

21st June 2024

Pomelo from Vietnam: Biosecurity import requirements Submission

<u>Context</u>

Feedback has been summarised into three topics as per the structure provided in the online submission application:

- (1) Comment on the technical aspects of the report.
- (2) Comment on the proposed risk management measures.
- (3) Other comments including additional information or relevant issues to be raised.

Section 1: Technical aspects of the report

In-country supply chain & hygiene practices

The supply chain between paddock and packing shed is not well documented. On page 20 of the report, it states that *crates of export fruit are transported directly to the packing house*, however there is no detail to support this, including time and distance between harvest and packing, temperature protocols for transport and whether loads are secured in pest exclusion wrapping. The report mentions use of small trucks, boats and different sized vehicles to move fruit between orchards and packing sheds. Images in Figure 2.4 show fruit on a small boat uncovered for transport. Leaf litter is also present in the images, demonstrating poor hygiene practices that are not aligned with a systems approach for risks such as Citrus Canker. The risks associated with insect damage and disease development during transport from orchard to packing shed have not been considered.

The lack of post-harvest fungicide use is concerning and poses significant risk of disease transmission and development during the supply chain. There is no mention of post-harvest fungicide on page 20 of the report which outlines the processing steps for export pomelo. Chlorine and high-pressure water washes are not sufficient to kill disease that may be present on fruit peel and prevent development during transport. It is noted that *further disinfestation/disinfection treatment may be required pending importing country requirements*, however it is concerning that fungicide use is not standard practice in sheds exporting. There has been no data presented to illustrate packing shed hygiene practices are export standard. Evidence to support such standards would include packing shed water source & water treatment methods, recycling or wash to waste systems in the packing line, timing of chlorine level monitoring & adjustment, routine packing line, shed, harvest bins and cool rooms sanitation and deep cleaning procedures. The risks associated with poor packing shed hygiene at the most basic level have not been considered.



Pest and disease risk assessment

The pest and diseases requiring further pest risk assessment has overlooked some potential catastrophic risks to Australian horticulture production. Unfortunately, there is a significant lack of scientific literature on some pests and disease in both Australia and Vietnam available for authors and stakeholders to consider, which adds further complexity to this review.

Only 18% (21 of 116 pests) of pests identified have been assessed as having potential to establish, spread and cause consequence in Australia. As stated on page 26, *48 pests are already present in Australia and not under control, therefore not requiring further assessment*. This conclusion amounts to a wide range of issues and concerns for the Australian citrus and horticultural industries, which have global reputations for clean, high-quality produce. Some of the pests excluded are only present in some parts of Australia, and imports pose a risk of spreading throughout Australia– for example Pinks disease (pg. 160), which is only found in Queensland and the Northern Territory. Imported pomelo with stem/leaf intact pose a risk of spread of pinks disease to states currently free of the disease. This could be detrimental to major citrus growing regions in southern states.

Other pests with national distribution such as Green Vegetable Bug (pg. 121) and Citrus Brown Mite (pg 144), are managed accordingly by Australian growers to prevent excessive damage to their crop in-field and prevent spread through domestic supply chains. Management of these pests includes an array of resource intensive practices in field and post-harvest. Under the proposed arrangements, pomelo from Vietnam may not be exposed to such treatment protocols and therefore could pose an additional risk.

It is noted that on page 164 of the report, Citrus Black Spot is reported as having national presence in Australia. This is incorrect. Citrus Black Spot is a Quarantine pest for Western Australia (Government of Western Australia, 2016). Distribution of Vietnamese fruit within Australia will need to recognise market access protocols for existing Australian interstate quarantine pests.

Furthermore, the Brown and Black Citrus Aphids, vectors for Citrus Tristeza Virus (pg. 128), have been noted as no assessment required. Leaf and stem material that is hidden by packaging on imported pomelo is a likely pathway for entry of this pest which has been overlooked in this analysis.

Finally, Huanglongbing (pg. 147) is listed as one of the 47 pests identified as not having potential to enter Australia therefore does not require further assessment. This decision is made due to absence of the vector, Asian Citrus Psyllid, within Australia. However, Asian Citrus Psyllid is present in Vietnam, and the report states a moderate risk of entry to Australia (pg. 29). Huanglongbing is also present in Vietnam and is reported to have an import potential to Australia (pg. 147). The Australian Citrus Industry and national biosecurity programs are working hard to prevent infestation of Asian Citrus Psyllid and Huanglongbing in Australia. The import pathway of pomelo from Vietnam exposes Australia to an increased risk of both Asian Citrus Psyllid and Huanglongbing. Global spread of these



two pests continues in conjunction with one another. The combined risk of this pathogen and vector has been overlooked in the current analysis.

There is a significant lack of published scientific literature for the pests and diseases listed, in both Australia and Vietnam. This lack of literature has not been recognised in the report, and compounds the complexity associated with risk management decisions.

Disease free planting material

It is unlikely that all commercial orchards in Vietnam are planted with disease free material. On page 14 of the report it states, *Commercial orchards only plant certified disease-free grafted trees that are propagated at nurseries accredited by Vietnam's Crop Production Department*. This practice is applauded, however there is no data provide to support this claim. It is expected there are likely to be some orchards planted with material not from approved nurseries, which pose significant risks that have not been captured in this report. Furthermore, there is no mention of orchards seeking export to provide proof of accredited nursey stock. In the stakeholder engagement meeting on June 13, DAFF officers mentioned that both orchards and packing sheds will need to register to export to Australia. It is suggested that the conditions of import be expanded to include the requirement for documented planting material source.

Study Tour

The department study tour to Vietnam was not done in a thorough and objective manner, therefore the credibility of information presented in *Section 2: Commercial production practices for pomelo fruit in Vietnam*, pages 8-25, is compromised. During the stakeholder engagement meeting on Thursday June 13, the DAFF team confirmed the details of the study tour as:

- Number of DAFF staff in attendance: 2.
 The knowledge and experience level of pomelo production by these officers is not documented in the report.
- Number of orchards visited: 1 orchard in the Mekong district. The Mekong district is the largest pomelo production region in Vietnam. This orchard followed best practice Integrated Pest and Disease Management practices.
- Number of packing sheds visited: 1 large packing shed that currently exports to USA and others.

This packing shed already follows export protocols for destination countries. In the stakeholder engagement meeting on June 13, DAFF officers were unable to report what accreditation/certification standards this shed is currently registered for.

The findings from this single orchard and packing shed are not sufficient to generalise practices for the whole of Vietnam. The statement on page 8 of the report, *considered to be standard practices.... outlines the pomelo fruit production and export capacity of Vietnam*, is a biased assumption that does not consider operations and practices from other orchards. There are a range of business sizes,



capacity and management styles in operation and this diversity has not been captured. For all cultivation practices listed in Section 2.5.2, the best practice management options only have been listed. The choice to base report findings from best practice businesses only is an oversight of risks and complexity associated with other farms who may also seek approval to export to Australia. Furthermore, some of the information presented contradicts itself, suggesting a lack of technical knowledge by DAFF staff or incorrect information collected in the study tour. For example, on page 18 the report describes the use of entomopathogenic fungi as a biocontrol agent. Following this on page 19, it reports that preventative fungicides are used at susceptible growth stages and during conducive weather conditions, and that fortnightly use of copper is common practice. The purpose of fungicide and copper is to prevent fungal pathogens and would therefore be at the detriment of the survival of entomopathogenic fungi, making this practice redundant. The study tour has not objectively or accurately reported agricultural practices for pomelo production in Vietnam.

Section 2: Proposed risk management measures

Phytosanitary inspection & packaging

Firstly, the phytosanitary inspect methods have not been documented thoroughly, and practices suggested will be impacted by packaging. On page 22, there is no consideration given to the capacity and skill of Vietnamese PPD officers nor the procedures for undertaking phytosanitary inspection and regulation of such inspections. For example, auditing processes & timing, training of staff and recording keeping requirements. Moreover, pomelo is known for cultural significance, often used in Chinese New Year celebrations for both decoration and consumption. The desired appearance of pomelo may impose biosecurity risk which has not been documented in this report. Packaging alike to that presented in Figure 2.6 will be at the detriment of a detailed visual inspection pre and post export. According to Figure 2.7, this packaging is placed on fruit prior to phytosanitary inspection. This order of events will prevent thorough examination of fruit for pests and disease, many of which are difficult to see with the naked eye. The temperature and humidity conditions between fruit peel and packaging due to the outer netting and plastic wrapping could also harbour pest and disease development, which is hidden until opened at destination. This also creates multiple challenges associated with inspection by Australian quarantine officers on arrival. In the stakeholder engagement meeting on June 13, DAFF officers stated that packaging free of organic material will be permitted. In addition, it is well known that pomelo is often sold with stem and a single leaf in-tact, especially for Chinese New Year decorations. In the stakeholder engagement meeting on June 13, DAFF officers mentioned multiple times that a short peduncle or stem will be permitted on imported fruit. The inclusion of leaf material remains unclear and needs to be addressed in the final report. Figure 2.4 illustrates fruit of this nature bound for the packing shed. It is understood that export and domestic fruit will be separated in a triage area. However, there is no evidence to support cleanliness of this triage area which is likely to compromise hygiene of an entire packing shed. The phytosanitary inspection methods & packaging in Vietnam and Australia need to be reviewed to manage these risks accordingly.



Systems approaches

Secondly, the proposed measures for the 19 identified species of risk have not been detailed thoroughly and do not align with Australian market access standards.

Systems approaches are not well documented to be successful in areas of high pest and disease pressure. It if for this exact reason that many of Australia's Interstate Certificate Insurance (ICA's) that follow systems approaches have been revoked or are currently under review (Schedule of national ICA documents, 2024). The report states that systems approaches are proposed for managing Asian Citrus Psyllid and Citrus Canker. On page 29, referring to Asian Citrus Psyllid risk management, the report mentions increased use of insecticide application and removal of infected trees, noting the increase cost of production associated with these measures. Asian Citrus Psyllid continues to spread in Vietnam therefore the current use of such measures has been ineffective to date. The systems approach proposed for Citrus Canker outlines a very detailed and high number of practices both in field and post-harvest to prevent disease spread. There has been no data presented on the likelihood of Vietnamese pomelo businesses having capacity to undertake these detailed procedures as standard practice, year-round, at a significantly greater cost and staffing requirements. It is likely that not all pomelo orchards and packing sheds will operate to this high level of standard, therefore harbouring quarantine pests of concerns in neighbouring orchards. There are also additional risks that need to be considered. These include:

- the likelihood of mechanical damage on fruit caused by harvest or transport practices, which exposes further risk of canker spread
- the environmental conditions between fruit peel and packaging that could be conducive to disease development
- calibration and effectiveness of spray equipment in field and packing shed to ensure saturated coverage of product
- incubation period between fruit packaged in Vietnam and consumed in Australia, and the range of temperatures the fruit is exposed to along that supply chain having potential to harbour Citrus Canker

In the stakeholder engagement meeting on June 13, DAFF officers stated a systems approach is most likely for management of Citrus Canker. Before any systems approaches can be considered, harvest practices and mindset of Vietnamese growers will need to change to remove leaf litter and stalks from entering harvest bins. This is likely to require significant resources and training over an extended period to implement such a culturally significant shift.

Visual inspections

The risks associated with visual inspection have been documented previously, refer to comment made in Section 2, Phytosanitary inspection & packaging. These risks are amplified when considering the biological features and behavioural nature of thrips, mealybug, mites, and scale.



Pest Free Area

Pest free area is a measure suggested for managing Asian Citrus Psyllid and Fruit Flies. Incidence of both pests in Vietnam is high. The report gives minimal detail on the methods proposed to determine pest free area status. On page 18, the report states, *PPD officers conduct regular pest surveys of pomelo farms on a monthly basis*. There is no detail given the methodology used – i.e. regarding monitoring fruit for infestation or population monitoring with traps. International standards for fruit fly monitoring are well published (Enderlin & Flores, 2018). It is possible that adequate practices can be followed to prove area of low prevalence, however declaration of pest free area requires extensive monitoring (Enderlin & Flores, 2018). Furthermore, some pheromones and trap types require servicing at higher frequences than the monthly surveying reported in this analysis. The methods used to determine pest free area need to be assessed with reference to the reality of pest population dynamics and monitoring capacity in Vietnam. It is recommended these practices align to Australian and international standards for market access.

Section 3: Other comments

Production statistics

There is conflicting information presented in the report regarding pomelo production in Vietnam. On page 18 the report states that average production is 8.6 t/ha. On page 8 and 25 it lists production in 2020 as 105 000 ha and 903 197 tonnes, consecutively – this amounts to yield of 12.5 t/ha, significantly higher than previously reported. On page 25 it specifies annual export production of 5000 tonnes. This amounts to 0.6% of total production. These figures illustrate the small amount of export occurring from Vietnam, therefore the assumption that best management export practices described in this report are being used across all orchards and packing sheds is unlikely. This also highlights the current capacity and appetite of Vietnamese growers to uphold international export standards, in comparison to domestic production.

Audits & record keeping

Australian fruit and vegetable growers are faced with amounting pressure of multiple expensive audit processes to be compliant with domestic and export protocols. Based on the measures documented in this review, imported pomelo reaching Australian consumers with less rigorous processes than domestic requirements would not only be at the detriment of our biosecurity but also the mental health and integrity of Australian pomelo growers. The report mentions MARD and VietGAP standards, however there is no further detail regarding the practices, audits and record keeping associated with this compliance, nor data to demonstrate the percentage of uptake of such schemes within Vietnam. The ability of Vietnamese pomelo business to follow these standards will give some indication towards their capability of meeting Australian export standards.



Protocol development

In the stakeholder engagement meeting on June 13, DAFF officers mentioned that meetings between Australia and Vietnam are planned for later in 2024 to begin discussion around a systems approach for Citrus Canker management. It is recommended that Australian citrus entomology, pathology and industry expertise are represented and included in these discussions, and all other protocol development discussions.

Consumer safety

Adherence to Australian food laws is documented on page 92 of the report. It is noted that for some pests of concern, the likelihood of effective chemical control within maximum residue limits is low. Adhering to consumer safety has not been considered in the pest management and risk assessment measures sections of this report.

Sustainability

The likely large amount of plastic used in transport and presentation of pomelo from Vietnam is concerning. Disposal of this waste, especially if contaminated with quarantine pest and disease has not been considered.

References

Enderlin, W.R and Flores, J.R. (eds.) (2018) *Trapping guidelines for area-wide fruit fly programmes.* 2nd edn. Vienna: International Atomica Energy Agency.

Government of Western Australia (2016) Citrus black spot: pest data sheet. Available at <u>https://www.agric.wa.gov.au/plant-biosecurity/citrus-black-spot-pest-data-sheet</u> (Accessed 20 June 2024)

Schedule of national ICA documents (2024) Australian Interstate Quarantine. Available at: https://interstatequarantine.org.au/producers/interstate-certification-assurance/schedule-ofnational-ica-documents/ (Accessed: 20 June 2024).

Regards

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President FNQ Growers