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The Food Protection GRAPEVINE

The BCFPA Newsletter

Dear Members:

This third issue finds the world drastically changed and the focus in many walks of life has shifted from avoiding the passive and accidental to preventing the malevolent and unthinkable. The BCFPA had no idea of the eventual irony in offering a Speaker's Evening on **Bioterrorism** earlier this year. Many newer issues relating to security have probably crossed our members' desks, and in this issue, we shall offer some ideas posted on the subject. As a forum for food safety, our mandate to inform and elevate professionals in the Food Industry has never been more prominent. Next Tuesday's Speaker's Evening promises to be a must-see!

-The Newsletter Committee

President's Corner

While deciding on what to write for this newsletter I thought that it was important to focus on the upcoming **Listeria Histeria / Zero Tolerance Speakers Evening** scheduled for this Tuesday night the 20TH November 2001. At the time of writing this letter we had 81 pre-registered delegates.

I would like to thank everyone involved in organizing and promoting this event. I know that it will be a great success. I would like to thank the BCFPA Executive for their usual hard work and time devoted to promoting food safety from gate to plate. A big thank you also has to go out to you the delegates for spreading the good word about this speakers evening.

Wow I have just got off the phone and added 3 more delegates to the list. That brings the total to 84 pre-registered delegates. I know we can hit 100!!

Please note that if you have not pre-registered you may still do so by calling myself at 604-576-1191 ext. 3740. We will also be accepting last minute registration at the door. *WE WILL NOT TURN ANYONE AWAY.*

So, if you have not decided on coming yet may I suggest that you do, as our speakers are all experts and leaders in their fields (See Calendar for details).

Take care and I look forward to seeing you all on Tuesday night.

Clive Kingsbury
BCFPA President

MASTHEAD

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BCFPA Speaker's Evening Report: Bioterrorism

By Terry Peters [tpeters@em.agr.ca]

The BC Food Protection Association's first Speakers Evening for 2001 was held on Tuesday, May 1st at the British Columbia Institute of Technology, Burnaby, BC. The evening was a resounding success with 40 registering that included a few more new memberships. The evening was attended by representatives from industry, government and academia working in production, QC, inspection, laboratory and management. In addition a few students representing food programs at UBC and BCIT joined us as our guests and they were given permission to hold a 50/50 draw to raise funds in order to travel to Toronto to participate in the CIFST poster contest.

We changed our format for this special meeting and featured a single keynote speaker for the entire evening. We also began with a hosted supper generously catered in part by Fleetwood Sausage plus an assortment of beverages and sandwiches purchased from BCIT. This gave everyone additional time to socialize as well as talk shop.

The meeting was opened by our president, Clive Kingsbury, who welcomed the guests and introduced **Julie Wicklund, Bioterrorism Surveillance Coordinator** from Washington State Department of Health. Julie gave us an overview of what constitutes bioterrorism and defined it as "intentional or threatened use of bacterial or fungal biotoxins that produce disease in humans or animals. She advised us that it is becoming more prevalent now because of changes in perpetrators, availability of agents and potential methods for dissemination.

Julie presented a hypothetical case study of a bioterrorism incident where botulinum toxin was put on a food available at a food show. This led to a very frightening situation that not only directly affected many people but indirectly affected the hospitals, workplaces and entire community.

Julie went on to tell us that bioterrorism agents of concern include **Anthrax, plague, Brucellosis (undulant fever), Q Fever, smallpox and hemorrhagic fevers, and toxins (*C. Botulinum*, Ricin, *Staphylococcus*, etc)**. These organisms are infectious in aerosol form, have delayed onset, the population is susceptible to them, there is a high morbidity and mortality rate and person-to-person transmission can occur.

During the talk, Julie expressed personal concern over the end of smallpox vaccination campaign. There is person-to-person transfer potential with a 30% mortality rate for smallpox. Two stocks of smallpox are still known that have been saved in the name of science.

Julie discussed the challenges in recognizing a bioterrorism event. There are often epidemiological clues to an event and an enhanced role of public health. There are differing challenges for a chemical and biological occurrence. Recognition, response and treatment are rapid for chemical but delayed for biological events. Chemical events do not involve person-to-person transfer and response is usually by the traditional first responders. Biological events have person-to-person transfer and because of slower onset time, responders are generally the health care workers.

Following this spellbinding presentation, we had a break that allowed time for us to again enjoy the good food and discuss the former presentation with our colleagues, network and get to know each other more. Also during the break, our student guests were able to meet many of us and also sell some more tickets for their fund-raiser draw.



-Clive Kingsbury thanking Julie Wicklund with a parting gift.

The second part of the evening delved into Agroterrorism. Agroterrorism deals directly with the food supply and is often in the form of a hoax. Julie explained how a hoax could produce many of the same results as an actual incident.

Julie told us of two examples of Agroterrorism events that involved threats to the food supply. She discussed the Rajneeshees' intentional Salmonella poisonings in Oregon State done to prevent people from casting votes in an election and the case of a lab worker putting Shigella on muffins.

Targets for Agroterrorism exist from farm to table e.g. contaminating raw products with a heat stable toxin. There has been much speculation about potential bioterrorism cases. The foot-and-mouth disease in Korea, Anthrax in Minnesota and West Nile Virus in the US could be the result of terrorism. Some have speculated that recent foot and mouth disease and bovine spongiform encephalitis are the work of agroterrorists.

Julie explained to us how the US is now able to respond to outbreaks due to bioterrorism planning in previous years. The US spent \$10.2 billion to counter terrorism in 2000 for preparatory response for their Bioterrorism Preparedness and Response Program. An example of this was the enhanced surveillance project of monitoring by public health personnel during the World Trade Organization conference in Seattle. Fortunately there were no bioterrorism events detected however a benefit realized from the experience was to produce an enhanced collaborative relationship with public health in Seattle. Julie also told us of a national pharmaceutical stockpile program established by CDC in preparedness for a bioterrorism event.

Following the presentation, Clive summed up the sessions in his closing remarks and presented Julie with a gift. We ended the evening with a draw for a coveted year's membership in our parent organization, the International Association for Food

Protection. We then had the 50/50 draw that was won by Mr Keith Campbell. Keith is to be applauded for his generous gesture in returning the prize back to the student fund.

We would like to express our thanks to our corporate sponsors and to all of you who were able to join us. The evening was again a great success and we are looking forward to our next Speaker's Evening this fall.

| Bioterrorism and Biocrimes: Objectives for using biological agents | | | | |
|---|-----------|----------|------------------|-------------|
| Type | Terrorist | Criminal | Other/ Uncertain | Total Cases |
| Murder | 4 | 17 | 0 | 21 |
| Terrorize | 6 | 9 | 22 | 37 |
| Extortion | 0 | 13 | 3 | 16 |
| Disruption | 0 | 5 | 0 | 5 |
| Anti-animal/crops | 1 | 2 | 0 | 4 |
| Mass Murder | 4 | 0 | 0 | 3 |
| Revenge | 0 | 3 | 0 | 3 |
| Incapacitation | 2 | 0 | 0 | 2 |
| Political statement | 1 | 0 | 0 | 1 |
| Unknown | 9 | 7 | 72 | 88 |

Note: Because some perpetrators had multiple objectives, the totals in this table may exceed the total number of cases.

WORKING PAPER-**Bioterrorism and Biocrimes**
The Illicit Use of Biological Agents Since 1900
Dr. W. Seth Carus
 August 1998 (February 2001 Revision)
 Center for Counterproliferation Research
 National Defense University, Washington, D.C.

BCFPA Attends IAFP 88th Annual Meeting

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 at the Hilton Minneapolis in Minneapolis, Minnesota August 5-8

for the three-day meeting. Representatives from 83 companies exhibited equipment and services supporting food safety. Your BCFPA was represented by **Clive Kingsbury** and **Terry Peters** at this meeting. They were able to attend courtesy of their respective employers.

Dr. Linda A. Detwiller, Senior Staff Veterinarian at the USDA/APHIS

Veterinary Services in Robbinsville, New Jersey, opened the meeting with her presentation, "Bovine Spongiform Encephalopathy: An Update."

The Annual Meeting program included 360 scientific presentations including 21 symposia, 60 technical presentations, and 153 poster presentations. Topics ranged from Risk Management and Food Safety Objectives, Water Quality, Food Allergens, Dairy Plant HACCP, FAO/WHO Initiatives, Organic Foods, Indicator Microorganisms, to Zero Tolerance.

"Irradiation Pasteurization: Realizing the Food Safety Potential" was presented at the General Session on Tuesday afternoon to discuss the potential impact of irradiation, expanding consumers' food safety choices and legal issues. Two pre-meeting workshops were conducted to provide additional educational opportunities for attendees. The first workshop was "Critical Steps in Laboratory Methods for the Detection of *Listeria monocytogenes*" and the second workshop was titled "Crisis! Recall Management in the Food Industry."

IAFP honored excellence in food safety by presenting 23 awards to individuals and organizations at the Awards Banquet. The evening concluded with the gavel presentation to Incoming President, James Dickson.

The meeting was found to be extremely relevant and worthwhile

by both Clive and Terry and both enjoyed the associated social functions as well. We look forward to **next year's meeting in San Diego (June 30 to July 3, 2002)** and hope to be able to send more BCFPA representatives to future meetings and become more involved in IAFP programs and activities.

-Terry Peters

**Bioterrorism and Biocrimes:
Acquisition of biological agents**

| Type | Terrorist | Criminal | Other/ uncertain | Total Instances |
|-----------------|-----------|----------|---------------------|--------------------|
| Legit. supplier | 1 | 9 | 1 | 11 |
| Theft | 1 | 3 | 0 | 4 |
| Self-manuf. | 1 | 4 | 1 | 6 |
| Natural source | 2 | 4 | 0 | 6 |
| Unknown | 3 | 3 | 0 | 6 |
| Total instances | 8 | 23 | 2 | 33 |

Note: This table reflects the predominant method of acquisition; some individuals or groups acquired agent through multiple paths.

Acquiring Biological Agents

Biological agents are organisms or toxins produced by organisms that can be used against people, animals, or crops. In contrast, chemical agents, poisonous substances that can kill or incapacitate, are man-made materials.

Pathogens: Pathogens are naturally occurring microorganisms that cause disease. There are hundreds of pathogens, including bacteria, viruses, fungi, and parasites. Among the pathogens often mentioned as potential biological agents are *Bacillus anthracis*, the organism that causes anthrax, and *Yersinia pestis*, the organism that causes plague. Because pathogens are living organisms, they are self-replicating. Exposure to even a small number of organisms can produce severe symptoms or even death. Thus, it is believed that the LD₅₀ for pneumonic plague is fewer than 100 *Y. pestis* organisms, while 8-10,000 *B.anthraxis* spores will cause inhalation anthrax.

Only some pathogens are transmissible from person to person. For example, someone suffering from pneumonic plague can

transmit *Y. pestis* organisms to others, creating a serious risk of epidemic spread. In contrast, bubonic plague is communicable generally only if someone is exposed to pus from an infected person. Anthrax is not contagious, and only those exposed to the released *B. anthracis* spores are likely to become infected. Pathogens require an incubation period before symptoms of infection appear. For some diseases, the incubation period is only a few days, while for others it might be several weeks. Typically, 3-5 days pass before the acute symptoms of inhalation anthrax appear, while for Q fever (caused by the *Coxiella burnetii* organism) the incubation period is two to three weeks, depending on the size of the dose.

Toxins: Toxins are poisonous chemicals produced by living organisms. Among the best known are botulinum toxin, which is produced by the bacteria *Clostridium botulinum*, and ricin, which is extracted from the seed of the castor bean plant. Unlike pathogens, toxins are not self-replicating, so their physical effects are solely a result of the agent released. While toxins share many characteristics with chemical agents, they also have some significant differences. Many toxins are more toxic than the most lethal of chemical agents. Thus, the LD₅₀ for botulinum toxin when injected is 0.001 micrograms per kilogram of body weight. In contrast, VX, perhaps the most lethal of the chemical agents, has an LD₅₀ of 15 micrograms per kilogram of bodyweight. Toxins are not volatile, unlike many chemical agents, and thus do not naturally generate a persistent threat. Generally, toxins are not dermally active, meaning that contact with the skin is insufficient to produce disease. Rather, the agent must be brought into the body, either by ingestion, inhalation, or through an opening in the skin.

The quantity of toxin required to achieve a desired effect is dependent on the lethality of the agent. According to one estimate, eight tons of ricin would be needed to blanket an area to achieve the same effect accomplished using only eight kilograms of botulinum toxin. For many toxins, the

quantities of agent required to produce a given effect are similar in size to that for the more lethal chemical agents.

-Dr. W. Seth Carus
August 1998

Announcements:

- **DFC hires National Coordinator for Canadian Quality Milk Program**

Starting next month, **Nicole Unger** will be National Coordinator for the Canadian Quality Milk Program of the Dairy Farmers of Canada. Nicole's experience working with the program during the BC Pilot Trial will be invaluable in assuring not only a practical voice, but a western one too!

Nicole will be located out of Vancouver, but her focus will be national.

One of her many tasks will be to help the provinces producer groups develop their own provincial implementation plan that is consistent with the national program requirements.

If you would like to know more about the DFC Canadian Quality Milk program and/or the results of the Pilot Trial feel free to contact myself (Annette Moore Ph: 604-556-3079 Email: Annette.Moore@gems5.gov.bc.ca) or starting Dec. 1, Nicole Unger (email: nfunger@yahoo.com)

The BCFPA is hosting another Speaker's evening in Spring 2002 and welcomes member input as to:

- Topics and/or speakers
- Venues (with convenience, service and comfort in mind)

Volunteers for the BCFPA are welcome, as there are still openings in various committees (like the Newsletter and Website Committees!) Please contact BCFPA

President Clive Kingsbury at
ckingsbu@jms.ca

Job Listings

The BCFPA is looking for an internet-adept person to help design and possibly maintain an official website for us. A \$\$\$ fee is available.

Just contact Clive or Terry of the Executive Board.

Please contact the Newsletter Committee if you wish to post a job listing in this section. Postings are free!

Webwatch:

Junkscience

<http://www.Junkscience.com>

-Stephen Milloy's site dedicated to debunking of inflated claims and hysterical conclusions; excellent for born cynics!

International Association for Food Protection

<http://www.foodprotection.org>

Anthrax specific: CDC receives requests for information by e-mail through the Health Alert Network (<healthalert@cdc.gov>), MMWR

<http://www.cdc.gov/mmwr/contact.html>, and other public health communications systems.

Additional information about anthrax is available at

<http://www.bt.cdc.gov>

A compendium of MMWR reports and recommendations related to anthrax and bioterrorism is available at

<http://www.cdc.gov/mmwr>

My favourite search engine:

www.Google.com

FOOD SAFETY WEBSITE RELAUNCHED: ADVISORY ORGANISATION LAUNCHES FOOD SAFETY INFORMATION WEBSITE

November 14, 2001

Meatnews.com

Volume 3, Issue 46

Food industry advisory group Leatherhead Food Research Association has launched an updated and expanded version of Food Safety Today, an electronic alerting and information service. The service on the Web at www.foodsafetytoday.com provides up-to-date news of all aspects of food safety for the food industry, and for everyone with a professional interest in the subject. There are feature articles and fact sheets on a variety of important and emerging topics, Web links to other sources of information, and details of related products and services. Food Safety Today reports and comments on events and developments in key areas, including:

- Food-poisoning outbreaks, and foodborne disease
- Chemical contamination and toxicity
- Food allergy
- Pesticides and environmental contamination
- Regulatory issues
- BSE
- Food hazard warnings and recalls.

-via FSNET

Bioterrorism and Biocrimes: Type of agent involved

Note: Because some perpetrators considered multiple agents, the totals in this table exceed the total number of cases.

| Type | Terrorist | Criminal | Other/ Uncertain | Total Cases |
|----------|-----------|----------|---------------------|----------------|
| Pathogen | 15 | 38 | 83 | 136 |
| Toxin | 9 | 15 | 2 | 26 |
| Unknown | 4 | 1 | 1 | 6 |

-Dr. W. Seth Carus
August 1998

BIO-TERRORISM: THE NEXT FOOD SAFETY THREAT

October 15, 2001

Heads up for HACCP

Edited by Jeremy Russell

By Michael Cramer, Vice President Food Safety and Quality Assurance, Specialty Brands, Inc.

Like many other Americans, on September 11, 2001, I sat in stunned horror watching television news reports of the deliberate and cowardly attacks on New York and Washington and in the skies over Pennsylvania. I was travelling at the time and was fearful of when and how I would get home or if the flight home would be safe. That's one of the objectives of terrorism, to strike fear and diminish confidence. Terrorists seek to do harm, to kill and maim, but they also seek to disrupt our businesses, our economy and our security. They are like the foodborne pathogens we fight so diligently, ubiquitous, hiding in dark recesses and striking, sometimes without warning, causing harm to those with whom they come in contact. It's now been exactly four weeks since the terrorist attack on America and I am again traveling, less fearful and more confident due to added security at the airports. I find, however, that I remain at a heightened level of awareness of the potential for further action against our country by those who wish us harmed. Though terror might not come again from the skies, it may well come from a source closet to all of us, through contamination of our food supply and our products. It is with this in mind that I write about the need for food companies to be at a high level of awareness and take actions to minimize the risk of being a terrorist victim. Ask yourself if you are the potential target of a terrorist attack and then put plans together to assess your vulnerability and take the appropriate actions to prevent product tampering or other interference with your business operations.

Employees and Visitors

Maintain accurate and updated employee rosters, including rosters specific to each shift. Know who is and who should be in the plant. Where possible, have photo ID

cards for associates and restrict access to the plant to employees and regulatory personnel with official identification. Limit cooked ready-to-eat area access to essential personnel and prohibit all personal items, including lunch containers, cases, purses, etc. from processing areas.

Have a clear visitor policy that requires sign in and sign out at a security desk or reception. Limit access to the plant to all visitors unless accompanied by a company employee. Require visiting regulatory personnel to present ID and sign in and out of the plant. Inspect all incoming vehicles. Keep plant doors closed at night and on the weekends, even if the only ongoing activity is sanitation or maintenance.

Laboratory Safety

Maintain an up to date inventory of all hazardous lab chemicals and solvents and keep hazardous materials securely locked. Microbiological labs should keep positive control of pathogen cultures under lock as well. Assure that mercury thermometers are accounted for on a daily basis. Restrict lab access to lab personnel and essential management and keep the lab locked when not occupied. Do not allow lab materials, with the exception of sample collection materials, to be brought out to the manufacturing floor.

It is also recommended that plants conduct an assessment of all potentially hazardous chemicals such as maintenance solvents and paints, sanitation chemicals and wastewater treatment compounds. These too should be kept in a secured storage area with limited access.

Ingredient Safety

Know your suppliers; be certain to have a general and continuing letter of guaranty on file and have a program for inspection of incoming ingredients.

Have a specific policy to identify new suppliers to assure a safe supply. Develop accountability for all restricted ingredients (nitrites) and food allergens (dairy, wheat, soy, peanuts, tree nuts, eggs, fish and crustacea).

Keep sensitive ingredients locked and have specific personnel identified and trained to handle them properly. Have the ability to trace specific ingredient lots to finished

product lots. These precautions apply to direct product contact packaging as well as to ingredients. Does your facility have a well for processing and clean-up water? Evaluate the security of the well systems. Consider testing for water potability more frequently, depending on the water source, e.g. weekly rather than monthly, or monthly rather than annually.

Awareness

Personnel, who move freely through the plant, typically QA and production associates, should be alert to and aware of any abnormal findings in the plant. Look for signs of sabotage to equipment, missing, broken or unprotected glass or indication of tampering with ingredients and packaging. Make sure that protective equipment (e.g. screens, sifters, magnets or metal detectors) is in place and functioning properly. Report any unusual activity to a manager, supervisor or appropriate authorities. Account for all keys to the facility or restricted areas held by supervisory employees.

Crisis Management

It is not enough to simply have a recall policy and procedure; food companies must also have a Crisis Management Policy and Procedure. In the event of a threat or real product tampering there must be a plan to address both the immediate issues as well as near term and long term issues. Terrorist actions can result in potential harm to plant employees, lost productivity, loss of customer confidence or lost business. There are very good consultant companies that can help you prepare an effective plan, however listed below are some examples of steps that you can take to help you pull through a crisis period.

- Have emergency telephone numbers (e.g. fire, police, ambulance, hospital, FBI and regulatory agencies) available to key management and plant personnel
- Have an emergency evacuation plan to get personnel out of the plant quickly and safely. (This is an OSHA requirement.)
- Provide a plant plan to the local fire department or have one in a locked, sealed container outside the plant in the event the plant cannot be accessed

-Prepare a strategy for continued production using an alternate company plant or co-packer to avoid prolonged disruption of product flow to customers

-Have an effective recall policy and plan. Test the effectiveness at least annually. Develop a relationship with a qualified forensic lab to help with microbiological and chemical analysis or physical evaluation of unknown materials.

-Have prepared statements for the press and for customers identifying the action that you have taken depending on the situation. Develop a relationship with local print media, radio or television personnel so that they know about the company and the measures that you take to produce safe, quality products.

-Designate a spokesperson to deal with media calls, but be sure that they are well trained in handling the media.

-Prepare information about the company, especially detailing positive information about food safety, quality, customer recognition and community relations.

As a nation we will recover from the tragedy of September 11, our ideals of freedom and democracy will withstand evil terrorism. Our political and military leaders will develop their plans to battle terrorism on an international front to prevent further catastrophe. The American people have shown tremendous resilience in the face of adversity and a willingness to restore our damaged cities, our wounded economy and our fragile confidence. As food processors, we must do our part to assure that confidence in our products is never an issue. We must be prepared to prevent terrorists from striking our businesses; we must protect our common assets, valued customers and consumers.

*--This article was obtained via Doug Powell's
Listserve, **FSNet***

*To subscribe to FSnet, send mail to:
listserv@listserv.uoguelph.ca*

*Leave subject line blank & in the body of the
message type:
subscribe fsnet-L firstname lastname
e.g.. subscribe fsnet-L Doug Powell*

Calendar

- **Tuesday, Nov. 20, 2001**

BCFPA Speaker's Evening:

'Listeria Hysteria'

Featuring:

- Practical Control of *L.monocytogenes* in RTE Foods
- Epidemiology of Listeriosis
- Canadian Regulations and Guidelines for Listeria

- Time: 6 to 9 PM
- Place: Townsquare D, Building SE 2 BCIT-3700 Willingdon Ave. Burnaby BC
- Please contact Clive or another Executive BCFPA Member if you would like to provide a poster of your own research at this event.

- **December 12, 2001**

Workshop Invitation: (originally posted for IAFP Industry Members--contact address below for more info)

As a member of IAFP from the industry sector, you are invited to attend the upcoming "Workshop on Biological and

Chemical Agents of Terrorism in Food" to be held **December 12-13, 2001** at the Wyndham Washington, D.C. Hotel. Space is limited and registrations will be processed on a first-come, first-served basis. We encourage you to register today if you are interested in attending.

Our Association was invited by the *International Life Sciences Institute, North America* (ILSI N.A.) to assist in the organization of this workshop. We are fortunate to be partners on this project with ILSI N.A. and their Committees on Food Microbiology and on Food Toxicology and Safety Assessment.

Due to the sensitive topic for this workshop, pre-registration is required. Contact us at fs@foodprotection.org for a .PDF brochure with the preliminary program, or if you have questions regarding this workshop.

-David W. Tharp
Executive Director
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| Biological agents involved [in Biological Warfare, Biocrimes & Bioterrorism] | | |
|--|--|--|
| | Traditional Biological Warfare Agents | Agents associated with biocrimes and bioterrorism |
| Pathogens | Bacillus anthracis* Brucella suis Coxiella burnetii* Francisella tularensis Smallpox Viral encephalitides | Ascaris suum. Bacillus anthracis* Coxiella burnetii* Giardia lamblia HIV Rickettsia prowazekii (typhus) |

| | | |
|--|--|--|
| | Viral hemorrhagic fevers* Yersinia pestis* | Salmonella typhimurium Salmonella paratyphi Salmonella typhi Shigella species Schistosoma species Vibrio cholerae Viral hemorrhagic fevers (Ebola)* Yellow fever virus Yersinia enterocolitica Yersinia pestis* |
| Toxins | Botulinum* Ricin* Staphylococcal enterotoxin B | Botulinum* Cholera endotoxin Diphtheria toxin Nicotine Ricin* Snake toxin Tetrodotoxin |
| Anti-crop agents | Rice blast Rye stem rust Wheat stem rust | |
| * These agents appear in both lists. | | |
| <i>-Dr. W. Seth Carus</i> August 1998 | | |

BRITISH COLUMBIA FOOD PROTECTION ASSOCIATION

AFFILIATE OF THE INTERNATIONAL ASSOCIATION FOR FOOD PROTECTION

