Australian Government Department of Agriculture and Water Resources

Biosecurity Fact Sheet: the draft group pest risk analysis (PRA) for thrips and tospoviruses—improving PRA effectiveness and consistency



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Key points

- The Department of Agriculture and Water Resources is improving the effectiveness and consistency of pest risk analysis (PRA). A key step in this process is the development of a group PRA.
- The first group PRA is for thrips and for tospoviruses transmitted by thrips on fresh fruit, vegetables, cut-flower and foliage imports. This has been released as a draft report.
- Stakeholders have an extended 90 calendar day consultation period due to the Christmas break to lodge submissions on the draft report, with the closing date on 14 March 2017. Submissions will be considered and responded to during the preparation of the final report.
- The group pest risk analysis approach is a 'building block' that can be used to review existing and prospective trade pathways. It will make the import process more effective and consistent, whilst maintaining a robust system to protect against exotic pest and disease incursions.

Rationale for the group pest risk analysis

The department is developing an improved approach to pest risk analysis (PRA). A PRA is the process of evaluating biological or other scientific and economic evidence to determine whether an organism is a pest, if it should be regulated, and the strength of any phytosanitary measures to be taken against it.

The group PRA approach synthesises knowledge of groups of pests and diseases with similar biological characteristics to improve effectiveness and consistency in managing the biosecurity risks associated with commodity movement. A group PRA is a building block that can be used to review existing or prospective trade pathways for which a PRA is required, avoiding the need to 'reinvent the wheel' when analysing the risks of individual species. Group PRAs also open the opportunity to focus on new and emerging risks.

Group PRAs are built on a foundation of more than 18 years of pest risk analysis undertaken by the department through an extensive process of robust scientific analysis and stakeholder consultation with state and territory authorities, industry organisations and trading partners. They are validated with available scientific evidence, including 26 years of interception data collected at Australia's borders, examination of thousands of research papers and include significant pests recognised internationally, in Australian industry biosecurity plans, and those identified as regional pests for Australia in consultation with states and territories.

Group PRAs will make the import process more effective and consistent whilst maintaining a robust system to protect against exotic pest and disease incursions. It has the potential to be adapted as a new international standard for identifying and managing the biosecurity risks posed by pests and diseases across import pathways.



The development of group PRAs has been supported by the 2015 Agricultural Competitiveness White Paper which has provided funding to strengthen Australia's biosecurity system.

The department is releasing the first group PRA for public consultation – further group PRAs are underway.

Group pest risk analysis for thrips and tospoviruses

The first draft group PRA considers the biosecurity risk posed by plant-eating insects called thrips (order Thysanoptera) that spread the virus genus *Tospovirus* that may be associated with fresh fruit, vegetables, cut flowers or foliage imported into Australia as commercial consignments.

The draft report identifies 80 plant-eating thrips species and 27 tospoviruses as key quarantine pests of importance to Australia. The report also proposes a change to the quarantine status of three thrips species (*Frankliniella schultzei, Scirtothrips dorsalis* and *Thrips tabaci*) that are present in Australia but are able to introduce and transmit exotic tospoviruses. This change is not expected to significantly affect trade.

Phytosanitary measures are identified in the draft report for use in specific cases where measures are required. These measures are consistent with long-standing established policy for quarantine thrips and also mitigate the risk posed by the quarantine tospoviruses they transmit.

The measures include:

- For fresh fruit and vegetables, consignments must be verified as not infested with quarantine thrips by standard visual inspection procedures. Consignments found to be infested with quarantine thrips, require appropriate remedial action(s) before they can be released from biosecurity control.
- For cut flowers and foliage, which are routinely found to be infested with quarantine thrips, mandatory fumigation is an appropriate risk management option unless equivalent arrangements have been approved.

The risks posed by thrips or tospoviruses on nursery stock imports will be considered in a separate review. The department will consult with stakeholders if any changes are required for existing nursery stock import conditions.

Background

Thrips are small (less than 1 millimetre long), winged insects, of which around 6000 species have been described. Plant feeding thrips cause damage by feeding on plants. These insects are regarded as major pests of food crops and ornamental plants and are found on every continent except Antarctica. Thrips cause significant cost to producers by reducing yield, quality and marketability of a wide range of plant crops and requiring ongoing field management and control.

Some thrips species (especially the western flower thrips which is already present in Australia) are vectors of tospoviruses. Fourteen species of thrips have been confirmed as vectors for the transmission of 30 or more tospoviruses, including *Tomato spotted wilt virus* and *Impatiens necrotic spot virus*. Tospoviruses are members of the family *Bunyavirdae*, first recorded in Australia in 1915 when scientists identified *Tomato spotted wilt* virus.

Tospoviruses infect more than 1000 plant species. They cause significant damage across a wide range of fruit, vegetable, legume and many ornamental crops around the world, such as: potato, melons, cucurbits, capsicums, tomatoes, zucchini, peanuts, soybean, peas and mungbeans. Tospovirus infection causes crop failure, reduced commercial yields, quality and marketability.

Further information

Information on the draft group pest risk analysis for thrips and tospoviruses on fresh fruit, vegetable, cutflower and foliage imports can be found in the Biosecurity Advice at <u>agriculture.gov.au/biosecurity/risk-</u> <u>analysis/plant/draft-group-pra-thrips-tospoviruses</u> or by contacting the department.

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