

# SUBMISSION ON

## Importing requirements for hop plants for planting

29 September 2023

**To:** The Ministry for Primary Industries (MPI)

**Name of Submitter:** Horticulture New Zealand

### Contact for Service:

Eve Pleydell

Risk Policy Manager

Horticulture New Zealand

PO Box 10-232 WELLINGTON

Ph: 021 745 787

Email: [eve.pleydell@hortnz.co.nz](mailto:eve.pleydell@hortnz.co.nz)

# 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 the proposed changes to the requirements for importing hop plants for planting and welcomes any opportunity to continue to work with MPI to discuss our submission.

The details of HortNZ's submission and the alterations we are requesting to be made to the proposed risk management plan are set out in our submission below.

This submission is supported by:

- Citrus New Zealand
- Kiwifruit Vine Health
- New Zealand Apples & Pears Incorporated
- New Zealand Feijoa Growers Association
- Passionfruit New Zealand
- Persimmon Industry Council
- Summerfruit New Zealand
- Tomatoes New Zealand

# HortNZ's Role

## Background to HortNZ

HortNZ represents the interests of approximately 4,200 commercial fruit and vegetable growers in New Zealand who grow around 100 different fruits 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. Introduction

Horticulture New Zealand (HortNZ) welcomes the opportunity to review the proposed changes to the Import Health Standard for importing hop plants for growing. While many of the diseases of significance that can affect *Humulus* species appear to be hop-specific, these plants can carry diseases that could adversely affect other horticultural crops, notably *Xylella fastidiosa*. HortNZ wishes to support MPI to ensure that the proposed requirements for the importation of *Humulus* plants will not put other crops within New Zealand at undue risk.

HortNZ thanks MPI for currently not allowing people to import *Humulus* plants under the Nursery Stock IHS due to the measures in that standard not being adequate to mitigate the risk of unwanted organisms entering the country on this pathway.

The proposed changes are to allow the importation of two hop species *Humulus lupulus* and *Humulus neomexicanus*. HortNZ supports the proposal that people wishing to import other hop species would need to make a specific request to MPI for a new IHS as this would allow for appropriate risk assessments to be conducted prior to opening a potential risk pathway.

## 2. Comments on the consultation process

HortNZ notes that the consultation process being used to develop this new IHS is substantially different to previous approaches, and we welcome the opportunity to provide feedback to assist with developing a process that works effectively for government and stakeholders.

### 2.1. Improved clarity about process

The consultation process is clearly laid out on MPI's website, and it is structured in a logical way. This makes the consultation information easy to navigate and the proposed changes are clearly highlighted, albeit at a high-level.

### 2.2. Insufficient materials provided

While the changes being proposed are clear, inadequate details have been provided about both the risk analyses that have been conducted and the risk management measures that are being proposed. Without access to either the Import Risk Assessment (IRA) or the Risk Management Proposal (RMP), it is challenging and time-consuming for stakeholders to assess whether the risks from extremely harmful pathogens such as *Xylella fastidiosa* will be adequately managed.

The horticulture industry associations each have a small number of staff who are stretched across broad work portfolios. While we all take biosecurity extremely seriously, neither HortNZ nor any of the product groups contain a depth of expert knowledge about every unwanted organism. For the IHS consultation process to be an effective way of enhancing New Zealand's biosecurity system the industry stakeholders

need to have access to the same materials that MPI has used to develop the proposals that are open for consultation.

HortNZ requests on behalf of all industry stakeholders that MPI makes supporting documents available for review along with the proposals. In the case of this consultation on *Humulus* plants we request that you share the RMP containing the details about the testing regimens being proposed.

### **2.3. Unhelpful online survey tool**

While the idea of providing a submission using a simple on-line tool has merit, many of the questions on the survey are extremely open in nature and require a more fulsome submission to answer them adequately.

### **2.4. Reduced consultation timeframes**

HortNZ has concerns about the timing of the stages of this consultation process. We request MPI to take the processes and requirements of its stakeholders into account when designing a consultation process. HortNZ welcomes the 42 days MPI has allowed for stakeholders to assess the high-level information they have provided about the proposed changes. However, we request that MPI extends the length of time for stakeholders to provide feedback on the draft IHS after its release from 14 days to at least 21 days.

We are making this request, because there are several stages of work required at our end to assess whether the proposed measures are both adequately mitigating the biosecurity risks posed by this importation pathway and enabling growers to operate effectively. Two weeks is simply an inadequate amount of time to do this effectively.

## **3. Comments on proposed measures**

Based on the high-level information provided, HortNZ has the following comments for consideration.

### **3.1. No approved offshore facility**

HortNZ thanks MPI for working to future-proof this IHS by providing the option for the future use of approved offshore facilities to test and hold hop plants. However, we note that there are no approved offshore facilities for hops at the current time, which effectively means that all hop plants will have to go through PEQ after entry.

### **3.2. Micro-propagated plantlets**

The proposal is not clear about the requirements being considered for importing micro-propagated plantlets.

As certain pathogens, notably viruses but also some bacteria and fungi, can survive micro-propagation processes this pathway does present biosecurity risks. HortNZ urges MPI to require micro-propagated plantlets to go through PEQ after arrival in New Zealand. The alternative option is for MPI to verify that facilities micro-propagating *Humulus species* are reliably producing pathogen-free plantlets or cultures.

### **3.3. Arabis mosaic virus small satellite RNA**

HortNZ supports the inclusion of arabis mosaic virus in this IHS and we request that MPI includes PCR testing as part of the measures required to control this virus.

Arabis mosaic virus can affect a wide range of crops that are grown in New Zealand, including berries, grapes, celery, *Prunus* spp. and lettuces (CABI, 2023). As it may be carried and spread by asymptomatic plants, the suggestion to manage this risk using 6-months L2 PEQ without conducting testing may not be adequate to prevent this virus entering through this pathway.

The EPPO certification scheme for hop [PM 4/16 (2)] lists arabis mosaic virus as a pathogen that should be screened for using diagnostic tests when producing nuclear stock (OEPP-EPPO, 2008). This supports our request to include an appropriate diagnostic testing regimen to ensure that this virus does not enter New Zealand on hop plants.

### 3.4. *Verticillium* wilt

HortNZ supports the proposed measures for preventing verticillium wilt entering New Zealand on hop plants including the use of PCR testing to detect *Verticillium nonalfalfae*. However, we request that PCR tests for the redefined genus *Verticillium* sensu stricto are also included in the required testing regimen.

We note that approximately ten years ago, the taxonomy of *Verticillium* was revised based on genetic studies (Inderbitzin, et al., 2011). As a result, the previously recognised single species *Verticillium albo-atrum* was split into several species, including *V. albo-atrum sensu stricto*, *V. alfalfae*, and *V. nonalfalfae*. However, a scientific opinion produced by the EFSA Panel on Plant Health identifies that the previously published host range for what had been called *Verticillium albo-atrum* was much broader than the combined host ranges recognised for each of the subsequent species (EFSA Panel on Plant Health, 2014). This implies that the full ranges of host species for these more recently recognised species of *Verticillium* may not be completely defined.

While recent studies have confirmed the ability of *Verticillium nonalfalfae* to cause severe disease in hops (Svara, Jakse, & Stajner, 2019), many databases and reference sources are still referring to *Verticillium albo-atrum* and its very broad host range. The EPPO data sheet available for *Verticillium* spp on hops states that hops are the principal host of *V. albo-atrum* in Europe and that this fungus attacks many other plant species including vegetable crops, berries, avocados, *Prunus* spp, and cereals (CABI-EPPO). The EPPO certification scheme for hop includes *Verticillium albo-atrum* as a pathogen that should be tested for during the production of nuclear stock (OEPP-EPPO, 2008). Even the Official New Zealand Pest Register identifies *Verticillium albo-atrum* [severe strain] as a regulated unwanted organism and gives this fungus the common name of “verticillium wilt of hops”.

Due to the nomenclature changes within this genus, the lack of certainty about the extent of the host ranges for genetically identified *Verticillium* species, and the recognition that within a species some strains cause more severe disease than others, HortNZ requests that a genus-level *Verticillium* sensu stricto PCR (or other genetic-based assay) is included in the verticillium wilt testing regimen (Inderbitzin & Subbarao, 2014). This would ensure that strains of *Verticillium* species that may cause more serious wilt disease to plant species other than hops are not inadvertently introduced on this pathway.

### 3.5. *Xylella fastidiosa*

*Xylella fastidiosa* is a high impact unwanted organism that infects numerous crops and ornamental plant species causing severe disease in some. If this bacterium was to arrive in New Zealand, it could result in severe economic and social impacts, and is also likely

to have negative impacts on some taonga species. One of the undesirable consequences if this bacterium was identified in New Zealand would be our loss of country freedom status, which could impact exports across multiple horticultural sectors. For these reasons, HortNZ would like MPI to take every necessary step to prevent this bacterium from entering New Zealand and we strongly support the use of PCR testing for this organism as well as PEQ containment and inspection. We would also appreciate being able to review the details of the PCR testing regimen that is being proposed before this IHS is released.

## 4. References

- CABI. (2023). Arabis mosaic virus (hop bare-bine). *PlantwisePlus Knowledge Bank*. Retrieved from <https://plantwiseplusknowledgebank.org/doi/full/10.1079/pwkb.species.7008>
- CABI-EPPO. (n.d.). Verticillium spp. on hops. *Data Sheets on Quarantine Pests*, 1-7.
- EFSA Panel on Plant Health. (2014). Scientific Opinion on the pest categorisation of *Verticillium albo-atrum sensu stricto*, *V. alfalfae*, and *V. nonalfalfae*. *EFSA Journal*, 12(12), e3927.
- EPPO. (2022). EPPO A2 List of pests recommended for regulation as quarantine pests - version 2022-09. Retrieved from [https://www.eppo.int/ACTIVITIES/plant\\_quarantine/A2\\_list](https://www.eppo.int/ACTIVITIES/plant_quarantine/A2_list)
- Inderbitzin, P., & Subbarao, K. V. (2014). Verticillium systematics and evolution: How confusion impedes verticillium wilt management and how to resolve it. *Phytopathology Review*, 104(6), 564-666.
- Inderbitzin, P., Bostock, R. M., Davis, R. M., Usami, T., Platt, H. W., & Subbarao, K. V. (2011). Phylogenetics and taxonomy of the fungal vascular wilt pathogen *Verticillium*, with descriptions of five new species. *PLoS ONE*, 6(12), e28341.
- OEPP-EPPO. (2008). Certification scheme for hop PM 4/16 (2). *OEPP/EPPO Bulletin*, 39, 278-283.
- Svara, A., Jakse, J., & Stajner, N. (2019). Confirming infection of hop plants inoculated with *Verticillium nonalfalfae*. *Data in brief*, e104355.