Australian Government
Department of Agriculture and Water Resources

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DRAFT GROUP PEST RISK ANALYSIS FOR MEALYBUGS AND THE VIRUSES THEY TRANSMIT ON FRESH FRUIT, VEGETABLE, CUT-FLOWER AND FOLIAGE IMPORTS

This Biosecurity Advice notifies stakeholders of the release of the *Draft group pest risk analysis for mealybugs and the viruses they transmit on fresh fruit, vegetable, cut-flower and foliage imports*.

The Department of Agriculture and Water Resources (the department) is improving the effectiveness and consistency of pest risk analysis (PRA). A key step in this process is the development of the group PRA approach, which considers the biosecurity risk posed by groups of pests across numerous import pathways. It applies the significant body of available scientific knowledge, including pest interception data and previous PRAs, to provide an overarching analysis of the risks posed by groups of pests.

This is the second group PRA to be released for public consultation and is funded under the Agriculture Competitiveness White Paper.

The draft report is being issued for a 60 calendar day public consultation period. Stakeholders are invited to submit written comments by 27 November 2018.

Pest Risk Analysis (PRA) is the process of evaluating biological or other scientific and economic evidence to determine whether an organism is a pest, whether it should be regulated, and the strength of any phytosanitary measures to be taken against it (FAO 2018). International Standard for Phytosanitary Measures 2: *Framework for pest risk analysis* (FAO 2016), states that 'Specific organisms may … be analysed individually, or in groups where individual species share common biological characteristics.' This is the basis for the group PRA, in which organisms are grouped if they share common biological characteristics, and as a result also have similar likelihoods of entry, establishment and spread and comparable consequences—thus posing a similar level of biosecurity risk.

The group approach to PRA is a 'building block' that can be used to review existing trade pathways or be applied to prospective pathways for which a specific PRA is required. For example, it can be used as a component of a commodity-based risk analysis.

The first group PRA was for thrips and orthotospoviruses. This second group PRA considers the biosecurity risks posed by all members of the insect families Pseudococcidae, Putoidae and Rhizoecidae (commonly referred to as mealybugs) in the insect order Hemiptera. It also considers the viruses transmitted by mealybugs that may be associated with fresh fruit, vegetables, cut-flowers and foliage imported into Australia as commercial consignments from any country.

T +61 2 6272 3933
F +61 2 6272 5161
18 Marcus Clarke Street
Canberra City ACT 2601
GPO Box 858
Canberra ACT 2601
agriculture.gov.au
ABN 24 113 085 695

The draft group PRA identifies and analyses the key quarantine pests of biosecurity importance to Australia. Mealybugs and the viruses they transmit can have consequences across a range of crops by reducing yield, quality and marketability.

Mealybugs are phytophagous (plant-feeding). A total of 169 mealybug species were confirmed as quarantine pests for Australia. The draft group PRA also identified nine viruses transmitted by mealybugs that are quarantine pests for Australia.

Mealybug quarantine pests were estimated to have an 'indicative' unrestricted risk estimate of 'Low' which does not achieve the appropriate level of protection (ALOP) for Australia. This risk estimate is regarded as 'indicative' because the likelihood of entry (importation and distribution) can be influenced by a range of pathway-specific factors (such as the commodity, seasonal considerations, or the incidence of mealybugs in specific export production areas), and must be verified on a case-by-case basis. In some cases the likelihood of entry may need to be adjusted to take account of these factors. In order to achieve the ALOP for Australia, measures will be required for mealybug quarantine pests when the unrestricted risk estimate of 'Low' has been confirmed for a specific plant import pathway.

In contrast, the viruses of biosecurity concern transmitted by mealybugs were estimated to have an 'indicative' unrestricted risk estimate of 'Very Low' for the plant import pathway, which achieves the ALOP for Australia. This is because mealybugs can only transmit viruses for a short period of time (semi-persistent transmission) and these viruses also have a limited host range compared to their mealybug vectors. These biological factors significantly limit the likelihood that mealybugs associated with imported fresh fruit, vegetables, cut-flowers and foliage will be able to transmit exotic viruses to a host plant in Australia. Therefore no additional measures are required for these viruses transmitted by mealybugs on the plant import pathway.

The draft group PRA identifies measures for mealybug quarantine pests, and alternative risk management options that may be considered on a case-by-case basis when developing new import conditions for specific commodities, or when reviewing existing import conditions for commodities that are currently traded. These measures are consistent with long-standing established import requirements for mealybug quarantine pests.

Measures are applied to ensure that goods in consignments are free from mealybug quarantine pests. Verification measures, such as inspection, are required to provide assurance that Australia's import conditions have been met and the appropriate level of protection achieved. Additional operational procedures may be required on a case-by-case basis for specific plant import pathways, such as a system of traceability, registration of packing house and treatment providers and auditing of procedures, packaging and labelling requirements and specific conditions for storage and movement.

Imported goods that are frequently found to be infested with mealybug quarantine pests may be subject to mandatory treatment, which may be required pre-export rather than as a remedial action on arrival.

The draft report and information about the risk analysis process are available online. Printed copies of the report are available on request.

Stakeholders interested in receiving information and updates on biosecurity risk analyses are invited to subscribe via the department's new online subscription service. By subscribing to

Biosecurity Risk Analysis Plant, you will receive Biosecurity Advices and other notifications relating to plant biosecurity policy, including this risk analysis.

Dr Marion Healy
First Assistant Secretary
Biosecurity Plant Division

Telephone: 1800 900 090 (option 1, option 1)
Email: imports@agriculture.gov.au