

Coming Feb. 24th, 2004: Pathogen Environmental Monitoring and Control



Paul Hall of Kraft Foods and current president of International Association of Food Protection will be coming to BC for our next Speakers Evening in February to talk about Pathogen Environmental Monitoring and Control.

This Speakers Evening is a new and exciting format to allow for hands-on learning! Paul will be our feature speaker, setting the tone and topic for the evening.

Exhibitors from a wide variety of companies will exhibit and demonstrate their products and services with the theme related to pathogen environ-

mental monitoring and control.

Displayers will showcase their latest technology and techniques for such things as sanitizer and sanitizer effectiveness as well as to how to monitor your sanitation program effectively.

Sustaining members are invited to display free of charge. Regular BCFPA members and non-BCFPA members may display for a nominal charge. Please contact Christine Hein BCFPA's Special Events Coordinator for more information, Ph: (604) 513-6401.

Mark your calendars for Tuesday February 24! Location to be announced on the BCFPA website: www.bcfpa.net

BCFPA Launches it's Website!!

Go to www.bcfpa.net and watch us grow!

You will find:

- Information about BCFPA
- Membership information
- List of sustaining members
- Events
- All past and present newsletters
- Career opportunities

- Links to other food protection websites
- Student group information and activities
- And much more as we develop!

Feed back is always welcome! Ideas and comments help us serve you better so please contact any of the executive (see listing in newsletter).

Inside this issue:

Persistence of E.coli O157:H7 on lettuce plants	2
Fall BCFPA/BCFT 2003 Speaker's Evening	2
Comparison of hand washing techniques....	3
Upcoming Meetings / Consumer Protection Award	4
Presidents Corner	5
Consumer food-handing behaviors	6
IAFP Call for Abstracts / Surf'in the Web	6
Corporate Members List and Profile—Brenntag AG Group	7

Special points of interest:

- *Irrigation water can impact field vegetable quality.*
- *Fingernails harbor the most microorganisms and is the most difficult to clean.*
- *Food handling behaviors can prevent foodborne illness!*

Persistence of Escherichia coli O157:H7 on lettuce plants following spray irrigation with contaminated water

Dec. 2003 Journal of Food Protection Vol. 66, No. 12, pp. 2198-2202 <http://www.foodprotection.org/QuickLinks.htm>

Irrigation water collected at farms growing crops for human consumption was artificially contaminated with E. coli O157: H7 and used to irrigate lettuce plants. Plants in a growth chamber were spray irrigated either once or intermittently with water contaminated with 102 or 104 CFU of E. coli O157:H7 per ml and were then sampled over a 30-day period. Only plants exposed to 102 CFU/ml on day 1 did not harbor the pathogen at the end of the sampling period. All other treatments resulted in contaminated plants at harvest. Plants irrigated with 104 CFU/ml contained high levels (up to 5 log CFU/g) of the pathogen at harvest. The results obtained in this study underscore the assertion that spray irrigation (the application of water directly to plant leaves) is linked to the contamination of crops and suggest that repeated exposure increases the E. coli O157:H7 level on the plant.

 **FoodAssure**
Laboratory Ltd.

Accredited by the SCC
for specific tests

Analyzing food since 1997



tel 604-251 9588

www.foodassure.com

Fall BCFPA/BCFT 2003 Speaker's Evening

Food safety depends on reasons, not rules

by PETER MITHAM
(pmitham@telus.net), reprinted with permission from Country Life

Farms looking to protect and enhance their food safety protocol should focus on teaching the reasons why rules and better protocols are needed, not the rules themselves, speakers told a joint meeting of the B.C. Food Protection Association and the B.C. Food Technologists in October.

"You cannot make anybody do anything; they have to want to," said Henry Carsberg, a veteran food safety consultant visiting from Anacortes, WA. Carsberg, whose most recent book, "Food Plant Sanitation," appeared ear-

lier this year, said people must be taught why they should do something in order for food protection protocols to be effective. Emphasizing the power of free will and people's ability to choose, Carsberg said employees who understand why they must protect food and want to do so will be more effective protecting it than others.

Employers should capitalize on the "what's in it for me" principle, Carsberg said, arguing that employees who derive satisfaction from doing the right thing, are

given responsibility on the basis of ensuring the right thing is done and who realize that they are productive, valuable employees as a result will also be happier and tend to stick around longer. That means less turnover, lower training costs and a more efficient operation. Carsberg's theme was taken up by Raman Gill, a B.C.-based consultant coordinating food safety programs for the B.C. Blueberry Council and



B.C. Raspberry Industry Development Council. "The why helps to explain what needs to be done," Gill said. Effective communication is key to ensuring

Fall BCFPA/BCFT 2003 Speaker's Evening (continued)

employees know why they must do certain things and come to a full understanding of the importance of safety protocols, Gill added. "You really need to focus on simplicity and practicality," she said, noting that trainers should use simple words, avoid jargon and acronyms, and talk about practices that will be backed up by the employer in some way.



Ideally, lessons should build on what the employees already know. "I think it makes people feel a little better when you start talking to people about what they understand," she said. Drawing on her experience in cross-cultural situations on Fraser Valley berry farms, Gill said a variety of teaching meth-

ods is important in driving home points. Including elements that allow employees to learn by listening, watching and doing is helpful, for example. Posters and leaflets that include both text and images of proper practices are important in helping reinforce messages, Gill added.

Country Life web site: countrylifeinbc.com Email: countrylife@telus.net

A comparison of hand washing techniques to remove Escherichia coli and caliciviruses under natural or artificial fingernails

Dec. 2003 J. of Food Protection Vol. 66, No. 12, pp. 2296-2301
<http://www.foodprotection.org/QuickLinks.htm>

Compared with other parts of the hand, the area beneath fingernails harbors the most microorganisms and is most difficult to clean. Artificial fingernails, which are usually long and polished, reportedly harbor higher microbial populations than natural nails. Hence, the efficacy of different hand washing methods for removing microbes from natural and artificial fingernails was evaluated.

Strains of nonpathogenic *Escherichia coli* JM109 and feline calicivirus (FCV) strain F9 were

used as bacterial and viral indicators, respectively. Volunteers with artificial or natural nails were artificially contaminated with ground beef containing *E. coli* JM109 or artificial feces containing FCV. Volunteers washed their hands with tap water, regular liquid soap, antibacterial liquid soap, alcohol-based hand sanitizer gel, regular liquid soap followed by alcohol gel, or regular liquid soap plus a nailbrush.

The greatest reduction of inoculated microbial populations was obtained by washing with liquid soap plus a nailbrush, and the least reduction was obtained by rubbing hands with alcohol gel. Lower but not significantly different ($P > 0.05$) reductions of *E. coli* and FCV counts were obtained from beneath arti-

cial than from natural fingernails. However, significantly ($P 0.05$) higher *E. coli* and FCV counts were recovered from hands with artificial nails than from natural nails before and after hand washing. In addition, microbial cell numbers were correlated with fingernail length, with greater numbers beneath fingernails with longer nails.

These results indicate that best practices for fingernail sanitation of food handlers are to maintain short fingernails and scrub fingernails with soap and a nailbrush when washing hands.



Copyright © International Association for Food Protection

Up-Coming Meetings

Annual International Convention of the Pacific Fisheries Technologists February 29 to March 3, 2004 at the Sea Tac Radisson Hotel near Sea Tac airport, Seattle, Washington. Conference theme: "Fish is Delicious and Nutritious" - producing sea-food products that appeal to consumers - and that are essential parts of their diets.

For more information contact George Berkompas at (206) 323-3540, gberkompas@nfpa-food.org, or Pete Nicklason at (206) 860-3385, Pete.Nicklason@noaa.gov or website:

<http://seafood.ucdavis.edu/organize/pft.htm>



Samuel J. Crumbine Consumer Protection Award for Excellence in Food Protection - Seeking Submissions

The Samuel J. Crumbine Consumer Protection Award for Excellence in Food Protection at the Local Level is seeking submissions for its 2004 program. The Crumbine Award is given for excellence and continual improvement in a comprehensive program of food protection at the local level.

Achievement is measured by:

- Sustained improvements and excellence over the preceding four to six years;
- Innovative and effective use of program methods and problem solving to identify and reduce risk factors that are known to cause foodborne illness;
- Demonstrated improvements in planning, managing, and evaluating a comprehensive program; and
- Providing targeted outreach; forming partnerships; and,
- Fostering communication and information exchange among regulators, industry and consumer representatives.



All local government health units in the United States and Canada are encouraged to apply, regardless of size, whether "small," "medium" or "large."

The Award is sponsored by the Conference for Food Protection, in cooperation with the American Academy of Sanitarians, American Public Health Association, Association of Food and Drug Officials, Foodservice & Packaging Institute, Inc., International Association for Food Protection, International Food Safety Council, National Association of County & City Health Officials, National Environmental Health Association, NSF International, and Underwriters Laboratories, Inc.

For more information on the Crumbine Award program, and to download the 2004 criteria and previous winning entries, please go to www.fpi.org (in the awards section) or call the Foodservice & Packaging Institute at (703) 538-2800. **Deadline for entries is March 15, 2004.**

IS YOUR PROGRAM CRUMBINE MATERIAL? PUT IT TO THE TEST!

Presidents Corner

PRESIDENT'S CORNER **(December 2003)**

Hello again and thank you for joining us via our newsletter. We are in the final stages of wrapping up what has been a very busy year for us and looking forward to an even more exciting 2004. You should now be aware of our new logo and mission statement that are proudly displayed here in our newly designed newsletter. We are also excited about our new website as another means of communication. Check it out in its early stages at www.bcfpa.net and feel free to offer any suggestions. You soon will be able to contact us through this site. We plan to provide links to all kinds of food safety information through this site as well as the latest information on BCFPA activities and those of other related organizations. We are working toward a "members only" section for networking within our association and discussion on matters dealing directly

with our internal issues. We also hope to have a section for open discussion around controversial and new food safety topics including informal consultation and discussion with others on problems or concerns that you may have.



I would like to welcome the latest member of your BCFPA Board. Michael Mensah-Wilson joins us from Schneider Foods where he works in the position vacated by Clive Kingsbury.

In mid October, we partnered with BC Food Technologists for our joint Speakers Evening on motivation that attracted about 80 representatives from industry, government and academia. Experts discussed employee motivation and how to effectively get the message delivered. The session was also attended by a

reporter from *Country Life in BC* and the evening was written up and published in the November edition. Elsewhere in this newsletter, the full article appears courtesy of the *Country Life in BC*. Judging from our feedback sheets, the evening was an unqualified success.

On behalf of BCFPA, I would like to offer our sincere thanks for your continued support and participation in BCFPA. Your membership is greatly appreciated and we look forward

to building on this relationship in 2004 and beyond. If there are any questions or concerns that you have, please do not hesitate to contact me and I will try my utmost to deal with them.

On behalf of the BCFPA Board, we wish you and your company a very joyous holiday season and a healthy, and prosperous 2004.

Best Wishes!

Terry Peters, President BCFPA

Terry Peters, BCFPA
President

BC FOOD PROTECTION ASSOCIATION

c/o Canadian Food Inspection Agency
400 - 4321 Still Creek Drive
Burnaby, BC
V5C 6S7
Ph: 604-666-1080
Fx: 604-666-6130

*To provide a forum to exchange
information on protecting the
food supply.*

BCFPA Executive—Share Your Ideas!

Have an idea, or thought about future events and activities by BCFPA? Or maybe you'd like to get involved? If so contact anyone on the executive!

Terry Peter, President – Ph:
(604) 666-1080

Annette Moore, Vice President
and Newsletter Editor - Ph:
(604) 859-5962

Lorraine McIntyre, Treasurer –
Ph: (604) 660-6079

Ernst Schoeller, Secretary –
Ph: (604) 657-1557

Christine Hein, Special Events
– Ph: (604) 513-6401

Michael Mensah-Wilson – Ph:
(604) 421-4500

Lance Hill, Membership Coordinator Ph: (604) 666-7534

Consumer food-handling behaviors associated with prevention of 13 foodborne illnesses

Oct 2003 J. of Food Protection.
Vol: 66 Num: 10 Pg: 1893 -- 1899

Virginia N. Hillers ; Lydia Medeiros ;
Patricia Kendall ; Gang Chen ;
Steve Dimascola

<http://www.foodprotection.org/QuickLinks.htm>

To be effective in reducing the incidence of foodborne illness, consumers and food safety educators need information about behaviors that will decrease exposure to foodborne pathogens. A four-round Delphi technique was used to survey nationally recognized experts in food microbiology, epidemiology, food safety education, and food safety policy with the aim of identifying and ranking food-handling and consumption behaviors associated with 13 major foodborne pathogens.

The food safety experts ranked behaviors related to keeping foods at safe temperatures as of primary importance in preventing illness caused by *Bacillus cereus* and *Clostridium perfringens* and of secondary importance in preventing illness caused by *Staphylococcus aureus*. The use of a thermometer to cook foods adequately was ranked as of primary importance for the prevention of illness caused by *Campylobacter jejuni*, *Salmonella* species, *Escherichia coli* O157:H7, *Toxoplasma gondii*, and *Yersinia enterocolitica*, with the avoidance of cross-contamination being ranked as of secondary importance for most of these pathogens. Hand washing was the top-ranked behavior for the prevention of shigel-

losis. The avoidance of certain foods that are likely to be contaminated was the top-ranked behavior for the prevention of illnesses caused by *Listeria monocytogenes*, Noroviruses, and *Vibrio* species. The expert panel's ranking of behaviors for the reduction of the risk of illness caused by major foodborne pathogens can enable consumers to make informed choices about food consumption and handling behaviors and can guide food safety educators in prioritizing their educational efforts.



IAFP 2004 call for abstracts

The International Association for Food Protection is now accepting abstracts for IAFP 2004 to be held in Phoenix, Arizona, August 8-11, 2004. Deadline for submissions: January 5, 2004.

IAFP accepts abstracts online or via E-mail. Information about process, format requirements,

etc are available on their Website, www.foodprotection.org.

More than 1,500 professionals attend this meeting: people from quality control, processing operations, regulatory inspections, consulting groups, risk assessment, research and development, microbiological research,

plant management, technical services and HACCP management.

Questions regarding abstract submission should be directed to Bev Brannen, IAFP Public Relations, at bbrannen@foodprotection.org or call 515.276.3344; 800.369.6337.

Surf'in the Web

Some interesting websites to visit:

- US—Food Safety Training and Education Alliance. Very interesting and useful website if your developing food safety logs and forms.
<http://peaches.nal.usda.gov/FSTEA/resources/tooltime/forms.asp>
- Electronic Commerce Council of Canada—Can-Trace is a collaborative and open initiative committed to the development of traceability standards for all food products grown, manufactured and sold in Canada. The Electronic Commerce Council of Canada (ECCC) is the initiative's secretariat. ECCC and Can-Trace sponsoring associations are continuously approaching various organizations to join and support this expanding initiative. For more information and upcoming meetings: <http://www.eccc.org/Standards/?langid=e&pageid=/Education/Traceability/main>

2004 Sustaining members—Thank You For Your Continuing Support

If your name does not appear on this list of sustaining members, consider the advantages and join today!

- **PCO Services Inc.**, 7061 Gilley Avenue, Burnaby
- **I.G. MicroMed Environmental Inc.**, 190 - 12860 Clarke Place, Richmond
- **Brenntag AG Group**, 20333 - 102B Avenue, Langley
- **Unipac**, 150, 13468 Verdlin Place, Richmond
- **Fletcher's Fine Foods**, 8385 Fraser Street, Vancouver
- **Canadian Pest Control Ltd.**, 2221 Hartley Avenue, Coquitlam
- **FoodAssure Laboratory Ltd.**, 1650 Pandora Street, Vancouver
- **C.D.S. Sanitation Ltd.**, 4640 Caulfield Dr., West Vancouver
- **Fraser Health Authority**, 300 - 205 Newport Drive, Port Moody
- **Monterey Mushrooms**, 31083 Wheel Avenue, Abbotsford

A Message From Your Membership Coordinator



Our current membership is 48 members; consisting of 10 Sustaining Members, 37 Regular Members and 1 Student Member. Last year in our calendar year end Affiliate Report submitted to the IAFP our official membership was recorded at 23 members consisting of 4 Sustaining Members and 19 Regular Members.

Our goal last year was to double our membership—we have met this goal! On behalf of the BCFPA Executive I wish to express our gratitude to you, our members for this strong show of support. This growth not only makes it financially possible for us to expand our services for the membership but equally important it provides motivation and signals that we are on the right track in meeting your needs.

I am very optimistic about our growth over the next year and fully expect we will again double our membership. This is not just hype as there are some important developments that I feel will fuel our membership growth.

We recognized that we have not been meeting the need of our student members. In this regard we are pleased to announce that Michelle Michaud, a UBC Food Science student has agreed to act as our Interim Student Coordinator. With Michelle's help BCFPA will be participating at the UBC AgSci/Science Career Fair in February.

With the introduction of our website our visibility will improve access to more BCFPA information and provide additional networking opportunities. Our plans are to provide e-mail accounts to those members who desire them and to provide an on-line discussion forum for members. Our experience in this area is limited and may take time. If any of you would like to help out let us know! If we are successful I am confident the on-line discussion forum could be come a very popular benefit for our members.

Also coming in the New Year, will be the introduction of three levels of Sustaining Membership; Gold ,

Silver and Bronze. The funds from these would be used to sponsor student scholarships in a field of study related to food safety and further support other educational initiatives for our members.

In closing I personally want to thank the Executive and Members for all your support. It has been a great year and I can honestly say it has been a lot of fun to be part of a growing and vibrant organization. I am looking forward to another exciting year. Please feel free to send your ideas and suggestions for events, bulletins, newsletters and additions to our website. Most of all please tell your friends and colleagues about what they are missing in not becoming a member of the BC Food Protection Association.

Lance Hill,
BCFPA Membership Coordinator

Sustaining Member—Company Profile– Brenntag AG Group



The Brenntag AG Group, a global leader in chemical distribution, has expanded its position in the market place systematically. Brenntag is now number one in Central, Eastern and Northern Europe, the third largest supplier in North America, and the market leader in Latin America. With over 300 locations around the globe and more than 8,000 employees, we offer a comprehensive network for purchasing and supplying industrial and specialty chemicals to the market



Food and Beverage Industry

Brenntag Canada brings to the marketplace a quality line of additives and ingredients to the food and beverage industry. We have partnered with highly respected suppliers, Canadian based and International, allowing Brenntag to be well positioned to provide our customers with a diverse array of ingredients to meet current and upcoming market trends.

We offer just-in-time services from our many convenient stocking facilities across the country from coast-to-coast. With well-developed e-commerce capabilities, customized inventory management capabilities, product application and handling support, we are able to provide customers with one-source shopping for their food and beverage needs.

Product categories within our current portfolio include....

Acidulants	Hydrocolloids	Preservatives
Alkalis	Humectants	Protein isolates
Antifoams	Mineral Oils	Sweeteners
Emulsifiers	Phosphates	Vitamin C
Enzymes		

If there is a product you require, please contact your local Brenntag Account Manager in Langley at (604) 513-9009. We strive to be your preferred supplier and will do what is required to put 'Customers First'.