

Canadian Food Inspection Agency / Agence canadienne d'inspection des aliments

## Canadian Food Inspection Agency



**Our vision:**  
To excel as a science-based regulator, trusted and respected by Canadians and the international community.

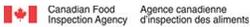
**Our mission:**  
Dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy.

### Canadian Efforts to Address Terrorist Threats to Agriculture and Food



## Presentation Outline

- The risk
- National strategies, plans and capabilities to counter agroterrorism
- Federal science in support of counter-terrorism
- Enhancing CFIA capabilities to respond to terrorism
- The way forward



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## The Risk



## Economic Importance of the Canadian Agri-Food Industry

\$98 billion retail/food service sales

Approximately 8% of the country's GDP

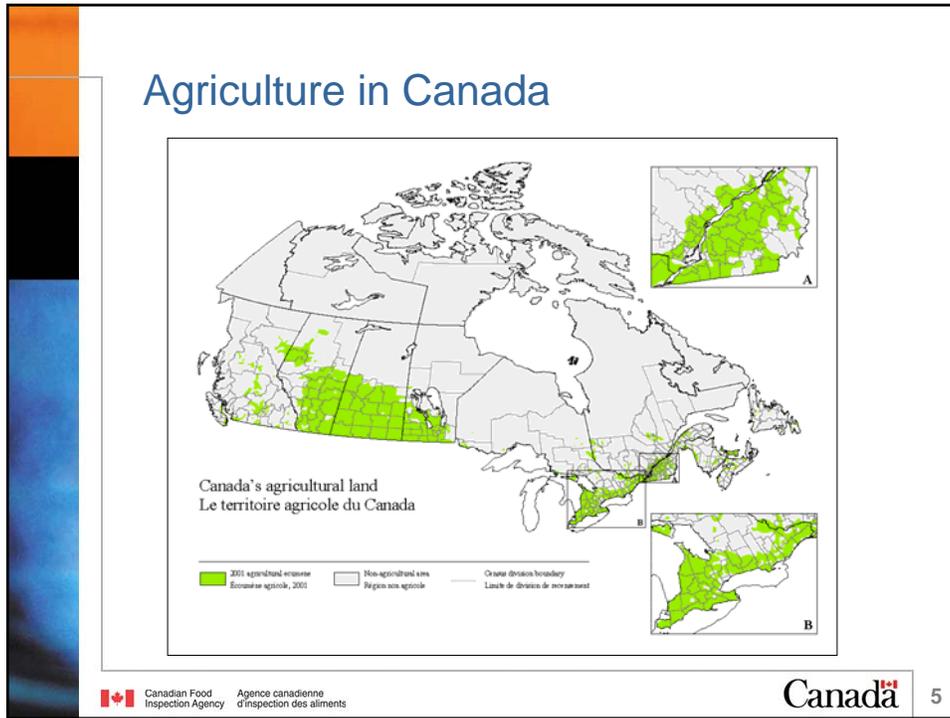
\$ 31 billion in processed meat and livestock products

More than \$ 10 billion in farm cash receipts in horticulture, grains, oilseeds and special crops

Each year approximately \$25 billion from farm-related exports

Annual farm-gate cash receipts approach \$36.7 billion

One in 8 people work in an occupation that is directly supported by agriculture



## Vulnerabilities in the Agri-food Sector

The agri-food sector is vulnerable to intentional disruption:

- Concentrated nature of farming practices and distribution systems
- Disease susceptibility of livestock
- State of farm/food-related security and surveillance systems
- Passive disease reporting system
- Numerous potential terrorist agents
- Potential agents are relatively easy to acquire and produce
- Food chain offers a low-tech and easy means for disseminating toxic and/or bacterial contaminants

## Terrorist Groups and Capabilities

- al-Qaeda theological leaders have urged the use of biological weapons in whatever manner possible against the West
- Areas of future concern
  - Recruitment of scientists
  - Terrorist use of CBRN weapons in Iraq (Cl<sub>2</sub> and chemical mustard)
  - Proliferation of equipment and research

## Agro-Terrorism Scenario Examples

Covert release of a highly contagious animal virus

- e.g. Foot and Mouth Disease (FMD)

Release of a communicable disease that affects both animals and humans

- e.g. Rift Valley Fever (RVF), Avian Influenza (AI), Exotic Newcastle Disease (END)

Introduction of a tasteless, odorless bacterial/toxic contaminant into the food chain

- e.g. E. coli, salmonella, botulism

## Potential Impacts

Economic destabilization

- Direct economic losses
- Indirect impacts
- International costs

Loss of confidence

- In the safety of the food supply
- In level of preparedness
- In government to protect its citizens
- Opposition to mass culling and disposal

Social instability

- Public fear with zoonotic and/or food-borne attacks

## National strategies, plans and capabilities



## National Strategies/Plans

- National Security Policy
- Federal Emergency Response Plan
- CBRN National Strategy
- Departmental Plans



## Basic Principles of Emergency Planning in Canada

- Lowest level competent to respond
- All-hazards approach to planning
- Emergency plans and arrangements based on existing organizational structures and procedures

**Centralized direction and coordination  
&  
Decentralized implementation and response**

## CBRN Terrorist Incident in Canada

Local jurisdictions will likely be the first to respond to a terrorist incident. They will be supported by provinces and territories and federal departments when assistance is requested or in accordance with legislated mandates

Role of Public Safety Canada (PS):

- Coordination of inter-departmental and inter-governmental federal response through **National Emergency Response System** and its **Government Operations Centre (GOC)**
- RCMP lead responsibilities for operational response and investigation

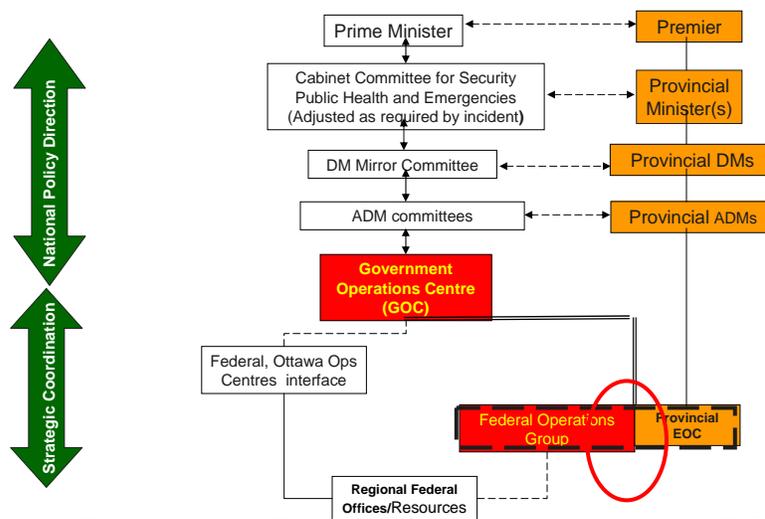
## CBRN Terrorist Incident in Canada

Consequence Management (CM) is primarily a responsibility of provinces and territories

The Federal Government involvement in CM:

- Federal mandates
- Federal Assistance is requested by P/T
- Deployment of Federal response assets
- Assistance to restore essential government and other services
- Protect public health and safety
- Recovery efforts

## Federal, Provincial & Territorial Interface



## National Capabilities



## Government Operations Centre (GOC)

Headquartered in Ottawa, the GOC provides:

- Leadership in emergencies of *national* importance.
- Continuous 24/7 monitoring and analysis of imminent and occurring events
- Allows for coordination of federal response in anticipation of a request for assistance while still respecting provincial, territorial and international jurisdictions

## National CBRN Response Team

Comprised of:

- Royal Canadian Mounted Police (RCMP) Explosive Disposal Technology Section and Forensic Identification services personnel
- Canadian Forces Joint CBRN Defence Company
- Health Canada/Public Health Agency of Canada Emergency Response Team members
- Scientific support from Defence Research and Development Canada

## Other Federal CBRN Response Capabilities

Health Canada and Canadian Nuclear Safety Commission – Radiation response resources  
Public Health Agency of Canada – Health Emergency Response Teams  
Environment Canada – Chemical scientific support and metrological/plum modeling  
CRTI Laboratory clusters  
Natural Resources Canada – Aerial radiation surveying  
DRDC – laboratory and scientific support  
Transport Canada – Dangerous goods remediation and hazard advice  
Canadian Food Inspection Agency – Response teams

## Regulatory Framework

- Criminal Code of Canada
- Security Offences Act
- Emergency Preparedness Act
- Canadian Food Inspection Act
- Canadian Agricultural Products Act
- Food and Drugs Act



## Regulatory Framework

- Health of Animals Act
- Plant Protection Act
- Meat Inspection Act
- Fish Inspection Act
- Feeds Act
- Fertilizers Act



## Canadian Food Inspection Agency (CFIA)

Our mission - Dedicated to safeguarding food, animals and plants, which enhances the health and well-being of Canada's people, environment and economy

Federal mandate to prevent\prepare for\and respond to emergencies related to food safety, animal health and plant health

One of our goals – To contribute to the security of Canada's food supply and agricultural resource base

## Canadian Food Inspection Agency Serving Canadians - Coast To Coast To Coast



## CFIA Emergency Plans

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graph TD; A[CFIA Emergency Response Plan] --> B[Functional Plans]; B --> C[Hazard Specific Plans];
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**CFIA Emergency Response Plan**

**Functional Plans**

Examples:  
animal disease control  
plant pest emergency response  
food emergency response  
feed contaminant response plan

**Hazard Specific Plans**

Examples:  
FMD Strategy  
ALHB Contingency Plan  
Nuclear / Radiological Hazards in Food

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## Testing the plans

Responding to Canadian events

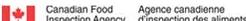
- BSE
- Avian Influenza

International Assistance

- UK FMD
- Netherlands

Exercises

- National, Provincial and Agency-led
- Government & Industry
- International

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## Incorporating Lessons Learned

- Strengthen plans & procedures
- Enhance preparedness with partners
- Plan for a surge in capacity
- Integrate and enhance infrastructure
- Strengthen capacity for information management
- Strengthen legislation and regulatory base



## Federal Science in Support of Counter Terrorism



## Federal Science in Support of Counter Terrorism

Chemical, Biological, Radiological or Nuclear Research and Technology Initiative (CRTI)

Budget 2001: \$170M over 5 years  
Launched May 2002

**Mission:** to strengthen Canada's **preparedness** for, **prevention of**, and **response** to a **CBRN** terrorist attack through new investments in science, research, and technology capacity

Expected to be renewed for another 5 years

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## How does CRTI accomplish its mission?

- By the creation of clusters of federal labs (science clusters) as elements of a federal laboratory response network that will build S&T capacity to address the highest risk terrorist attack scenarios
- By the creation of a fund to build capability in critical areas, particularly those identified in the scenarios that address CBRN attack
- By the acceleration of technology into the hands of the first responders community and other operational authorities
- By the provision of funds to those areas where national S&T capacity is deficient owing to obsolete equipment, dated facilities and inadequate scientific teams.

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## Federal Science in Support of Counter Terrorism - Assessment of Risk

### **CRTI Consolidated Risk Assessment**

- Scenario-based analysis of CBRN hazards and targets
- Ranks scenarios for preparedness prioritization and investment decisions
- Identifies capabilities required, S&T gaps, and key mitigating factors
- Includes CBRN threat assessment, analysis of scenarios and lists of chemical, biological, radiological, and agro-terrorist agents

## Building on the Risk Assessment for Agri-Food Scenarios

### **Addressing the Vulnerabilities Identified in the Review of the CRA**

- CFIA-led workshops in 2004 & 2006 to further review the potential terrorist scenarios related to food safety, animal health and plant protection
- Gaps in knowledge, technology, or capability are identified
- Science & technology solutions to address vulnerabilities are identified for take up by the appropriate parties

## Federal Science in Support of Counter Terrorism

### Exercises and Training

- Forensics Workshop (May 03 & April 06)
- Exercise "As Is" (RN Cluster) (Oct 03)
- ITWG Nuclear Smuggling Exercise (Apr 04)
- First Responders Workshop (Jun 04)
- International CBRN Sample Triage Workshop (Oct 04)
- Forensic Sampling for Evidentiary Purposes (Nov 04)
- Exercise "Follow-On" (RN Cluster) (Feb 05)
- Exercise Maritime Response in New Brunswick (Winter 06)
- Bio Cluster Exercise – BI-EX West (Spring 06)

## Federal Science in Support of Counter Terrorism

### BI-EX WEST

An exercise to enhance and build capability of federal, provincial and municipal departments and agencies to work together in an effort to identify and control a bioterrorist attack against Canada

The Bi-Ex West exercise is a full-scale exercise involving a multi-level, multi-agency response to a CBRN attack (zoonotic disease)

## BI-EX WEST Exercise Objectives

- To exercise Canada's ability to respond to a biological terrorist event where collaborative efforts by Federal science departments are required
- To exercise communications at each level and between levels (multi-jurisdictional)
- To provide an opportunity to utilize CRTI funded science and technology enhancements
- To exercise sample handling procedures for identification of threat agent(s) in samples taken from humans, animals and the environment
- To exercise forensic investigation procedures for a criminal investigation (chain of evidence/custody, data development)

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## Enhancing CFIA Capabilities to Respond to Terrorism

Public Security and Anti-Terrorism (PSAT) Initiative

- CFIA requested and received PSAT funding in 2002 to fulfill new and expanded roles after 9/11
- Funds have been used to enhance surveillance and early detection, and increase laboratory capacity



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## Enhancing CFIA Capabilities to Respond to Terrorism

### Strategies, plans and programs

- Expanded animal identification systems
- Increased capacity for food safety investigations and recalls
- Increased inspection of live animal markets

### Technology and Equipment

- PPE and other response equipment
- Alternate disposal methodologies
- Enhanced ability to share information with partners

### Partnerships

- Interdepartmental umbrella MOUs
- Foreign Animal Disease Emergency Support (FADES) agreements

## Enhancing CFIA Capabilities to Respond to Terrorism

### Laboratory Capacity

- expanding the laboratory network within provincial jurisdictions
- funded infrastructure and equipment enhancement in CFIA laboratories across Canada



## Enhancing CFIA Capabilities to Respond to Terrorism

Public Awareness

Exercises & Training



## The Way Forward

- Create effective horizontal cooperation and communication
- Develop strategies and/or policies before emergencies occur
- Enhance interoperability
- Conduct timely risk assessments including threat and vulnerability assessments
- Apply lessons learned from past emergencies and exercises
- Continue training & exercising with partners



## Further Information

[www.inspection.gc.ca](http://www.inspection.gc.ca)

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