



Agriculture and
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AAFC National Containment, Biosafety and Biosecurity Program

Canadian Biosafety Symposium

June 8, 2010

Winnipeg, Canada

Canada

Agenda

- Introduction to AAFC Research Branch
- Drivers of AAFC CBB Program Development
- AAFC National Containment, Biosafety and Biosecurity Working Group
- Challenges
- Positive Influence
- AAFC CBB Program Components
- Implementation of the CBB Program
- Keep moving forward

Research Branch

- 19 research centres plus 37 substations in 10 provinces
- 500 Research Scientists and 1000 technical staff
- Research activities with implications for biosafety and biosecurity include:
 - Animal and zoonotic pathogens
 - Human pathogens
 - Plant pests and pathogens

Research Branch cont'd

- **Human Nutrition**
 - Sensory evaluation and clinical trials
 - Value-added processing
 - Nutraceuticals
 - Functional foods

Drivers for the development of AAFC's CBB Program

- There was a convergence of issues from the top down, and from the bottom up
 - Accountability (post 9-11 world)
 - What pathogens / pests do we have and where are they?
 - Gap in existing legislation (re. human pathogens circa 2006)
 - Some centres were importing pathogens, had BSOs and complied with PHAC guidelines and CFIA standards
 - Other centres were isolating pathogens from various sources, acquiring them from colleagues within Canada etc.
 - Greater Employee safety
 - No established standard for training, need for SOPs etc.

Drivers cont'd

- **Another gap in legislation**
 - Preparation of food and / or food ingredients for human consumption as part of a clinical trial or sensory evaluation of foods is not explicitly implicated by any legislation and doesn't fall under the jurisdiction of provincial or municipal public health ministries / agencies per se
 - Ethical issues and food safety issues

Creation of the National Containment, Biosafety and Biosecurity Working Group

- In 2006 an A/Director General formed a group that included Scientists, BSOs and a Research Manager
 - All individuals had been working with pathogens / pests in containment throughout their careers
 - All familiar with existing legislation, regs, guidelines, standards, best practices
 - All committed to contributing their time to undertake the development of the program
 - Working group expanded to include individuals with expertise in science communications within department and the AAFC OHS Lab Safety Program

Challenges

- **Perception**
 - This is garden variety stuff
 - We've done this kind of work for years; why is it more dangerous now than 20 years ago?
 - Will this prevent us from doing science?
- **Gap in Legislation**
 - Only required to comply if importing
- **\$\$\$**
 - How much will it cost to get all centres to comply with CL2, PPC-1, 2 or 3 requirements?

Challenges cont'd

- **Numerous changes in senior management positions**
 - Drafting a policy and guidelines at the Branch level requires support from senior management
 - Can't support the development of the program without having a sense of needs, challenges, benefits etc.
 - Write and re-write briefing notes and updates, and hope that they make it to the top of the pile in the "red folder" quickly
 - 2 working group members, including an A/DG, left Research Branch

Challenges cont'd

- **Competing priorities**
 - Position of CBB updates within the “red folder” of updates changed daily, weekly
 - Perceived loss of momentum at the senior level may have had an impact on the working group
 - Working group members had other project obligations to fulfill, deadlines to meet
 - Required approvals / contributions from department lawyers, science communications, translation services, web development group, form development group: all submissions follow a hierarchy based on *departmental* priorities

Challenges cont'd

- Distinguishing the AAFC CBB Program from other AAFC policies and programs
 - Implementation of any Program can't result in violations of other Acts, Regulations, department or TB Policies
 - OHS
 - Very specific requirements
 - Need for workplace committees (with prescribed composition), job hazard analysis, safe work procedures (SWPs)
 - Investigation of accidents and near-misses
 - Training
 - National Lab Safety Program
 - Hazard awareness and education
 - Training curriculum
 - CBB Program is complementary, but distinct

Positive Influence

- Despite numerous challenges, momentum picked up late-2008. Why???

Bill C-11

- Working group members were aware that the Minister of Health was committed to Bill C-11
 - Information provided at CBS and via other outreach efforts by PHAC kept us up to speed on what was driving this piece of legislation and what we could expect once the bill was enacted

Positive Influence cont'd

- Importance of developing a CBB program in a timely manner was recognized
 - Resources were allocated to the working group
 - Creation of a special project and appointment of an interim chair
 - Reassignment of one additional working group member to provide 0.5 FTE
 - Associate Director General joined the working group providing a direct link to senior management and OHS Policy Committee

Components of the AAFC CBB Program

- **CBB Policy and Guidelines**
 - Guidelines comprised of 3 parts
 - Part I: Containment Level 2 Guidelines for human and animal pathogens
 - Part II: Guidelines for the preparation of food, food ingredients and natural health products for human consumption: clinical trials and sensory evaluation
 - Part III: Containment Standards for plant pests and other organisms requiring containment
 - Propose a structure for management of CBB including roles and responsibilities at all levels
 - Appointment of a national committee (NCBBC) and TOR
 - Appointment of BSOs / BCOs
 - Creation of local committees and TORs
 - Integrate risk assessments into the project review and approval process
 - Linkages between national OHS policy committee and NCBBC, and between local committees

Components of the AAFC CBB Program cont'd

- **CBB Policy and Guidelines cont'd**
 - Provide tools for researchers
 - inspection check-lists, forms, links to resources, risk identification
 - Highlights training requirements and need for SOPs
 - Consultative approach to CBB
- **Part I Objectives**
 - Establish a level playing field
 - Incorporated PHAC and CFIA guidelines and standards, and best practices for other sources of biosafety information
 - Position: regardless of how pathogens are obtained all researchers comply with relevant guidelines and standards, and any other relevant legislation etc.

Implementation of the CBB Program

- CBB Policy and Guidelines approved by the Assistant Deputy Minister, Research – April 1, 2009
- **At the local level:**
 - Managers assessed research activities at their respective centres
 - NCBBC provided RMs with an assessment tool
 - 12 BSOs and 13 BCOs were appointed
 - Local committees established
 - Centres implicated by HPTA registered with PHAC

Implementation of the CBB Program cont'd

- **At the national level:**
 - Working group members appointed to NCBBC
 - NCBBC established a network with BSOs / BCOs
 - Hosted a meeting with BSOs / BCOs in November, 2009
 - CBB program, discussed their roles and responsibilities, how to conduct inspections, write SOPs, next steps
 - Most importantly gave them an opportunity to: express concerns, meet NCBBC members in person, meet with officials from PHAC and CFIA = more comfortable with their role, confident that they are supported
 - Created a shared drive for NCBBC, BSOs and BCOs
 - Provides access to SOPs and other research-specific resources
 - List of members and contact info
 - Content can be unilingual

Implementation of the CBB Program cont'd

- **National level cont'd**
 - Developing a training curriculum
 - Describes the standard biosafety training that must be provided to all staff working in containment
 - Developing a program audit
 - To assess implementation in all centres implicated by the CBB Policy
 - Planning a meeting with BSOs / BCOs for fall of 2010

Implementation of the CBB Program cont'd

- National level cont'd
 - Created a CBB web page on AgriSource, accessible by all staff

The screenshot shows the AgriSource website interface. At the top, there are logos for Agriculture and Agri-Food Canada (Agriculture et Agroalimentaire Canada) and the Government of Canada. A navigation menu includes links for Français, Contact Us, Help, Search, and PublService. Below the menu, the breadcrumb trail reads: AgriSource > Tools & Services > Workplace Services > Containment, Biosafety and Biosecurity Program. A search bar is present on the left side. The main content area features the title "Containment, Biosafety and Biosecurity Program" and two paragraphs of text. The first paragraph describes the CBB Program's purpose in guiding researchers. The second paragraph discusses the requirements of the Human Pathogens and Toxins Act (HPTA). Below the text, there is a section titled "Containment, Biosafety, and Biosecurity, and Occupational Health and Safety" with a corresponding paragraph. At the bottom of the page, there is a footer with the date "Date Modified: 2010-03-25" and a link for "Important Notices".

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Containment, Biosafety and Biosecurity Program

The Containment, Biosafety and Biosecurity (CBB) Program described herein will guide researchers toward achieving an appropriate level of work-site containment associated with handling infectious pathogenic organisms and pests. The CBB Guidelines also outline procedures and guidelines to ensure that all foods prepared at Agriculture and Agri-Food Canada (AAFC) science sites are safe for subjects participating in clinical trials or sensory evaluation tests.

The *Human Pathogens and Toxins Act* (HPTA) requires users of human pathogens and toxins to establish a safety and security program to protect the health and safety of the public against the risks posed by human pathogens and toxins. The [AAFC National Containment, Biosafety, and Biosecurity Policy](#) and [Guidelines](#) were developed to meet the requirements of the HPTA and others.

Containment, Biosafety, and Biosecurity, and Occupational Health and Safety

The CBB Program and the [National Laboratory Safety Program \(NLSP\)](#) are 2 distinct, yet complementary programs. At the national level, a liaison between the [National Containment, Biosafety, and Biosecurity Committee \(NCBBC\)](#) and the [Occupational Health and Safety Policy Committee \(OHSPC\)](#) will be achieved via the Associate Director General, Science Operations, Research Branch. At the research centre level, a liaison between the Local Containment and Biosecurity Committee (LCBC) / Local Biosafety and Biosecurity Committee (LBBC) and the workplace health and safety committee will be achieved via the Research Manager.

Users will find more information regarding their roles and responsibilities with respect to Containment, Biosafety, and Biosecurity as well as the liaisons between LCBCs/LBBCs and local workplace health and safety committees, in the CBB Policy and Guidelines.

Date Modified: 2010-03-25 [Important Notices](#)

Keep moving forward

- Review of CBB Program at the national and local levels as prescribed in the CBB guidelines
 - Monitor success of implementation
 - What is working / not working?
 - Strategic plan to address deficiencies (aging infrastructure, capital equipment)
 - Continue to build on training, SOPs
 - Maintain an effective network of BSOs / BCOs, share knowledge and experience
 - Assist researchers with risk assessment and analysis

Keep moving forward

- **Keep abreast of biosafety and biosecurity information**
 - New guidelines / standards in support of HPTA?
 - May necessitate an update of CBB policy and / or guidelines
 - See you next year?

NCBBC Members

Chair: Christian Toupin – Research Manager, St-Hyacinthe, QC

Karen Bailey – Research Scientist; Plant Pests (weeds, pathogens, insects), Saskatoon, SK

Edward Farnworth – Chief, Science Advice, Food Regulatory Issues Division, Ottawa, ON

Mark Goettel – Research Scientist; Insect Pathology, Environmental Health, Integrated Pest Management, Lethbridge, AB

Alain Houde – Research Scientist; Virology, St-Hyacinthe, QC

Doug Inglis – Research Scientist; Zoonotic Bacteriology, Lethbridge, AB

Don Leger – Science Communications Advisor, Ottawa, ON

André Lévesque – Research Scientist; Plant Pests, Plant Pathogens, Ottawa, ON

Peter Mason – Research Scientist; Insect Pests, Insect Biological Control, Ottawa, ON

Jennifer Pacan – BSO, Guelph, ON

Denis Petitclerc – Associate Director General, Science Operations, Ottawa, ON

Nathalie Ritchot – Departmental Laboratory Safety Advisor, Québec, QC

Manjeet Sethi – Executive Director, PMC, Ottawa, ON

Thanks

Christiane Dufresne – Science Integration and Outreach

Primal Silva - A/Director General, Ottawa, ON

Mohit Baxi - Research Manager, Guelph, ON

PHAC - Mary Louise Graham, Andr anne Bonhomme, Alexander Smith

CFIA - Kerry Holmes, Lisa Young, M elanie C ot e



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