



Plant Pass GUIDANCE

# Getting Started

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BIOSECURITY 2025

# Plant Pass Guidance Toolbox

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### Plant Pass Scheme

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## Updates

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The Plant Pass Scheme is a science-based framework to help producers identify, control, manage and avoid biosecurity risk. The Scheme and standards are based on work undertaken early in 2018 following experience early in the myrtle rust response that underscored the crucial role that plant producers play in early detection of pests, their containment and slowing their spread following a pest incursion. Subsequent discussions identified the opportunity to develop a systematic approach to plant production industry biosecurity risk management.

Revisions will be ongoing as the Scheme's experience and/or new science inform the need for change. Revisions published on the Scheme's website [[plantpass.org.nz](http://plantpass.org.nz)] and participants advised of the changes and new documents, so they can ensure that they are referring to the most recent documents.

Those wishing to provide recommendations for change should send these in writing to The Scheme Manager or by email to [office@nzppi.co.nz](mailto:office@nzppi.co.nz).

## Acknowledgements

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Plant Pass acknowledges and is appreciative of the support of many industry members and stakeholders who assisted in the development of the Scheme; funding from the Ministry for Primary Industry, Department of Conservation, Auckland Council and forestry and horticultural industry bodies, the guidance of project Steering and Working Groups, feedback and advice from industry members and stakeholders, and Kiwifruit Vine Health's generously allowing the Scheme to extract from and draw heavily upon their work and the Kiwifruit Plant Certification Scheme.

## Disclaimer

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While the Scheme's objective is to allow certification of plant producers and confidence that the plants they produce have been grown under conditions of high biosecurity risk and hazard management, there remains the possibility a proportion of plants may contain biosecurity pests. Plant Pass and its partners accept no liability for claims regarding the presence of pests in any plants produced by registered and/or certified producers. While the objective of the Scheme's standards and guidance is to minimise the potential risk pest, no party can guarantee that adherence to these standards and guidance will reduce such risk to zero.

# Getting Started on protecting your nursery from pests

The Plant Pass Scheme (Scheme) will possibly seem like a big ask and pretty daunting the first time you pick up the standard, checklist, guidance or other scheme document; there's a lot of material in those.

## DON'T PANIC

Chances are you're doing a lot of this anyway (after all, you're not overrun with pests<sup>1</sup> - we hope!), and that some things are routine and so embedded in your nursery and processes that they are second nature. There's a chance though you've not written down the processes you undertake or record the outcomes of some of those processes. You'll soon realise though; those are key steps.

And, for things that you're not doing, you'll end up with a list to chip away at. Some things on the list will be easy, others hard ... but from day one, the first time you tick one off, you've improved your pest and biosecurity risk management.

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## 1. Background

**If you don't need this background stuff, simply flip to page 5 for advice on how to get started!**

The Plant Pass Scheme is a risk management system. The scheme's designed to help plant producers manage the risk of their nursery becoming infested with or distributing a pest. It protects nurseries, their customers, other primary sectors, the environment and New Zealand's economy from the threat of pest incursions and inadvertent spread.

The Plant Pass identifies where pests can be introduced into a nursery, how they can be spread through its production cycle and how they can be distributed with plants as they are dispatched. Then, at each production step, methods (measures) to lessen the risk of pest infection are identified.

As you work through the Plant Pass Scheme (and towards Certification readiness), you'll implement these measures if you're not already doing them (or others to achieve the same outcome), to make sure your nursery is protected, and that you are doing your very best to ensure your plants are free of pests when dispatched to customers or for planting.

**A bit about how we define a pest** - the scheme has a fair number of definitions; you'll find them in Section 3 of the Core Standard. An important one is that we define a pest broadly; "Any species, strain or biotype of plant, animal or pathogenic agent that adversely impacts plants in commercial production or the built or natural environments". So that captures undesirable insects, mites, fungi, bacteria, viruses, weeds, skinks, ants ... a lot of things that limit nursery production or damage plants as well as things that may harm your customers or the environment that your plants are shipped into. Sometimes they are "asymptomatic". That is, pests are present but cannot be seen. That's one of the reasons why we need a layered approach to keeping them out.

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<sup>1</sup> Any species, strain or biotype of plant, animal or pathogenic agent that adversely impacts plants in commercial production, or if spread with nursery stock, adversely impacts the built or natural environments.

## 2. Systematic risk management

The Scheme takes a systems approach pest risk management. Technically, a systems approach is a set of actions that are independent of each other, that cumulatively provide a risk mitigation program and ensuring confidence in a producer's outputs.

More simply put, it's a series of small steps that collectively build layers of protection.

The Scheme is aligned with HACCP methodology (Hazard Analysis and Critical Control Points) and it scales with risk and organisation complexity (smaller risk issues require a lower level of management; higher risk situations will be more complex). HACCP is used widely and for example has been adopted as the standard risk management tool for NZ's food safety framework.

A key component of a systems approach is ensuring things are done in a repeatable fashion (think checklists). That way the chance of missing something is lessened. Another is "continuous improvement", where processes are reviewed regularly, areas for improvement noted, plans made and implemented. Repeated cycles through this approach brings about small changes that in time add to make substantial differences.

**Reference** – Plant Pass Guidance Toolbox, Section 7.1

## 3. How's the Plant Pass Scheme work?

The Scheme is a certification scheme for plant producers. Plant producers register with the Scheme, prepare for audit, be audited and once any gaps (non-conformances) are signed off, they advance to being certified.

Plant Producers who achieve Certification to the Scheme's Core Standard<sup>2</sup> and any applicable Specific Modules demonstrate their production is undertaken under conditions of strong biosecurity risk and hazard management. In doing so, they provide assurance that their plants have been raised in conditions that minimise the introduction and spread of pests.

The Scheme facilitates improving producer readiness and resilience, which in turn:

- Builds trust with customers and regulators.
- Reduces crop losses and costs.
- Builds confidence in the biosecurity status of plants.

### Design Principles

The plant production industry is extremely diverse. It comprises hundreds of producers across a wide range of markets, customers and distribution networks, enterprise size, ownership and commercial models, and plant species. Producer's awareness of and expertise in biosecurity hazard and risk management varies.

The Scheme's design acknowledges this diversity and can be used by all plant producers, from the smallest to largest nursery, and by commercial and community nurseries irrespective of what they grow or who they supply. The **Core Standard** focuses on core biosecurity best practice encompassing management and worker responsibly, nursery hygiene, crop monitoring and traceability. It includes examples of biosecurity hazards and management measures for nursery inputs, through the production cycle and in nursery dispatch and transportation.

Where necessary and desired, **Specific Modules** manage concerns about a specific pest, plant species, industry or distribution pathway that are additional to those in the Core Standard. These may be incorporated as a module within the Scheme, by reference to other biosecurity schemes or through mutual recognition. Examples may include myrtle rust, kauri dieback, kiwifruit nursery stock and plants supplied for restoration of offshore islands.

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<sup>2</sup> The **Core Standard** is applicable to a wide range of producers, nurseries, species and pests and is supplemented, where necessary and desired, by **Specific Modules** for issues of concern to or about a specific pest, plant species, industry or distribution pathway.

## 4. So how to start?

### 4.1. Register with the Scheme

Register with the Scheme – contact Plant Pass at NZPPI

- Email: [office@plantpass.org.nz](mailto:office@plantpass.org.nz)
- Phone: 04 918 3511.

Or download a registration form from

[www.plantpass.org.nz/biosecurity/resources](http://www.plantpass.org.nz/biosecurity/resources)

### 4.2. Get into a self-assessment

Two documents provide useful starting points:

- Entry Checklist: 20 steps to tick off for better biosecurity management.
- Plant Pass Hazard Management Checklists.

The Entry Checklist starts things off a little more simply, while the Hazard Management Checklists dive deeper and are more detailed.

Sit down with the team and run through a desktop exercise.

**Start with the Entry Checklist** – especially if you are new to Plant Pass or risk management.

**It will help you work through key issues** and if you can tick off these, or work to ticking them off, you're a long way down the track. **If it's "easy", move onto the Plant Pass Hazard Management Checklists**, noting that some sections of these may not apply to your nursery.

Your team will be invaluable through the whole exercise as well as at the start where they can bring their experience and knowledge of how things work at the "coalface" or what procedures they undertake and records they keep.

At this stage there are no "right or wrong" answers. You're simply assessing where you are at against the checklist. And remember, not all questions apply to all nurseries. If an issue is not applicable to your nursery, just skip it.

If you need help with what a question is getting at, both checklists provide a cross reference to the appropriate sections in the Core Standard and Plant Pass Guidance Toolbox. These in turn sometimes refer to additional guidance materials or form recording templates.

### 4.3. Workshops and training

The Scheme will be running Scheme introductory workshops during the year, get along to one of them; it will help.



#### Suggested approach

1. For either **checklist**, select a question or set of questions.
2. Note down what you're doing or not doing.
3. Go to the **Guidance Toolbox** document and see what's recommended.
4. Check if we've got extra materials or forms that might help – see the **Guidance Support Materials and Forms Collation** document.
5. If needed, create or update your procedures and record keeping so you can demonstrate that you've got things under control.

#### 4.4. Responding to your self-assessment results

You'll likely have some work to do.

## DON'T PANIC

Note down the things you are doing, but that may need a tweak, or get some written procedures or records underway for. These are likely some early wins. Write down what you are doing in these areas now, review this against the Core Standard and Plant Pass Guidance Toolbox. Adjust your procedures and records so that you are confident you are achieving the desired outcome.

For things that you are not doing, make a list. Think about what you need to do (the Plant Pass Self-assessment and Corrective Action record form template might help), and how you can do it. Some things may be easy, while some of those that are hard may simply be a question of time and effort, others may require investment.

Whatever, keep at it. Chip them off as you can in manageable groups; pick a few for this month, this quarter, this half year.

#### 4.5. Ready for audit

If not already there ...

### Get into the Hazard Management Checklists

... run through another "review, plan, do" process. Focus on the "Critical" items first (they're the big issues), then the "Majors".

These are the same checklists that the auditors use, so once you're comfortable that you can meet all the applicable Criticals, at least 90% of the Majors and the majority of the Minors on the Checklists, you're ready for audit. Contact the Scheme to start this process.

After the audit, you may have more work to do if the auditor has identified areas that need refinement (non-conformances). This is the same process as you've done above; look at the report, plan what needs to be done and get into it. Send the auditor the outcomes of your review and work. They'll assess and signoff in due course.

#### 4.6. Certification

Once your non-conformances are resolved and the auditor has advised the Plant Pass, you're good to go and we will issue your certificate. Congratulations!

## 5. Where to get help

We're is working on support mechanisms. In the meantime, the workshops are a good start.

Plant Pass documents and other resources we've gathered will also help; copies of the Standard and other Scheme documents can be downloaded from the Plant Pass website at [www.plantpass.org.nz/biosecurity/resources](http://www.plantpass.org.nz/biosecurity/resources).

The main things you'll need to advance rapidly are the:

- **Entry Checklist:** 20 steps to tick off for better biosecurity management.
- **Plant Pass Hazard Management Checklists** - the audit checklists. Provides good prompts for identifying key issues.
- **Plant Pass Guidance Toolbox** - a collation of best practice and guidance to help you build your system.
- **Plant Pass Guidance Support Materials and Forms Collation** - more information, forms and templates for procedures and processes common in nurseries.

We also have a "Plant Pass Resources" section in the "Plant Pass Guidance Support Materials and Forms Collation". It lists all the Plant Pass Scheme documents, additional Plant Pass materials and has links to other NZ and international support materials **including videos that are useful for team training**.



## 6. Appendix: Why we need Plant Pass

Plant production in New Zealand overall is worth an estimated \$600 million per annum to the New Zealand economy and employs an estimated 10,000 people and growing.

The plant production sector supplies young plants that underpin New Zealand's growing horticulture, viticulture, forestry and apiculture/honey export sectors and their collective contribution of over \$10 billion per annum to the New Zealand economy and rapidly growing. New genetics and high-quality nursery stock help drive innovation and competitiveness in the primary sector.

Plant producers also supply additional sectors, such as amenity, revegetation, landscape and retail. In doing so, they contribute to conservation and tourism sectors and provide solutions to some of New Zealand's most complex environmental challenges (examples include water quality and climate change). Plant Producers are pivotal in achieving growth in the primary sector and in the One Billion Trees and regional development programmes.

Plant producers operate in an environment where they (along with other primary producers) are exposed to significant and continual pest threats - not only from established pest species but also from new incursions. A 2015 publication<sup>3</sup> addressing New Zealand pest management, concluded that "*New Zealand is under increasing pressure from terrestrial and aquatic pests, weeds and diseases that threaten the country's ecosystems and economy. Ongoing improvement in existing pest management methodologies and novel approaches are required.*" It continued: "*Surveillance and pest monitoring are needed to increase the chances of early interception of invasive species or to confirm their eradication.*"

New Zealand has experienced an increasing number of pest incursions over the last 50 years as international trade and travel have grown. *Phytophthora cinnamomi*; *Pythium* and *Fusarium* species are ubiquitous; Myrtle rust continues to spread and invasive ants and skinks are of significant regional concern. New Zealand plant producers manage these, and other endemic pests, daily.

In the last decade, incursions have occurred in other countries that have had devastating consequences over large areas. Significant exotic pests include *Xylella fastidiosa*, *Ceratocystis fimbriata*, *Cryphonectria parasitica* (Chestnut blight), *Phytophthora ramorum* (Sudden Oak Death) *Candidatus Liberibacter asiaticus* (Citrus greening) and the Brown Marmorated Stinkbug (BMSB). These and others present a critical risk to plant producers, the environment, the horticultural industry and the economy.



BMSB

### Nurseries are at the frontline

Plant producers are at the frontline in the battle to improve pest management strategies. Nurseries present a smorgasbord for pests with a wide range of plant species, often in a juvenile state when they're often most vulnerable. Nursery growing conditions are ideal pest incubators!

These factors provide both opportunity (to New Zealand's biosecurity management) and threat (to plant producers).

- **The opportunity** - Plant producers play a crucial sentinel role enabling early detection and increasing the likelihood of containment and eradication; or at the very least, slowing the spread following a pest incursion.
- **The threat** – Biosecurity crises severely impact plant producers. A pest incursion response poses a significant threat to plant movements and to individual producers who have a pest detected on their nursery; the adverse impact of nursery closure, stock destruction and/or disruption that movement controls can have on the affected producer, their families and workers, local communities and other nearby nurseries.

The Plant Pass Scheme facilitates improving producer readiness and resilience, which in turn:

- Builds trust with customers and regulators
- Reduces crop losses and costs
- Builds confidence in the biosecurity status of plants
- Protects a business's ability to trade, its investment and the livelihoods of those involved.

<sup>3</sup> Goldson, SL. et al 2015. New Zealand pest management: current and future challenges - Journal of the Royal Society of New Zealand, 2015, 45 (1), pp. 31 - 58

## Offshore threats continue to grow

Globalisation, combined with climate change, means offshore threats will only increase, as the following diagram illustrates:



Map adapted from presentation by Dr Lyn O'Donnell, Deputy Secretary, DAWR, Australia at NZ Biosecurity Forum 2018

## How organisms spread through the supply chain from nurseries

As plant producers ship plants to their customers biosecurity hazards can be readily spread into the environments and businesses of plant buyers. These pests can spread to:



### Food and Viticulture

Orchards, greenhouses, vegetable crops and vineyards



### Forestry Production

Forests and nearby vegetation



### The Natural Environment

Conservation, revegetation and restoration programmes



### The Built Environment

Landscape, amenity, infrastructure, retail and home garden markets



### Other Plant Producers

Plant supply to other nurseries for further growing-on

To illustrate - **Sudden Oak Death** (*Phytophthora ramorum*) was spread throughout the USA in the 1990's by asymptomatic rhododendron stock from Oregon and Californian nurseries. It caused only minor impact to Rhododendrons, but Sudden Oak Death caused high mortality in many other tree species. In California alone over millions of trees have died because of this disease with wide reaching economic impacts on the nursery industry from lost stock as a direct result of the disease and the compulsory destruction of potentially exposed stock.

Potential associated economic and environmental impacts are substantial. They can arise from both known and unknown pests which could be spread through the plant trade.

