Role of the Canadian Food Inspection Agency in Grain Exports

International Movement of Grain Workshop
Vancouver, Canada

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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 Area and Regional Offices

**Atlantic Area**
- New Brunswick (Fredericton)
- Nova Scotia (Dartmouth)
- PEI (Charlottetown)
- Newfoundland (St. John's)

**Western Area**
- Manitoba (Winnipeg)
- Saskatchewan (Regina)
- Alberta South (Calgary)
- Alberta North (Edmonton)
- B.C. Coast (New Westminster)
- B.C. Mainland/Interior (New Westminster)

**Ontario Area**
- Southwest (London)
- Central (Guelph)
- Toronto (Downsview)
- North East (Belleville)

**Quebec Area**
- Montreal East
- Montreal West
- St-Hyacinthe
- Québec City
Crop Production Areas in Canada

Area of wheat as a percentage of the area in crops, 1996

Reference: National Resources Canada website
http://atlas.nrcan.gc.ca/site/english/maps/economic/agriculture
### Production and Export of Major Canadian Crop Kinds (average of 2009 to 2011)

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

Inputs

Producer Cars

Producers

Trucks

Primary Elevators/Inland Terminals

Rail Cars

Terminal Elevators

To U.S.

Domestic Users

Foreign Users

Consumers

Ships

Lake Ships

Transfer Elevators
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
On Farm Storage

Canada’s winter effective mitigation for insects!
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
Inland Grain Processing Facilities

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

Directed to appropriate bin

Grain is distributed
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)
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

**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.

**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.

**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
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
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.
3. CFIA Inspection Office

- Visual examination and issuance of phytosanitary certificate
- Stored product pests (Berlese funnel)
- Soil
- Weed seeds
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)

Example weed seed: *Lolium temulentum*

Steve Hurst @ USDA-NRCS PLANTS Database
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.
## Challenge: Balancing Trade Practices with Phytosanitary Risk

<table>
<thead>
<tr>
<th>Trade Practices</th>
<th>Phytosanitary Risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Grain handling system – efficiencies and economies of scale</td>
<td>• Zero tolerance for quarantine pests</td>
</tr>
<tr>
<td>• Departure of ships before certification status is known - Sampling at the time the conveyance is loaded</td>
<td>• One quarantine pest (fungal spore, weed seed, nematode) could result in the refusal of phytosanitary certificate to entire shipment</td>
</tr>
<tr>
<td>• Traceability issues (fungibility)</td>
<td>• Certification based on pest freedom in a given area requires traceability system</td>
</tr>
</tbody>
</table>
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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