN.NOW
Fax: 404.888.2012
www.orkin.com

**Oxoid, Inc.**

1926 Merivale Road
Nepean, Ontario K2G 1E8 Canada
Phone: 800.267.6391
Fax: 613.226.3728
www.oxoid.ca

PURAC America

111 Barclay Blvd.
Lincolnshire, IL 60069
Phone: 847.634.6330
Fax: 847.634.1992
www.purac.com

Q Laboratories, Inc.

1400 Harrison Ave.
Cincinnati, OH 45214
Phone: 513.471.1300
Fax: 513.471.5600
www.qlaboratories.com

QMI

426 Hayward Ave. N.
Oakdale, MN 55128
Phone: 651.501.2337
Fax: 651.501.5797
www.qmisystems.com

Rasco Industries, Inc.

1799 County Road 90
Maple Plain, MN 55359
Phone: 800.537.3802
Fax: 763.479.6991
www.bugblocker.com

**REMEL, Inc.**

12076 Santa Fe Drive
Lenexa, KS 66215
Phone: 800.255.6730
Fax: 800.447.5750
www.remelinc.com

**Rhodia, Inc.**

2802 Walton Commons W.
Madison, WI 53718
Phone: 630.916.9660
Fax: 630.916.8969
www.us.rhodia.com

**RidgeView Products, LLC**

2527 East Ave. S.
La Crosse, WI 54601
Phone: 800.782.1221
Fax: 608.781.4408
www.ridgeviewproducts.com

**rtech™ Laboratories**

4001 Lexington Ave. N.
St. Paul, MN 55112
Phone: 800.328.9687
Fax: 651.481.2002
www.rtechlabs.com

S & S Biopath

2611 Mercer Ave.
West Palm Beach, FL 33401
Phone: 800.645.2302
Fax: 561.655.3361
www.biopathinc.com

**Silliker Laboratories Group, Inc.**

900 Maple Road
Homewood, IL 60430
Phone: 800.957.LABS
Fax: 708.957.1483
www.silliker.com

Technical, Inc.

250 Plauche Street
New Orleans, LA 70123
Phone: 504.733.0300
Fax: 504.733.0345
www.tcal.com

USDA, Food Safety and Inspection Service

1400 Independence Ave. S.W.
Room 2932, South Bldg.
Washington, D.C. 20250-3700
Phone: 800.535.4555
Fax: 202.720.1843
www.fsis.usda.gov

**Warren Analytical Laboratory**

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

**Weber Scientific**

2732 Kuser Road
Hamilton, NJ 08691
Phone: 800.328.8378
Fax: 609.584.8388
www.weberscientific.com

**Zep Manufacturing Company**

1310 Seaboard Industrial Blvd. N.W.
Atlanta, GA 30318
Phone: 877.428.9937
Fax: 404.350.2742
www.zep.com

Zylux Corporation

1742 Henry G. Lane St.
Maryville, TN 37801
Phone: 888.522.5487
Fax: 865.379.6018
www.zylux.com



International Association for
Food Protection®

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:

International Association for Food Protection
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 18, 2002. You may make multiple nominations. All nominations must be received at the IAFP office by February 18, 2002.

- ◆ 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 IAFP 2002 - the Association's 89th Annual Meeting in San Diego, California on July 3, 2002.

Fred Weber, Awards Committee Chairperson



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.

Fellow Award – Distinguished Plaque

Presented to Member(s) who have contributed to IAFP and its Affiliates with quiet distinction over an extended period of time.

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

International Leadership Award – Plaque, \$1,000 Honorarium and Reimbursement to Attend IAFP 2002

Presented to an individual for dedication to the high ideals and objectives of IAFP and for promotion of the mission of the Association in countries outside of the United States and Canada.

Sponsored by Kraft Foods

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.





International Association for
Food Protection®

Call for Nominations 2002 Secretary

A representative from government will be elected in March of 2002 to serve as IAFP Secretary for the year 2002-2003.

Send letters of nomination along with a biographical sketch to the Nominations Chairperson:

Randall Daggs
State of Wisconsin
6699 Prairie View Drive
Sun Prairie, WI 53590-9430
Phone: 608.266.9376
Fax: 608.267.3241
E-mail: daggsra@dhfs.state.wi.us

The Secretary-Elect is determined by a majority of votes cast through a mail vote taken in March of 2002. Official Secretary duties begin at the conclusion of IAFP 2002. The elected Secretary serves as a Member of the Executive Board for a total of five years, succeeding to President, then serving as Past President.

For information regarding requirements of the position, contact David Tharp, Executive Director, at 800.369.6337 or 515.276.3344; Fax: 515.276.8655; E-mail: dtharp@foodprotection.org.

Nominations close November 2, 2001.



Call for Abstracts

IAFP 2002

The Association's 89th Annual Meeting

June 30–July 3, 2002

San Diego, California

General Information

1. Complete the Abstract Submission Form.
2. All presenters must register for the Annual Meeting and assume responsibility for their own transportation, lodging, and registration fees.
3. There is no limit on the number of abstracts registrants may submit. However, the presenter must present their presentations.
4. 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.
6. Membership in the Association is not required for presenting a paper at IAFP 2002 – the Association's 89th Annual Meeting.

Presentation Format

1. 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

1. Title – The title should be short but descriptive. The first letter in each word in the title and proper nouns should be capitalized.
2. Authors – List all authors using the following style: first name followed by the sur name.
3. Presenter Name & Title – List the full name and title of the person who will present the paper.
4. 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.
6. 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.
8. 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."
10. 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 IAFP 2002 – the Association's 89th Annual Meeting in San Diego, California, June 30–July 3, 2002 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 7, 2002.

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

1. 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
2. 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.

4. 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."
3. 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.
5. The abstract was poorly written or prepared including spelling and grammatical errors.
6. Results have been presented/published previously.
7. 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 7, 2002.

Acceptance/Rejection Notification: March 1, 2002.

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

Frank Yiannas
Walt Disney World
P.O. Box 10000
Lake Buena Vista, FL 32830
Phone: 407.397.6622
Fax: 407.397.6630
E-mail: frank.yiannas@disney.com

Abstract Form

DEADLINE: Must be Received by January 7, 2002

(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

The 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 discussion.

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 abstracts.
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 3, 2002.

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*.
8. 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 five 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 3, 2002.

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.
2. 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

for Annual Meeting Presentations

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 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 convener, 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 convener, 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 goods or services must not be the focal point of the slide. Names or logos may be shown on each slide so long as they are not distracting from the overall presentation.

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 convener, 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 convener to verify that all graphics to be shown have been cleared by Program Committee chairperson, session convener, 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 convener, 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 convener 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.

AVAILABLE
Now

Online Abstract Submission

at www.foodprotection.org

Abstracts must be received
by January 7, 2002.

Questions regarding abstract
submission can be directed to:

Bev Corron

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Item	Sponsor	Highest Bidder
1997 Vidal Ice Wine	The Steritech Group Corporation	Joe Frank
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2 -1995 IAMFES Pittsburgh T-shirts	David Tharp	Ken Priest
2 Bottles of Ontario Ice Wine	J.M. Schneider, Inc.	Lawrence Reid
2002 Annual Meeting Registration	IAFP	Jenny Scott
2002 Annual Meeting Registration	IAFP	Pete Snyder
Amish Cookbook	Kathy Jones	Yolanda Ziprin
Basketball Signed by MSU Head Coach Izzo	Michigan Affiliate	Carol Sawyer
Bottle of Canadian Ice Wine	Ecolab, Ltd., Food & Beverage Div.	Ewen Todd
Cabernet Sauvignon	California Affiliate	Fred Weber
California Monterey Riesling	California Affiliate	Sue Snider
California Pistashio	California Affiliate	Tom Boufford
Cat Basket Purse	Ron & Sara Case	Ewen Todd
Charleston Sweetgrass Basket	Carolina Affiliate	Carol Sawyer
Cougar Gold Cheese	Washington Affiliate	Mark Pratt
Cow Basket Purse	Ron & Sara Case	Ewen Todd
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Embroidered Clock with Animals	Margaret Burton	Kathy Bernard
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Embroidered Dishtowels-Set	Margaret Burton	Jenny Scott
Embroidered Dishtowels-Set	Margaret Burton	Wayne Sprung
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Foodborne/Waterborne Illness Booklets	IAFP	Gordon Hayburn
Freshwater Pearl Necklace	David and Connie Tharp	Wafa Birbari
Gift Basket	Georgia Affiliate	Mimi Derry
Glass Paper Weight	Kansas Affiliate	Henry Atherton
IAFP Polo Shirt	IAFP	Randy Groff
IAFP Polo Shirt	IAFP	Keith Martin
Inniskillin Canadian Ice Wine	Ecolab, Ltd., Food & Beverage Div.	Doug McDougal
Inniskillin Ice Wine with Book	DiverseyLever	Carol Sawyer
Italian Chef Cooking Gift Basket	Texas Affiliate	Anna Lammerding
Jeff Gordon Jacket	Dupont	Steve Heim
Lake Erie Cabernet Sauvignon	Kathy Jones	Greg Pittman
Microorganisms in Foods Book 7	ICMSF	James Yuan
Microorganisms in Foods Book 7	ICMSF	Wafa Birbari
Millennium 2000 Indiana Commemorative Coin	Indiana Affiliate	Henry Atherton

Item	Sponsor	Highest Bidder
Minneapolis Annual Meeting Polo Shirt	Minnesota Affiliate	Frank Leonardo
Minneapolis Annual Meeting Polo Shirt	Minnesota Affiliate	Kristen Goodfellow-Hunt
Minneapolis Annual Meeting Polo Shirt	Minnesota Affiliate	Carolyn Mayerhauser
Minneapolis Annual Meeting Polo Shirt	Minnesota Affiliate	Jenny Scott
Minneapolis Puzzle	Sonya and John Lenarz	Prisilla Levine
Minnesota Picture	Sonya and John Lenarz	Shelagh McDonagh
Missouri Country Sugar Cured Ham	Missouri Affiliate	Dennis Decker
MSU Spartan Jersey	Michigan Affiliate	Jeff Howard
Napa Valley Chardonnay	California Affiliate	Efrem Pesyna
New Jersey Apricot Wine	Metropolitan Affiliate	Richard Obiso
New Jersey Apricot Wine	Metropolitan Affiliate	Yashadhar Burgula
New Jersey Cherry Wine	Metropolitan Affiliate	Greg Pittman
New Jersey Cherry Wine	Metropolitan Affiliate	Ron Weiss
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New Jersey Raspberry Wine	Metropolitan Affiliate	Richard Obiso
Penn State Sweatshirt	Pennsylvania Affiliate	Mark Pratt
Phantom of the Marsh Print	Ontario Affiliate	Bob Gravani
Pinot Noir	California Affiliate	Frank Leonardo
Predictive Microbiology: Theory and Application	Tom McMeekin	Cayce Warf
Predictive Microbiology: Theory and Application	Tom McMeekin	Melissa Caliechia
Predictive Microbiology: Theory and Application	Tom McMeekin	Pete Snyder
Predictive Microbiology: Theory and Application	Tom McMeekin	Richard Arsenault
Sauvignon Blanc	California Affiliate	Efrem Pesyna
Sauvignon Blanc	Californina Affiliate	Lynn McMullen
Sioux Pottery Vase	Alice Haverland	Darlene Bengsch
Stuffed Chicken	Gold'n Plump	Richard Arsenault
Subscription to Journal of Foodservice Systems	Carol Sawyer	Gordon Hayburn
The Food Safety Information Handbook	Cindy Roberts	Ruth Yong
The Microbiological Safety & Quality of Food	Fred Weber	Robert Deibel
The White House 2001 Ornament	Jenny Scott	Pete Cook
The White House 2001 Ornament	Jenny Scott	Prisilla Levine
Urns Fountain	Merle Vitug	Greg Pittman
Waterford Crystal Frame	Harry & Alice Haverland	Joe Stamer
Waterford Posy Vase	Food Safety Research Lab-ISU	Prisilla Levine
Waterford Ring Holder	Food Safety Research Lab-ISU	Tom Krugman
Wisconsin Master Cheesemaker Cheese Selection	Wisconsin Affiliate	LeeAnne Jackson
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Dairy Farmers of America (DFA) Announces Management Changes

David Jones, vice president and chief operating officer for DFA's Southwest area in Grapevine, Texas has been promoted to senior vice president and chief operating officer of DFA's milk marketing and member services for the co-op's Southwest and Mountain areas. The newly created position combines the management functions for DFA's two marketing regions, which serve dairy families in the cooperatives.

Jones has worked for dairy cooperatives since 1978 beginning with Dairymen, Inc. He later climbed through the ranks of Mid-American Dairymen, Inc. and was named chief operating officer for DFA's Southwest area in 1998.

Renowned Cereal Science Researcher Carl Hoseney becomes Editor-in-Chief of Cereal Chemistry

The American Association of Cereal Chemists (AACC) has announced that Carl Hoseney has agreed to act as editor-in-chief of its research journal, *Cereal Chemistry*.

Hoseney began his career as a research chemist for the US Department of Agriculture's hard winter wheat quality laboratory in Manhattan, KS. He was appointed associate professor in the Department of Grain Science and Industry, Kansas State University, Manhattan, KS, in 1971, promoted to professor in 1975, and Professor Emeritus in 1997. He is currently president of R&R Research Services Inc., a consulting firm providing research and training services to the cereals industry.

IFT Names Expositions Manager and Director of Development

Melanie J. Janka, a seasoned practitioner of exhibition operations and sales, has been named expositions manager for the Institute of Food Technologists in Chicago, IL. Janka's primary responsibilities will be the management and coordination of exhibit activities for the IFT Food Expo®, an annual display of the latest advancements and products in food and food-related topics, attracting international audiences from the world of food processing, food production and product development.

Janka joins IFT from IPC of Northbrook, IL, where she was exhibits operations coordinator, an advancement from her original post as exhibits sales coordinator. While at IPC she honed her abilities on the APEX 2000 and APEX 2001 exhibitions, focusing on heavy equipment and related segments of the electronics assembly industry.

In addition to her primary responsibilities with IFT, Janka will also serve as liaison between the meetings and expositions department and IFT's marketing, sales and accounting departments, and IFT's exposition contractors and suppliers.

Tekla A. Syers, a 25-year veteran of not-for-profit operations with ten years of extensive fund-raising and public relations experience, was named director of development for the Institute of Food Technologists Foundation.

Syers, was most recently chief development officer at Aunt Martha's Youth Service Center in Illinois, and has an extensive background with Girl Scouts' Councils in Michigan and

Illinois. Her responsibilities as director of development will involve planned growth of IFT Foundation's endowment fund, cultivation of new sponsorship opportunities, and creation of special donor recognition programming.

Burke Vice President for R&D Elected to American Meat Science Association (AMSA) National Board of Directors

Burke Corporation's vice president of research and development, Casey Frye, Ph.D., has been elected to the national board of directors of the American Meat Science Association (AMSA).

Dr. Frye has been actively involved with the association for several years. He most recently served on a conference planning committee for the IAAFSC, attended by more than 4,000 scientists, researchers and producers from around the world. Those organizations are AMSA, the American Society of Animal Science, American Dairy Science Association and Poultry Science Association.

Dr. Frye received his Ph.D. in meat science from Iowa State University and has held his current position as vice president for research and development at Burke Corporation since 1991. He is responsible for the technical aspects of Burke products, including the blending and processing of meat and developing of company formulations and custom formulations for clients. He previously served on the meat science faculty at Kansas State University.

Crumbine Jury Begins Accepting Applications for 2002 Award

The Foodservice & Packaging Institute, Inc. (FPI) has announced that it will begin accepting applications from local public health agencies for the 2002 Samuel J. Crumbine Award for Excellence in Food Protection at the Local Level, which annually recognizes excellence in food protection services at these agencies in the United States and Canada.

Entries for the Crumbine Award competition are limited to US and Canadian local government public health agencies (county, district, city, town, or township) that provide food protection services to their communities under authority of a statute or ordinance. Past winners may apply five years after receiving the award.

The winner of the Award is selected by an independent panel of food protection practitioners composed of representatives from leading public health and environmental health associations, past Crumbine Award winners, a consumer advocate, and a food industry representative. The jury makes its award selection each spring in a judging process administered by the Foodservice & Packaging Institute (FPI).

Named for one of America's most renowned health officers and health educators – Samuel J. Crumbine, M.D. (1862-1954) – the Award has elevated the importance of food protection programs within local public health agencies and has inspired excellence in the planning and delivery of those services. The Crumbine Award was first offered in 1955 and has been presented virtually every year since then.

The Crumbine Award is supported by the Conference for Food Protection in cooperation with the American Academy of Sanitarians, American Public Health Association, Association of Food & 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.

The application deadline for the award is March 15, 2002.

For more information about the Crumbine Award, including the 2002 award criteria, check out FPI's Web site at www.fpi.org (in the "Sanitation" pages); or contact Lynn Rosseth at FPI 703.538.2800, or by E-mail at lrosseth@fpi.org.

EU Food Quality: What Criteria?

Faced with declining consumer confidence in food quality, producers and policy-makers are concentrating their efforts on improving food quality. This is a positive step, but who defines quality? More and more often we hear it said that if quality is lacking, and even that if food safety is a problem, it is the consumer who is to blame, because the consumer puts price before quality. This argument presumes that the definition of quality lies with the producer. In a sense this is true, because the producer chooses the way in which the product is produced, but at the end of the day the final verdict on quality is pronounced by the consumers, based on the criteria which they consider important.

Quality takes many forms, and consumers' individual requirements vary considerably. All consumers have different needs, lifestyles, budgets and tastes. It is therefore quite natural that quality assumes different aspects depending on the individual.

The term "quality" is often misunderstood. People associate it with "highly nutritious" or with "luxury," or simply with something very good. "If you want quality you have to pay for it," goes the saying. Does this mean that we have a split-level market, one in which quality is the sole preserve of the rich while the rest of us have to make do with poor-quality products? I hope not. In terms of consumer satisfaction, quality should be the rule, not the exception. This is reflected in the ISO standard, which defines quality as "the totality of features and characteristics of a product or a service that bear on its ability to satisfy stated or implied needs."

The following are among the factors that go to make up the concept of quality: appearance and sensory perception, e.g. smell, taste, texture, etc.; safety; nutritional value; clear labeling; ingredients; price; brand reputation; convenience; homogeneity of the product; adaptability to specific occasions; origin; ethical aspects; and environmental considerations.

It should be noted that some of these factors have nothing to do with the inherent properties of the foods themselves. Moreover, consumers do not normally have the information necessary to be able to evaluate food products on the basis of the above criteria. For example, consumers know very little about the nutritional value of the food they eat. If they were better informed about this, their purchasing patterns might be different. Those who claim that consumers are not prepared to pay for quality are treading on dangerous ground, because this implies that a lot of the food bought by consumers is of poor

quality. If this is true, we should be organizing campaigns to tell consumers just how bad their food really is!

There is certainly no shortage of "quality" labels for food products. Many of these are meaningless, vague, or in extreme cases, misleading. Consumers are rarely in a position to know what this type of quality label is supposed to signify exactly, or how much credibility to give to the claims on the label. For example, it can sometimes be interesting for consumers to know that a food product comes from a particular region, but there is not necessarily any link between the regional origin and other, perhaps more fundamental, characteristics of the product.

Those who claim that their products offer special quality should be asked to explain precisely what this special quality is and how, specifically, their products differ from other products on the market. Shoppers would then pay more attention to quality.

New Food Packaging Technique Improves Quality, Extends Shelf Life

Packaging food with argon instead of nitrogen gas extends its shelf life, maintains its freshness, and improves its overall quality, according to research presented today at the 222nd national meeting of the American Chemical Society, the world's largest scientific society.

Taste tests and other studies have shown about a 25 percent improvement in shelf life and quality of argon-packaged foods such as potato chips, processed meats and lettuce, reports Kevin C. Spencer, Ph.D., senior scientific and technical advisor for the British grocery chain Safeway Stores plc. Some products, such as fresh pizza, have been improved 40 to 50 percent, he says.

Nearly 200 argon-packaged foods already can be found on grocery store shelves in the United Kingdom, and several companies are exploring opportunities to introduce these products to the United States. Argon is a safe, benign gas that has been used to preserve everything from wine to the US Declaration of Independence. When foods such as potato chips are packaged, the bag's empty space is usually filled with nitrogen. Trace amounts of oxygen remain, however, which causes food to oxidize — the chemical reaction responsible for potato chips becoming stale and cut apples turning brown — and spoil. Spencer and his team found that replacing nitrogen with argon removed oxygen more efficiently, because argon is denser than nitrogen and fills spaces more completely. "Which means that, in the case of potato chips, at any given point in time, potato chips packaged our way are better than potato chips packaged using standard methods," says Spencer.

Despite argon's superior results, it has taken nearly ten years to make argon packaging commercially viable because, volume-for-volume, argon is more expensive than nitrogen. "When people try to put argon through nitrogen systems, it tends not to work very well," Spencer says. "You've got to adjust the system to deliver the argon as if it were a liquid." In these modified packaging systems, argon is four times more efficient at displacing air than nitrogen, making the difference in cost negligible.

Argon also improves food safety. Not only does argon displace oxygen, which many harmful pathogens need to grow, it also inhibits microbial oxidases — enzymes that increase the rate of oxidation. Carbon dioxide is often added during packaging to kill microbes, but it also ruins the flavor and freshness of foods. Argon enhances the effectiveness of carbon dioxide by

weakening microbes, thereby enabling food suppliers to use less carbon dioxide.

The 2000-2001 Food Safety Education Campaign

In 1997, the European Commission conducted a Eurobarometer study focusing specifically on consumers which revealed that 67.9% of them were concerned about the safety of foodstuffs.

The Commission therefore decided to conduct an information campaign on food safety in the 15 Member States of the European Union in 1998 and 1999. The Eurobarometer study had revealed that consumers were most concerned about labeling (particularly E numbers and other food safety elements), the traceability of foodstuffs and genetically modified organisms. The coordinators were therefore encouraged to concentrate on these topics. However, this list was not restrictive and coordinators were at liberty to suggest other topics. Some coordinators therefore decided to give consumers advice on food hygiene (cleanliness in the kitchen, uninterrupted refrigeration, cooking temperature and cooking time for certain types of meat, correct use of microwave ovens, etc.), whereas others chose to inform consumers about the existing rules on food safety, encourage them to put together balanced meals, or make them aware that the flavor of food is not incompatible with food safety.

The Commission also used the campaign to highlight the role played by national consumer organizations in providing assistance and advice to the public, in order to foster lasting cooperation between consumer organizations, national authorities and professional bodies and launch a public debate on food safety.

As food safety continued to be a focus of public concern, the Commission decided to build on the results of the information campaign conducted in 1998 and 1999 by launching a new campaign in 2000-2001.

The new campaign differed from the previous one in two ways: on the one hand, the campaign coordinators had to introduce measures which were more educational than informative; on the other, they had to be even more precise in defining their target groups. There were two ideas behind this new slant to the campaign: first, while it is worthwhile to provide information, this is not enough – another step is required, and that is education; secondly, the budget can only be put to effective use if it is firmly focussed on specific target groups instead of being dispersed across the population as a whole.

Opinion on the Cleaning and Disinfection of Knives in the Meat and Poultry Industry

The Scientific Committee on Veterinary Measures relating to Public Health (SCVPH) is requested to address the question of cleaning and disinfection of knives in the meat and poultry industry and in particular the use of sanitizing agents such as the addition of lactic acid combined with the use of water of less than 82°C.

Council Directive 64/433/EEC requires that meat-producing and -processing establishments must have facilities for disinfecting tools with hot water supplied at not less than 82°C. The Dutch authorities have claimed that, at this temperature, protein coagulates and that this coagulation may result in an inefficient disinfection of knives. They therefore propose an alternative method

consisting of the use of water under pressure and at a lower temperature, e.g. 45°C, in combination with the addition of lactic acid.

Prolonged Outbreak of a Rare *Salmonella* Serotype in Denmark

In Denmark, an unusually large number of patients have become infected with the otherwise rare *Salmonella* Enterica serotype *Bovis-morbificans*. The Danish authorities first noted a rise in the number of patients with *S. Bovis-morbificans* infection in March this year. So far in 2001 there have been 127 cases confirmed, compared with an annual average of less than 10 cases in preceding years. As a rule of thumb, it is assumed that the real number of patients with salmonellosis is between five and 20 times higher than the number ascertained.

This serotype is very rare; of the 121 220 records in the Enter-net *Salmonella* database for 2000 only 486 (0.40%) were *S. Bovis-morbificans*. Retrospective data from the 14 European countries that have supplied data for the period 1997-2000 show that there were 386 cases in 2000, 375 in 1999, 437 in 1998, and 404 in 1997.

The 2001 outbreak strains are fully sensitive to all antibiotics tested. Molecular DNA typing using pulsed field gel electrophoresis (PFGE) shows that 85% of the isolates belong to one major group or a smaller closely related group. The same PFGE pattern was also found in a small cluster of patients in the last quarter of 2000, which suggests that is when the problem started. PFGE typing of strains that have occasionally been isolated as part of the national quality control and bacteriological surveillance system of food items in Denmark, as well as of strains isolated in

other countries, has so far not identified a possible source.

All ages and both sexes seem to have been affected equally. Although there is some geographical clustering, cases have occurred throughout Denmark. The outbreak seems to be restricted to Denmark and has not affected neighboring countries. The Internet request for information, which was sent in May 2001, did not provide any clues as to the source of infection. Three successive case-control investigations conducted in the past four months have not revealed a source for the outbreak. It may be that the hypotheses tested have been insufficiently specific, or it may be due to special circumstances regarding the nature of the source. Epidemiological and microbiological investigations are continuing, involving both central and local authorities in Denmark.

The Danish Zoonosis Centre, the official body responsible for the outbreak investigation, would be pleased to receive any information about the occurrence of *S. Bovis-morbificans* in animals, food, or human disease, which might be relevant to this outbreak.

New Notification Program Provides Electronic Updates on Meat, Poultry, and Egg Product Testing Samples

The US Department of Agriculture's Food Safety and Inspection Service has launched a new notification system that will provide electronic status reports on testing samples taken from meat, poultry, and egg product establishments. The Laboratory Electronic Application for Results Notification system will allow FSIS field personnel, agency staff, establish-

ments, and state officials, to electronically monitor information on species identification, food chemistry, microbiological samples, and completed *Salmonella*/HACCP sets.

After a pilot test in several FSIS districts, LEARN, as the program is known, is now online across the country. LEARN is an automated process to track each sample as it is received, analyzed, and the results are reported. The reports state whether a microbiological test—such as *Listeria monocytogenes* in ready-to-eat meat and poultry products or *E. coli* O157:H7 in raw ground beef products initially indicates the presence of a pathogen. When confirmation testing on a potential or presumptive positive is complete, a report with the final analysis is posted.

LEARN replaces the notification system that used a combination of phone calls, fax, and multiple computer applications to inform field personnel and establishments of test results. LEARN combines the previous delivery methods into one application to provide faster, more up-to-date information while using fewer agency resources.

"The agency has incorporated suggestions from FSIS field personnel and industry in developing this program," said Thomas J. Billy, FSIS administrator. "LEARN provides increased feedback to both inspectors and establishments on the status of samples from the time they are received at the laboratories until the analysis is complete."

Sample status information will be automatically updated several times each day. Establishments and state officials will receive updated E-mail reports for individual samples. Agency personnel can access the information through an FSIS internet site. Once logged on to the FSIS server, staff can check on samples from

individual establishments or view circuit, district, and management summaries of results. FSIS personnel will also be able to access information on residue samples through LEARN.

The system has safeguards in place to ensure that only authorized officials will have access to the information. Establishment officials receive results only from their plant and state officials receive results only for establishments within their state. Each sample is identified with a collection date, the plant's establishment number, and a corresponding form number. At the laboratories, each sample is marked with a lab code and assigned a unique internal lab number.

FSIS is responsible for ensuring that meat, poultry, and egg products are safe, wholesome, and correctly labeled. As part of that responsibility, FSIS conducts verification sample testing to monitor microbiological, chemical, and other types of contamination.

ANZFA Issues Recall Guide to Industry

The Australia New Zealand Food Authority (ANZFA) has released a new guide to the food industry on the steps to be taken when a food recall becomes necessary. ANZFA's managing director, Ian Lindenmayer said the new Food Industry Recall Protocol sets out procedures for stopping the distribution and sale of an unsafe food product, notifying relevant authorities and removing food products from shelves. He paid tribute to the many companies and individuals who assisted in identifying shortcomings in the previous guide and in putting forward ideas to make the recall system work more efficiently.

There were 39 food recalls in Australia in 2000 and 34 this year

to date. Many of these recalls were precautionary and almost all were initiated by food companies as part of a national food-safety strategy.

"This level of food recalls indicates that Australia has one of the most transparent and rigorous systems for ensuring food safety in the world. This has been achieved as much by co-operation as by regulation. Australia's food safety record is testimony to the excellent working relationships between food companies, state and territory health departments and ANZFA. I commend companies for their responsible actions in monitoring their product lines and taking action to withdraw any which breach requirements. Whole sectors of the food industry can be adversely affected by an episode of food poisoning or other health hazard from a food product, and so it's in everyone's interests to identify potentially unsafe food and to take action," Mr. Lindenmayer said.

Mr. Lindenmayer said the revised Food Industry Recall Protocol has two levels of product recall — trade recalls and consumer recalls — in place of the three previous levels (wholesale, retail and consumer).

Trade recalls involve the recovery of food products from distribution centers, wholesalers and catering establishments such as hospitals, restaurants and other food outlets before they reach consumers. Consumer recalls involve recovery of the product from all points in the production and distribution chain, including consumers. Food businesses engaged in the wholesale supply, manufacture or importation of food must have a written recall plan. "This should minimize delay in taking remedial action in the event of a food safety problem arising," Mr. Lindenmayer said.

New Code of Practice for Fresh Produce Published

The Food Safety Authority of Ireland (FSAI) has launched the first Code of Practice to assist fresh fruit and vegetable producers, processors and retailers to ensure the highest levels of food safety are followed. The Code of Practice for Food Safety in the Fresh Produce Supply Chain is the first set of guidelines for Ireland that agree comprehensive standards of food safety practices for the production, management and handling of fruit and vegetables. It is aimed at producers, processors, wholesalers and retailers involved in the provision of horticultural produce to consumers. It will enhance the current high standards being attained by the sector. This Code of Practice (COP) is one of a series of such guidelines being produced by the Authority for all sectors of the food chain in Ireland to ensure safe food is produced for consumers.

The COP contains general hazard control information on water, farmyard manure, hygiene practices, use of pesticides and seed production. It outlines critical control points throughout the production process including washing, drying, storage, packing and shelf life. It also highlights the need to have produce traceability and recall procedures in place.

Speaking at the announcement was Dr. Patrick Wall, chief executive, FSAI. He said, "To date, there have been no outbreaks of microbiological foodborne illness in Ireland linked to fruit or vegetables. However, fruit and vegetables are becoming recognized as an important source of foodborne illness in the US following a number of outbreaks associated with fresh produce. The Authority recognizes this as an emerging issue and therefore

this COP was produced to enhance the already high standards in Ireland. Our objective, working with industry, is to ensure that food safety procedures are adhered to in the production of horticultural products. The increasing consumer concerns about the safety, quality and nutritional content of the food they are eating presents a great opportunity for the fresh produce sector. If we are to improve the health of the nation, there is plenty of scope for improving the nation's diet. However, encouraging consumers to eat more vegetables by advising them of the health benefits, is insufficient on its own. Produce has to be fresh, wholesome, safe of high quality and a pleasure to eat if we are to have a serious impact on the nation's eating behavior. This COP will assist producers, processors and retailers to provide this reassurance of high standards that consumers are seeking," added Dr. Wall.

United States, Mexico to Share Vital Food Safety Information

Leading officials from the US and Mexican governments have signed a cooperative arrangement that will improve the safety of the food supplies in both nations. The arrangement, in conjunction with other cooperative measures, will help reduce the incidence of foodborne illnesses on both sides of the border.

"This agreement marks a very important new era in the food safety efforts of both our countries," HHS Secretary Tommy G. Thompson said. "It recognizes the strong bond between Mexico and the United States – a bond that is reflected in the enormous increase in the trade of food commodities across our borders."

Under the terms of the arrangement, the HHS Food and Drug Administration (FDA), the US Department of Agriculture (USDA), and Mexico's Secretaria de Agricultura, Ganaderia, Desarrollo Rural, Pesca y Alimentacion (SAGARPA) and Secretaria de Salud (SSA) will enhance their existing food safety partnership through expanding programs, sharing information and coordinating specific activities.

FDA, SSA and SAGARPA will cooperate to share information on the sources of fresh produce and to investigate into the causes of any contamination of these products. The USDA's Food Safety and Inspection Service and Foreign Agriculture Service and SAGARPA will take steps to ensure the safety of meat, poultry and egg products in both countries. These efforts are expected to ensure that borders remain open and that safe products continue to flow freely between the countries. The agencies will also collaborate on other specific projects to achieve common understanding on issues of mutual concern.

"With the amount of trade between our countries, cooperation on food safety is vital. Working together on harmonized regulations, inspection standards and information exchanges will improve the food safety for citizens in both our countries," USDA's Under Secretary for Marketing and Regulatory Programs William T. Hawks said.

Secretary Thompson and Under Secretary Hawks both signed the arrangement, along with Dr. Julio Frenk, Mexico's secretary of health, and Javier Trujillo, director in chief of Mexico's National Service for Protection, Food Safety and Quality of Agricultural Products in Mexico's Ministry of Agriculture.

Industry Products



Steril-Aire, Inc.

New Shatter-Resistant "UVC Emitters"™ Provide Mold, Microbial Control in Food, Pharmaceutical Processing Areas from Steril-Aire®, Inc.

Steril-Aire, Inc. has introduced a line of shatter-resistant, plastic-sheathed "UVC Emitters"™ for mold and microbial control in critical processing applications. Like all of its UVC devices, the Steril-Aire food, beverage and pharmaceutical grade tubes continuously eradicate mold, bacteria and phage (bacteria attacking viruses) in many formerly impossible places.

Enhanced safety and performance stem from a patent-pending, highly engineered resin coating that encapsulates the tube to prevent glass contamination in the unlikely event of tube breakage. This casement ensures the highest level of protection for any application requiring the containment of glass fragments — with no loss of UVC output. Uses include: food processing; pharmaceutical manufacturing; and bottling plants.

Steril-Aire's multi-patented devices are especially effective in the once prohibitive cold and/or moving air environments where most equipment and processes operate today. Users may select from a variety of fixture designs and tube lengths, available with or without plastic encapsulation, to accommodate any application. Independent testing has shown the devices to deliver up to seven times greater output than the more common type of UVC product even in the worst of conditions, without producing ozone or other secondary contamination. They can be used for direct (surface) or indirect (airborne) eradication of virtually any microorganism or other undesirable organic material.

Steril-Aire, Inc., Cerritos, CA

Reader Service No. 317

Ecolab Receives FDA Approval on New Food Safety Technology

Poultry processors have a new tool to help prevent microbial contamination during processing. Ecolab Inc. announced the Food & Drug Administration (FDA) approval for Inspexx™ 100, an antimicrobial food treatment for pathogen reduction in poultry processing.

Developed by Ecolab, a food safety technology company, Inspexx 100 is a patented peroxy-acid chemistry that can be used throughout all stages of poultry processing to reduce microbial contamination on poultry carcasses, parts and giblets. Laboratory tests prove: that Inspexx: 100

effectively reduces pathogenic bacteria on poultry parts including *Salmonella* Typhimurium, *Listeria monocytogenes*, *E. coli* O157:H7 and *Campylobacter jejuni*. Inspexx 100 is appropriate for multiple poultry treatment interventions, including cabinet rinse water and chiller treatments, and can help improve overall processing performance with higher levels of safety and quality.

Compared to other available products, Inspexx 100 is simpler for workers to use as it is pre-mixed and ready to feed, so no precursor chemicals or on-site generation equipment is required. The product is an environmentally responsible choice as it is compatible with water treatment systems and rapidly breaks down after use into water, oxygen, octanoic acid and acetic acid. Inspexx 100 can also be used at significantly lower concentration levels than other available products and is non-concusive to stainless steel and aluminum shackles and rails at use concentrations.

Ecolab has recently submitted an in-plant trial validation protocol to the United States Department of Agriculture (USDA) for Inspexx 100 to be used for online reprocessing.

The Ecolab multiple interventions approach to food safety includes a complete program of employee hygienic, plant sanitation, and food surface treatment, as well as food irradiation systems and services offered by Ecolab's strategic partner, IBA.

Ecolab Inc., St. Paul, MN

Reader Service No. 318

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S&S Biopath's New Testing Method Brings More Accuracy and Quicker Results to Identification of *E. coli* in Food and Beverage Industry

S&S Biopath announces the introduction of MI Agar, an innovative new testing method for the identification of *E. coli* and total coliforms. Simple to use with a higher rate of accuracy, MI Agar produces results in a fraction of the time of other testing methods and is a recognized test by governmental and professional organizations.

MI Agar's unique configuration utilizes a select antibiotic that suppresses non-conform organisms, making positive identification more accurate than other conventional media. The presence of total conforms is indicated by the development of fluorescence under UV light. *E. coli* present in a sample are similarly identified by the development of fluorescent blue colonies. The chromogenic and fluorescent results make the test easier to interpret, contributing to an unprecedented 95 percent accuracy rate. MI Agar is also a quicker testing method. MI Agar yields results in 16 hours, saving precious time in the identification process.

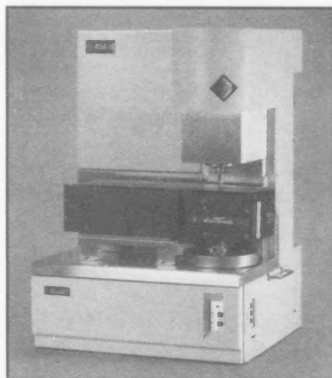
MI Agar is the only US-EPA approved membrane filtration method for the simultaneous identification and quantification of *E. coli* and total coliforms.

S & S Biopath, West Palm Beach, FL

Reader Service No. 319

Rheometric Scientific Inc. Introduces New Rheometer for Elastomers and Rubber

Rheometric Scientific Inc. announced the release of a new rheometer designed specifically for testing elastomers



Rheometric Scientific, Inc.

and curing systems called the RDA-HT. Utilizing a unique high torque/low compliance transducer and high torque servo motor, the RDA-HT is ideally suited for studying cure behavior, the effects of fillers, and end-use performance testing for the tire and rubber industry.

The RDA-HT comes with disposable plate fixtures in 8mm, 12.5mm, and 25mm diameters so elastomers can be cured in the fixtures prior to testing, and an optional elastomer sample mold is also available. Using the torsion fixture, finished products from cured rubber to high strength composites can be tested at temperatures from -150°C up to 600°C.

Said Sean Kohl, Director of Sales for the Americas: "For customers in the elastomer and rubber market, the RDA-HT fills a void in materials testing capability. For the first time, these customers will no longer have to choose between a precision rheometer and a cure meter or QC device such as an MDR/ODR or RPA.

Rheometric Scientific Inc., Piscataway, NJ

Reader Service No. 320

BD Cellmatics™ Viral Transport Pack — The Complete Viral Transport Kit

BD Diagnostic Systems announces the immediate availability of the Cellmatics™ Viral Transport Pack, offering convenience, time-savings and ease-of-use. Everything needed to collect a viral specimen is contained in the cardboard pouch of the BD Cellmatics™ Viral Transport Pack. Included in the Cellmatics Viral Transport Pack are a screw-cap vial containing quality Difco™ brand viral/chlamydial transport medium, a sterile, rayon-tipped plastic shaft swab and a cardboard transport pouch with printed instructions and patient ID label.

The liquid viral/chlamydial transport medium contains HEPES biological buffer as used in cell culture media, Hanks balanced salt solution with gelatin as a holding medium, and gentamicin sulfate to reduce the overgrowth of microorganisms. The rigid cardboard transport pouch serves as both a protective sample transport container while also providing printed, graphical instructions for use, along with a pre-attached patient ID label.

BD Diagnostic Systems, Sparks, MD

Reader Service No. 321

E-BEAM Technology Kills Harmful Foodborne Pathogens in Frozen and Fresh Raw Meats

E-beam Services, Inc. has been awarded a grant of inspection by the USDA for electronic irradiation of foods at its Cincinnati, OH plant. The USDA recently approved electron beam processing for frozen and fresh raw meats, and it is expected that the USDA will approve electron beam processing

of ready-to-eat meats in the near future. Foods that can be irradiated effectively include meat, poultry, grain, some seafood, spices, fruit, and vegetables.

E-BEAM Services, Inc. processes food products with controlled application, high-energy electrons and x-rays to reduce and kill foodborne pathogens using a technology that is different from other types of irradiation. Fast, efficient, e-beam processing is electrically generated and requires no nuclear radiation or exposure-only environmentally responsible, high energy electrons or x-rays.

Food irradiation for the reduction or elimination of foodborne pathogens has the potential to be used like milk pasteurization. As a "post treatment," the chance of re-contamination after pasteurization is nearly zero, and the cleanliness requirements prior to irradiation help provide an extra margin of safety. It is anticipated that e-beam food irradiation will help to reduce or eliminate cases in which thousands of people get sick from food pathogens, and hundreds die each year. Some recent highly publicized cases including fast food outbreaks and home prepared meats in which *E. coli* and *Listeria* deaths occurred could have been avoided if the meat was irradiated.

Irradiation is a cold process that utilizes energy from electrons or x-rays to target the bacteria's DNA, destroying its ability to reproduce or live, and thus rendering it harmless. Food is processed on a conveyor within the original unopened cartons. Energy from the process dissipates and does not remain in the food. All processing occurs under the inspection of the Food Safety Inspection Service (FSIS) with government inspectors present at the plant.

E-BEAM Services, Inc.,
Cranbury, NJ

Reader Service No. 322



Sensotec, Inc.

Signal Conditioners Now Measure Temperature from Sensotec

Sensotec's SC Series of multi-channel transducer signal conditioners now offers an RTD Input Channel for temperature measurement.

The RTD Input Channel is calibrated at the factory and ready to use with DIN standard, platinum 100 ohm (Pt 100) RTDs for measuring temperatures from -200°C to +800°C. Resolution is 0.02°C. With a customer supplies RTD calibrator, the channel can be re-calibrated for operation with 100 ohm RTDs made from other materials.

As with the Strain Gage, AC-AC LVDT, and High-Level input channels, the RTD Input channel offers field-adjustable frequency response, peak and valley value capture, and an isolated 5 volt, 10 volt or 4-20mA analog output.

Up to four channels of plug-in signal conditioning input cards can be installed into an SC1000 or SC2000 instrument. Additionally, up to 8 virtual channels can be programmed by Sensotec to evaluate mathematical and logical expressions or perform other special functions.

Other members of the SC Series include the 19", 2U rack-mount Model SC3004 which offers 14 physical channels and up to 16 limit outputs, and the portable SC2001.

Sensotec, Inc., Columbus, OH

Reader Service No. 323

Wahl Temp-Plate® Miniature Temperature Recorders

Temp-Plate® irreversible temperature recorders from Wahl Instruments provide a low-cost alternative to monitoring surface temperatures with sensors or probes. These versatile, inexpensive, miniature self-adhesive labels create a permanent record of over-heat conditions; invaluable in preventive maintenance, warranty abuse detection, electronic circuit testing, failed component troubleshooting, product design, hydraulic systems, motor bearings, and batch process monitoring.

Temp-Plates are available in a variety of sizes and number of temperature-measuring "positions." Each position turns irreversibly black when exposed to its rated temperature, thus permanently recording the temperature event. Temp-Plate labels are made with single, three, four, six, and eight positions. Temperature ranges between a low of 90°F (32°C) and a high of 500°F (260°C) are available. Temp-Plates are as small as 0.25" (6 mm), and the largest measures only 0.75" x 1.75" (19 x 44 mm), small enough to fit directly on surfaces while equipment is operated.

Temp-Plates are manufactured to NIST traceable 1% accuracy, i.e. the positions change color within 1% of the indicated value. For Q.C. and Q.A. program purposes, each box of Temp-Plates is provided with a NIST "secondary standard" traceable lot number with permanent records maintained at the Wahl factory.

Wahl Instruments, Inc.,
Asheville, NC

Reader Service No. 324

Approval Nets Poultry Contract for Cyclopps

Cyclopps Corporation has announced that following the recent FDA approval of ozone that it has successfully completed its first contract for an in-plant test of its Eco Pure™ Food Safety System for poultry processing.

The Eco Pure™ cold water ozone system was tested to collect data and assess benefits over the existing chlorine-based system currently being used in the poultry plant for the control of foodborne microorganisms. The promising results prompted the poultry processor to expand the contract to include installing a full-scale production system in the facility to collect ongoing performance data over an extended period for evaluation. Plans are also being discussed with this processor to test an Eco Pure™ System in a separate plant that produces other poultry products.

The FDA-approved ozone for use in all food processing activities in June of this year. Up until that ruling, ozone was only approved for use in the disinfection of bottled drinking water. "Ozone not only kills *E. coli* 3,125 times faster than chlorine," says Dr. Durand Smith, Cyclopps president and director of R&D, "but it does this aggressive microbial destruction leaving no chemical residuals or odor behind on the foods or in the process water." One of the core compo-

nents of the Eco Pure™ System as tested, is a revolutionary new proprietary technology that allows ozone to be produced directly in water at high levels during use. This eliminates many of the engineering challenges that have restricted ozone's easy replacement of highly chlorinated water in these applications.

Management stated that in addition to the ongoing challenge facing food processors in reducing the presence of foodborne pathogens, they have also begun to experience ever increasing costs associated with disposing of chlorine laden post-processing wastewater. Because ozone converts back into oxygen during the act of killing microorganisms, it produces far less polluted wastewater for the processor to deal with.

Cyclopps Corporation, Salt Lake City, UT

Reader Service No. 325

Enersyst Speed Cooling, Thawing Technology Available for Home Use

A revolutionary new speed cooling and thawing technology is now available from Enersyst Development Center LLC, the company has announced. The technology is available for licensing by manufacturers for use in home refrigerators. Compared with traditional methods, speed cooling and thawing can chill

food up to 15 times faster, freeze up to five times faster and thaw as much as three times faster. In addition to convenience, the technology also keeps food safer, helping to reduce the occurrences of food poisoning.

Enersyst is licensing the use of its speed chilling and thawing technology to appliance manufacturers exclusively through the Web site www.yet2.com, an innovative marketplace for the exchange of technology on the Internet. "With this new Enersyst technology in their freezers and refrigerators, consumers can chill and thaw foods in at least less than half the time," said Sarah Palisi, CEO of Enersyst Development Center. "Imagine being able to chill a bottle of wine in 20 minutes, or chilling a six-pack of soft drinks from room temperature to 40 degrees in 15-20 minutes. Chilling a six-pack or a few bottles of wine usually takes two to four hours in a refrigerator. We decided to partner with www.yet2.com to facilitate the licensing of our Enersyst speed chilling and thawing technology because we believe the Internet is at the leading edge in terms of communicating the essence and impact of new technologies. In particular, we believe yet2.com has the broadest reach and most sophisticated and effective package for this vitally important function," said Palisi.

Enersyst Development Center LLC, Dallas, TX

Reader Service No. 326

Coming Events

DECEMBER

• **4-5, Food Service HACCP to Ensure Food Safety**, Rutgers University, New Brunswick, NJ. For further information, contact Keith Wilson at 732.932.9271; E-mail: ocpe@aerp.rutgers.edu.

• **4-5, Advanced HACCP Workshop**, Holiday Inn Atlanta Airport North, Atlanta, GA. For further information, contact AIB at 800.633.5137.

• **5-6, Developing and Implementing HACCP for the Fresh-cut Industry Workshop**, Holiday Inn Airport North, Atlanta, GA. For further information, contact the International Fresh-cut Produce Association (IFPA) office at 703.299.6282; E-mail: info@fresh-cuts.org.

• **17-19, Microbiology III: Foodborne Pathogens**, Guelph, Ontario, Canada. For further information, contact Marlene Inglis at 519.821.1246 ext. 5028; E-mail: minglis@gftc.ca.

JANUARY 2002

• **9-11, Frontiers in Microbial Fermentation and Preservation**. Joint meeting of the Society for Applied Microbiology and The Netherlands Society for Microbiology, Wageningen, The Netherlands. We invite you to submit an abstract of your recent research activities. We need your contribution(s) before October 1, 2001, together with your booking form. See details at www.foodmicro.nl; booking form downloading at www.foodmicro.nl.

• **16-18, International Poultry Exposition**, Georgia World Congress Center, Atlanta, GA. For

further information, call 770.493.9401.

• **31-Feb. 3, Association of Water Technologies (AWT) Regional Training Seminar West**, The Fairmont Hotel, Dallas, TX. For further information, call AWT at 800.858.6683.

FEBRUARY

• **3-6, National Mastitis Council Annual Meeting**, Orlando, FL. For further information, call 608.224.0622.

• **20-21, California Association of Dairy and Milk Sanitarians Annual Meeting**, Holiday Inn Capitol Plaza, Sacramento. For more information, contact John Bruhn at 530.752.2192.

• **6-7, Sensory Evaluation: Real World Techniques and Applications**, Rutgers University, New Brunswick, NJ. For further information, contact Keith Wilson at 732.932.9271; E-mail: ocpe@aerp.rutgers.edu.

• **19-21, Kentucky Association of Dairy, Food and Environmental Specialists Annual Meeting**, Executive West Hotel, Louisville, KY. For further information, contact David Burton at 270.781.8039.

• **20-21, California Association of Dairy and Milk Sanitarians Annual Meeting**, Holiday Inn, Capitol Plaza, Sacramento, CA. For further information, contact John Bruhn at 530.752.2192.

MARCH

• **14-17, Association of Water Technologies (AWT) Regional Training Seminar East**, The

Holiday Inn Inner Harbor, Baltimore, MD. For more information, call AWT 800.858.6683.

APRIL

• **3-5, Missouri Milk, Food and Environmental Health Association Annual Meeting**, Ramada Inn, Columbia, MO. For additional information, contact Linda Wilson at 417.864.1661.

• **11-13, International Fresh-cut Produce Association's (IFPA) 15th Annual Conference and Exhibition**, Millennium Biltmore Hotel and the Los Angeles Convention Center, Downtown Los Angeles, CA. For additional information, call 703.299.6282; Web site: www.fresh-cuts.org.

• **18, Indiana Environmental Health Association, Inc. Spring Conference**. For further information, contact Helene Uhlman at 219.853.6358.

• **18, Missouri Milk, Food and Environmental Health Association Annual Meeting**, Ramada Inn, Columbia, MO. For further information, contact Linda Wilson at 417.864.1661.

• **19-24, Conference for Food Protection**, Sheraton Nashville, Nashville, TN. For further information, contact Trevor Hayes at 408.848.2255; E-mail: TWHgilroy@aol.com.

• **24-30, Interpack 2002**, Düsseldorf, Germany. For further information, contact Messe Dusseldorf North America at 312.781.5180; E-mail: info@mdna.com.

Standards Approved by the 3-A Sanitary Standards Committees

Eight tentative standards were approved for publication and distribution. They will be available for ordering from www.3-A.org on or before their effective dates.

Number 01-08, 3-A Sanitary Standards for Storage Tanks, effective November 20, 2001.

Number 11-06, 3-A Sanitary Standards for Plate Type Heat Exchangers, effective November 20, 2001.

Number 12-06, 3-A Sanitary Standards for Tubular Heat Exchangers, effective May 31, 2002.

Number 26-04, 3-A Sanitary Standards for Dry Products Sifters, effective November 20, 2001.

Number 44-03, 3-A Sanitary Standards for Diaphragm Pumps, effective November 20, 2001.

Number 49-01, 3-A Sanitary Standards for Air Driven Sonic Horns, effective November 20, 2001.

Number 50-01, 3-A Sanitary Standards for Level Sensing Devices for Dry Products, effective November 20, 2001.

Number 608-02, 3-A Accepted Practices for Instantizing Systems, effective November 20, 2001.

Standards will appear in *DFES* beginning in December 2001.



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DFES November '01

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100	115	130	145	161	175	190	205	220	235	250	265	280	295	310	325	340
101	116	131	146	162	176	191	206	221	236	251	266	281	296	311	326	341
102	117	132	147	163	177	192	207	222	237	252	267	282	297	312	327	342
103	118	133	148	164	178	193	208	223	238	253	268	283	298	313	328	343
104	119	134	149	165	179	194	209	224	239	254	269	284	299	314	329	344
105	120	135	150	166	180	195	210	225	240	255	270	285	300	315	330	345
106	121	136	151	167	181	196	211	226	241	256	271	286	301	316	331	346
107	122	137	152	168	182	197	212	227	242	257	272	287	302	317	332	347
108	123	138	153	169	183	198	213	228	243	258	273	288	303	318	333	348
109	124	139	154	170	184	199	214	229	244	259	274	289	304	319	334	349
110	125	140	155	171	185	200	215	230	245	260	275	290	305	320	335	350
111	126	141	156	172	186	201	216	231	246	261	276	291	306	321	336	
112	127	142	157	172	187	202	217	232	247	262	277	292	307	322	337	
113	128	143	158	173	188	203	218	233	248	263	278	293	308	323	338	
114	129	144	160	174	189	204	219	234	249	264	279	294	309	324	339	

and nutritional content are unchanged, more than half of consumers agreed with the critics and just over one-third supported the FDA position. This topic represented the most significant shift in the survey's trends, and perhaps was the result of the StarLink™ episode. Nevertheless, when consumers were presented with resource alternatives in the next question, 75 percent affirmed that information should be provided through toll-free numbers, brochures, and Web sites "instead of labeling."

Consumers continued to respond positively to the benefits of biotechnology for the foods they eat. More consumers were likely to buy foods enhanced to taste better or fresher (58 percent versus 54 percent last year) or to contain less saturated fat (46 percent versus forty percent, with 33 percent stating that this benefit would have no effect on their purchasing decision). And acceptance of foods enhanced to require fewer pesticides for their production has remained stable at 70 percent, since October 1999.

For the first time since the 1997 survey, more Americans expected to benefit from biotechnology in the future. Although 79 percent of those in 1997 expected to benefit, the trend declined to a low of fifty-nine percent in May 2000; it now appears to be turning upward again. Sixty-four percent expected to benefit from biotechnology within the next 5 years. This finding is consistent with a report on FDA focus groups conducted in October 2000, which found that consumers "remained open-minded and open to future experience with foods produced by biotechnology."

Because consumers are interested in more information and open-minded, but have a relatively little understanding of the current uses of technology in the United States' food supply, it is important to stay ahead of the curve in providing effective education and assisting consumers to make wise food choices. Key recommendations for communications regarding food biotechnology should include the following:

- First, the purpose and consumer benefits of each new product of food biotechnology should be explained clearly at the beginning of every public discussion.
- Second, biotechnology should be placed in the context of the evolution of agricultural practices.
- Third, emphasis should be placed on farmers who plant seeds that already contain beneficial traits developed through biotechnology.
- Fourth, an accurate, rather than absolute, view of food and environmental safety should be communicated for each product.
- Fifth, communications should emphasize the research that led to the introduction of each new product of food biotechnology.
- Sixth – and this mostly applies to the United States – communications should emphasize that additional food labeling requirements are necessary only when the food has undergone a significant change in composition or nutritional value, or a potential food allergen has been introduced by the gene transfer.
- Seventh, government and industry communications on food biotechnology must be consistent in order to earn consumer confidence.
- Eighth, consumer group activism must be distinguished from consumer attitudes; consumer group activism does not necessarily reflect consumer attitudes, and many consumer groups either support or do not oppose biotechnology.
- Ninth, multi-national approvals should be seen as the result of strong international scientific consensus.
- Finally, it should be recognized that food biotechnology provides important benefits in regard to hunger and food security throughout the world.

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Twenty-five years ago, the chances were slim that a food- or health-related study in a scientific journal would make the evening news or morning newspapers. Now, hardly a week goes by that a breaking dietary study doesn't make headlines. Public interest in nutrition and food safety has increased dramatically, and food stories – because they are inherently so personal – make for compelling news. Scientists have a pivotal role and responsibility in developing and communicating new science. The same holds true for journals that publish the studies and communicators who have an interest in advancing public understanding of health issues and implications of the latest science.

Biotechnology is having a major impact on our world agricultural system. Because of rapid global adoption of biotech crops, a growing number of foods on our grocery store shelves are, or include ingredients that are products of biotechnology. As professionals interested in consumer understanding, are we prepared to answer the public's questions about this advancing technology? Do we understand the science and the issues? Are we aware of the potential benefits and risks of biotechnology within the context of potential benefits and risks of other agricultural production tools and processes? Can we evaluate and address the critics' claims?

The scientific community has the attention and trust of the American public for information regarding food biotechnology. And although consensus science should be the foundation of information, meaningful communication must build a bridge between the science and the consumer. To build that bridge, it is imperative that we first understand consumer knowledge, attitudes, and expectations regarding food and biotechnology. Understanding

can be achieved through quantitative surveys of randomly selected consumers. Focus group results, although not projectable to the general population, lend richness and depth to quantitative data.

Through focus groups conducted in ten cities throughout the United States in 1992, the International Food Information Council (IFIC) developed a construct called the logic of emotion, of how consumer attitudes are determined. The process involves the consumer's value concepts, respect for natural order, perception of the evolution of things and events over time, conceptualization of commitment and responsible involvement, and need for and appreciation of realistic and equitable benefits.

IFIC has conducted quantitative research assessing consumer attitudes toward food biotechnology since 1997. IFIC's fifth survey, conducted January 19-21, 2001, by Wirthlin Worldwide, sought to assess these attitudinal trends within the broader context of food safety and food labeling issues. The survey was conducted in the shadow of heavy media coverage in fall 2000 that focused on the recall of StarLink™ corn products, approved for animal feed and industrial uses, although not for human food use. How did this media coverage affect consumer knowledge and attitudes?

More consumers in January 2001 than in previous surveys correctly identified corn products as foods currently in the supermarket that had been produced using biotechnology, although overall awareness of the presence of biotech foods in grocery stores had actually decreased since May 2000. Only 1 in 4 consumers had heard anything about recalls of foods produced through biotechnology. When StarLink™ was named, awareness increased to include almost half of consumers, yet 95 percent stated that they had not, in the previous few months, taken any action based on concerns regarding foods produced through biotechnology.

Consumers may have mixed feelings on the labeling issue. When asked, without promoting to identify what information is currently not on food labels that they would like to see added, three quarters said "nothing" and only two percent mentioned "genetically altered." Further, when the current Food and Drug Administration (FDA) labeling policy was presented to consumers, 70 percent supported the policy, a finding that has remained consistent since October 1999. However, when the survey stated the critics' desire for labeling of all foods produced through biotechnology even if safety

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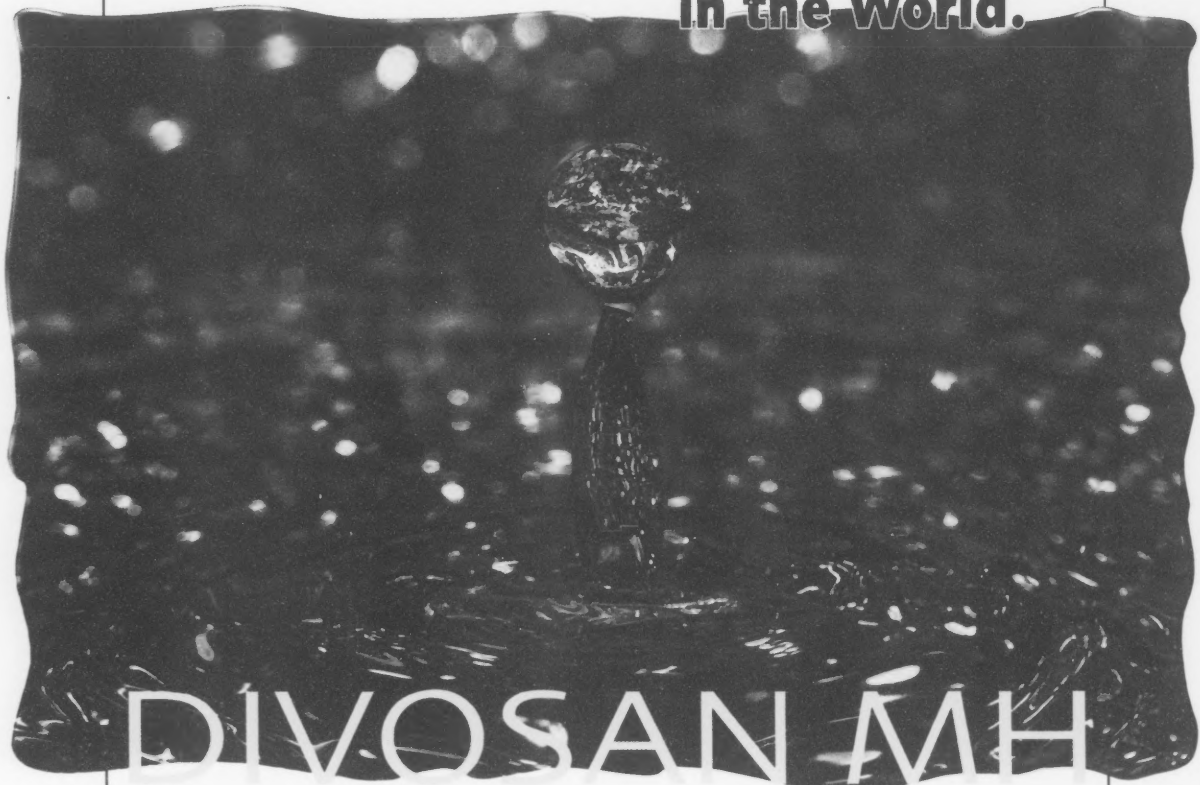
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