



## Import Health Standard *Actinidia* Plants for Planting

July 2018

On 13 July 2018, the Ministry for Primary Industries (MPI) issued an Import Health Standard (IHS) for *Actinidia* plants for planting. This means that kiwifruit plant material can be imported into New Zealand to be used for planting purposes, including but not limited to, use in breeding programmes.

The IHS sets out the import requirements for *Actinidia* nursery stock, specifically for plants *in vitro* (tissue culture), imported into New Zealand for further propagation. This pathway has not been active since 2013 because of the Psa incursion.

KVH recognises importing new kiwifruit material is an important part of maintaining the competitive advantage of our industry, however KVH has been actively engaged in the consultation process to ensure that the risk of introducing new biosecurity threats on this pathway is carefully managed and has sought independent reviews from New Zealand and international experts to ensure measures are robust.

### Summary of how biosecurity risk is mitigated on this pathway

- Importation is restricted to tissue culture material which is less likely to introduce threats than other forms of plant material.
- MPI has taken a precautionary approach to developing this Standard. Where uncertainty exists on the ability of a measure to manage risk, more than one measure is required. These include a combination of offshore measures; two years post-entry quarantine in conditions conducive to symptoms expression and regular inspection; and diagnostic testing.
- To help illustrate the steps in which risk will be effectively managed on this pathway, the diagram on page 3 shows all points at which risk will be managed on plants exported (imported to New Zealand) as tissue cultures from a non-approved source, using measures proposed for the high-risk pathogen *Ceratocystis fimbriata* as an example.

### Offshore measures

- Pre-border measures are included to reduce risk prior to export. One such measure is that only stage 2 and 3 plants that have undergone multiplication rounds are eligible for entry, not stage 1 plants which are taken directly from mother plant material. This requirement acts as an offshore screening for some bacterial and fungal contaminants which may become evident during multiplication rounds.

### Growing season inspections in containment

- Plants entering New Zealand are required to have a minimum of 20 months in Level 3 quarantine, after tissue cultures have been deflasked and begin active growth.
- This must include two distinct growing seasons each of nine months to encourage symptom expression. During this period there will be twice weekly inspections by the facility operator and regular inspections by MPI through the quarantine period. This is a robust screening method for detecting all classes of pathogens, including those that may be unknown to science.

### Diagnostic testing

- For pests which present a greater risk to our industry or where there is evidence that growing season inspection may not effectively manage the risk, additional measures such as PCR testing and or herbaceous indexing are applied to give greater confidence. Organisms for which PCR testing is required include;

- Viruses (5 species)
- Psa
- Verticillium Wilt
- Phytoplasmas
- Summer canker (*Pectobacterium carotovorum* subsp. *actinidiae*)
- Brazilian Wilt (*Ceratocystis fimbriata*)
- *Phytophthora* and *phytopythium* (3 species)
- The testing and inspection schedule is predetermined to maximise the likelihood of detection.
- Replicate testing in the second season is required for Brazilian Wilt, Summer canker and Verticillium Wilt.

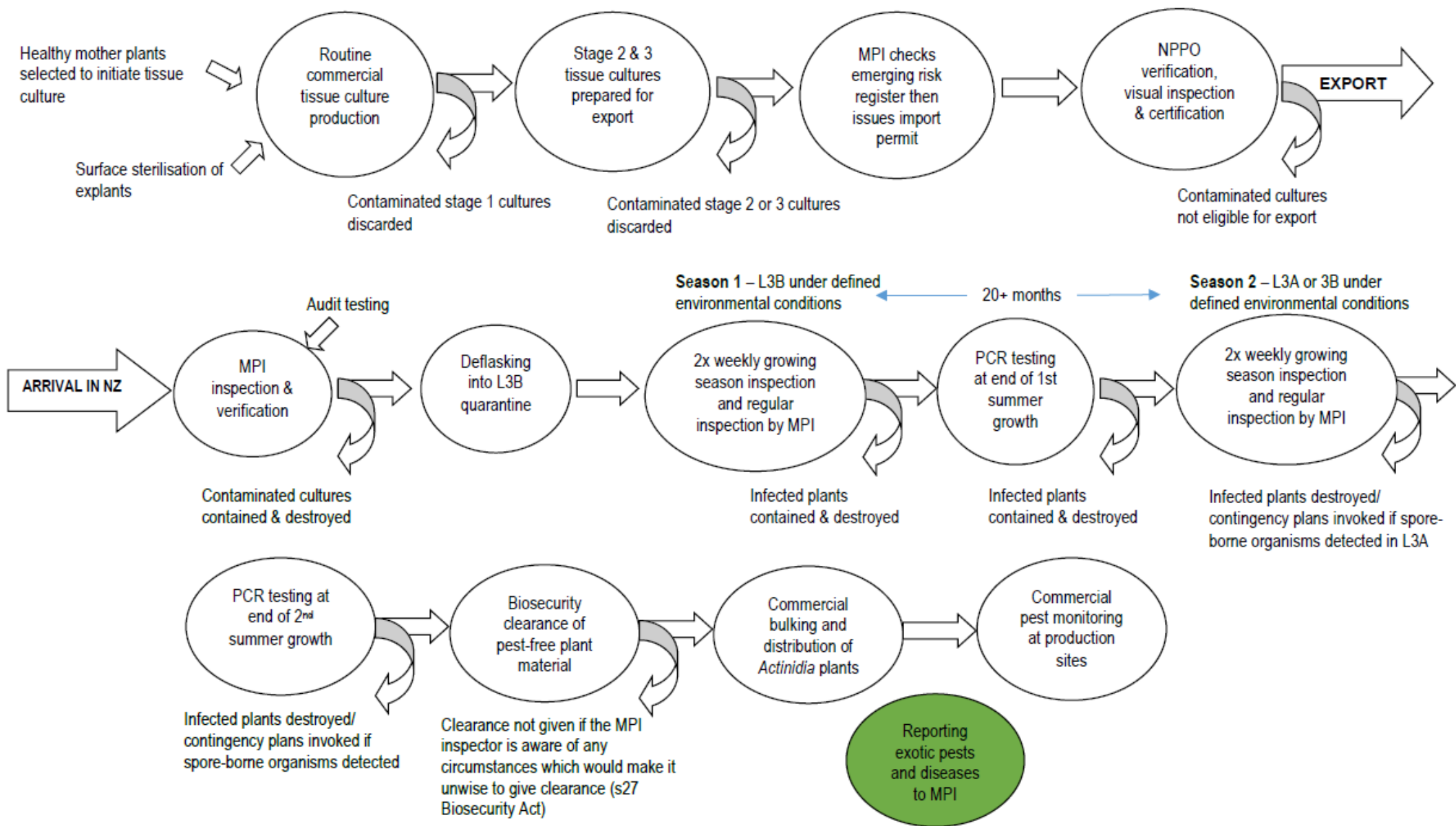
### **Residual risk**

MPI has developed this Standard based on a risk analysis drawing on current scientific knowledge, and proposed risk management measures based on this scientific knowledge. MPI is confident that the measures proposed in the Standard will meet the appropriate level of protection, which is to reduce risk to a very low level while acknowledging that it is impossible to achieve zero risk.

Where KVH, external reviewers or other submitters have indicated potential weaknesses in the proposed measures, MPI has taken steps to address these where practical, resulting in a more robust standard than originally suggested.

KVH will continue to support research efforts into high-risk pathogens and should any new information suggest additional measures are required, MPI can enact urgent measures to achieve this.

Please see diagram on following page.



**Figure 1:** Points at which risk from *Ceratocystis fimbriata*, if present, will be managed during the production and export of *Actinidia* tissue culture to New Zealand (based on Sgrillo 2002)