

SUBMISSION ON PROPOSED ADDITIONAL IMPORT REQUIREMENTS FOR SMALL SEED LOTS

27 September 2022

To: The Ministry for Primary Industries

Name of Submitter: Horticulture New Zealand

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Our submission

Horticulture New Zealand (HortNZ) thanks the Ministry for Primary Industries (MPI) for the opportunity to submit on the proposed additional requirements for small seed lots. Our submission provides an end-user perspective.

HortNZ is a pan-sector organisation and has a comprehensive understanding of how the commercial fruit and vegetable growing sector in New Zealand operates. Information relating to a particular crop can be sought from individual product groups.

The horticulture sector welcomes any opportunity to continue to engage with MPI and to discuss this submission.

This submission is being made by Horticulture New Zealand and is supported by the following organisations:

- Katikati Fruitgrowers Association
- Process Vegetables New Zealand
- Tomatoes New Zealand
- Vegetables New Zealand Incorporated

HortNZ's Role

Background to HortNZ

Horticulture New Zealand (HortNZ) advocates for and represents the interests of approximately 5,500 commercial fruit and vegetable growers in New Zealand. These growers supply fresh and processed fruit and vegetables to domestic consumers, as well as exporting crops to discerning consumers overseas. The horticulture industry is valued at \$7b with \$4.6b in exports annually.

The national and regional economic benefits associated with horticultural production are important. The industry employs more than 40,000 people and provides critical regional development opportunities in Northland, Auckland, Bay of Plenty, Waikato, Hawke's Bay, Gisborne, Manawatu, Marlborough, Nelson, Canterbury and Central Otago. The rural economy supports local communities and primary production defines much of the rural landscape.

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

Submission

General

1. Access to imported seed is critical to grow vegetables for domestic consumption and export, as well as being necessary to sustain and expand the vegetable seed industry in New Zealand.
2. It is important that seed is able to come into the country from offshore suppliers, including small seed lots that allow access to new germplasm, but it is equally important that the imported seed is not inadvertently bringing unwanted pests or pathogens with it. We must have confidence that the seed is clean.
3. HortNZ notes that seeds have historically been a pathway for spread of pathogens to new countries. It is essential that the seed pathway is well managed to avoid the arrival of new microorganisms that may harm horticulture.

Adding the option of parent plant sampling and inspection of capsicum, cucurbit, eggplant, tomato and corn seed

4. HortNZ understands that MPI is proposing an additional risk management option for capsicum, cucurbit, eggplant, tomato and corn seed in response to a request from trading partners. The proposal is to test parent plants from which small seed lots are produced for viral pathogens and visually inspect parent plants for bacterial pathogens.
5. As a discussion about changing the Acceptable Level of Risk (ALOP) has not transpired, HortNZ expects that any risk management changes that are made for capsicum, cucurbit, eggplant, tomato and corn seed manage risk to the same extent as it is managed now.
6. HortNZ would like clarification about the size of seedlot that this proposal applies to. Is it intended only for small seedlots? Or any size seedlot of capsicum, cucurbit, eggplant, tomato or corn?
7. Whilst HortNZ has supported testing of parent plants in the past (Horticulture New Zealand, 2021), this was with the expectation that it would occur under an official Pest Free Place of Production (PFPP) framework (ISPM 10, International Plant Protection Convention). In this instance too, HortNZ would expect any parent plant sampling and inspection to occur **under a PFPP**.
8. HortNZ would like clarity on the number of parent plants that importers can expect to be visually inspected and tested for both viral and bacterial pathogens. Would this be every plant that seed is to be taken from?
9. Pathogen transmission during early and later stages of plant growth can occur via abiotic factors e.g. rainsplash or via biological vectors. For example, the bacterial pathogen *Pantoea stewartii* can be vectored into plants by the corn flea beetle

(*Chaetocnema pulicaria*) (Caroline, 2011; Ortega, 1987) and the bacterial pathogens *Acidovorax avenae* subsp. *avenae* and *Clavibacter michiganensis* subsp. *nebraskensis* can be vectored into parent plants through environmental sources such as rainsplash and soil (NARO 2022; CABI 2022a; CABI 2022b; Gross & Vidaver, 1979). Ensuring that the production site is free from these pathogens and/or vectors to prevent infection spreading between plants is imperative.

10. It has been suggested that “*sensitive and accurate diagnostic tests are available*” for virus testing for parent plants (4 ii, MPI assessment of the proposed additional import requirements for small seed lots). HortNZ would like to know what these tests are and would like confirmation that they are validated and appropriately sensitive tests. We also seek clarification on how sampling would be undertaken to maximise the chance of detection if the target organism is present in a plant.
11. HortNZ does not support visual inspection to determine parent plant freedom from bacterial pathogens. Symptom expression following infection can take time, and we question the suitability of visual inspection during the growing season. Infection of host plants can occur during any developmental stage and can be missed if visual inspection occurs immediately after infection. For example, the bacterial pathogen *Clavibacter michiganensis* subsp. *Nebraskensis*, the causal pathogen of Goss’s wilt and leaf blight of maize, does not show visible symptoms in maize until 7-10 days following infection (Mallowa et al. 2016). Many disease symptoms can also be mistaken as nutritional deficiencies or stress from environmental factors e.g. water stress etc.
12. Diagnostic testing offers a robust and evidence-based method of detecting biosecurity risks. We therefore request that diagnostic testing, in conjunction with visual inspection, is mandatory for bacterial pathogens if the parent plant option is implemented. We do not feel that visual inspection alone meets the biosecurity outcomes that the import health standard seeks to achieve.
13. In some instances, parent plants may be planted alongside other plants in a very large glasshouse. HortNZ would like clarity on what course of action the NPPO would take in the event a biosecurity risk is detected during parent plant testing.

Audit of seed importation pathway

14. As the seed pathway has historically been a pathway for the spread of pathogens to new countries, if the proposed parent plant testing option is implemented, HortNZ request that MPI conducts audits to check that MPIs testing and vector control requirements are being met. MPI need to be confident that offshore activities are being undertaken as expected to ensure imported seeds are clean and don’t harbour unwanted biosecurity risks that would potentially jeopardise the New Zealand horticultural sector.

Conclusion

15. In summary, HortNZ believes that managing the risk of pathogens on the seed pathway is critical for New Zealand. Access to small seed lots and high-value seed is vital for the future success of the sector, but biosecurity requirements for all

imported seed should be adequate to manage the risk. We appreciate that this is a delicate balance, but one we consider can be achieved.

References

Centre for Agricultural and Bioscience International (CABI) (2022a) *Acidovorax avenae* subsp. *avenae*. Crop Protection Compendium.

<https://www.cabi.org/isc/datasheet/44935>

Accessed 20 September 2022.

Centre for Agricultural and Bioscience International (CABI) (2022b) *Clavibacter michiganensis* subsp. *nebraskensis*. Crop Protection Compendium.

<https://www.cabi.org/cpc/datasheet/15339>

Accessed 20 September 2022

Caroline, R.M. 2011. *Pantoea stewartii* subsp. *stewartii*: lessons learned from a xylem-dwelling pathogen of sweetcorn. Molecular Plant Pathology. 12(7): 628-637.

Gross, D.C. and Vidaver, A.K. 1979. A selective medium for isolation of *Corynebacterium nebraskense* from soil and plant parts. Phytopathology. 69(1): 82-87.

Horticulture New Zealand (2021). Submission on proposed amendments to specific import requirements for melon, cucumber and watermelon seeds for sowing (in relation to Melon Necrotic Spot Virus).

International Plant Protection Convention (IPPC) (2022). International Standards for Phytosanitary Measures (ISPMs) – ISPM 10: Requirements for the establishment of pest free places of production and pest free production sites.

Mallowa, S.O., Mbofung, G.Y., Eggenberger, S.K., Den Adel, R.L., Scheiding, S.R. and Robertson, A.E. 2016. Infection of Maize by *Clavibacter michiganensis* subsp. *nebraskensis* does not require severe wounding. The American Phytopathological Society. 100(4): 724-731.

Ministry for Primary Industries (2022). Risk Management Proposal: Amendments to the Import Health Standard Seeds for Sowing 155.02.05.

National Agricultural and Food Research Organization (NARO) (2022). Diseases of Corn (1). [Diseases of Forage Crops \(affrc.go.jp\)](https://affrc.go.jp)

Accessed: 20 September 2022.

Ortega, C. 1987. Insect pests of maize – A guide for field identification.

https://pdf.usaid.gov/pdf_docs/PNAAX152.pdf

Accessed: 20 September 2022.

Horticulture New Zealand submission on the proposed additional requirements for small seed lots, 27 September 2022