

Plantation timber pests – good management or luck, so far?

When Sirex wood wasp was discovered on the mainland in the early 1980s, it had the potential to set back by decades Australia's multi-million dollar radiata pine industry.

The wasp spreads quickly and its effects are swift – the insect drills into trees, inserting a toxic mucous that prevents anti-fungal agents forming. This allows fungus growth that dries the wood and quickly kills the tree.

While still prevalent in Australia, co-ordinated action from major industry players and government over a long period has seen Sirex wasp being managed to a level where it does not have a major impact on radiata crops.

In addition to pests of commercial trees the timber industry is also concerned about pests that damage wood in use, especially structural timbers. The 2004 detection of European House Borer (EHB) in Perth resulted in rapid action from government and industry to manage the pest, including an assessment of its potential habitat: dead pine trees.

The surveillance resulted in no positive finds in regional areas including the main softwood plantations in the South-West. Roof inspections in high-risk areas and inspections of private pine plantations were carried out, including a door-to-door survey within a 2 kilometre radius of each confirmed borer site.

The EHB program has involved development of substantial expertise including the training of detector dogs to sniff out the EHB larvae in logs and trees. This eradication program is constantly reviewed to assess its progress.

But while management after-the-fact is crucial, some industry players believe the real battle begins at the border.

“One of the key biosecurity issues is making sure pests don't enter Australia via our ports,” said Richard Stanton, chief executive of A3P, the peak national body for Australia's \$14 billion plantation products and paper industry.

“This is an issue for AQIS and State Government agencies. So there needs to be greater co-ordination rather than jurisdictional boundaries. That is why we support adoption of many of the recommendations of the Beale Review into Australia's quarantine system.

“Also, post-border surveillance is important. That is, surveillance in urban and peri-urban areas such as parks and gardens – the areas where these tree pests are likely to establish first and from where they will spread.”

Other timber industry groups also have pest management processes in place. Private Forest Tasmania recently re-issued its Farm Forestry Toolbox, a CD-based tool to help landholders manage woodlots and tree yield. The toolbox also includes information on biosecurity threats with photos and handy advice.

“If a grower sees something they have never seen before, then at least they have a tool to help them identify what it is and then take action,” said Australian Forest Growers' Chief Executive Warwick Ragg.

Mr Ragg says that eucalyptus or guava rust is a potentially huge problem for Australia's timber industry. So far, the disease is not present in Australia. This rust causes disease of young shoots, flower buds and young fruit depending on the host plant.

In plantations it can be managed by producing resistant trees through selection and breeding. However, it would be impossible to manage in Australia's 169 million hectares of native forests and would have devastating effects on Australian ecosystems.

One of the main tools in managing biosecurity risk is the Emergency Plant Pest Response Deed (EPPRD), a formal legally binding agreement between Plant Health Australia, the Australian Government, all state and territory governments and national plant industry body signatories. The plantation timber industry has not signed the EPPRD, but A3P and AFG continue to monitor its implementation and use by other plant industries and to assess the merits of signing.

It covers the management and funding of eradication responses to Emergency Plant Pest (EPP) incidents, including the potential for owner reimbursement costs for growers. It also formalises the role of plant industries' participation in decision making as well as their contribution towards the costs of EPP responses.

The EPPRD is underpinned by PLANTPLAN, the technical response plan for any EPP incident. It provides nationally consistent guidelines for response procedures outlining the phases of an incursion – for instance, investigation, alert, operational and stand down - as well as the key roles and responsibilities of industry and government during each of these phases.

The other main tool in managing biosecurity risk is the growers themselves. Being aware of the threats, managing the movement of people and vehicles through plantations, and conducting regular inspections of trees and nursery stock, are key practices to protecting individual property and the timber industry from exotic plant pests.

If you do spot anything unusual or unknown pest in your plantation, you should contact the Exotic Plant Pest Hotline on 1800 084 881. The sooner an exotic pest is detected and reported, the greater the chance that it could be contained and eradicated, reducing the potential impact on the industry.

As well being the custodian of the EPPRD, Plant Health Australia has coordinated the development of a Plantation Timber Industry Biosecurity Plan and is also helping growers secure their farms, their futures and their industries against potentially devastating plant pests and diseases. Partnering with Animal Health Australia, PHA has developed a website with biosecurity planning information for both plant and livestock producers at www.farmbiosecurity.com.au.

The EPPRD and a range of supporting documents, including PLANTPLAN and the Plantation Timber Industry Biosecurity Plan, are available online at www.planthealthaustralia.com.au.

Some of the high priority pest threats to Australia's plantation timber include (photos of these diseased are in order above):

- **Guava rust** – an air transmitted pathogen that has a wide host range and infects many Australian plants including *Eucalypts*, *Melaleucas* and *Callistemons*. It is one of the most serious threats to Eucalypt plantations in tropical and subtropical regions. First signs of infection are tiny raised spots or pustules on infected tissue; after a few days pustules turn a distinctive egg-yolk yellow; plants become stunted and die.
- **Asian gypsy moth** – a pest with a very wide host range including *Malus*, *Prunus*, *Pyrus*, *Callistemon*, *Pinus* and *Eucalyptus*. It is capable of defoliating trees causing loss of



production, defoliation and tree death. The hairs on the Gypsy moths caterpillar can also cause allergic reactions in people.

- **Pine pitch canker** – spread by bark, twig and cone beetles, Pine pitch canker has caused severe damage in native stands and plantations of *Pinus radiata* in California and could pose a significant economic threat to the *Pinus* and *Pseudotsuga* plantations in Australia. Signs include wilting, fading of needles on branch tips and copious amounts of resin at or near infection site. Trees can suffer crown dieback or may die.
- **Sudden oak death** – a major pathogen of ornamental and amenity species that has had devastating effects in the USA and Europe. It has a wide host range including *Rhododendron* spp., *Viburnum* spp and *Camellia* spp. Signs include foliage, shoot and leaf blight, bleeding stem canker, dieback, and in many cases plant death.

Partners in tackling emergency plant pest threats

The EPPRD is regarded internationally as a best-practice model partnership between government and industry for combating biosecurity threats.

The key advantage of the EPPRD is more timely, effective and efficient response to plant pest incursions, while minimising uncertainty over management and funding arrangements. Other significant benefits include:

- potential liabilities are known and funding mechanisms are agreed in advance
- industry is directly involved in decision making about mounting and managing an EPP response from the outset
- a consistent and agreed national approach for managing incursions
- wider commitment to risk mitigation by all Parties through the development and implementation of biosecurity strategies and programs
- motivation and rationale to maintain a reserve of trained personnel and technical expertise
- provision of accountability and transparency to all Parties

There are 27 industry Signatories to the EPPRD, covering 20 Australian agricultural industries.

If you see anything unusual on your property call the Emergency Animal Disease Watch Hotline on 1800 675 888 or the Exotic Plant Pest Hotline on 1800 084 881.



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