

Canadian Food Inspection Agency
Agence canadienne d'inspection des aliments

Canadian Food Inspection Agency

**Sidney Laboratory
Centre for Plant Health
Sidney, BC**

Dan Thompson
AVICC AGM, April 8 – 10, 2011

Our vision:
To exist 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.

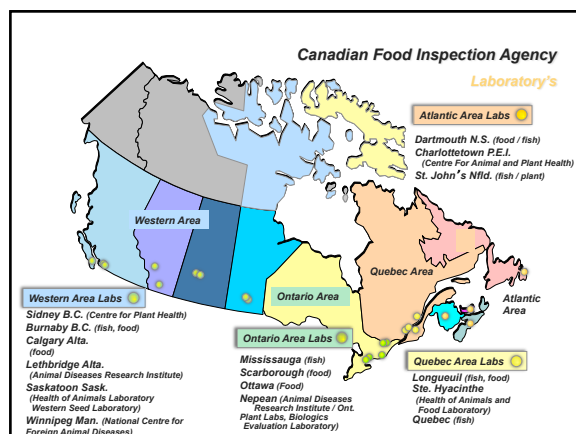
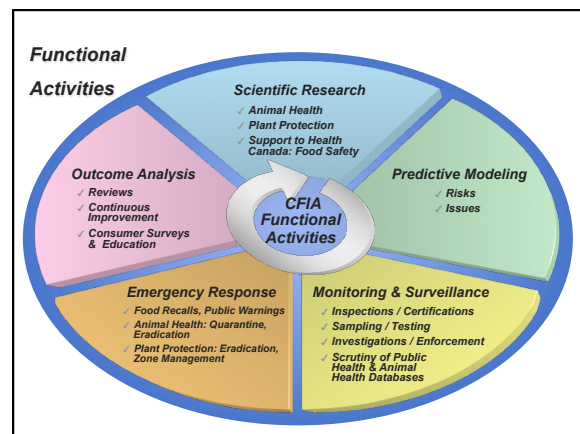
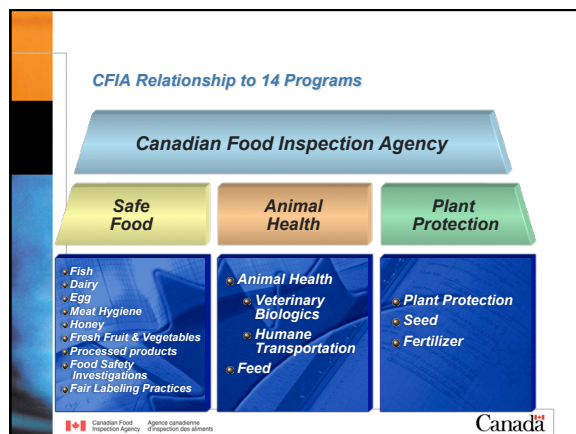
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Canadian Food Inspection Agency
Serving Canadians - Coast To Coast To Coast

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Role of Centre for Plant Health

- To prevent the introduction & spread of plant viruses and related diseases
- National plant introduction and post entry quarantine facility
- Research support for CFIA programs
- National repository of virus-tested plants

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Clients and Staff

CFIA Plant Health

- Regulatory staff HQ
- Regional operations staff

Producer Associations


Provincial Grower Groups

Technology Development Collaborators

Office of Biotechnology

Staff


- 36 (49 in summer) total
- 5 Biologists, 3 Scientists



Canada


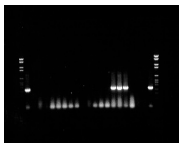
Role of Diagnostic Sections

- Test non-approved material from foreign sources (Section 43 import permit)
- Test approved material from foreign sources (Audit)
- Test domestic material for export certification, e.g. new fruit varieties
- Virus elimination
- Nuclear repository of virus-tested stock
- Surveys and post-entry quarantine



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Testing Methods

- Woody bioassays in field and greenhouse (3 months to 3 years). Only way to detect some diseases.
- Herbaceous bioassays (2 to 3 weeks). Not all viruses sap-transmissible.
- Lab tests (ELISA, PCR) – accurate and sensitive but require knowledge of causal agent

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CFIA Environmental Scan

Objective: To provide CFIA with an environmental scan of issues that may impact the business of the Agency

The Scan:

- Annual report by Policy and Program Research Division
- The scan is organized into five areas:
 - Society and Demographics;
 - Environment and Natural Resources;
 - Governance, Policy and Regulations;
 - Economics, Business and Trade; and
 - Science and Technology.
- Short term is defined as being two years, medium term as five years and anything beyond 2015 as longer term
- We then look at potential implications for the CFIA business lines

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Society and Demographics



Short and Medium Term


- Increasing concern for safety of ingredients and materials in food and products
- New immigrants (approx. 80%) settling in Toronto, Montréal, Vancouver, Calgary and Ottawa*
- Internet use increasing rapidly in Canada: 80% of those 60 or older were regularly connected in 2009, up from 73% in 2007**
- Baby Boomers are more affluent, more independent and have higher expectations from governments compared to the current generation of seniors

Longer Term

- The population of over-65s will more than double, from 4.7 million in 2009 to between 9.9 million and 10.9 million (an estimated 25% of the projected population) by 2036***
- The average age of farmers is increasing, with farm operators under the age of 35 making up only 9.1% of all farm operators****
- International travel is projected to grow 6.5% annually on average to 2020 thus increasing the risk of pandemics

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Environment and Natural Resources



Short and Medium Term

- National water levels are expected to be the same, but with regional variability*
- Green House Gas emissions continue on 'business as usual' forecast; probability of regional drought and flooding increasing
- Due to the complexity of climate change, the impact upon agriculture is difficult to accurately quantify**

Longer Term

- Temperatures will continue to rise with best estimates suggesting a 1.8 to 4.0 degree C increase over the next century—regional differences within Canada and globally
- Agricultural productivity in Canada and around the world will increasingly be dependant on water quantity and quality

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Governance, Policy and Regulation



Short and Medium Term

- Proposed food safety legislative reform in U.S. will likely impact Canada's export requirements and safety standards
- Both global and domestic consumers have increasing expectation to influence governments
- Countries with developing governance structures are increasingly entering into trade

Longer Term

- Restricted government spending in order to eliminate deficit by 2015
- One World, One Health convergence of risk management across disciplines
- Renewed focus on regional agreements likely to follow bilateral efforts

Economics, Business and Trade



Short and Medium Term

- Heightened tensions in currency markets and related risks associated with global imbalances could result in a more protracted and difficult global recovery*
- Economic recovery to be more gradual than projected with growth of 3.0 per cent in 2010, 2.3 per cent in 2011, and 2.6 per cent in 2012**
- Domestic consumption and housing activity expected to slow**
- U.S. recovery weaker than projected, constraints are beginning to moderate growth in emerging-market economies*

Long Term

- Global agricultural production to grow more slowly in the next decade but remains on track to satisfy estimated long term demand***
- Globalization of economy, people and culture to continue*

Economics, Business and Trade



What is Globalization?


- Globalization describes the process by which nation-states are becoming integrated through a global network of economics, technology, culture, governance, biology/ecology and ideology
- Globalization is driving changes in production, distribution and consumption*

Globalization : Trends


- The information and communications revolution increasingly allows for products to be sourced, manufactured and distributed in a global economic context**
- Between 1997 and 2009 CFIA regulated commodity exports have risen 12% and imports have risen 69%, although commodity markets continue to be volatile***
- Canada's top emerging suppliers are from developing world with varying degrees of regulatory capacity and oversight*
- International travel is projected to grow 6.5% annually on average to 2020****

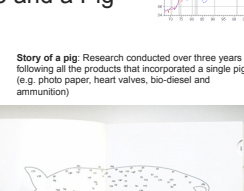
Economics, Business and Trade





Global Stories: A Taco and a Pig



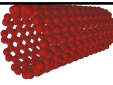
Story of a taco: this map depicts the transportation of all of the ingredients that went into the building of a taco (e.g. avocado from Chile, rice from China)



Story of a pig: Research conducted over three years following all the products that incorporated a single pig (e.g. photo paper, heart valves, bio-diesel and ammunition)

Science and Technology





Short and Medium Term

- Products of biotechnology with focus on climate related tolerance as well as non-food/feed applications (molecular farming, biofuel production)
- Digitalization of traceability, labelling and other systems (consumers with hand-helds looking up 'mega labels' with various ratings and environmental scoring)
- Increased genomic knowledge leading to better understanding of the mechanisms by which animals and crops cope with disease, parasites, and insects
- Food and agriculture applications of nanotechnology entering the Canadian market*

Long Term

- Hand held with imaging technology that can capture images of micro-particles using a sensor array – pathogen or disease detection**
- Manufactured foods (meat in a petri dish)
- Plants capable of producing seeds that are clones***
- Rapid development and application of technologies like nanotech
- Convergence of technologies – GMO, nano, sythnetic biology and artificial intelligence

Impacts on CFIA



- Variety of food and products from an increasing number of countries, some of which have governance in development
- Increase in demand for certification of claims and transparency and traceability
- Increased pest and disease risk (less winter kill)
- New risk of invasive alien species due to increased globalization
- Changes in the evolution and incidence of zoonotic diseases
- Increased worldwide demand for meat

