Plant Pest Pathways into North America Sea Containers and E-Commerce

North American Plant Protection Organization Annual Meeting

Merida, Mexico
October 18, 2017

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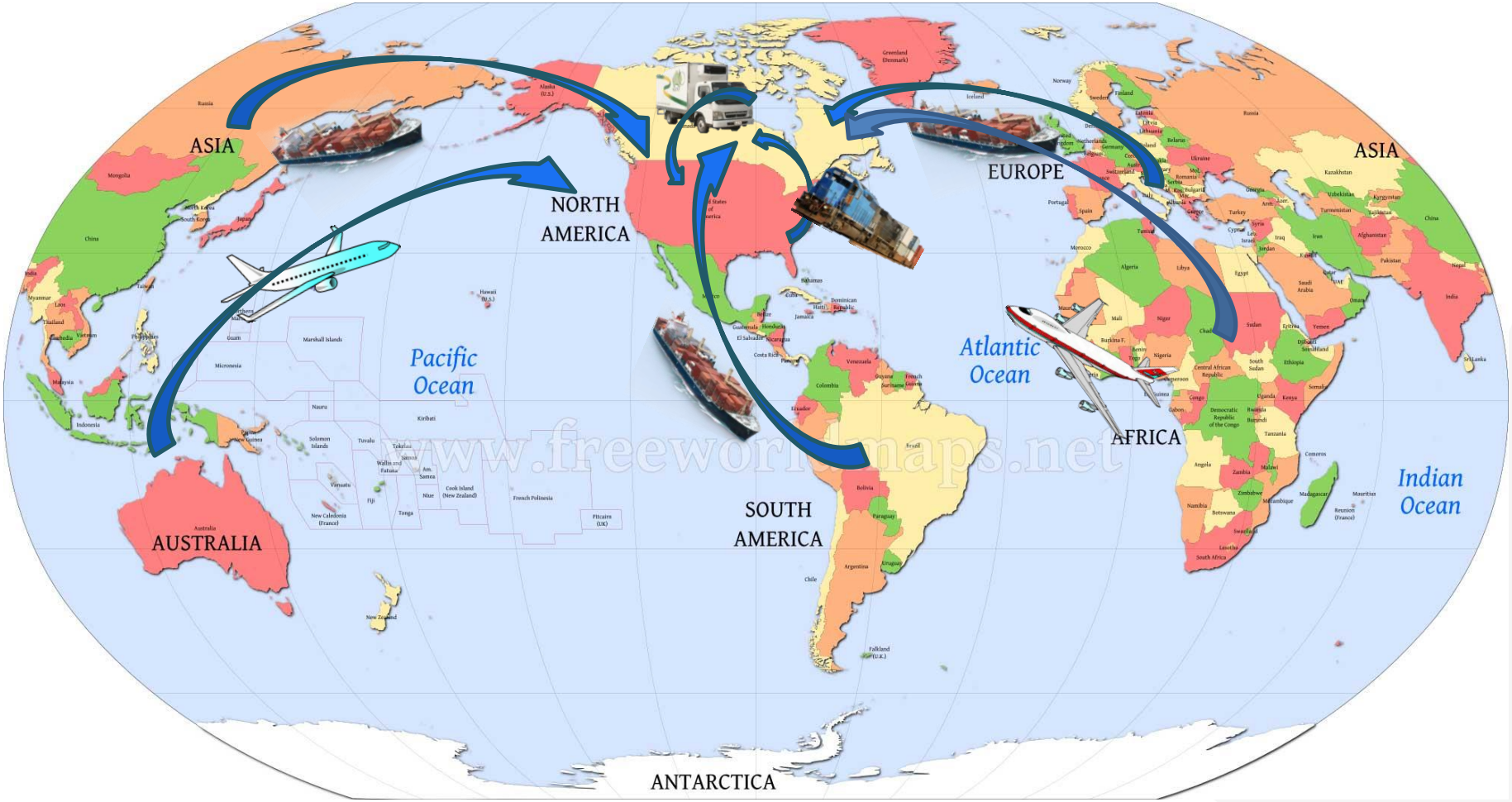
Pathways into North America

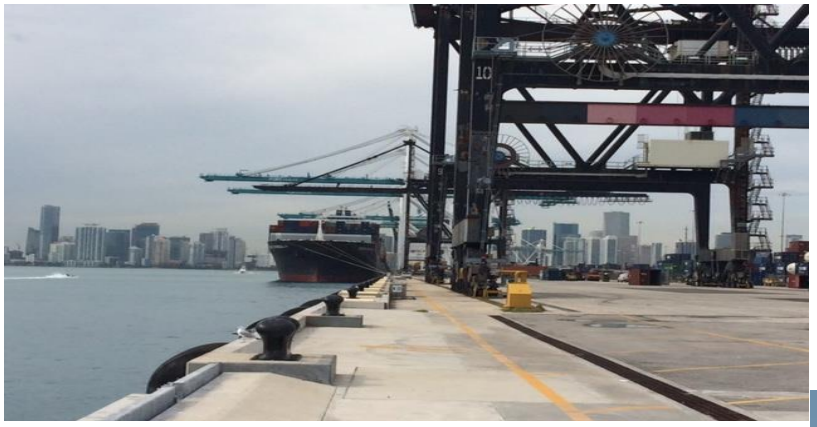


TRADE – TRANSPORT - TRAVEL

Phytosanitary Risk Pathways

- Managing pathways has the potential to address many pests and risks at the same time
- Traditional pathways are commodity-based (e.g. plants for planting, soil, forest products, wood packaging, grain and fresh produce)
- Pathways that also pose pest risks include
  - **Sea containers**
  - **Commodities that are not plants/plant products (e.g. steel slabs, tiles, car parts)**
  - **E-commerce**

Sea Containers: Phytosanitary Risk?



Contaminated containers enter the United States and Canada every day

These containers are then transported by rail and truck throughout the United States and Canada

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In 2016 in the U.S., over 12 million containers made entry through 89 ports of entry

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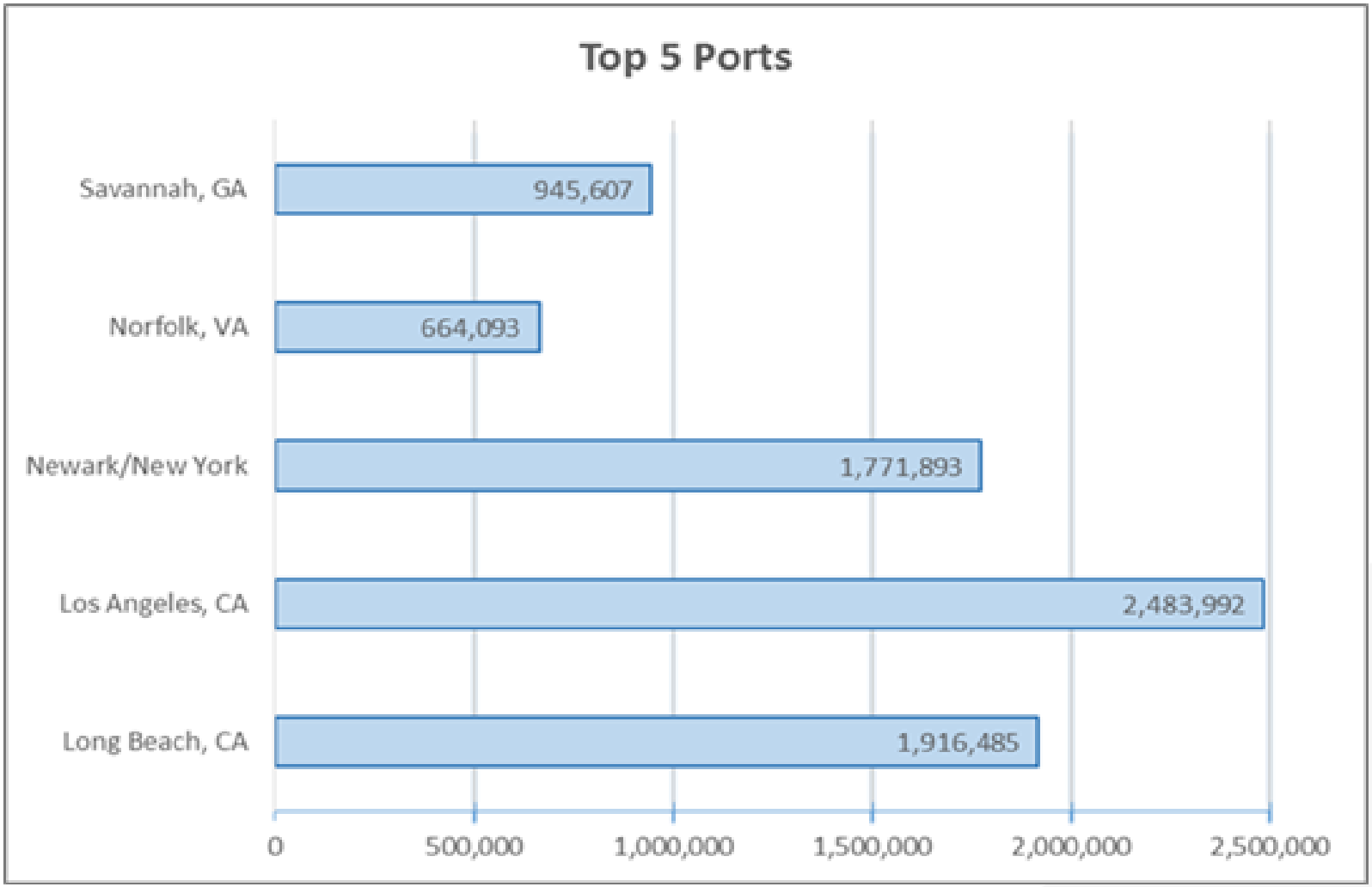
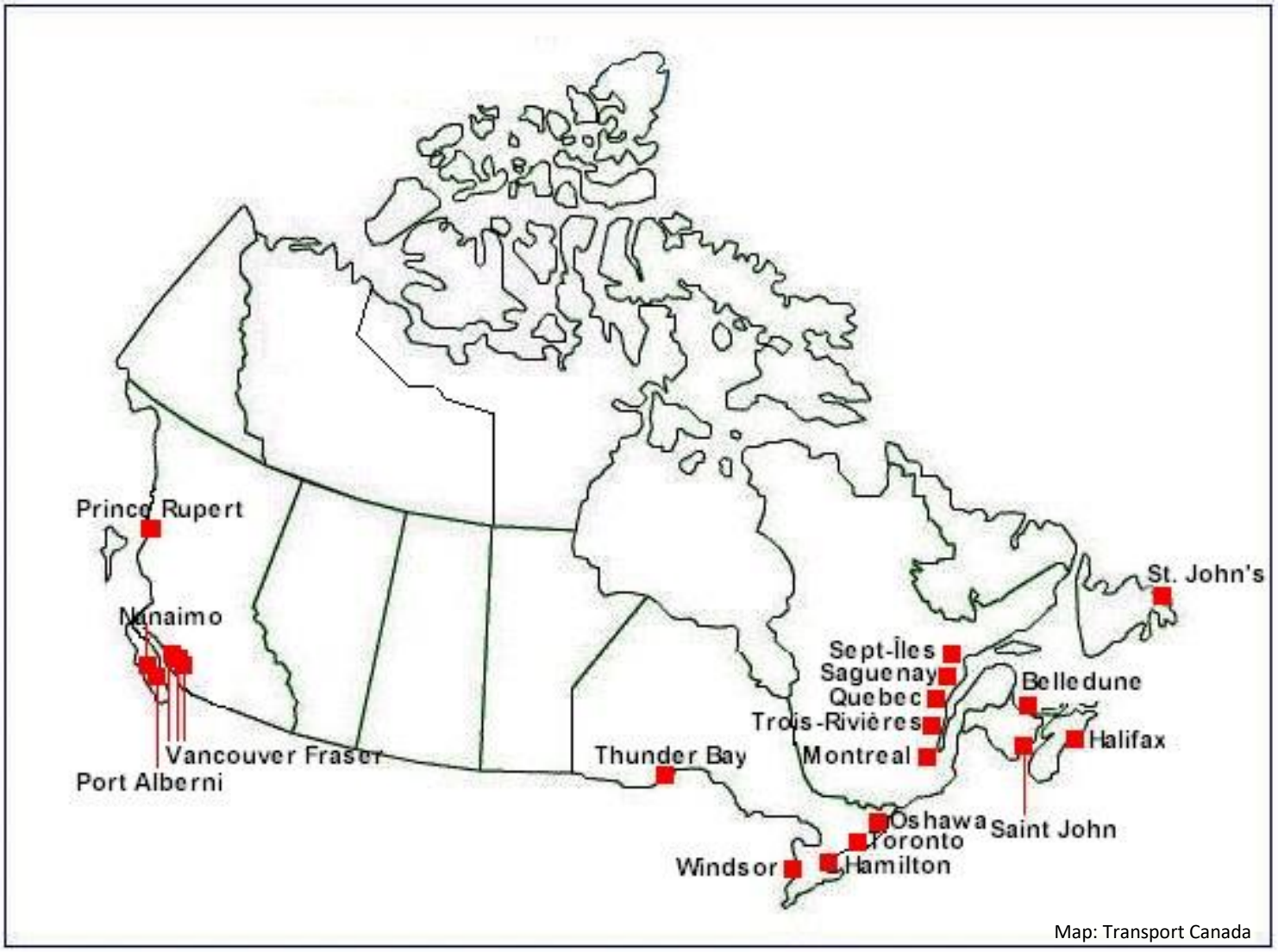


Main Canadian Ports



Map: Transport Canada

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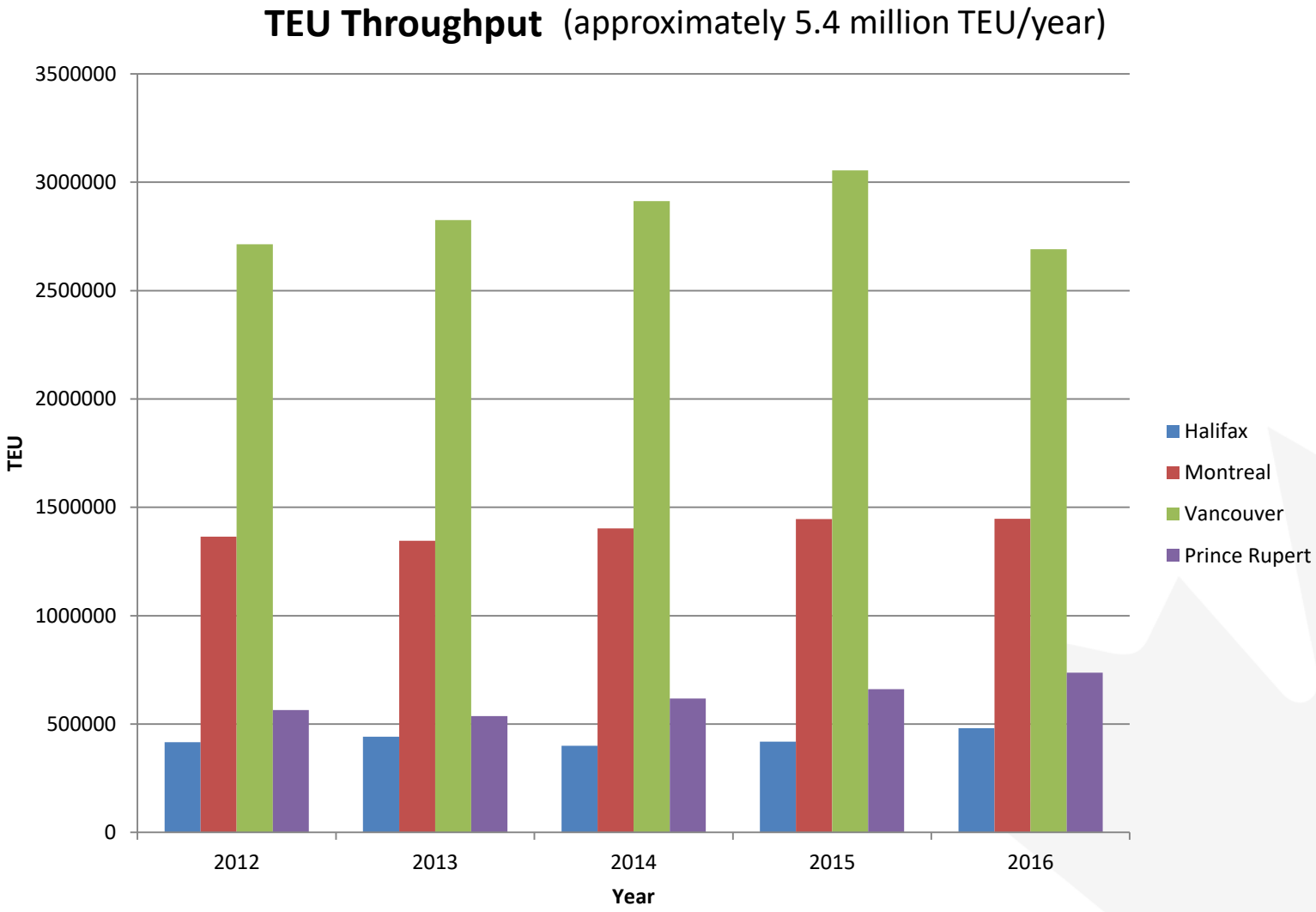
Total TEU Throughput in the Four Major Canadian Seaports 2012-2016



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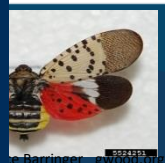
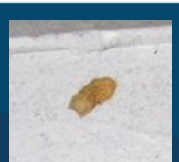
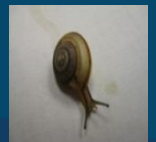
Sea Containers




Examples of pests or regulated articles found include:

- **Molluscs**
- **Insects**
- **Seeds**
- **Plant debris**
- **Soil**
- **Other**





Credit: Mark R. McNeill

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Molluscs: destructive pest of agriculture and horticulture crops

- Snails attach to exterior of maritime containers.
- Containers of tile from various parts of the world.

International Plant Protection Convention (IPPC) Minimizing Plant Pest Movement by Sea Containers

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Commission of Phytosanitary Measures (CPM)-12 meeting in 2017

- Draft standard
- Complementary Measures Action Plan adopted

Complementary Action Plan Adopted by CPM

- Measure the impact of the CTU Code
- Increase awareness of pest risks of sea containers
- Establishment of Sea Container Task Force

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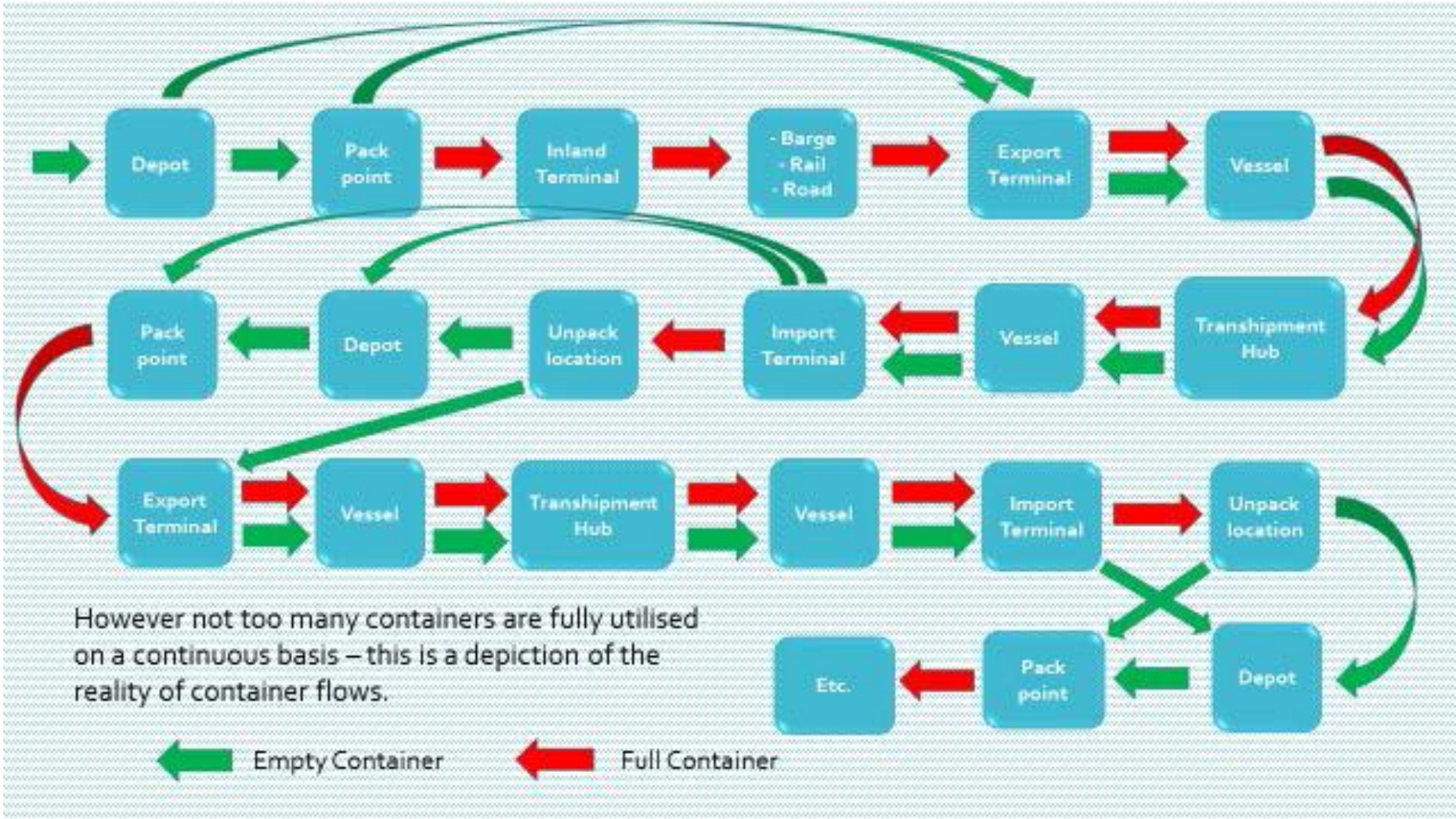
North American Sea Container Initiative

Canada-United States government-industry initiative



Source: Mr Michael Patrick Downes, Container Owners Association (COA), Senior Equipment Technical Expert, Centre Operations, Maersk Line *in* Commission on Phytosanitary Measures, Eleventh Session, Rome, 4-8 April 2016, Logistics of Sea Containers, Agenda item 14 https://www.ippc.int/en/publications/82320/

North American Sea Container Initiative

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

USDA United States Department of Agriculture

SEA CONTAINER CLEANLINESS

Invasive pests don't just hitchhike around the globe in or on the agricultural commodities we import, they can also travel on and in the millions of rail wagons, trailers and sea cargo containers that crisscross our oceans and continents on ships, trains, and truck beds. Once introduced, invasive pests are expensive to control or eradicate. They can severely damage agricultural production, affect property values, and reduce water availability and quality. Each year, the cumulative costs in lost revenue and clean-up reach into the billions of dollars.

The North American Sea Container Initiative

To protect North American agriculture, forestry and natural resources against the introduction of invasive pests and diseases, the United States Department of Agriculture (USDA) and the Canadian Food Inspection Agency (CFIA) have worked with U.S. and Canadian border protection agencies and global shipping companies to develop the following sea container cleaning and inspection guidance. These guidelines complement the International Maritime Organization's Code of Practice for Packing Cargo Transport Units (CTU Code). Everyone involved in the movement of containers has an opportunity to protect our crops, forests, and livestock by ensuring, in accordance with your role and responsibility in the supply chain, that a container and its cargo is not infested with plants, plant products, insects, snails, soil, animals, or animal droppings.

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Phytosanitary Risks of Shipments of Commodities That Are Not Plant-Based

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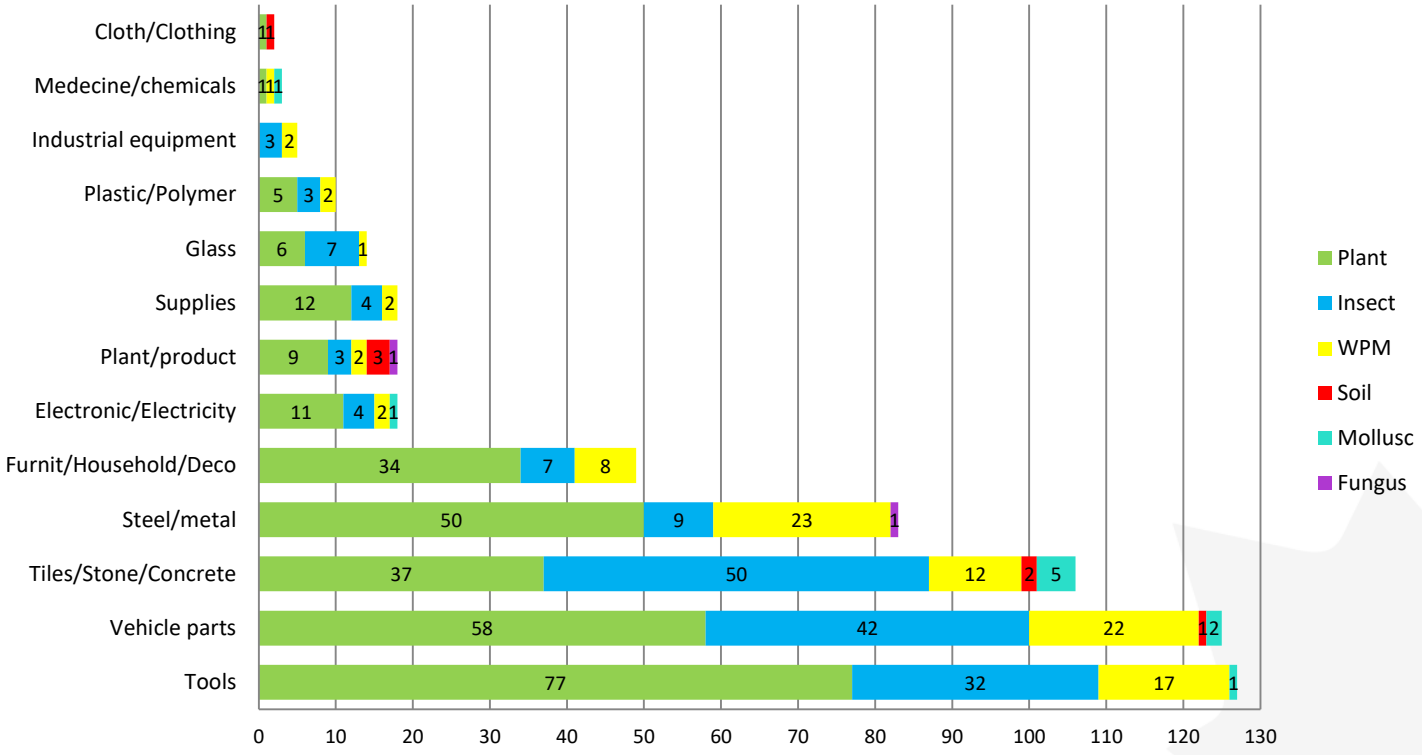
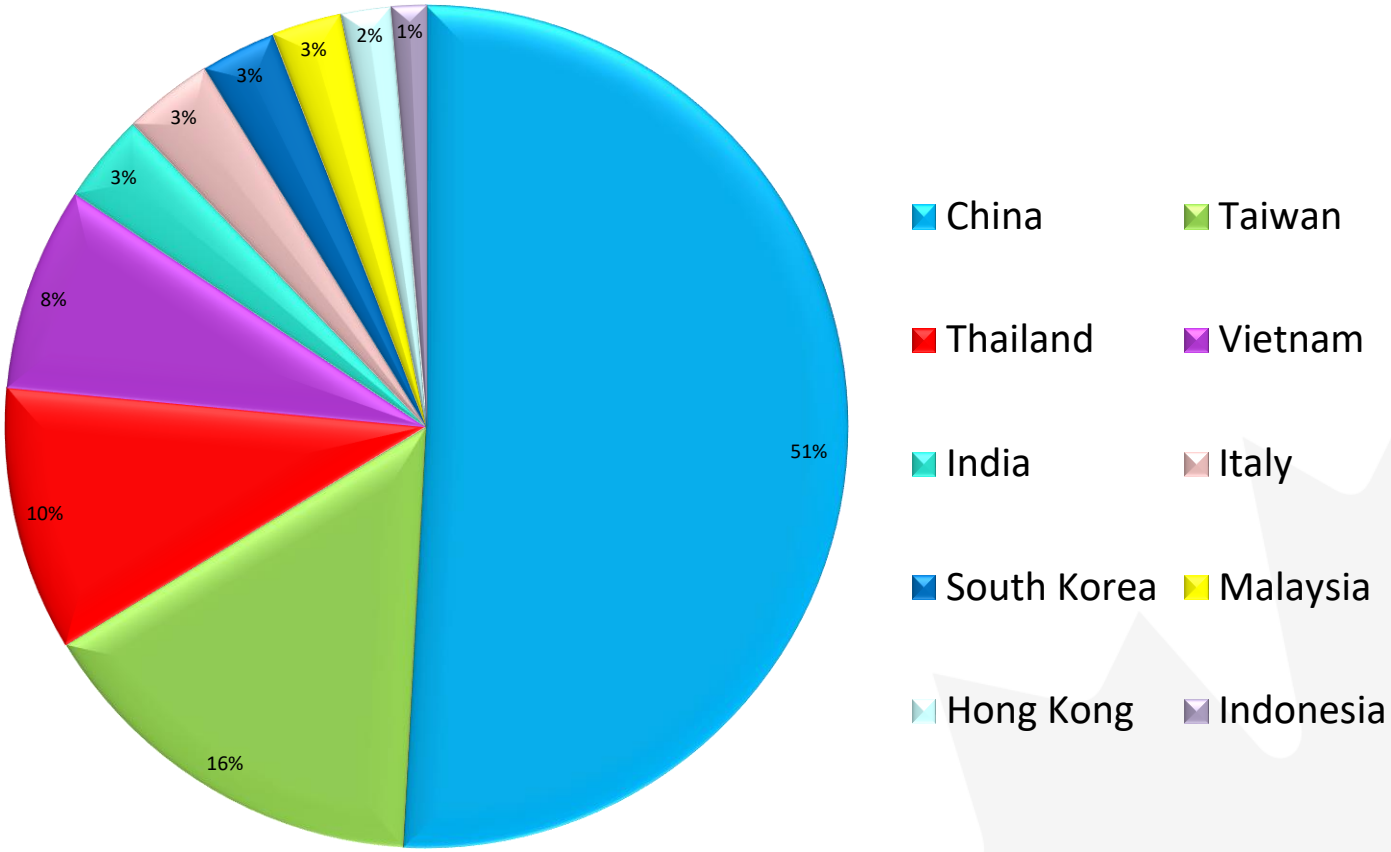
Example: Shipments In-Transit Through Canada Refused Entry to U.S. at Canada-U.S. Border

Products and Contaminants 2016



Origin



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Working Together - Considerations

- What is current approach to plant pest risks for sea containers and commodities that are not agricultural or forest products?
- How can we continue to work together to:
  - better understand challenges and opportunities for risk identification, risk mitigation, evaluation of risk mitigation measures
  - Conduct outreach and education to our respective industries and stakeholders

Shared risk and shared responsibility

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Sometimes Bad Things Come in Small Packages

The Increasing Risk of *e*-Commerce to Plant Health in North America

What is *e*-commerce?

- *E*-commerce can be defined as: the process of buying and selling items over the internet

- The global aspect of this form of trade removes traditional geographic constraints to acquiring products

What is *e*-commerce?

- The value of *e*-commerce to national economies is undeniable
- Rapid adoption and subsequent economic impact
- E-commerce is increasingly common
- E-commerce is convenient
- Difficult to detect

Issue

- *E*-commerce is an activity (or pathway) which facilitates the trade of invasive species.

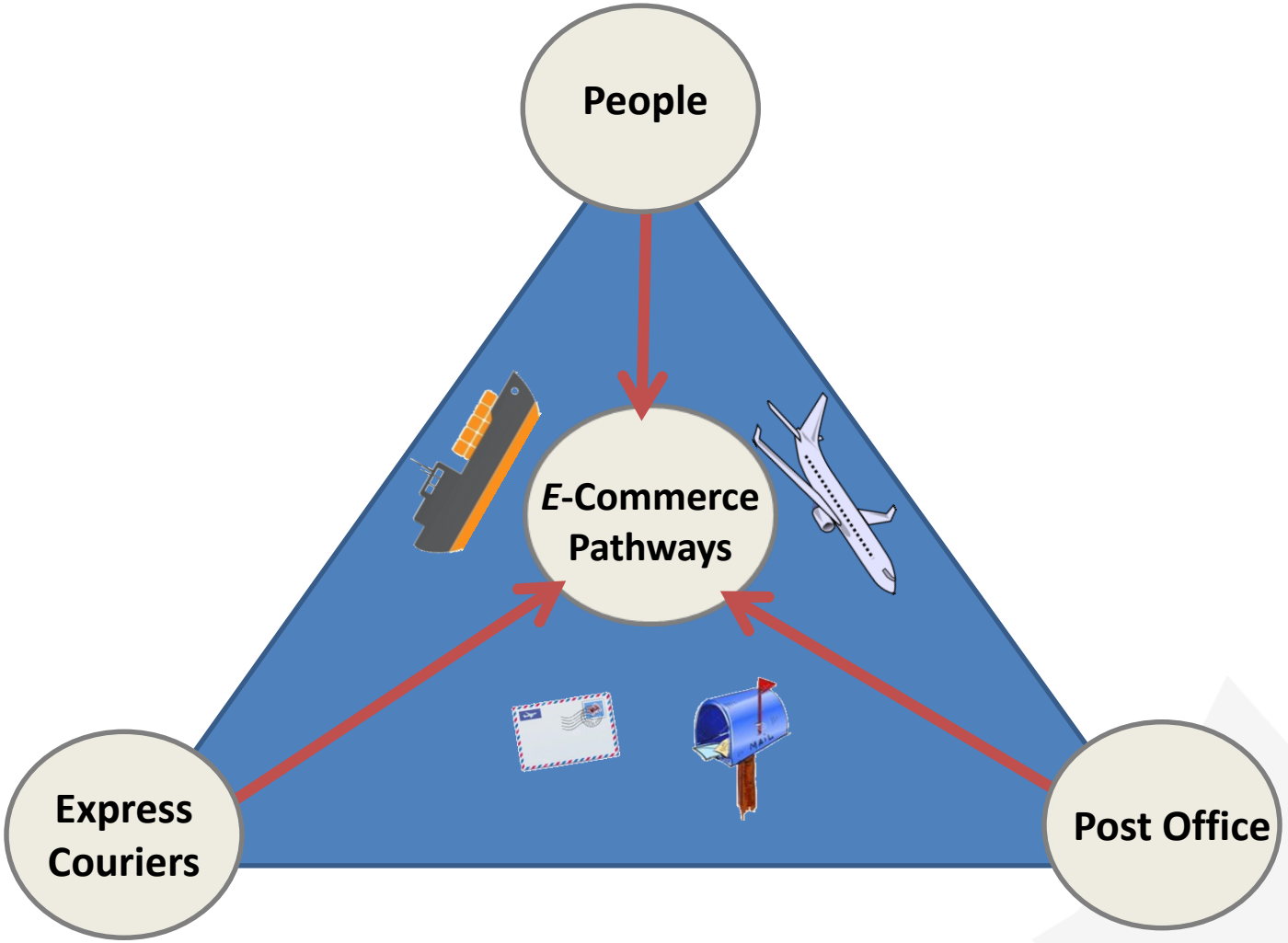
- The importation of invasive species through *e*-commerce poses a significant biosecurity risk to North America that is increasing rapidly

- Globally, *e*-commerce volume and value is expected to increase annually amounting to over $4 trillion dollars of trade by 2021
- This includes the trade of living organisms – some of these are regulated pests or invasive species

Challenges for Plant Health

- Lack of public and trader knowledge of plant health regulations
- Misidentification of traded species
- Inaccurate custom declarations
- Free trading and sharing sites
- Volume of *e*-commerce
- Jurisdictional limitations

- Challenges related to monitoring, tracking and inspecting imported *e*-commerce shipments
- Resources related to monitoring, tracking, inspecting and action on non-compliances


People
E-Commerce Pathways
Express Couriers
Post Office

United States Department of Agriculture

E-Commerce Organisms Destined for Canadian and U.S. Markets

Phytosanitary Risks

Example: Alberta 2010 - ad on Kijiji offered African land snails as pets. Kijiji and the seller were cooperative and upon request from CFIA the ad was removed.

Land snails were also for sale at a pet store in Alberta and a warning letter was sent to the company. The CFIA created an educational fact sheet for local pet stores

Phytosanitary Risks

- There are many sites available for enthusiasts to acquire specimens (regulated and unregulated species) for purchase, trade, or simply for free
- For example the site www.insectnet.com has sold live gypsy moths (*Lymantria dispar)* in the past

Phytosanitary Risks

Many invasive plants (e.g. woolly cup grass, kudzu, *Echium* and jointed goat grass) are available via internet sale or trade

Of Note…

- Many sellers offering worms would not ship to Canada and referred consumers to Canadian retailers
- Other sellers indicated that they did not ship to certain countries (Australia, United Kingdom) due to restrictions but did not exclude Canada
- Most shipments originated from sellers in Canada, United States, China, Ukraine, United Kingdom, Greece, Germany, Lithuania, Moldova, Australia, Poland, France, Italy, Hungary, Czech Republic, and Bulgaria

Of Note…

- Related species not regulated by the CFIA are also offered. E.g. "Indian Kudzu" (*Pueraria tuberosa*) seeds are readily available. Research has indicated that *Pueraria* species can interbreed and hybridize, perhaps indicating the need to also restrict closely related species (Jewett et al. 2003)

- Sellers frequently misspell or do not use scientific names and use a variety of common names. (E.g. *Echium plantagineum* can be called Paterson's curse but was exclusively sold under the alternate name Purple Viper's Bugloss.) These inconsistencies in nomenclature can make monitoring difficult.

Potential Steps and Benefits to Controlling *E*-commerce

Potential Steps

- Set up a system to monitor internet websites
- Outreach (education, awareness, compliance promotion)
- Increased audit and surveillance
- Increased compliance verification activities

Benefits

- Closing potential entry routes for pests
- Avoiding pest mitigation costs
- Protecting North America's agricultural, forestry and environmental sectors (positive impact on domestic and export activities)

Where Do We Go from Here? Recommendations

- Develop a targeted education and awareness program
- Proper labelling and identification of items for sale
- Monitor e-commerce trade (websites, forums)
- E-commerce and risk analysis
- International collaboration – coordinated NPPO approaches

Thank You.

Comments,Questions, Discussion

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