

Canadian Forest Service Scientists Increase the Safe Trade of International Forest Products

By Eric Allen and Meghan Noseworthy

Forest and wood pests are sometimes inadvertently moved along the international trade routes of wood commodities like logs, sawn wood, chips, and other wood-related items such as wood packaging material. Countries are taking notice because pests living outside of their usual range can tip the natural balance of forests and forests ecosystems, occasionally leading to devastating consequences.

These risks are amplified given the importance of forest products to the Canadian and global economies. Canadian forest product exports to the world totalled \$34.4 billion in 2016, an increase of 5.3 percent from 2015.

Understanding the pathways by which pests move and averting their entry and spread is key to maintaining the safe trade of forest products.

Safeguarding the Trade of Forest Products

The global phytosanitary community has become increasingly aware of risks associated with wood commodities and Canada has played a major role in developing international standards. Scientists working for Natural Resources Canada – Canadian Forest Service (CFS) provide much of the critical scientific information to ensure that domestic and international regulations are science-based. Dr. Eric Allen coordinates a group of scientists at the Pacific Forestry Centre in Victoria BC who are dedicated to this work. He and colleagues Leland Humble, Meghan Noseworthy and Brenda Callan have authored dozens of scientific analyses in support of national and international standards and regulatory development.

The CFS works cooperatively with industry, the Canadian Food Inspection Agency — our national plant protection organization and regulator — and Global Affairs Canada to harmonize the international approach to forest ecosystem protection and the safe trade of forest products.

Emerald Ash Borer - a brief overview

Emerald Ash Borer (*Agilus planipennis* Fairmaire) is a wood-boring beetle native to Asia and the Russian Far East. It was first reported in North America in 2002.

Since millions of trees have been killed from the natural dispersal of the beetle, and the long-distance spread from human movement of firewood, living ash trees and round wood with bark (logs).

To minimize the introduction and spread of the insect, quarantine actions regulating the national and international movement of wood products have been put in place by several National Plant Protection Organizations, including Canada's Canadian Food Inspection Agency.



Eric Allen inspecting wood at a mill for evidence of invasive species

How Import Regulations and Advocacy Can Foster Safe Trading Practices

Internationally accepted import regulations that minimize impact on trade are important tools used to decrease the movement of pests. Countries use these standards in the development of their own import regulations designed to protect their own specific forest resources.

CFS science is used to help open and maintain market access for Canadian forest products. For example, CFS science was used in the development of the Commission on Phytosanitary Measures' (the governing body of the International Plant Protection Convention) global standard for treating wood packaging material: International Standard for Phytosanitary Measures No. 15 (ISPM 15), "Guidelines for regulating wood packaging material in international trade" established in 2002. Today, Canada and countries around the world are following the guidelines in order to reduce pest risks and facilitate trade. Other standards will complement ISPM 15 by focusing on reducing risk with the international movement of live plants, wooden "handicrafts" and wood commodities in general.

Canadian forest science and sustained advocacy also ensured the continued acceptance of

Canada's ash sawn wood (including lumber) by the European Union (EU) despite concerns that the Emerald Ash Borer beetle could find its way into Europe through North American exports of ash sawn wood.

This successful trade arrangement would have not been possible without effective teamwork among federal government departments and agencies, and the Canadian forest industry.

Exporting Canada's Systems Approach to Pest Risk Reduction

To ensure Canada's exports of ash sawn wood would be allowed in the EU market, CFS scientists developed a technical argument that proposed pest risk reduction based on a series of independent phytosanitary measures. This "systems approach" includes debarking, sawing, heat treatment and drying.

The Canadian systems approach was adopted by the EU in February 2016 after consultation with its 28 member states. Although the decision is formally a temporary exemption until December 2017, if there are no instances of infested wood during the derogation period, it could be extended or made permanent.

Examples of introduced tree-killing insects invading woodlands and urban landscapes in North America include Asian longhorned beetle (*Anoplophora glabripennis*), emerald ash borer (*Agrilus planipennis*) and brown spruce longhorn beetle (*Tetropium fuscum*). They are believed to have arrived among packing materials shipped from Asia.



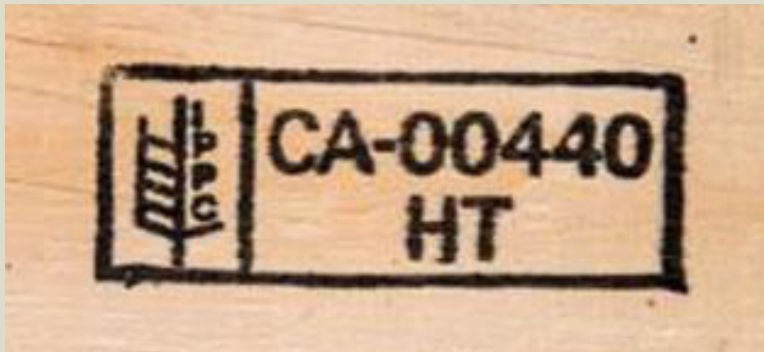
Jon Sweeney, Natural Resources Canada, Bugwood.org



Emerald Ash Borer
David Cappaert, Bugwood.org



Asian Longhorned Beetle
Kenneth R. Law, USDA APHIS PPQ, Bugwood.org



ISPM 15 mark Canada and its application to treated heat treated wood. The heat treatment (HT) program is also the basis of the manufacture of certified wood packaging in accordance with ISPM 15 Regulation of wood packaging material in international trade.

The success of this systems approach is gaining interest as more international plant protection agencies and regulators recognize that multiple phytosanitary measures provide a more effective option for reducing pest risk. Eric Allen and Meghan Noseworthy have been working as a part of an expert group with the North American Plant Protection Organization (NAPPO) to develop a draft regional standard “Use of systems approaches in managing pest risks associated with the movement of forest products”.

The topic is also under consideration for an international standard by the International Plant Protection Convention which is administered by the United Nation’s Commission on Phytosanitary Measures. Adoption of systems approaches by the international community will be a significant endorsement of Canada’s science and policy leadership when it comes to the safe trade of forest products.

Eric Allen and Meghan Noseworthy are scientists in the Forest Invasive Alien Team with the Natural Resources Canada, Canadian Forest Service at the Pacific Forestry Centre in Victoria, BC. They work extensively on non-indigenous species that impact forest ecosystems; their biologies, their movement with international trade, and the assessment of mitigation measures. Eric is the chair of the International Forestry Quarantine Research Group and is a member of the International Plant Protection Convention (IPPC) Technical Panel on Forest Quarantine. Eric and Meghan serve on the North American Plant Protection Organization (NAPPO) expert group on forestry systems approaches.



Meghan Noseworthy in the Pacific Forestry Centre's Insectary

Links: Pacific Forestry Centre

<http://www.nrcan.gc.ca/forests/research-centres/pfc/13489>