



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.

## Role of the Canadian Food Inspection Agency in Grain Exports

### International Movement of Grain Workshop Vancouver, Canada

Kanwal Kochhar  
December 7, 2011

Canada



# Presentation Outline

- **Overall Role/Organizational Structure of the Canadian Food Inspection Agency (CFIA)**
- **Highlight:**
  - CFIA Plant Protection Responsibilities
  - The Canadian Grain Handling System
  - Export Certification of Grain

# Federal Inspection System

## CFIA Responsibilities

- **Food Safety**
  - All food inspection related services (policy by Health Canada)
- **Animal Health**
- **Plant Protection**

## CFIA Legislation

- **13 Federal Acts**
  - 5 Food Safety
  - 3 Framework/Administrative
  - 3 Agricultural Inputs
  - 1 Health of Animals
  - **Plant Protection Act**

**Purpose of Plant Protection Act:** protect plant life and the agricultural and forestry sectors of the Canadian economy by preventing the **importation, exportation and spread** of pests and by controlling or eradicating pests in Canada.

# CFIA Plant Protection

## Canada's NPPO– Programs contribute to

- A safe and sustainable plant resource base
  - pest risk analysis
  - development of import requirements
  - import and domestic inspection
  - surveys for regulated pests
  - eradication and quarantine efforts
- Facilitation of market access
  - export inspection (facility, conveyance, commodity (field/export lot))
  - phytosanitary certification
  - science based negotiations with trading partners



# Canadian Food Inspection Agency

Canadian Food Inspection Agency Area and Regional Offices

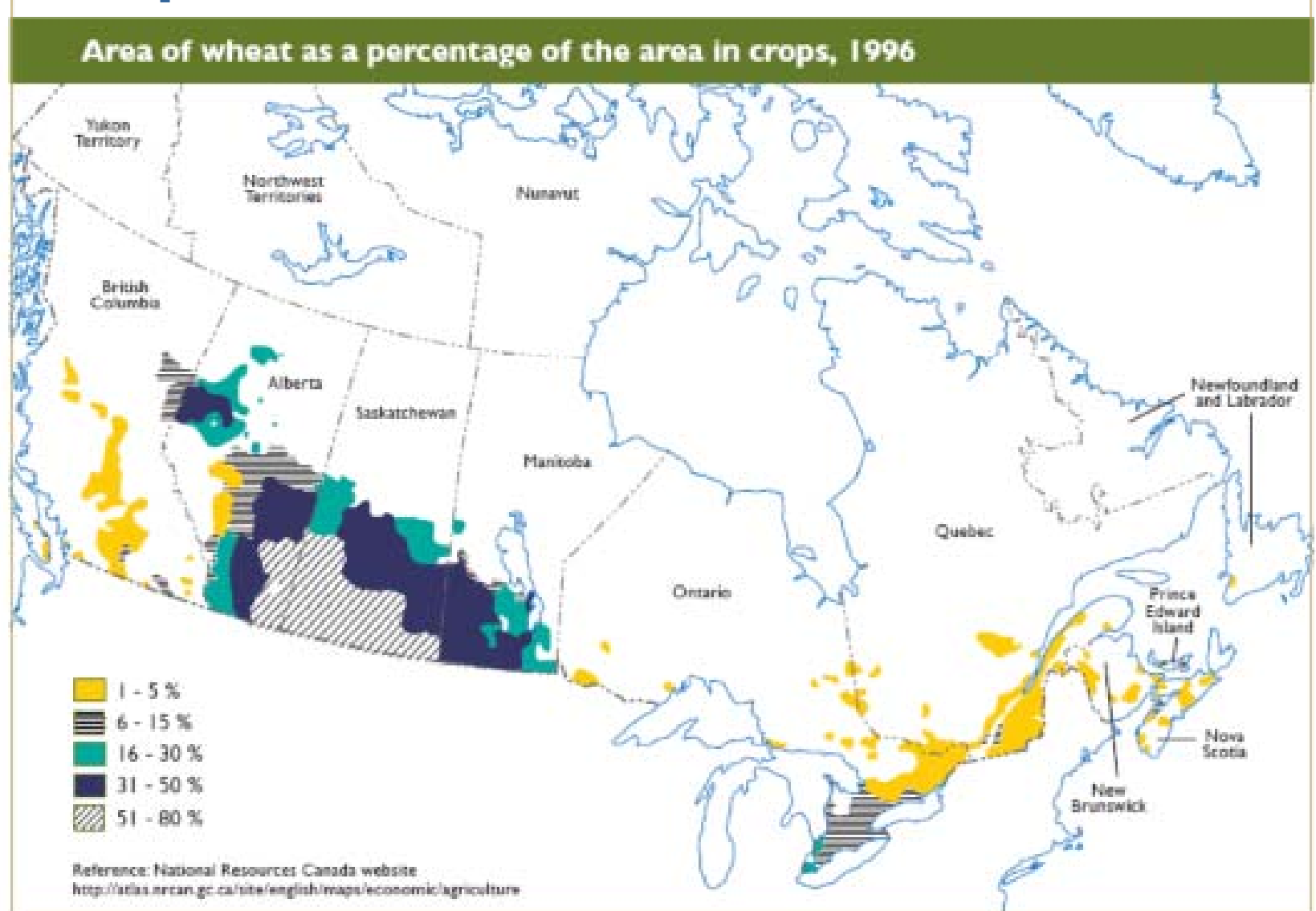


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# Crop Production Areas in Canada



## Production and Export of Major Canadian Crop Kinds (average of 2009 to 2011)

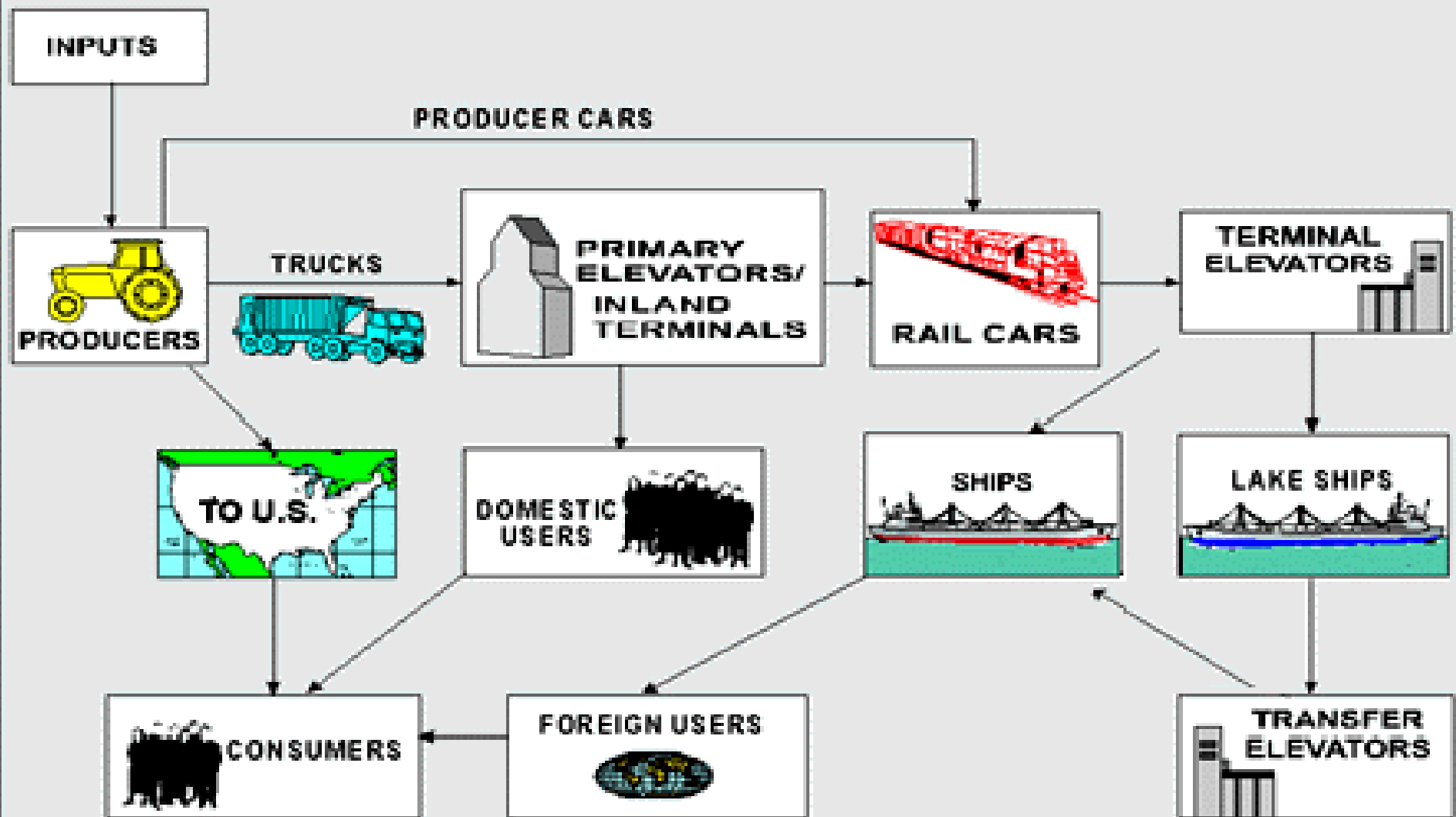
Crop Kind	Area ('000 ha)	Production ('000 T)	Export ('000 T)	%
Wheat	8,828	24,725	17,224	69.7%
Canola	6,632	12,863	7,061	54.9%
Corn (Grain)	1,179	10,448	765	7.3%
Barley	2,579	8,340	1,988	23.8%
Soybeans	1,458	3,924	2,407	61.3%
Dry Peas	1,234	2,802	2,430	86.7%
Oats	960	2,757	1,987	72.1%
Lentils	1,110	1,684	1,231	73.1%
Flaxseed	416	577	509	88.1%
Rye	98	238	141	59.3%
Dry Beans	105	208	229	109.9%
Mustard Seed	167	169	124	73.2%
Canary Seed	118	142	150	105.4%
Sunflower	42	62	42	67.6%
Chick Peas	46	86	67	78.3%
<b>TOTAL</b>	<b>24,972</b>	<b>69,027</b>	<b>36,354</b>	<b>52.7%</b>





# The Canadian Grain System

## Grain Flow







# The Canadian Grain Handling System

## Function:

- Carry grain produced within the country to ports (~1000 to 2500 km distance)

## Principles:

- High throughput, efficiency, and cost effectiveness
- Common infrastructure (equipment, storage and transportation) for handling multiple crop kinds
- Canada's grain export certification procedures are developed around this structure

# Rail Network for Movement of Grain



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# On Farm Storage



**Canada's winter effective mitigation for insects!**



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# Primary Grain Elevators

- Located in the areas of grain production
  - Delivery radius of up to 200 kilometres
  - For example, 323 inland elevators in W. Canada





# Producer Delivery to Primary Elevator

- Delivered in trucks from farms
  - 42 metric tonne average



# Unloading Grain at Primary Elevator



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# Inland Grain Processing Facilities

- Value added processing
- Bulk and bagged container and bulk railcar shipments





# Railcar Loading at Primary Elevator



Grain from many sources is collected at these facilities and each crop kind is stored together until enough product is assembled to load an entire train (25 to 100 cars at 90 tonnes each) = as much as 9,000 MT for a train load.

# Rail Transport

- Railcar shipments from primary to terminal elevators
  - 25 to 112 car unit trains (freight incentives)



# Terminal Elevators

- Terminal (port) elevators receive grain from inland
  - Load ocean vessels
  - 26 in Canada



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# Canadian Ports for Grain Export

- Canadian grain exports transported by ocean vessels to overseas markets
- Vancouver is Canada's busiest port
- West – 60.5%
- North – 2.1% (via Churchill)
- East – 29.2 %
- Prairie direct – 8.2%



## Rail cars arrive at a terminal elevator



# Terminal Elevator



Rail car unloading



Grain is distributed



Directed to appropriate bin



# Loading a Vessel Hold



Grain is stored in crop type/grade specific silos.  
Coordination key factor in ensuring enough grain to load an ocean vessel  
(30,000 MT to 60,000 MT)



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# CFIA Export Certification

- Based on exports being **free of plant quarantine pests of the importing country** and (the optional statement under the IPPC model) **“practically free from other pests”**

## Process

- Ensure Canadian exports meet importing countries' phytosanitary requirements
  - Phytosanitary requirements of importing countries are subject to change.
- Export certification requires detailed knowledge of the phytosanitary requirements of the importing country
  - CFIA Export Certification System
  - WTO Notification
  - Import Permits
  - Trade Commissioners (Embassy)

# Export Certification of Grain

- Activities supporting issuance of “Phytosanitary Certificates” and Canadian grain exports:
  - terminal/transfer grain elevator inspections
  - ship and laker vessel inspections
  - sampling and testing of export shipments
  - growing season field inspections



## Sampling and Testing for Export Phytosanitary Certification

Sampling

### Canadian Grain Commission (CGC)

The CGC takes samples for establishing grade and quality.

Samples are taken by CGC when bulk vessels are loading and insect status of those samples are reported to CFIA by CGC.

If additional testing is needed for pathology or weeds to meet the requirements of importing countries, the CGC sends extra loading samples to CFIA.

The CFIA issues phytosanitary certificates for grain or grain products exported by bulk vessel based on results of regularly scheduled elevator inspections conducted either by CFIA or on behalf of CFIA by the CGC.

### Canadian Food Inspection Agency (CFIA)

A CFIA inspector may take a sample of grain or grain products for phytosanitary certification in any conveyance or facility.

### Canadian Grain Sampling Program

CFIA approved samplers can take samples of any grain or grain products for export and submit an official sample to CFIA for testing.

Samplers operate under an approved quality system manual and are audited regularly.

Sample  
Evaluation  
and Testing

### CFIA

- Samples submitted to CFIA
- Testing may include:
  - ▶ insects
  - ▶ soil
  - ▶ weed seeds
  - ▶ pathogens/nematodes
- Results sent to CFIA inspector who issues phytosanitary certificate

# Containerized Export Shipments

- Containers may be loaded
  - in the area of production at a processing facility,
  - or at transfer facility at port
- Either loaded with bagged or bulk grain



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# Export Certification of Grain

## 1. Facility Inspections

- Terminal and Transfer Elevators



### Inspection of elevators:

- Conducted by the CFIA or CGC
- Assesses sanitation
- Visual inspection and sample testing for insect infestations



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# Export Certification of Grain

## 2. Ship Inspection

- Vessels loading grain or grain products for export must be inspected by the CFIA prior to loading
- Ship inspections ensure that exported grain does not become infested by insects or contaminated by residual grain



# Export Certification of Grain

## 3. CFIA Inspection Office

- Visual examination and issuance of phytosanitary certificate
- stored product pests (Berlese funnel)
- soil
- weed seeds



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# Export Certification of Grain

## 4. Laboratory testing for regulated pathogens

- CFIA local offices forward samples for lab testing to confirm the importing country's requirements are met:
  - bacteriology and mycology (Ottawa–Ontario Plant Lab)
  - nematology (Ottawa, St. John's, Charlottetown)
  - virology (Saanich, British Columbia)



# Export Certification of Grain

## 5. Analysis of representative samples to verify freedom from quarantine weed seeds

- CFIA Seed Science and Technology Lab;
- Trained, experienced CFIA inspection staff
- CFIA Accredited Seed Labs (pilot phase)



Steve Hurst @ USDA-NRCS PLANTS Database

Example weed seed:  
*Lolium temulentum*



# CFIA Export Certification

- The CFIA issues Phytosanitary Certificates that follow the IPPC model and in accordance with legislation and policy
- Phytosanitary certificates are only issued if it is a requirement of the importing country or the destination country for re-export
- Phytosanitary Certificates are only issued when the consignment meets the phytosanitary requirements of the importing country

A sample of a Phytosanitary Certificate form, specifically for export to China. The form is titled "PHYTOSANITARY CERTIFICATE" and "CERTIFICAT PHYTOSANITAIRE CHINA". It contains various fields for information such as the country of origin, the commodity, and the treatment applied. The form is partially filled out with handwritten text, and a large diagonal line is drawn across it, with the word "Export Only" written along the line.

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# Challenge: Balancing Trade Practices with Phytosanitary Risk

## Trade Practices

- Grain handling system – efficiencies and economies of scale
- Departure of ships before certification status is known
  - Sampling at the time the conveyance is loaded
- Traceability issues (fungibility)

## Phytosanitary Risk

- Zero tolerance for quarantine pests
- One quarantine pest (fungal spore, weed seed, nematode) could result in the refusal of phytosanitary certificate to entire shipment
- Certification based on pest freedom in a given area requires traceability system



# Vision

- An international recognition that the standard for the international movement of grain:
  - balances trade facilitation with phytosanitary risk
  - increases predictability and transparency of phytosanitary requirements
  - makes a distinction for grain for non-propagative end uses and seed for propagation
  - implemented globally



# Canadian Food Inspection Agency

## Questions Comments Discussion

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