

Review of Submissions:

Changes to phytosanitary measures to manage *Conogethes punctiferalis* on fresh lychee, longan, and pear

Prepared by Horticulture Imports
Animal and Plant Health Directorate

June 2023

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1 Introduction

1.1 Consultation overview

Biosecurity New Zealand consulted on proposed changes to the phytosanitary measures to manage *Conogethes punctiferalis* on fresh lychees, longans, and pears. Consultation took place between 3 April 2023 and 12 May 2023.

We received a total of 3 submissions from the following stakeholders.

Organisation
Kiwifruit Vine Health (KVH)
Horticulture New Zealand (HortNZ)
The Department of Conservation (DoC)

Submissions raised comments that relate to the proposed phytosanitary measures to manage the risk of *C. punctiferalis* on fresh produce imports.

Copies of submissions are in section 5.

1.2 Purpose and structure

The purpose of this document is to:

1. Summarise and respond to the submissions received; and
2. Provide reasoning and justification for changes to the standard following consultation.

We have responded to submissions based on the themes of issues raised across the submissions (rather than to each submitter or issue individually). We have structured the document to address:

1. General issues (section 3.1); and
2. Specific issues (section 3.2).

2 Summary of changes to the standard after consultation

We have made no substantive changes to the amendments consulted on. We missed updating the treatment appendix tables for pear from Australia and lychee from Taiwan in Import Health Standard 152.02: *Importation and Clearance of Fresh Fruit and Vegetables into New Zealand* on pages 32 and 283 respectively. We have now amended these tables for consistency and clarity. Additionally, other changes have been made to the standard during this consultation period. Those changes happened under a different consultation: [Amendments to the import requirements for fresh lychee \(*Litchi chinensis*\) from Taiwan | NZ Government \(mpi.govt.nz\)](https://www.mpi.govt.nz/updates/amendments-to-the-import-requirements-for-fresh-lychee-litchi-chinensis-from-taiwan/). Specifically, an alternate treatment option for fruit flies was added to the import health standard for lychee from Taiwan.

3 Review of submissions

3.1 General feedback

Thank you to everyone who submitted comments on the proposed amendments to import health standards for:

- Lychees from Australia, Thailand and Taiwan
- Pears from Australia and the Republic of Korea
- Longans from Thailand

We appreciate the consideration you have given to the new measures to manage *C. punctiferalis* on these import pathways.

Submitters broadly supported the proposed amendments to the import health standards and our efforts to strengthen the measures to manage the biosecurity risk of *C. punctiferalis* on fresh produce imports.

Submitters asked for clarification on several topics. Our response is outlined in section 3.2.

Submitters did not send us any new scientific evidence to consider.

3.2 Specific feedback

Comment: Submitters asked for more information on what activities constitute “appropriate pest control activities”.

Biosecurity New Zealand response: Appropriate pest control activities are applied when appropriate in the production and post-harvest system. They are activities that happen in addition to the general commercial production activities that we require in our import health standards. Examples are pest specific in-field monitoring, applying a specific effective pesticide at specific times, bagging fruit, orchard sanitation and educating growers on pest detection, identification and control. Activities implemented to control *C. punctiferalis* in overseas orchards are comparable to the measures used to manage lepidopteran pests for New Zealand horticulture exports. Biosecurity New Zealand agrees on specific details of appropriate pest control activities with our overseas counterparts. We document the details in an export plan (which is a confidential government-to-government arrangement) or official correspondence.

Comment: One submitter supported the use of appropriate pest control activities to manage *C. punctiferalis* only when Biosecurity New Zealand has verified through pathway assessment that the specific activities provide an equivalent level of protection to irradiation.

Biosecurity New Zealand response: Both irradiation and appropriate pest control activities appropriately manage the risk of *C. punctiferalis* on fresh produce imports. We routinely audit active pathways both on a schedule and when there is non-compliance with our standards. When we audit these pathways, our auditors will check that the pest control activities being undertaken in the exporting country align with what has been bilaterally agreed.

Comment: One submitter requested confirmation that should the risk change, or these measures are found to be unsuccessful, that MPI remain agile to reassessing and/or revoking such measures.

Biosecurity New Zealand response: We assure our stakeholders that should the risk change, or these measures are found to be unsuccessful, MPI will re-evaluate the measures to ensure the risk of *C. punctiferalis* on fresh produce imports is managed.

Comment: One submitter asked for confirmation that the existing 250 Gy irradiation treatment for lychee exported from Australia will also be changed to the higher dose (289 Gy).

Biosecurity New Zealand response: We confirm that it will be changed to a higher dose. As per section 6.1.3 of the draft [Import Health Standard Commodity Sub-class: Fresh Fruit/Vegetables Lychee, \(Litchi chinensis\) from Australia](#) “Lychee fruit must be irradiated with a minimum dose of 289 Gy.”

Comment: One submitter requested clarity from MPI with regards to pre-export testing of lychee consignments from Australia, with specific reference to lychee pathogens.

MPI Response: A review of lychee pathogens was not in the scope of this amendment. We will hold your comments on file and will consider them again in the future when we review all lychee pathways.

Comment: One submitter requested that MPI clarifies whether irradiation treatments are effective in eliminating asymptomatic plant pathogens from lychee consignments.

MPI Response: Irradiation is not effective in managing plant pathogens. Irradiation on plant pathogens was not in the scope for this amendment. We will hold your comments on file and will consider them again in the future when we review plant pathogens on lychee pathways.

Comment: One submitter would like Biosecurity New Zealand to review all applicable import health standards to ensure that they are consistent and have adequate phytosanitary measures in place to mitigate the potential impacts of all life stages of *C. punctiferalis*.

Biosecurity New Zealand response: As part of this consultation, we reviewed our fresh produce import health standards to ensure the risk of *C. punctiferalis* is managed across all import pathways.

Comment: One submitter asked why Biosecurity New Zealand is proposing elevated irradiation levels (an increase from 250 Gy to 289 Gy) for longans and lychees but not for the other hosts of *C. punctiferalis*.

Biosecurity New Zealand response: Irradiation is already an agreed measure to manage the risk of *C. punctiferalis* on longan and lychee. If an exporting country requested to use irradiation as a measure to manage *C. punctiferalis* on a different host pathway, Biosecurity New Zealand would consider adding this measure to the appropriate import health standard(s).

Irradiation at 289 Gy is used to manage *C. punctiferalis* on other commodities that are not part of this amendment, such as table grapes from Australia ([consultation page](#)) and pears from Australia ([consultation page](#)).

Comment: One submitter wanted to know if there is peer-reviewed evidence to support the claim that irradiation at 289 Gy effectively manages the risk of *C. punctiferalis*.

Biosecurity New Zealand response: This phytosanitary measure has been previously consulted on and implemented. The rationale and evidence to support the efficacy of this measure can be found in the risk management proposal presented as part of the following consultation: [consultation page](#).

4 References

MPI (2018) *Risk Management Proposal: Fresh Table Grapes for Human Consumption Equivalent Phytosanitary Measure for Regulated Pests of Fresh Table Grapes (Vitis vinifera)*. Ministry for Primary Industries; Wellington, New Zealand.

5 Copy of submissions

5.1 Submission from Kiwifruit Vine Health

9 May 2023

Horticulture Imports
Animal and Plant Health Directorate
Biosecurity New Zealand
Ministry for Primary Industries
PO Box 2526
Wellington 6140



To whom it may concern,

Re: **Kiwifruit industry comments on the proposed amendments to import requirements to manage Yellow Peach Moth (*Conogethes punctiferalis*) on fresh lychee, longan, and pear.**

Thank you for the opportunity to make a submission on the proposed amendments to import requirements to manage Yellow Peach Moth, including the following documents:

- Import Health Standard 152.02: Importation and Clearance of Fresh Fruit and Vegetables into New Zealand
- Risk Management Proposal: Changes to phytosanitary measures to manage *Conogethes punctiferalis* on fresh lychee, longan, and pear.

KVH welcomes the opportunity to discuss any aspect of our submission with MPI, and we look forward to your careful consideration of these matters.

Yours sincerely,

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Chief Executive, Kiwifruit Vine Health

Kiwifruit Vine Health:

1. Kiwifruit Vine Health (KVH) is a grower funded; pan-industry biosecurity organisation dedicated to protecting the New Zealand kiwifruit industry. Kiwifruit is one of New Zealand's leading horticultural crops and an important contributor to the New Zealand economy with annual exports worth over \$3.2B annually and steadily increasing.
2. Maintaining a strong biosecurity system is of the utmost importance to KVH as biosecurity threats are considered one of the most significant risks to our industry.

General comments:

3. Yellow Peach Moth (YPM) is one of KVH's top 20 biosecurity pests of concern to the New Zealand kiwifruit industry.
4. YPM is considered a pest of serious concern to kiwifruit in China. Intense feeding on kiwifruit can render them unfit for commercial sale which leads to significant economic losses. Boring by larvae can cause extensive damage and frass accumulation, but may also predispose kiwifruit to secondary pathogens, further adding to production losses.
5. In addition to incurring production losses to growers, establishment of YPM would also increase on-orchard management costs. YPM is not easily controlled with the application of insecticides in orchards, especially when the larvae have already bored into the fruit. On-orchard management would be difficult and likely involve fruit stripping and other costly and laborious management techniques, therefore it is important to ensure all entry pathways remain well managed to ensure the pest is kept out of New Zealand.

Specific comments on amendments:

1. KVH supports efforts to strengthen the biosecurity measures for managing YPM on the fresh produce pathway.
2. It is outlined in the Risk Management Proposal (RMP) that basic measures alone will not sufficiently manage this pest as the eggs and larvae of YPM are difficult to see and consequently avoid detection during harvest and post-harvest activities. Therefore, KVH supports MPI's conclusion that increased targeted measures are required to manage this pest.
3. KVH is supportive of the increase in irradiation rate from 250 Gy to 289 Gy for management of YPM on various pathways as this aligns the treatment rate with other pathways and there is strong scientific evidence to support this increase as noted in the RMP.
4. KVH note that for several commodities, appropriate "pest control activities" are outlined as measure to manage the risk of YPM. KVH accept that these activities that are often found within bilateral agreements are not made publicly available due to the nature of the agreement. However, it is difficult to comment on the appropriateness of such activities when they are not made visible with the IHS.
5. KVH appreciates MPI's response to our query around the type of activities that are considered when determining appropriate "pest control activities". As specified by MPI in email correspondence, they can include the use of pest specific in field monitoring, grower education, bagging of fruit, orchard sanitation and pesticide spraying during adult emergence.
6. KVH understands that not all exporting countries have specific treatment capability (i.e. irradiation facilities), or that the commodity can be treated without compromising its integrity. As such, we support the use of alternative methods to meet the required level of protection- including in-field

management options, where MPI has verified through pathway assessment that the specific activities provide an equivalent level of protection to irradiation.

7. KVH would like to emphasize that, as highlighted above in point 2, there are life stages that are inherently difficult to see and considering that adult moths are nocturnal, it is unlikely that a single pest control activity on its own will manage this pest so a combination of the above activities will be required to ensure the pathway is managed.
8. KVH is supportive of using appropriate “pest control activities” as an alternative to treatment as long as MPI remains confident that they will adequately manage the risk. However, we request that should the risk change, or these measures are found to be unsuccessful, that MPI remain agile to reassessing and/or revoking such measures.

5.2 Submission from the Department of Conservation

Hi there,

Thank you for the opportunity to provide a submission on the above draft import health standards. Please see comments and questions on behalf of the department in **Red** below.

2 Biosecurity risks of *Conogethes punctiferalis*

(17) *Conogethes punctiferalis* (yellow peach moth) is a pest of concern to New Zealand. a. *Conogethes punctiferalis* is a regulated quarantine pest and is absent from New Zealand (ONZPR, 2022). b. *Conogethes punctiferalis* is present in Australia, Taiwan, Thailand, and the Republic of Korea (Singh et al., 2018). c. *Conogethes punctiferalis* is highly polyphagous. It feeds on wide range of plants, with recorded hosts in 16 families including grapes, apples, pears, maize, and stone fruit (MPI, 2009). d. Excretions from *C. punctiferalis* have a high sugar content. The sugary excretions cover the fruit surface, attracting secondary insect pests. **The department reinforces the concern from MPI for polyphagous pests as they have the potential to exert an impact on native species.**

(18) Many *C. punctiferalis* hosts are of economic importance to New Zealand. In New Zealand, the value of crops that *C. punctiferalis* feeds on is considerable. a. Grape wine was the highest earning processed fruit export from New Zealand and the second highest earning horticultural export in 2020 and 2021, with a forecast value of \$1.94 billion in 2022 and \$2.18 billion in 2023 (MPI, 2022). b. Apples and pears were the third highest earning horticultural export in 2020 and 2021, with a forecast value of \$900 million in 2022 and \$940 million in 2023 (MPI, 2022). c. Peaches, apricots, and cherries have an export value of \$56 million (Plant & Food Research, 2021). d. Maize and sweetcorn contribute approximately \$800 million to New Zealand's GDP (MPI, 2016a).

Regarding the polyphagous nature of this pest, why are the requirements for elevated radiation levels not being reviewed in import health standards in its other hosts as mentioned above and not just in the import health standards for Lychee, Longan and Pear?

4 Rationale for the proposed changes

(39) Irradiation at 289 Gy is an approved measure for managing *Conogethes punctiferalis* for multiple pathways within the fresh produce import health standards.

a. This phytosanitary measure has been previously consulted on and implemented. The consultation page can be found here:

Ministry for Primary Industries Risk Management Proposal for changes to phytosanitary measures for *Conogethes punctiferalis* • 9

<https://www.mpi.govt.nz/consultations/proposed-new-phytosanitary-measure/1/additional-option-for-fresh-table-grapes-from-australia/>

b. The increase in the required irradiation dose, from 250 Gy to 289 Gy, is technically justified for fresh produce pathways and effectively manages the risk of *C. punctiferalis*.

i. Lepidoptera life stages that are likely to be on the exported commodity

(eggs and early instar larvae) are prevented from developing by irradiation at a maximum absorbed dose of 289 Gy (Hallman & Hellmich, 2009).

Is there any peer reviewed evidence to prove why the increase in irradiation to 289 Gy would effectively control Yellow peach moth? The Hallman and Hellmich paper (2009) stated that minimum absorption rates for phytosanitary irradiation against *O. nubilalis* could vary from 233 Gy for prevention of pupae and 343 Gy to prevent egg hatch. Is there any associated information to elaborate on the technical justification of 289 Gy as to why this is enough to control pupae and egg hatch? As mentioned in the feasibility of the proposed changes, Australia has an existing requirement for irradiation at 400 Gy or 500 Gy for regulated pests other than fruit flies. Is the 289 Gy high enough?

3.2 Proposed changes to the requirements for lychees from Australia

(33) We are adding *Conogethes punctiferalis* to the pest list as a targeted measure pest on lychees from Australia.

Agreed

3.3 Proposed changes to the requirements for pears from Australia

(34) We are adding *Conogethes punctiferalis* to the pest list as a targeted measure pest on pears from Australia. We are also adding either appropriate pest control activities or pest free area as a phytosanitary measure to manage *C. punctiferalis* to the schedule for pears from Australia in Importation and Clearance of Fresh Fruit and Vegetables into New Zealand (IHS 152.02).

Agreed

(35) We are consulting on both phytosanitary measures and are seeking agreement with the Australian National Plant Protection Organisation (NPPO) on the most appropriate measure for inclusion in the final published import health standards.

3.4 Proposed changes to the requirements for lychees from Taiwan

(36) We are adding *Conogethes punctiferalis* to the pest list as a targeted measure pest on lychees from Taiwan. We are also adding appropriate pest control activities as a phytosanitary measure to manage *C. punctiferalis* in Commodity Sub-class: Fresh Fruit/Vegetables Lychee, (*Litchi chinensis*) from Taiwan and the relevant schedule of IHS 152.02.

Agreed

3.5 Proposed changes to the requirements for lychees and longans from Thailand

3.6 Proposed changes to the requirements for pears from the Republic of Korea

(38) We are adding *Conogethes punctiferalis* to the pest list as a targeted measure pest on pears from the Republic of Korea and adding appropriate pest control activities as a phytosanitary measure to manage *C. punctiferalis* in Commodity Sub-class: Fresh Fruit/Vegetables Korean pear, (*Pyrus pyrifolia*) from the Republic of Korea and the relevant schedule of IHS 152.02.

Agreed

Ngā mihi nui,

[Redacted signature]

Technical Advisor - Biosecurity Kai-mātanga Matua, Koirā Mōrearea
Department of Conservation Te Papa Atawhai
Tauranga office

M: [Redacted]

E: [Redacted]



Department of
Conservation
Te Papa Atawhai

5.3 Submission from Horticulture New Zealand

SUBMISSION ON

Changes to phytosanitary measures to manage yellow peach moth

12 May 2023

To: The Ministry for Primary Industries (MPI)

Name of Submitter: Horticulture New Zealand

Contact for Service:

[REDACTED]
Risk Policy Advisor
Horticulture New Zealand
PO Box 10-232 WELLINGTON
Ph: [REDACTED]
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OVERVIEW

Submission structure

- 1 Part 1: HortNZ's Role
- 2 Part 2: Submission

Our submission

Horticulture New Zealand (HortNZ) thanks the Ministry for Primary Industries (MPI) for the opportunity to submit on proposed changes to phytosanitary measures to manage the yellow peach moth on fresh lychee, longan, and pear, and welcomes any opportunity to continue to work with MPI and to discuss our submission.

The details of HortNZ's submission and decisions we are seeking are set out in our submission below. Our submission is supported by:

- Citrus New Zealand
- New Zealand Apples & Pears Incorporated
- New Zealand Avocados Incorporated
- New Zealand Feijoa Growers Association
- Persimmon Industry Council
- Seed and Grain Readiness & Response
- Vegetables New Zealand Incorporated

HortNZ's Role

Background to HortNZ

HortNZ represents the interests of approximately 5,500 commercial fruit and vegetable growers in New Zealand who grow around 100 different fruit, and vegetables. The horticultural sector provides over 40,000 jobs.

There is approximately, 80,000 hectares of land in New Zealand producing fruit and vegetables for domestic consumers and supplying our global trading partners with high quality food.

It is not just the direct economic benefits associated with horticultural production that are important. Horticulture production provides a platform for long term prosperity for communities, supports the growth of knowledge-intensive agri-tech and suppliers along the supply chain; and plays a key role in helping to achieve New Zealand's climate change objectives.

The horticulture sector plays an important role in food security for New Zealanders. Over 80% of vegetables grown are for the domestic market and many varieties of fruits are grown to serve the domestic market.

HortNZ's purpose is to create an enduring environment where growers prosper. This is done through enabling, promoting, and advocating for growers in New Zealand.



Submission

1. Yellow peach moth (*Conogethes punctiferalis*)

Conogethes punctiferalis (yellow peach moth) is of concern for the New Zealand horticulture sector as it is a highly polyphagous pest of over 40 crops of economic significance such as apple, pear, maize, peaches, avocado, plum and citrus (CABI, 2021; Chen et al. 2018; Kumar et al. 2021; MPI, 2023b; Stanley et al. 2009). It is considered a serious insect pest of papaya in Australia, durian in Thailand and fruits and maize in China, and more than 20 crops including longan and lychee in Korea (Stanley et al. 2009).

Affected host fruit can suffer from premature fruit drop, discolouration, boring, and become unmarketable (CABI, 2023; MPI, 2023b). Determining the extent of damage caused by *C. punctiferalis* on crops is difficult as this species produces a highly concentrated sugary excretion which attracts secondary pests and diseases that further damage the host (MPI, 2023b; CABI, 2023; Singh et al. 2018).

Conogethes punctiferalis has a wide geographical distribution from India to tropical Southeast Asia, Papua New Guinea, Australia (Chen et al. 2018), Iraq (Purdue University, 2015) and Hawaii (Nishida, 2002; Kumar et al. 2021) with reported interceptions on imported produce in the United States, England, Wales, and the Netherlands (MPI, 2023b; Stanley et al. 2009; Purdue University, 2015). MPI acknowledges that live *C. punctiferalis* larvae have been intercepted on lychee which highlights the threat this species poses to New Zealand (LIMS, 2022; MPI, 2023b).

Adult moths lay eggs on the surface of host fruit with eggs hatching 5-8 days after oviposition (CABI, 2023). Larvae feed on the fruit surface, internal pulp, and seeds (MPI, 2023b; TNAU, 2015). The risks associated with *C. punctiferalis* infestations can go unnoticed even during post-harvest processing of fruit. Eggs and early instar larvae are not always detected due to their small size and being hidden inside fruit (MPI, 2023b).

While *C. punctiferalis* has a broad tropical distribution, regions of New Zealand are climatically suitable for its establishment as larvae are capable of overwintering (MPI, 2023b; Du et al. 2018).

Conogethes punctiferalis poses a significant biosecurity risk for New Zealand – if it were to arrive and establish, it would likely cause considerable losses to the horticultural sector. It is critical that all relevant fresh produce pathways have the required phytosanitary measures to mitigate the biosecurity risks posed by this species.

2. Comments on the proposed amendments

HortNZ are broadly supportive of the proposed changes to the phytosanitary measures to manage *C. punctiferalis* on fresh lychee, longan and pear from Australia, Republic of Korea, Taiwan, and Thailand.

AUSTRALIA - LYCHEE AND, THAILAND - LYCHEE AND LONGAN

We understand that in 2019, MPI determined that the existing 250 Gy irradiation treatment was no longer technically justifiable and updated the stand-alone irradiation treatment from 250 Gy to 289 Gy in the import health standards for table grapes, capsicum, and papaya (DAFF, 2019; MPI, 2023b).

MPI propose to add an irradiation treatment of 289 Gy for lychee from Australia to manage the risk of *C. punctiferalis*. Evidence from scientific literature supports a maximum absorbed dose of 289 Gy in preventing the development of *Lepidoptera* life stages (eggs and larvae) that are likely to be on exported commodities (Hallman & Hellmich, 2009; MPI, 2023b).

HortNZ support the proposed addition as it is backed by scientific evidence and is consistent with existing irradiation treatment regimens for other commodities e.g., capsicum that are currently imported (MPI, 2023b).

We note that the existing 250 Gy treatment is being "changed" to 289 Gy for lychee and longan from Thailand however, for lychee from Australia, there is no mention of a change but rather an additional option for irradiation treatment. We request confirmation that the existing 250 Gy irradiation treatment for lychee exported from Australia will also be changed to the higher dose.

AUSTRALIA AND THE REPUBLIC OF KOREA - PEAR

We note the proposed additional targeted pest measure requiring Australia and the Republic of Korea to undertake appropriate pest control activities that are efficacious against *C. punctiferalis* prior to export of pear. It is difficult to comment on the appropriateness of activities that we are not privy to. We would appreciate further information about what activities have been (or will likely be) agreed. It is important that MPI is confident that these activities will adequately mitigate the biosecurity risk posed by *C. punctiferalis*.

We support the alternative option of requiring Australia to state that any consignment of pear exported to New Zealand has been sourced from an area free from *C. punctiferalis*, provided the requirements of ISPM 4 (*Requirements for the establishment of pest free areas*) are met. Sourcing pear from areas free of *C. punctiferalis* should reduce the probability of consignments containing *C. punctiferalis* individuals.

TAIWAN - LYCHEE

Again, it is difficult to comment on the appropriateness of unspecified pest control activities. We request clarity from MPI on what additional targeted pest measures will be required to manage *C. punctiferalis* on lychee consignments from Taiwan.

We require that the activities that are agreed between NPPOs are efficacious against *C. punctiferalis* and adequately manage the biosecurity risk.

PRE-EXPORT TESTING OF LYCHEE FROM AUSTRALIA

We request clarity from MPI with regards to pre-export testing of lychee consignments from Australia.

The import health standard for lychee from Australia states in section 6.1.2 that “testing of the consignment prior to export to New Zealand for regulated pests which are not visually detectable is not required for fresh lychees from Australia.” (MPI, 2023a).

However, in section 6.1.5, it is a requirement of all phytosanitary certifications that any consignments of lychee from Australia have been visually inspected and found free from any regulated plant pathogens (MPI, 2023a).

We note that lychee pathogens can have asymptomatic host expression and therefore visual inspection alone is inadequate to determine whether any lychee consignment is pathogen free.

MPI requires a mandatory pre-export treatment for high-impact pests such as fruit fly species and has approved irradiation as a treatment for all arthropod pests listed on the Australian lychee pest list (MPI, 2023b).

We request that MPI clarifies whether irradiation treatments are effective in eliminating asymptomatic plant pathogens from lychee consignments. If not, we believe MPI should consider requiring testing.

PHYTOSANITARY MEASURES OF THE IMPORT HEALTH STANDARDS

MPI acknowledges that existing basic measures manage the risk associated with *C. punctiferalis* pupae and adult life stages, however these measures alone do not manage the risk of *C. punctiferalis* eggs and larvae (MPI, 2023b).

We recommend that MPI undertakes a review of all applicable import health standards to ensure that they are consistent and have adequate phytosanitary measures in place to mitigate the potential impacts of all life stages of *C. punctiferalis*.

3. Conclusion

HortNZ are broadly supportive of the proposed changes to the phytosanitary measures to manage *C. punctiferalis* on fresh lychee, longan and pear from Australia, the Republic of Korea, Taiwan, and Thailand.

We urge MPI to ensure effective management of the risks posed by *C. punctiferalis* on these pathways as soon as possible and welcome the opportunity to discuss any of the points raised in the submission.

4. References

Centre for Agriculture and Bioscience International (CABI) Compendium. 2021. *Conogethes punctiferalis* (castor capsule borer) datasheet.

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