

Developing an ecological risk based approach to manage phytosanitary pests risks on export logs from New Zealand

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New Zealand currently exports \$4.7 billion of wood products, including more than 12.7 million m³ Developing an ecological risk based approach to manage phytosanitary pests risks on export logs from New Zealand of logs. At present all logs are treated to eliminate infestation by phytosanitary pests, these treatments are specified by the import requirements of our trading partners. The most common treatment used at present is fumigation with methyl bromide, or in the case of China, phosphine is permitted on the basis of an experimental use permit. Research has begun to evaluate the necessity of such end point treatments and to assess the feasibility of replacing them with an ecologically based assessment of phytosanitary risk. The concept uses ecological information, e.g., pest phenology, habitat requirements, developmental biology, and dispersal capabilities, to determine if the potential pest pressure at a given time and place warrants the need for end point disinfestation treatments. This alternative approach to exporting commodities is often referred to as a systems approach. In essence a systems approach seeks to minimise risk across the entire supply chain as opposed to eliminating accumulated risk at the point of export. This talk outlines the concept of a systems approach and its application to the New Zealand export log trade. We will present an overview of key phytosanitary pests and outline our long term approach to removing end point treatments for wood exports. Removing endpoint treatments for wood exports, which will significantly reduce NZ's emissions of chemical fumigants, such as methyl bromide. This talk is supported by two complimentary poster presentations that discuss key aspects of this research programme: 1) A national pest trapping network, and 2) thermal development models of key quarantine species to predict adult phenology.

