

# SUBMISSION ON

## The Agricultural and Horticultural Products Regulatory Review

8 September 2024

**To:** Ministry for Regulation

**Name of Submitter:** Horticulture New Zealand supported by multiple product groups & district growers' associations

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  - 1.1 The Aotearoa Horticulture Action Plan
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This part covers the questions that were posed by the review team:

- 3.1 Are the regulations working?
- 3.2 What are the biggest issues with the current approval path?
- 3.3 What are some of the causes or contributors to these issues?
- 3.4 How would you solve them?
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## Our submission

Horticulture New Zealand (HortNZ) thanks the Ministry for Regulation for the opportunity to submit information for the agricultural and horticultural products regulatory review and welcomes any opportunity to continue to work with you and to discuss our submission.

This submission is supported by and involves contributions from the following sector product groups and district growers' associations:

Avocado NZ, Citrus NZ, New Zealand Apples and Pears Inc, Onions NZ, Passionfruit NZ, Persimmons NZ, Potatoes NZ, Pukekohe Vegetable Growers, Strawberries NZ, Summerfruit NZ, Tararua Growers Association, Tomatoes NZ, Vegetables NZ Inc, Woodhaven Gardens

# The Horticulture Industry

Horticulture New Zealand (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 are 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 works in partnership with 20 product groups and ~25 district grower associations to create an enduring environment where our growers prosper<sup>1</sup>. This is done through enabling, promoting and advocating for growers in New Zealand.

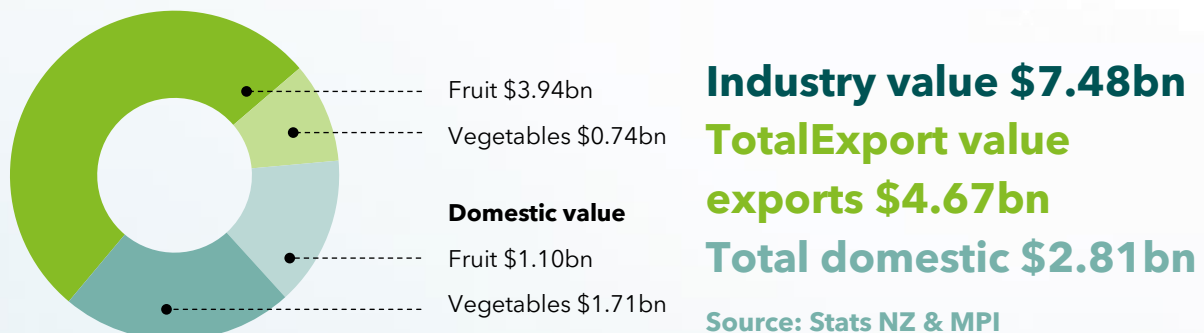


Figure 1. Overview of value of the horticulture industry in New Zealand.

Further facts and figures about the individual sectors within the broader horticulture industry are published annually as Fresh Facts<sup>2</sup>.

<sup>1</sup> [Product Groups & District Associations | Horticulture New Zealand – Ahumāra Kai Aotearoa \(hortnz.co.nz\)](https://hortnz.co.nz)

<sup>2</sup> [United Fresh | Fresh Facts](#)

## The Aotearoa Horticulture Action Plan

Growing Together 2035 - The Aotearoa Horticulture Action Plan (AHAP)<sup>3</sup> was developed by industry, Māori, research providers and government. It sets up a framework for collaboration across the partners involved to achieve the ambitious goal of doubling the farmgate value of horticultural production by 2035 in a way that improves prosperity for our people and protects our environment. The plan was developed collectively and creates efficiencies by allowing the partners to align efforts and investment towards common actions. One of the key priorities is to support horticulture with sound policy, so the sector is enabled to succeed into the future.

### The role of crop protection in achieving the AHAP goals

Key priority 1.3 in the AHAP sets out the agreed aspiration to increase crop protection, management and biosecurity tools. Under this key priority there is an action to identify fundamental science needs for use by regulators to globally harmonise crop protection tools and data. This is necessary if we are to achieve the desired outcome of globally harmonised New Zealand regulatory systems, so growers have access to the best crop protection tools and practices.

The AHAP sets out aspirations for horticultural sectors of all scales, which are:

- Secure New Zealand's future global competitive position for Tier 1 crops<sup>4</sup> by ensuring that New Zealand leads in new technology and development domains.
- Catapult Tier 2 crops<sup>5</sup> to a world-leading position by building the scale needed to become dominant in their category globally within 15 years.
- Support the rapid and effective establishment of Tier 3 crops<sup>6</sup> by developing programmes to accelerate the performance and scale of Tier 3 crops at a regional level.

Fit-for-purpose regulatory settings that allow New Zealand growers to access globally approved sustainable chemistry and integrated crop protection tools will be critical to enhance production, meet market expectations, adapt to future growing conditions, increase food security and to move every crop toward the overarching AHAP goal of doubling farm-gate value by 2035. A crop protection regulatory system that can be successfully navigated by Tier 1, 2 and 3 horticulture crops is required if we are to achieve the goals set out in the AHAP.

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<sup>3</sup> [Aotearoa Horticulture Action Plan | Horticulture New Zealand – Ahumāra Kai Aotearoa \(hortnz.co.nz\)](https://hortnz.co.nz)

<sup>4</sup> Tier 1 crops are those that generate close to or over \$1 B annual FOB value. These sectors are large, sophisticated, world-leading, with strong integrated pest management and proprietary cultivars, etc.

<sup>5</sup> Tier 2 crops are those that generate more than \$100 M annual FOB value. These have some of the attributes of Tier 1 crops, but not all.

<sup>6</sup> Tier 3 crops are those that generate less than \$100 M annual FOB value. These are emerging or small-scale crops.

## Horticulture is investing in agroecological crop protection

New Zealand's horticulture industry has been facing a problem of dwindling crop protection products for many years due to older products being phased out, newer products not becoming available, and increasing issues with pests, diseases and weeds developing resistance to the remaining products. At the same time consumers have increasingly been asking for food that is as free from chemical residues as possible, is grown sustainably, and is ethically produced. The industry realised that a step-change was needed in its approach to crop protection and many sectors have been investing in developing and commercialising agroecological approaches to crop protection.

Started in 2015, A Lighter Touch<sup>7</sup> (ALT) is one of the larger programmes of work that is supported by the horticulture, arable and wine sectors. It is jointly funded by industry and government via MPI's Sustainable Food and Fibre Futures Programme. Some of the individual sectors, such as NZ Apples & Pears and Potatoes NZ, also support their own programmes for their sectors.

A Lighter Touch focuses on understanding and better managing aspects of agroecosystems that lead to increased levels of pests and diseases, and how to integrate more sustainable crop protection practices, which reduces the need for crop protection interventions.

### Biopesticides & softer agrichemicals

An important aspect of this approach is embedding the use of biopesticides and biological control agents into crop protection programmes. Biopesticides are crop protection agents based on living micro-organisms or natural products. The use of chemical pesticides is reserved for those situations when all other crop protection methods have failed to prevent the pest, disease or weed burden from increasing to an upper threshold.

For an agroecological approach to crop protection to be a viable option for commercial growers, they need access to modern agrichemicals that are softer on the environment and can be used in harmony with biological programmes and agroecological crop protection.

This submission explains some of the regulatory barriers that are effectively impeding the ability of the horticulture sector to transition.

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<sup>7</sup> [A Lighter Touch - Horticulture New Zealand \(a-lighter-touch.co.nz\)](https://a-lighter-touch.co.nz)

# Executive Summary

## Regulations are causing issues & risks for horticulture

As it is currently operating, the system for registering crop protection tools in New Zealand is one of the biggest risks to the future of commercial horticulture in New Zealand. Therefore, growers welcome this review and wish to provide constructive information to the review team. From a grower's perspective, the current situation is not tenable, and HortNZ wants to work with government to make our approval system efficient, effective and practical. We believe it is possible to provide good protection for environmental and human health and to support innovative and sustainable horticulture.

## The current system does not support a doubling of exports

In this submission we explain how aspects of the current regulations are creating barriers to growers' abilities to grow healthy fruit and vegetables that are unnecessary as they do not result in reductions in actual risks. We also explain that the delays in approving products and the increasingly restrictive controls EPA are putting upon those approvals that can prevent growers from using more modern crop protection tools that are softer on the environment than the older, broad-spectrum products. We outline how this situation may start to jeopardise our ability to export produce to countries where growers have been able to transition to newer products.

## Rigid regulations are not enabling horticulture to adapt

We also explain that New Zealand's growers are proactively investing in the research required to commercialise Integrated Pest Management practices, but without access to an adequate suite of softer crop protection tools the sector will be hindered from implementing this approach at a suitable scale.

## The growing backlog of applications is symptomatic of an unsustainable system

Having explained the impacts, we highlight the complex regulatory system with multiple regulators, the resultant lengthy approval processes, and EPA's sizeable backlog of applications as significant issues for our grower's ability to produce food.

## International manufacturers are walking away

We explain why international crop protection manufacturers are starting to turn their backs on New Zealand and we request that New Zealand's government looks at options for incentivising their investment in this small market rather than putting unnecessary barriers in the way. We also contest the EPA's recent approach of putting increasingly restrictive controls on approvals that are not risk-based and that could put some of the smaller horticulture sectors at risk of not being able to adequately control pests and diseases.

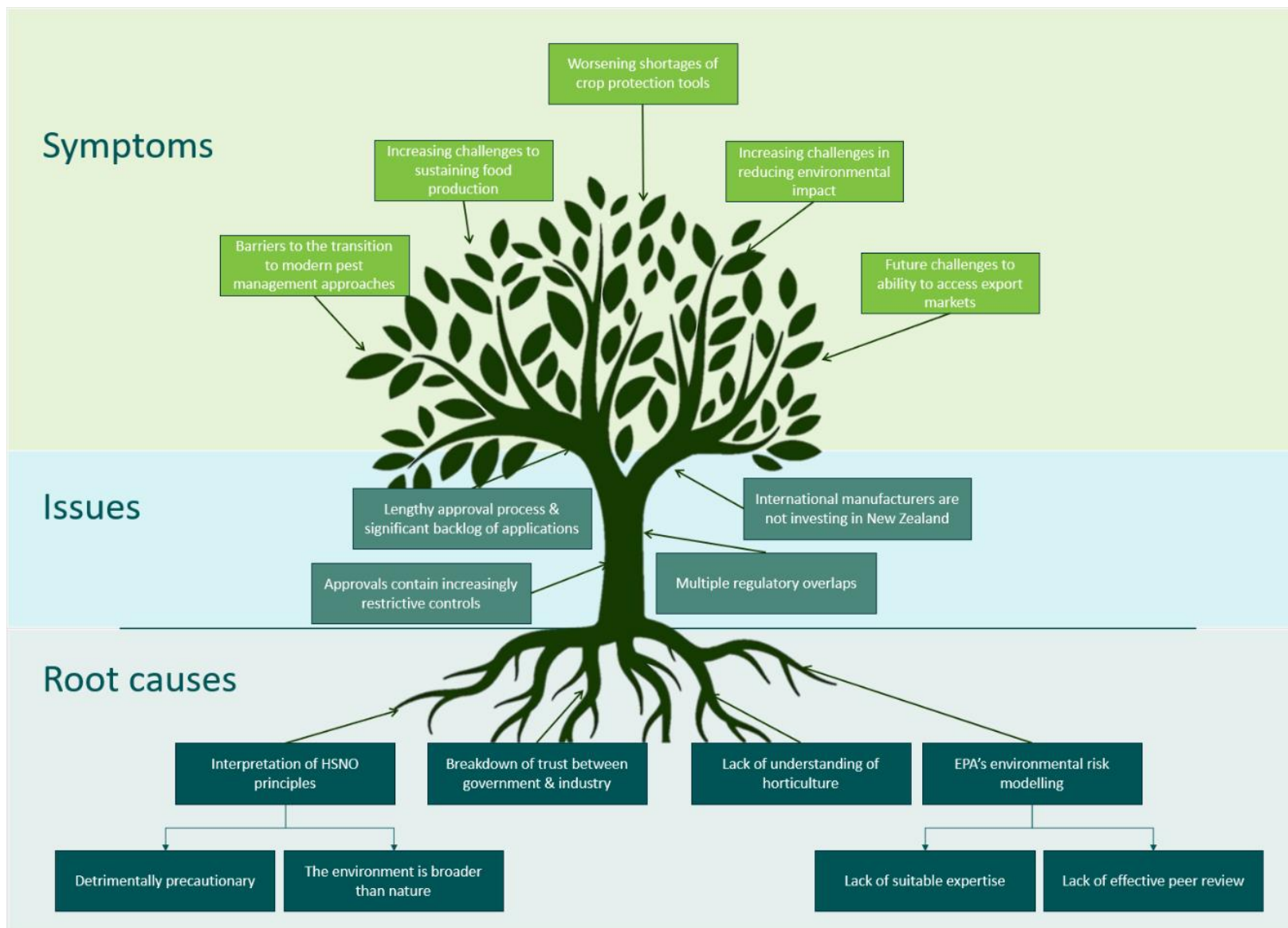


Figure 2. A tree diagram summarising issues facing horticulture due to New Zealand's current crop protection approval system.

## Solutions to ensure protection and enhance enablement

While the horticulture industries do want this review to clearly map out the issues with the current system, we also want to see options for workable solutions proposed.

### **Move the regulatory focus to actual risks not perceived risks**

As we look at potential causes of these issues, we express our concerns that EPA has adopted an overly precautionary approach to assessing and reassessing crop protection products that is not risk proportionate and does not consider the risks to New Zealand communities if horticultural businesses cannot maintain viability. We suggest that EPA is using an adversely narrow interpretation of “environment” that is not aligned with the interpretation that is provided in the HSNO Act.

### **Enhance specialised technical capability by better utilising overseas expertise & assessments**

From a technical perspective, we raise concerns about EPA’s mathematical modelling capability and the current lack of an effective peer review process before they propose controls based on the results of their models. We discuss two recent examples where industry has had to fund external experts to check EPA’s work and in one instance industry funded the gathering of a substantial body of evidence to refute EPA’s proposed controls. We suggest that simply increasing funding to update EPA’s ecotoxicological models will not solve some of their systemic issues in this area.

### **Partner effectively with industry**

It is clear to growers that regulators in this and other areas have limited understanding of how fruit and vegetables are grown and the daily challenges that they must manage to produce healthy, safe food. We raise concerns that the current lack of trust between government and industry must be addressed if the system is to effectively manage risks while simultaneously enabling the primary sectors to grow sustainably.

### **Rapid changes are needed to address the unacceptable backlog of applications**

In terms of things that need to happen in the short-term, this submission suggests some rapid changes to application processes to deal with the backlog of applications sitting with EPA. We also request that EPA immediately stops placing unnecessarily restrictive controls on approvals for new products as this will have major impacts on growers accessing crop protection tools, particularly the smaller horticulture sectors that do not have products registered specifically for their crops.

### **Longer-term regulatory reform is required to modernise an outdated system**

In terms of longer-term regulatory reform, we support the development of a regulatory system that aligns with the five principles developed by APHANZ and ratified by multiple primary sector bodies. Namely: right touch regulation; clear rules, roles, responsibilities; a balanced risk mindset; security and supply risk for New Zealand; and transparency and performance reporting.

## Supporting horticulture to support the environment



To remain viable, New Zealand's fresh fruit and vegetable sectors need to be resilient, sustainable, and safeguard the environment. To this end, industry is investing in research into alternative, non-chemical controls (via programmes such as A Lighter Touch), and through switching to using lower impact pesticides. However, futureproofing horticulture in this way requires a clear, transitional pathway that provides us with the time and tools we require to adapt and change.

HortNZ would like to see a planned process put in place that:

- Suitably stages the phasing out of older crop protection products with the registration of newer replacements to avoid creating critical gaps in adequate crop protection.
- Incentivises manufacturers to register new products here.
- Utilises a prioritisation matrix to accelerate the approval of new, more sustainable products to fill current critical gaps.
- Accelerates the registration of biopesticides.

We thank you for the opportunity to lodge this submission and wish to continue to assist with this review to bring the end users / growers voices into the conversation.

# Submission

The information provided in this submission reflects the viewpoints of people who are growing fruit and vegetables for consumption in New Zealand and for export. Growers are end users of crop protection products and for their businesses to remain commercially viable they require access to adequate tools to combat pests, diseases and weeds.

## 1. Are the regulations working?

**NO** - from the point of view of a commercial grower of fruit and vegetables in New Zealand.

We would go as far as to say that, as it is currently operating, the regulatory system for registering crop protection tools in New Zealand is contributing to one of the biggest risks to the future of commercial horticulture in this country. The various aspects of this problem, from a grower's perspective, are highlighted below.

### 1.1. Our growers will increasingly struggle to sustain food production amid crop protection shortages

To cultivate fruit and vegetables at a commercial scale, growers depend on a diverse range of crop protection tools and techniques. However, they are now facing a shrinking toolkit as older, broad-spectrum chemical products are deregistered and removed from the market. Unfortunately, the introduction of modern, more targeted, and environmentally "softer" crop protection products on to the New Zealand market is lagging far behind the rate of withdrawal, especially when compared to overseas markets such as Australia, USA, or Canada. From an end-user perspective, this discrepancy is particularly pronounced in New Zealand compared to other countries competing in the global fresh produce market. Our case study on the application for approval of Sivanto Prime in Section 5 highlights the extended times new products are available in other countries before being approved here.

A reduction in available crop protection options in New Zealand could significantly threaten the commercial viability of the horticulture sector. According to a 2019 NZIER report, without effective crop protection, the sector stands to lose up to 75% of its crop value, equating to an estimated \$5 billion annual loss to the New Zealand economy<sup>8</sup>. This figure could be even higher if reassessed today. Given that approximately 85% of vegetables produced are for domestic consumption, a shortage of crop protection solutions could also jeopardise New Zealand's food security as domestic businesses close their doors and there is an increasing reliance on imported produce. Ensuring access to advanced, targeted, and safer crop protection products is crucial for sustaining the industry's future and safeguarding the country's economic stability.

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<sup>8</sup> [The importance of crop protection products for the New Zealand economy \(nzier.org.nz\)](https://nzier.org.nz)

## 1.2. Our growers will face increased challenges in reducing environmental impact due to stricter regulations

One unintended consequence of New Zealand's regulatory system is that, in its efforts to protect the environment, the EPA has imposed increasingly stringent restrictions on the approval of newer, more environmentally friendly agrichemicals. While the goal is to safeguard ecosystems, this has led to a counterproductive result: many growers are left with no option but to continue using older agrichemicals that can have more harmful impacts on the environment. These legacy products, though still approved, lack the advanced, targeted modes of action that newer actives offer - products specifically designed to minimize ecological impact. As a result, the very regulations meant to protect the environment may, in some cases, be contributing to further environmental harm. This creates a lose-lose scenario where growers are unable to adopt more sustainable practices, the environment suffers from continued use of older chemistry, and growers struggle to stay competitive. A more balanced, risk-based approach to regulating new agrichemicals is essential to break this cycle and achieve the dual goals of environmental protection and agricultural sustainability.

## 1.3. Our growers will face export challenges due to limited access to modern crop protection products

Another significant risk facing New Zealand growers due to the lack of access to modern crop protection products that are available elsewhere is the potential inability to meet the requirements of international customers. Initiatives such as the European Commission's directive to reduce the risks and impacts of pesticide use are driving ever stricter controls on older, less environmentally friendly products in key markets<sup>9</sup>. As international regulators and large retailers implement these more stringent standards, they may prohibit the use of certain chemicals on produce destined for their countries.

If New Zealand growers are unable to access the newer, more internationally compliant products that their counterparts in other countries are using, this will start limiting the ability of our horticulture sector to export to those markets. Under this scenario, it will not be possible to double our exports over the next 10 years as the government has recently pledged<sup>10,11</sup>. There will be no "turbo-charge"<sup>12</sup> in horticultural exports if no-one is maintaining the engine of crop protection.

If New Zealand's horticultural industries continue to have relatively limited access to modern crop protection tools, the long-term unintended consequences will include the loss of valuable trading partnerships and a reduction in New Zealand's competitive position in the global fresh produce market. Ensuring that New Zealand growers have access to the latest, safer, and more sustainable crop protection tools is not just essential for domestic food security and environmental protection – it is also critical to maintaining access to international markets and safeguarding the future of our export-

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<sup>9</sup> [Sustainable use of pesticides - European Commission \(europa.eu\)](https://ec.europa.eu/eip/agriculture/en/sustainable-use-pesticides-european-commission)

<sup>10</sup> [National sets bold target for export growth](https://www.nzta.govt.nz/news/2024/03/national-sets-bold-target-for-export-growth/)

<sup>11</sup> [Exports expected to grow to \\$66 billion in next four years | The Post \(stuff.co.nz\)](https://www.stuff.co.nz/economy/129111111/exports-expected-to-grow-to-66-billion-in-next-four-years)

<sup>12</sup> [Agribusiness and Trade: MPI's director-general Ray Smith seeks to turbocharge growth in primary industries - NZ Herald](https://www.nzherald.co.nz/agribusiness-and-trade/mpls-director-general-ray-smith-seeks-to-turbocharge-growth-in-primary-industries/)

driven horticulture industry. To avoid handicapping New Zealand's ability to trade fresh or processed produce on the global stage, the current regulatory stance must change.

## **1.4. New Zealand's growers can lead the way in sustainable pest management but face tool shortages**

New Zealand's horticulture industries are proactive and forward-thinking, with a strong commitment to continuous improvement and a willingness to embrace new technologies and tools. For example, many sectors are investing in research and development to commercialize agroecological approaches to pest and disease control under the umbrella of "integrated pest management" (IPM).

The adoption of IPM represents a significant shift from the previous reliance on applying pesticides at predetermined times throughout the crop cycle. Instead, growers using IPM closely monitor their crops for pests and diseases, employing a variety of control methods to prevent infestations, with chemical interventions reserved for cases where other options have proven insufficient.

A key component of IPM is enhancing on-farm biodiversity, as increasing natural predator populations helps manage pest populations. However, traditional broad-spectrum pesticides are incompatible with IPM because they often harm both pests and beneficial predators, parasites, or pathogens. Newer crop protection products are more targeted toward specific pests and are gentler on natural predators.

Despite the clear benefits of IPM, growers now face a significant challenge: using more targeted products requires access to a wider variety of tools than in the past. In general, replacing the older broad-spectrum pesticides often requires 5-6 softer, more targeted alternatives. Unfortunately, the limited availability of new products in New Zealand in recent years<sup>13</sup> is hindering the horticulture sector from leading in this area and will potentially cause us to fall behind other countries.

## **2. What are the biggest issues with the current approval path?**

Horticulture New Zealand supports APHANZ's submission that provides details about the significant issues being encountered by their members trying to get new products registered here. As an end-user, we will provide a high-level overview of the issues from a grower's perspective. We also note that while EPA is the primary regulator of concern for crop protection products, that ACVM are also contributing towards some of the approval issues and delays.

### **2.1. EPA's lengthy approval process and significant backlog**

In recent years, the approval process for new agrichemicals by EPA has become increasingly prolonged. It takes many years from the time a company applies to EPA to the final registration from ACVM. (See case study of Sivanto Prime in Section 5 as an example relative to other countries.) The horticulture industry has concerns about the

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<sup>13</sup> Data provided in the APHANZ submission.

recent lack of transparency in regulatory reporting that has been masking the true extent of the delays. We welcome this review as a necessary step to understanding the root problems and assessing suitable solutions.

From the perspective of end-users of crop protection products, it is clear there are many factors contributing to these delays, including: the complexity of regulatory requirements; inefficient use of limited resources; distrust of the end-users of the products; and a growing backlog of applications. The extended timeframes for registration in New Zealand are a significant concern for growers and international manufacturers alike.

As of 30 June 2024, the EPA's application queue has grown to 121 cases, with 97 requiring actions by the EPA. This backlog of release applications has steadily increased over the past decade, primarily because the number of lodged applications has consistently outpaced the number being processed. **This growing backlog highlights inefficiencies within the current system and strongly suggests that the system in its current form is unsustainable.** Without fundamental changes made to processes and methods, we do not believe that simply increasing the resources available to EPA would solve this problem.

The delays in registering new products are hindering the introduction of modern, environmentally friendly products and New Zealand's horticulture industry is starting to lag behind other countries. As a result, New Zealand growers are at a competitive disadvantage and are unable to access the latest crop protection tools that are readily available in global markets.

A reorientation of this regulatory system towards assessing actual risks and not perceived risks<sup>14</sup>, and a redesign to align the regulatory approach to the resources available are crucial steps in addressing these delays and improving the overall efficiency of the regulatory process. Streamlining the approval process without compromising safety is essential to keeping the industry both competitive and sustainable into the future.

## **2.2. International manufacturers are starting to walk away from New Zealand due to a combination of regulatory and market challenges**

Compared to other countries, New Zealand contains a small area of horticultural land<sup>15</sup>. The effect of this is that all our crops are produced at a minor scale in comparison to far larger countries such as Australia, USA, EU, or Brazil. Even kiwifruit, which is New Zealand's largest export crop, makes up just 1% of globally traded fruit.<sup>16</sup> This makes New Zealand a small, niche market for crop protection products and international

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<sup>14</sup> Appropriately reorientating the approach to risk is work that would benefit from the support of an independent strategic risk advisory group. We have captured this approach in the five pillars of an enabling regulatory system that are set out in Section 4.1

<sup>15</sup> As an example, New Zealand grows 1,660 hectares of citrus with an annual production of 30,000T. In contrast, Australia has over 27,000 hectares of citrus orchards with an annual production of 767,766T.

<sup>16</sup> New Zealand data about the different horticulture industries, including the planted areas and size of export and domestic markets are published annually in Fresh Facts: [United Fresh | Fresh Facts](#)

companies developing new products naturally prioritise markets that offer better returns on their substantial investments in research and development.

In addition to these commercial limitations, aspects of New Zealand's regulatory system are creating further barriers for manufacturers attempting to register new products here. These hurdles increase the risk that manufacturers will opt not to invest in the New Zealand market at all.

Informal discussions with representatives from companies that develop new products reveal a concerning trend: research and development programs specifically for New Zealand are declining. This presents significant risks for the future of some of our horticultural sectors – risks that do not appear to be acknowledged by our regulators.

In the past, New Zealand was a country where manufacturers could conduct research and develop new products, allowing us to be among the first in the world to access modern crop protection tools. However, due to the current regulatory approach, this is no longer feasible, leaving manufacturers with little incentive to invest in trials to access our small market. Rather than rolling out an extensive belt-and-braces approach to assessing and managing every possible risk, we would like the New Zealand government to put more resource into considering how to better enable and incentivise international companies to register their products in New Zealand.

### **2.3. Regulatory overlap causing inefficiencies and confusion**

New Zealand's regulatory framework for crop protection products is overly complicated, involving multiple agencies with overlapping roles and responsibilities (*Figure 3*). Each regulatory body assesses different aspects, such as ecological, human health, food safety, social, and trade impacts. It appears that the risk thresholds each is using can differ and that there is a degree of duplication within the system. This complexity creates confusion for applicants (which causes some delays as the regulators explain exactly what it is they are wanting) and it also results in significant delays as agencies independently review the same risks under different regulations. The lack of a coordinated approach and failure to better leverage international data and assessments further complicates and lengthens the approval process.

As a result, the system is creating backlogs for regulators, who compete for limited resources. Applicants and manufacturers face high costs and unnecessary complexity in meeting the numerous requirements. For growers, the delayed access to new, environmentally friendly products means continued reliance on older chemicals, which have the potential to impose greater environmental harm, and as the pool of available tools dwindles the development of pest resistance to the remaining products will accelerate. This fragmented approach is ultimately hindering our industry's ability to adopt sustainable pest control solutions at a commercial level.

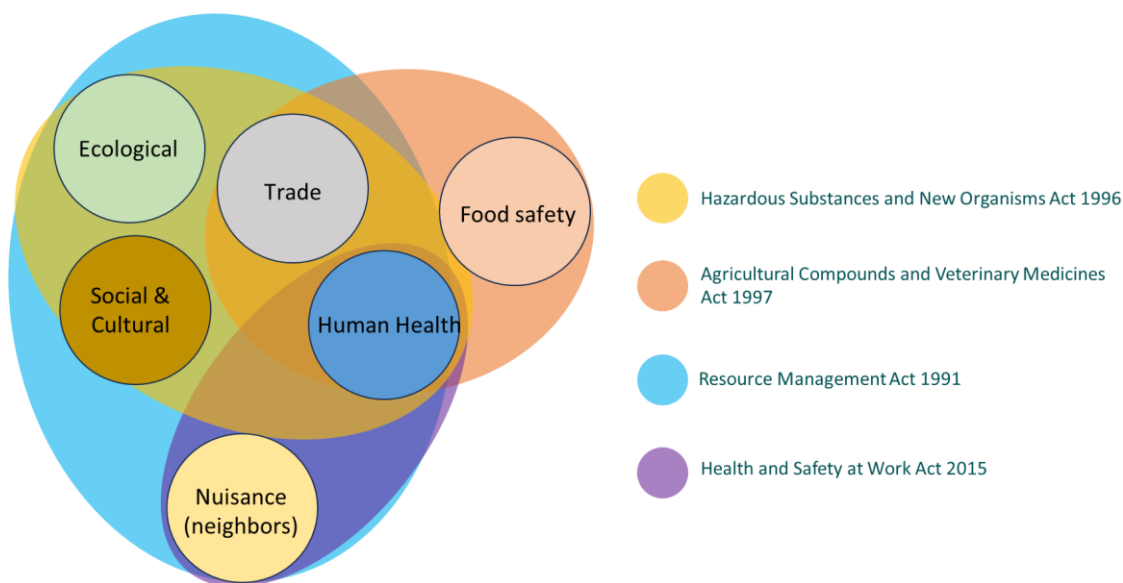


Figure 3. Six categories of adverse impacts of agrichemical use are currently managed under four overlapping Acts

## 2.4. Increasingly restrictive controls threaten growers' ability to use products off-label

In recent years, the EPA's increasingly restrictive application of controls upon the way agrichemicals are used is posing additional risks for New Zealand's horticulture industry. These stringent regulations control how (e.g. dosages and application methods) and on which crops certain products can be used. As EPA becomes more prescriptive in the controls they put upon the use of products, this will prevent the smaller horticulture sectors from utilising products off-label. While intended to ensure safety and environmental protection, if EPA continues to take this stance, these controls will leave some growers with extremely limited options.

Historically, off-label use – applying products in ways that deviate from their approved usage – has been essential for meeting the unique crop protection needs of minor crops in New Zealand, which often lack registered solutions. The sectors that rely on off-label use are aware of the risks associated with this such as the potential for residues that breach the default Maximum Residue Limits into food or human health impacts.

Industry manages the risks associated with off-label use under the Good Agricultural Practice (GAP) assurance schemes that they invest in. NZGAP, for example, publish guidelines<sup>17</sup> for growers to use products off-label without exceeding the Maximum Residue Limits (MRLs), including default MRLs if a specific one is not set. NZGAP's decision tree<sup>18</sup> offers clear steps for ensuring compliance with MRLs, and MPI's Food Residues Survey Programme (FRSP) consistently shows a high level of compliance with these standards<sup>19</sup>. This demonstrates that off-label use, when managed properly, can be done safely without compromising food safety or exceeding residue limits. However, if the EPA continue to restrict their approvals to precisely what the applicants request,

<sup>17</sup> [Guidelines \(nzgap.co.nz\)](https://www.nzgap.co.nz/guidelines)

<sup>18</sup> [Decision Tree for Determining if an Agrichemical can be used Off Label - MARCH 2023.pdf](#)

<sup>19</sup> [Documents for Food Residues Survey Programme | NZ Government \(mpi.govt.nz\)](#)

then it will become increasingly difficult for growers to use products off-label and our smaller horticulture industries will struggle to remain viable.

## **2.5. The backlog of applications for new products should be prioritised over reassessments of old products**

According to the EPA's 2023 Supplementary briefing to their incoming Minister<sup>20</sup>, reassessments now represent a substantial portion of the authority's hazardous substance work. This is confirmed by EPA's reassessments webpages that lists 12 large-scale reassessment projects that are either currently active or scheduled to start in the next 18 months<sup>21</sup>. This indicates that EPA's reassessment programme, in its current form, will continue to require significant resourcing for the foreseeable future. We seek greater clarity on the scientific and cost benefit grounds to initiate these reassessments.

The question the horticulture industry poses is whether EPA can make more use of reassessments conducted by international regulatory bodies and divert more of their technical resources towards processing applications and removing the backlog?

If products are being reassessed overseas, then it is likely that their future availability will decrease regardless of EPA's own reassessment. If there are few or no alternative products available to growers here, then this will create a critical gap in our growers' crop protection toolboxes. To protect the environment and continue to grow food we need new tools.

## **2.6. The regulatory system is not designed for biopesticides and other biological tools**

One of the projects in A Lighter Touch programme is to try to register a biopesticide in the current regulatory system<sup>22</sup>. Under the current system, this biopesticide is having to apply for approval under HSNO as a new organism, which is proving to be complicated, time consuming and expensive. One of the findings of this project, is that even organisms that are already in New Zealand may be deemed "new" until deregulated, and of course there is a process to follow to deregulate an organism.

Horticulture wants to be more innovative in its approach to crop protection, but the rigidity of the current regulatory framework is proving prohibitive.

# **3. What are some of the causes or contributors to these issues?**

## **3.1. Interpretation of HSNO principles**

### **3.1.1. DETRIMENTALLY PRECAUTIONARY**

The EPA incorporates the precautionary principle provided under the Hazardous Substances and New Organisms (HSNO) Act as a key element of its regulatory

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<sup>20</sup> [Briefing-to-the-Incoming-Minister-for-the-Environment-December-2023-Supplementary-Briefing-on-hazardous-substances.pdf \(epa.govt.nz\)](#)

<sup>21</sup> [Reassessments work plan | EPA](#)

<sup>22</sup> [Biopesticide regulatory case study - A Lighter Touch \(a-lighter-touch.co.nz\)](#)



approach. As written in the Act, this principle emphasizes exercising caution when there is scientific or technical uncertainty about potential adverse effects.

Within their current strategy, EPA's approach to the precautionary principle is captured as one of the five things that the authority stands for<sup>23</sup>. They summarise their approach with the following wording:

*Precautionary approach: If we're unsure, we pause and say "no" for now.*

However, uncertainty is inherent within science, and a truly, evidence-based regulator would have developed processes for managing that uncertainty that go beyond simply saying "no". Obtaining 100% certainty is unachievable and will impede risk-appropriate decision-making, adversely impact people's livelihoods, and hinder innovation.

An illustration of how this abundance of caution is being applied with potentially severe results for vegetable growing in New Zealand is provided in the second case study presented in Section 5 - The reassessment of synthetic pyrethroid insecticides. In their submission, the kiwifruit industry has also provided ample evidence of the issues this approach caused in the hydrogen cyanamide reassessment.

The Ministry for the Environment has addressed this issue previously. In their National Policy Statement for Freshwater Management 2020<sup>24</sup> they stated that decisions had to be made using the best available information and a lack of information could not be used as a reason not to set safe limits. This seems a more pragmatic approach that could be considered within this regulatory system too.

### **3.1.2. THE ENVIRONMENT IS BROADER THAN NATURE**

One of EPA's three strategic goals is "protecting people and the environment"<sup>25</sup>. However, they go on to state that:

*We stand for nature: We work to rebalance the scales in favour of the environment.*

The definition of environment in the HSNO Act is broader than this. As an example, Section 5 of the Act recognises and provides for two principles with no weighting towards one or the other:

*(a) the safeguarding of the life-supporting capacity of air, water, soil, and ecosystems:*

*(b) the maintenance and enhancement of the capacity of people and communities to provide for their own economic, social, and cultural well-being and for the reasonably foreseeable needs of future generations.*

Recent decisions made by EPA indicate that they are not taking communities into account when wielding their abundance of caution. An example of this was their proposal to ban hydrogen cyanamide, which would have decimated New Zealand's kiwifruit industry and the communities that nurture those orchards. This proposal was

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<sup>23</sup> [3, 30, 300 years: our intergenerational strategy | EPA](#)

<sup>24</sup> [National Policy Statement for Freshwater Management 2020 Amended January 2024 | Ministry for the Environment](#)

<sup>25</sup> [3, 30, 300 years: our intergenerational strategy | EPA](#)

based on EPA's risk modelling results that suggested there may be risks to birds and soil invertebrates from using this product. Therefore, the EPA had decided to say "no".

Applying simple biological reasoning should have been enough to ascertain that the risks to birds were very low because the use pattern of this product means it is applied when bird species are not feeding on the vines. The risks to soil invertebrates may be higher, but as the product is only used once a year the overall environmental risk remains low. We ask, is banning the use of a critical product that is applied to vines once a year to protect soil invertebrates from an unspecified risk really grounds enough to justify removing kiwifruit orchards from rural communities in New Zealand? The decision-making committee did not think so and EPA's proposal was overruled after a four-and-a-half-year process that cost millions of dollars.

### **3.2. Unnecessarily thorough assessments**

We believe that ACVM takes an overly thorough approach to assessments and efficiencies could be made to their processes without incurring any increase in actual risks.

One example would be their assessment of efficacy of the label claim of a crop protection product. No reassessment of efficacy is made when resistance develops to a product. Nor does ACVM reassess a previously registered product if a more efficacious one arrives on the market. So, for what reason does ACVM need to assess efficacy when first approving a product? If a product does not do what it claims on the label, growers will not waste money on it.

ACVM's efficacy assessments are also one of the barriers to registering biopesticides here. Biopesticides are not a direct replacement for chemical pesticides as they are used as part of an integrated pest management programme, not as a single knockdown tool and, therefore, have comparatively lower efficacies. Having the same efficacy bar for chemical pesticides and biopesticides may prevent some biopesticides from gaining approval for registration.

We also would like to see ACVM make more use of self-declaration processes by applicants. Forcing registrants to submit a fresh application every time there is a minor change to the product, such as a change of manufacturing site, is resource intensive for both the registrants and the regulator. MPI could step back from resourcing multiple reassessments and instead put more of a focus on auditing and verification of registrants claims.

### **3.3. Concerns about EPA's environmental risk modelling**

We have fundamental concerns both about EPA's risk modelling capabilities and the way they are interpreting the results of their modelling work.

EPA have publicly acknowledged that they are using outdated risk modelling tools and have said they need better resourcing to update their modelling work<sup>26</sup>. We

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<sup>26</sup> [Briefing-to-the-Incoming-Minister-for-the-Environment-December-2023-Supplementary-Briefing-on-hazardous-substances.pdf \(epa.govt.nz\)](https://www.epa.govt.nz/assets/Uploads/Briefing-to-the-Incoming-Minister-for-the-Environment-December-2023-Supplementary-Briefing-on-hazardous-substances.pdf)

acknowledge that EPA are using models that international regulators such as US EPA no longer support. However, simply providing more funding for updating models will not fix some underlying problems with EPA's ecotoxicity and other modelling. Case study 2 in Section 5 outlines some of the issues that have been found with EPA's modelling work.

### **3.3.1. LACK OF SUITABLE EXPERTISE**

Neither EPA's mathematical modelling capability nor capacity are adequate for them to regulate the HSNO Act in their current manner. Mistakes have been found in the modelling that EPA has conducted in recent years, and it is hard for industry to have confidence that the regulator is making rational, evidence-based decisions.

To put this statement into some perspective, ecotoxicity modelling is a highly technical specialism that is sought after by many sectors, including regulators, research institutes, consultancy companies, and pharmaceutical / agrichemical companies. Governments trying to maintain their own body of expertise will continue to find it increasingly hard to compete with the salaries offered by commercial companies and or overseas regulators. This problem is compounded in New Zealand where there are few homegrown experts and vacancies usually need to be filled by attracting people to move to New Zealand from overseas.

We suggest that, rather than try to build and maintain a team of expert ecotoxicologists and other specialised roles within EPA and ACVM, it is time to look at other options. These could include:

- EPA outsourcing the risk modelling to reputable providers who could potentially be based in other countries, or
- Requiring the applicant to provide risk modelling work as part of their application with EPA shifting their focus to concentrate on auditing and verifying the process to ensure validity.

The regulator trying to do everything itself in New Zealand is not viable and, in 2024, not necessary. Our regulatory system must drop its current and increasing rigidity and adapt to the times.

### **3.3.2. LACK OF EFFECTIVE PEER REVIEW**

Independent technical reviews of EPA's ecotoxicity work have demonstrated that EPA is inexpertly using outdated models in ways that at times deviate even from their own risk assessment methodology<sup>27</sup>. From the outside, there does not appear to be an effective peer review process in place and the results of inaccurate modelling work appear get taken forward into EPA's proposed controls.

It is not financially viable for industry, particularly smaller horticulture sectors, to keep funding peer review of EPA's modelling work. Nor is it sustainable to expend huge amounts of resources to prepare substantial bodies of scientific and economic evidence against EPA's reasoning for every assessment that the agency conducts, such as the kiwifruit industry had to do for the hydrogen cyanamide reassessment. The fact that

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<sup>27</sup> [Hazardous Substances Risk Assessment Methodology \(epa.govt.nz\)](https://www.epa.govt.nz/hazardous-substances/risk-assessment-methodology)

industry has found this to be necessary in recent years is symptomatic of a regulatory system that is not functioning well. We want things to change going forward.

### **3.4. Lack of understanding of horticulture**

Central government regulators have little understanding of how their fruit and vegetables are grown. There is no understanding of what a grower needs to do to produce safe and healthy food and maintain a viable business. There's no comprehension of the multitude of challenges all growers must overcome to produce ample quantities of high-quality produce. There's no awareness of the many risk management practices growers conduct each day or how industry assurance schemes operate to support growers to manage those risks and verify that they are doing so. There's no acceptance that growers are dependent upon the environment to remain in business, and it is not in their interest to pollute that environment or contaminate food.

Due to a lack of understanding of horticulture, EPA is wielding the precautionary principle in a manner that assumes growers are guilty of causing undue environmental damage until the growers themselves can prove they are innocent. This must change for the appropriate balance between protection and permission to be found.

### **3.5. Breakdown of trust between government and industry**

It's fair to say that in recent years, there has been a fundamental breakdown in trust between all parties. The regulators do not trust the manufacturers or the growers, and the industry parties have little to no confidence in the regulators. This situation must change if risks posed by crop protection tools are to be appropriately managed, our natural environment protected, and New Zealand's communities are to prosper.

Going forward, HortNZ would like to work with EPA and ACVM to build a system that works well to protect the environment, in its full definition under the HSNO Act, and the risks under the ACVM Act and that supports growers to grow sustainably. We believe this is possible, but it requires partnership. The current approach of regulators trying to control every possible risk that could occur, including risks that do not exist, is not working well and is itself posing unnecessary risks to the future of growing in this country. Let's move forward together to forge a better future.

## **4. How would you solve them?**

HortNZ understands that this is an important but complex area to regulate. We also understand that the relatively small commercial scale of our horticulture industries on the global stage presents sizeable challenges in terms of international manufacturers seeing any value in investing in this market. However, precisely because of these commercial drivers, it is imperative that New Zealand's regulatory system for crop protection products is efficient and decision making is consistent and risk based.

HortNZ supports the approach that APHANZ is taking to suggest areas where the system could be enhanced. We worked with APHANZ to develop the five principles of an enabling regulatory framework. Building on these principles, we also propose both short-term (4.2) and long-term (4.3) solutions to address the key issues and challenges facing the horticulture industry caused by the current system.

In the short term, horticulture's top priority is to ensure growers maintain access to the crop protection tools they require to sustainably produce safe food. This means rapidly processing EPA's backlog of applications for new products and incentivising manufacturers to lodge more applications here.

## **4.1. Five pillars of an enabling regulatory system**

Crop protection products need to be used in a manner that does not put the health of people or the environment at risk. Industry bodies have come together to think about the framework of a regulatory system that is able to ensure safety in an effective and efficient way, now and in the future. We suggest the following areas should be considered.

### **4.1.1. RIGHT TOUCH REGULATION**

- Empower product approvals through alignment with international best practice and risk approaches, and with appropriate legislative design.
- Amend the purpose of primary legislation to consider risks, benefits, trade security and risk proportionality.
- Enhance use of right touch regulation measures to address the backlog.

### **4.1.2. CLEAR RULES, ROLES, RESPONSIBILITIES**

- Clarify and confirm the roles of regulators, government, manufacturers, and end users such as growers.
- Align to a common purpose and partner together to optimise risk management.
- Regulators should focus on "core" risks and doing the basics well.
- Establish a taskforce to triage and delegate low risk applications sitting in the current backlog.
- Provide a fair and equal playing field for product approvals; including clear legislation and clearly worded guidance for new product applicants on requirements, process and expected timeframes.

### **4.1.3. BALANCED RISK MINDSET**

- Establish a strategic risk advisory group (SRAG) to support a regulatory risk reset.
- Develop a risk strategy for approvals aligned to best international risk practices.
- Develop a risk triage system for product categories that complements the current work being conducted to design new genetic technology regulations.
- Align risk thresholds across different regulators and underpin approvals with balanced, risk proportionate decision-making.
- Develop and implement a strategy to ensure assessors are well supported with access to the latest science, risk assessment models, tools and peer review.
- Ensure that assessors use all information provided to them in their modelling.
- Increase recognition of industry-led initiatives that are already in operation for managing risk, such as Growsafe, NZGAP and Global G.A.P.

### **4.1.4. SECURITY AND SUPPLY RISK FOR NEW ZEALAND**

- Design legislation, regulatory practice and regulator models to accommodate the realities of New Zealand's size in the market, national security, trade dependency and supply risks.
- Develop a framework that supports the innovation needed if exports are to double by incentivising companies to invest in research and development of

novel and niche products in New Zealand, including products that lower carbon emissions.

#### **4.1.5. TRANSPARENCY & PERFORMANCE REPORTING**

- Strengthen legislative expectations on timeframes and performance reporting, including ensuring that regulators include the full time that applicants wait between submission and assessment.
- Develop a performance reporting framework that is transparent about how levy and application funding is used and the product approval outcomes that are delivered.
- Refocus use of levy and application funding on “core” product approvals.
- Introduce a “core services” funders agreement.

## **4.2. Immediate solutions to current barriers**

The top priority from a horticultural perspective is to address the aspects of New Zealand’s crop protection regulatory framework that are delaying the approval process. We would like the government’s immediate focus to be on reducing the backlog of applications, expediting approvals, and ensuring growers have timely access to critical tools. We suggest there are some readily implementable solutions that could rapidly streamline EPA's approval processes while maintaining rigorous safety standards and without removing the ability of our smaller horticulture sectors to safely use products off-label when they have no alternative option.

### **4.2.1. STREAMLINING EPA'S APPROVAL PROCESS TO REMOVE THE BACKLOG**

We propose prioritizing additional resources, such as dedicated personnel or funding, to address the backlog of applications and accelerate the review process. This could involve reallocating resources from reassessment programs that are duplicating work already being conducted overseas to focus on issuing new approvals here in New Zealand. We also suggest simplifying regulatory processes by enhancing coordination between agencies responsible for ecological, human health, and food safety assessments. We would like to see areas of duplication identified and rectified, and the development of consistent and streamlined decision-making. Additionally, we propose that the regulators more frequently leverage international assessments through the international regulator rapid pathway to expedite approvals here.

Discussions have been had recently about how EPA could prioritise the applications sitting in the backlog. We support APHANZ’s comment that all the applications are a priority, otherwise their members would not have gone to the trouble of submitting the applications. We also support the suggestion this regulatory pathway adopts a risk matrix approach, as is being developed by MBIE as they design the new genetic technology regulations. However, in addition to this, there may be applications sitting in that backlog that are critically needed by growers now. To that end, the horticulture sector has started discussing how we could assist the regulators to categorise applications for crop protection products in terms of their criticality.

Discussions are ongoing within the sector, and we are in the process of trying to develop a prioritization framework for crop protection applications. *Figure 4* shows the framework we are currently discussing. This has not been signed off by the horticulture industry at this time and is being provided for illustrative purposes.

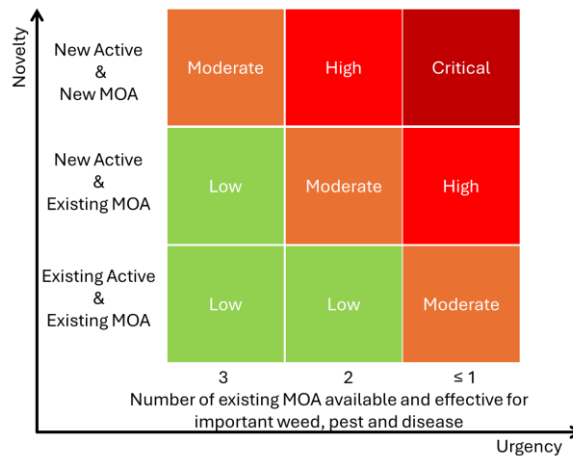


Figure 4. Prototype prioritisation framework for EPA crop protection tool approval applications (HortNZ). Key: MOA = mode of action; Active = active ingredient; New = new to New Zealand; Existing = already available in New Zealand.

#### 4.2.2. REINSTATE FLEXIBILITY OF APPROVALS TO ALLOW OFF-LABEL USE

Under the current system, smaller horticulture sectors such as berries are dependent upon using products off-label as very few products are registered for them. For these sectors to remain viable in New Zealand, it is imperative that the system does not become so rigid that off-label use becomes effectively impossible. To be clear about what we mean here, if EPA continues with its recent trend of imposing rigid controls on the approvals of new products, some of our fruit and vegetable sectors will not be able to continue to operate in New Zealand.

We would like to educate the regulators about the many controls that are in place to ensure that off-label use is conducted safely without putting human or environmental health at risk. We can demonstrate the well-established NZGAP guidance<sup>28</sup>, talk them through how GAP programmes operate, and the audit/verification involved and remind them that MPI’s Food Residues Survey Programme (FRSP) is also part of the monitoring system that ensures off-label use is not causing undue harm. This area has been a good example of industry leading and government enabling, but apparently EPA no longer sees this as adequate. We would like some open and honest conversations about this, because we feel that horticulture’s sizeable efforts to manage risks are neither recognised nor understood.

#### 4.3. Strategic reforms towards an efficient, collaborative and trusted crop protection regulatory system

To address the challenges in the current regulatory framework, we propose a series of reforms aimed at improving efficiency, attracting international manufacturers to invest in New Zealand, and strengthening industry-government collaboration. These reforms focus on streamlining approval processes, aligning with global standards and international best practice, and supporting innovation to better meet the needs of New

<sup>28</sup> [Guidelines \(nzgap.co.nz\)](https://www.nzgap.co.nz/guidelines)

Zealand's horticulture industry. The following sections outline our key recommendations for regulatory reform, international investment, and enhanced collaboration.

#### **4.3.1. REGULATORY REFORM FOR IMPROVED EFFICIENCY**

We propose developing a centralized, risk-based framework for assessing both new products and reassessments. This framework should be aligned with international best practice and incorporate greater leverage of existing international information, data and assessments. We fail to understand why Maximum Residue Limits (MRLs), as an example, need to be calculated specifically for New Zealand and using different methodology than other countries. We would like to see ACVM adopt the globally agreed MRLs set by CODEX Alimentarius<sup>29</sup>. Noting that our sectors that export need to meet the MRLs set by the regulators of the countries they export to and often the precise requirements of their international customers. This is just one example, from the outside there appear to be many more currently built into the system that may not be needed to achieve an acceptable level of risk management.

We also recommend introducing simplified approval pathways using a tiered risk category approach. Under this approach, low-risk, environmentally friendly products could undergo a streamlined approval process, moderate-risk products would be approved subject to a higher level of controls, and individual case-by-case full assessments would be reserved for those products that present higher risks. This would allow resources to be focused on more complex and higher-risk applications.

Additionally, we suggest updating legislation to better manage overlapping regulations between agencies, to reduce confusion and delays. This legislative reset needs to include clearer triggers for reassessments and a more targeted, needs-based approach to determine which products require re-evaluating by the New Zealand regulator. Clearly defining the roles and responsibilities of each agency is essential for improving efficiency and to support applicants to submit the correct information needed by each. It would also be prudent to consider the models used by our trading partners such as Australia, where a single agency (i.e., APVMA) regulates the approval pathway for agricultural products, streamlining the process and enhancing clarity.

#### **4.3.2. ATTRACTING INTERNATIONAL MANUFACTURERS**

We would like to see our regulators harmonise with global regulatory bodies by working towards a system that allows products approved in countries with high safety standards (e.g., Australia, Canada or USA) to be fast-tracked for approval in New Zealand. This would encourage manufacturers to invest in the local market and streamline access to vital agricultural products.

We greatly value New Zealand's unique natural environments and acknowledge that there are unique cultural aspects to New Zealand society that do need to be carefully considered by the regulators, including the HSNO obligations under the Treaty of Waitangi. However, we are not convinced that risk assessments from trusted overseas regulators that look at the risks to food safety for people, or the risks to wild birds or insects need to be replicated in full here. The basic biological parameters of vertebrates (including people) and invertebrates are globally stable, we suggest that only the truly

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<sup>29</sup> [Maximum Residue Limits | CODEXALIMENTARIUS FAO-WHO](#)



unique aspects of New Zealand’s environment need to be assessed here. For New Zealand-specific risks, we suggest that these could also be managed using a risk framework, without needing to resort to unnecessarily slow case-by-case assessments for everything. A more enabling and flexible approach to risk assessment and management is needed in New Zealand, and unless this happens international manufacturers will not apply to register products here.

## 5. What evidence do you have that you could supply or point us to?

While there are many operational level risks, many of the issues and risks mentioned above are at a strategic level, which is a difficult thing to illustrate practically. However, in the time available, we have compiled some illustrative case studies based on recent events that we are presenting here. If you are open to receiving additional information over coming months, then industry bodies could compile more detailed evidence in some areas. Including the possibility of commissioning independent experts to compile evidence for your economic analyses.

### **CASE STUDY 1: BARRIERS TO ACCESSING CROP PROTECTION PRODUCTS IN NEW ZEALAND - THE SIVANTO PRIME EXAMPLE**

This case study illustrates the differing timeframes between novel products being available overseas and trying to get onto the New Zealand market.

Sivanto Prime, is an innovative insecticide containing the active ingredient flupyradifurone (200 g/L). It offers a new mode of action for controlling sap-feeding pests that damage crops such as aphids and whiteflies. Despite already being approved for use for nearly a decade in countries like Australia, the United States, and Europe, the approval process in New Zealand has been marked by significant delays, it is still not approved for use here, and EPA are proposing far more restrictive controls than have been implemented in other countries.

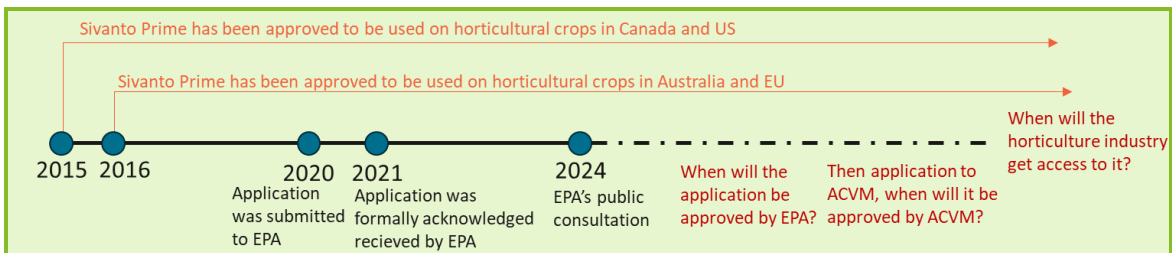
#### LENGTHY APPROVAL PROCESS

In Australia, Sivanto Prime was registered in just four years allowing for commercial availability for horticultural crops since 2016. In contrast, in 2024 Sivanto Prime is not yet registered for use in New Zealand.

The manufacturer lodged their application for Sivanto Prime in 2020 following several years of contained trials in New Zealand. EPA formally acknowledged the application in February 2021, but the application was only put out for public consultation in July 2024<sup>30</sup>. Submissions have now closed, and a public hearing is due to be scheduled in October. Assuming EPA approval will be obtained, Sivanto Prime will still need to go through an additional approval process with ACVM. Growers no clear timeline for when growers will finally be able to use this novel tool that their international counterparts have had access to for years.

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<sup>30</sup> [Application to introduce Sivanto Prime, a new insecticide for crops | EPA](#)



This prolonged application period stands between New Zealand growers having access to a product that will support Integrated Pest Management (IPM) strategies and, being a new mode of action, it will also play a vital role in helping to manage pest resistance. This slow approval process is limiting the industry’s ability to leverage technological advancements in pest control, impeding progress toward more sustainable farming practices.

### INCREASINGLY RESTRICTIVE CONTROLS

In addition to the slow approval process, the horticulture industry views EPA’s proposed controls on Sivanto Prime’s usage as unnecessarily restrictive. They have taken a highly prescriptive approach to controlling application rates, application methods, and restricting its use to certain crops. In recent years, EPA has been restricting their approvals to the precise use patterns declared by the applicants. In the case of Sivanto Prime this will include arable crops, fodder crops for animal feed, and leafy green vegetables. In other countries this insecticide is being used to protect a wide variety of horticultural fruit and vegetable crops.

With these restrictive controls in place, if growers wish to use Sivanto Prime on horticultural crops, then either the manufacturer will have to submit a new application to EPA to extend its use or they will need to use it off-label. However, the upper limit of the application rate that EPA approve will determine whether off-label use is a feasible option for a sector or not. In the recent past, EPA used to assess a safe upper limit for the application rate not simply lock it down to whatever the applicant has specified. The horticulture industry views this recent approach to issuing limited approvals as unnecessary and not evidence based. This is especially concerning in this instance as this product has a favourable safety profile, which has been well-demonstrated in other countries. We ask, what risks are EPA managing here? Surely it is everyone’s best interests to maximise the utility of the newer tools and enable more growers to stop using the older tools.

### DECISION-MAKING IS NOT RISK PROPORTIONATE

A further concern for the horticulture industry is the EPA’s decision to set Environmental Exposure Limits (EELs) for Sivanto Prime without conducting a comprehensive risk assessment. The approach taken seems to apply a broad, generalized method rather than a targeted, risk-proportionate measure. We note that EPA took the same approach in their recent approval of a new fungicide, Emesto Prime<sup>31</sup>. These limits seem to be based on broad assumptions regarding a theoretical potential for groundwater leaching, rather than on a proportionate evaluation of the actual risks posed by the product. The current approach

<sup>31</sup> [APP204167-Decision.pdf \(epa.govt.nz\)](#)

does not align with the requirements of the HSNO Act (section 77B<sup>32</sup>) in setting these groundwater limits.

The horticulture industry fears that setting overly cautious EELs without proper justification could unnecessarily restrict the use of Sivanto Prime, without providing any significant environmental benefits. Applying regulatory controls that are based on perceived risks rather than actual risks will undermine the productivity of the primary sectors, while doing little to enhance environmental outcomes. HortNZ concurs with the Parliamentary Commissioner for the Environment<sup>33</sup> that the EPA should develop and publish an appropriate policy for setting EELs that is risk proportionate and transparent.

## **CASE STUDY 2: RISK INFLATION AND TECHNICAL ERRORS - REASSESSMENT OF SYNTHETIC PYRETHROID INSECTICIDES**

Synthetic pyrethroids (SPs) are a chemical grouping of insecticides that have a range of horticultural uses in New Zealand. In 2018, EPA initiated a reassessment of eight synthetic pyrethroids (SPs) due to new information raising concerns about the potential risks of these substances. Six of the eight products under review are considered critical for use in some horticulture sectors due to a lack of alternative options, and industry provided information to EPA for their risk assessments. In late 2023, EPA released the results of their ecotoxicity modelling for these SPs and suggested that these products posed high risks to aquatic life that could not be sufficiently managed using extremely large buffer zones (up to 254m) between the crops and waterways. As this seemed unlikely, HortNZ contracted an independent ecotoxicologist to review the modelling work that was presented. This review highlighted some fundamental concerns about the EPA's approach to using and interpreting ecotoxicity models and found multiple errors in their calculations<sup>34</sup>.

### OVERLY CONSERVATIVE APPROACH TO ASSESSING RISK

Synthetic pyrethroids are toxic to aquatic invertebrates and it is important that appropriate control measures are taken. To estimate the levels of aquatic toxicity of these products, EPA used a process where they **selected the most severe toxicity outcomes** for any aquatic species for which they had data **and then added an additional "safety factor"** on top of this.

The fact that **several of their estimated peak surface water concentrations exceeded the stated water solubilities of the products (i.e. it is chemically impossible to obtain those concentrations in water)** demonstrates their unrealistic and impractical approach to assessing environmental risks.

Scientific experts in other countries have been optimising aquatic toxicity modelling, with an example being the EU's geomean approach to data. When our reviewer used EU geomeans to recalculate the toxicity endpoints for these SPs, the recalculated acceptable aquatic concentrations were less stringent than those the EPA had calculated. This is notable,

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<sup>32</sup> [Hazardous Substances and New Organisms Act 1996 No 30 \(as at 23 December 2023\), Public Act 77B Exposure limits for substances with toxic or ecotoxic properties - New Zealand Legislation](#)

<sup>33</sup> [Regulating the environmental fate of chemicals.pdf \(pce.parliament.nz\)](#)

<sup>34</sup> We can supply you with the full report, upon request. EPA was sent a copy of that report with our submission.

because the EU is viewed as taking a stringent approach to environmental safety and yet EPA's outputs were more conservative.

Further evidence that EPA is not aligned with other regulators and regulations is provided by the calculated toxicity outcome for one of the SPs being higher than values that had been published in the 2018 Australia New Zealand Guidelines for Fresh & Marine Water Quality (ANZG)<sup>35</sup>. This is a bi-lateral government initiative to establish a management framework for the protection of water quality. To have different players in the same system coming to different conclusions cannot support growers to safely manage water quality risks.

#### INDUSTRY PAYING FOR PEER REVIEW OF REGULATOR

The ANZG used technical experts and a peer review process to develop their guidelines. In contrast, EPA appears to be using outdated models in a way that at times deviates even from their own published methodology for risk assessment methodology<sup>36</sup>. In a system that's working well, errors in calculations and inconsistencies in methods would be detected through a standard peer review process. Instead, errors are being detected via public consultation and industry is having to pay for expert review of the regulator's work. This is not desirable nor is it sustainable.

### **CASE STUDY 3: RISK INFLATION - LACK OF DUE DILIGENCE BEFORE ISSUING ALARMIST PUBLIC COMMUNICATIONS**

On 7 August 2024, the US EPA issued an emergency order to stop the use of an herbicide known by various names, including Dacthal, Chlorthal, and DCPA. The international media picked up the story, including in New Zealand where the journalists found that the product was registered here for use in onions and other vegetable crops. NZ EPA went out with initial public messaging to say that they were investigating the risks. They then contacted the various industry groups to request information about how the herbicide was being used by growers here and informally discussed some options with us.

Industry groups were given a week to collate information and get back to them and we started consulting written records and ringing individual growers build the necessary picture of use patterns in recent years.

During the same week, the EPA's approach to the media suddenly took a dramatic turn and without warning they issued a public "Red Alert". This generated a frenzy of interest, and HortNZ was inundated with enquiries from media, technical experts and other government departments.

If the EPA had contacted us again before issuing a red alert, we could have told them that although our enquiries were ongoing it was already clear that this product had been rarely used in New Zealand in the preceding three years and that when it was used it was for a very specific purpose on individual paddocks of onions or garlic on some farms. Further, it appeared that very little, if any, product had entered the country at all this year and the

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<sup>35</sup> [Fresh and marine water \(Australia and New Zealand\) \(waterquality.gov.au\)](https://www.waterquality.gov.au/)

<sup>36</sup> [Hazardous Substances Risk Assessment Methodology \(epa.govt.nz\)](https://www.epa.govt.nz/)

manufacturers were publicly advising that they were voluntarily withdrawing products from sale.

Other industry stakeholders also confirmed that they had not been contacted by the EPA before the red alert was issued.

Therefore, while it was obviously important that EPA warned the public about the risks associated with this product, issuing unnecessarily alarmist public messaging caused far more concern than was merited given that this product was not being used commonly in New Zealand at all.

#### **CASE STUDY 4: THE CHALLENGES OF PRODUCT REGISTRATIONS AND RESIDUE TOLERANCES FOR SMALLER HORTICULTURE SECTORS - STRAWBERRIES**

Strawberry growers in New Zealand rely on off-label use of crop protection products that are registered for other crops large enough to make a business case for commercialisation.

The strawberry industry is working hard to have a light touch and support an agroecological approach, but some chemical options are essential especially new chemistry that protects predator bugs and other beneficial insects.

##### THE DEFAULT MRL FOR OFFLABEL USE IN NZ IS LOWER THAN MRLS FOR THE SAME PRODUCTS IN OTHER COUNTRIES

Unfortunately, often the newer, safer and more effective chemistry has a longer “residue tail”, which causes issues when used under the ACVM’s off-label provision of a Maximum Residue Limit (MRL) < 0.1ppm. This default off-label MRL is extremely low; often much lower than corresponding levels set overseas. Setting the MRL at this very low level is particularly problematic for soft fruits like strawberries as it is challenging to implement the long withholding periods required to ensure MRLs remain < 0.1ppm and still produce marketable fruit.

Australia and USA have set Maximum Residue Limits that are higher than New Zealand’s and have assessed that these levels are safe for human consumption. These countries have the means to review new chemistry thoroughly – but under our regulatory system New Zealand’s growers cannot use the higher MRLs.

Some of these issues could be alleviated if ACVM adopted the CODEX Alimentarius MRLs rather than using a low default MRL. The CODEX MRLs have been deemed safe by the 189 members of CODEX, including New Zealand, but we do not use them.

##### GREATER AVAILABILITY OF CROP PROTECTION PRODUCTS IN OTHER COUNTRIES

NZ Strawberry growers look with envy at their competitors in Australia and America who have access to many better pest control options than we have in NZ. For example, botryticides registered in Australia in new chemical groups (‘Migiwa,’ ‘Adevelt’) are not available in NZ, putting our growers at a competitive disadvantage.

Mirids are pests for strawberries and the only control options for New Zealand growers are older broad-spectrum insecticides like pyrethroids and carbamates, products that are being globally phased out.

California has a new product for tarnished plant bug that does not kill beneficial insects but would greatly improve our ability to control mirids for 6 weeks post-application. Even if it was registered in NZ, strawberry growers could not use it without a residue tolerance set because the long residue tail makes the default MRL unattainable. The same is true for 'Versys' a product available for aphid control in Australia.

#### PRAGMATIC APPROACH TO RISK NEEDED

We don't need to reinvent the wheel. We just need pragmatic, risk-based assessments and a recognition that safer modern pesticides really support our industry goal of agroecology.

## **6. What are the underpinning market failures and the basis for government intervention?**

### **6.1. Environmental safety**

There are strong market drivers for meeting food safety standards within the fresh produce industry. Growers supplying export markets and those selling to the large domestic retailers must meet the stringent standards set by their customers in terms of chemical residues on their produce.

The market drivers for environmental safety are weaker and there is a role for appropriate government intervention here. However, government has a duty of care to the public to set its risk tolerance at practicable levels, and to be transparent and consistent about how it is making decisions.

New Zealanders need a reliable supply of fresh fruit and vegetables therefore creating barriers to achieving this without allowing appropriate incremental transition is unlikely to be effective. Part of government's role as environmental custodian should also be to ensure the system is *enabling* of new tools that will have a lighter environmental footprint.

### **6.2. Incentivisation of investment in New Zealand**

As mentioned previously, New Zealand's growers represent a very small market for international companies developing new crop protection tools. If the direct and indirect costs of registering products here are too high, this could put our primary industries at risk of not having access to the tools they need to successfully grow produce.

Rather than drive away the companies developing new tools, New Zealand's government should be finding ways to incentivise these companies to invest in New Zealand. If it does not do this, then exports will become hard to maintain at current levels, let alone double, and the domestic food supply will rely increasingly on importation.

## **7. What are the costs and benefits of regulation, and the distribution of those across different parties?**

### **7.1. Growers selling to the domestic market cannot recover increased regulatory costs**

MPI's recent cost recovery proposal merely looked at the costs to the applicants and did not consider that the manufacturers inevitably pass costs on to their customers, the growers. In terms of export crops, increases in the costs of crop protection can generally be recovered. In contrast, growers selling to the domestic market cannot recover the costs as they are price takers in this market not price setters.

The gross margins of vegetable production are very slim with the weighted average data indicating that the average annual profit of Pukekohe rotations is only approximately 10% of the revenue meaning they are much more susceptible to failure or contraction due to complexity and higher regulatory costs<sup>37</sup>.

### **7.2. Global harmonisation could reduce the costs associated with registration**

Increasing the degree of global harmonisation within the New Zealand approvals system would reduce the load on the application, reduce the assessment load on EPA and ACVM, decrease the length of time it takes for products to be registered here and reduce the direct and indirect costs of that registration process.

As an example, by allowing for the use of overseas data ACVM has halved the number of trials (from eight to four) that a company needs to conduct in New Zealand to ascertain Maximum Residue Limits for a product. We would like both regulators to adopt a similar approach for other aspects of their assessments such as chemistry, manufacturing, efficacy, toxicology, and ecotoxicology.

## **In summary**

The New Zealand horticulture industry has been embracing Good Agricultural Practices for 25 years to ensure that it is producing the highest quality, safest food in accordance with regulatory standards and with minimal adverse impacts. As its next phase of development, horticulture is actively transitioning from the historical reliance on chemical pesticides to an integrated pest management approach that reserves the use of chemical controls for those situations where all other control methods have failed. In contrast, the HSNO and ACVM Acts and their regulating agencies have not changed at the same pace. To be able to adapt and simultaneously meet the government's target to simultaneously double exports, New Zealand horticulture needs the approvals processes to modernise and support us. We are very willing to work with government to make this happen.

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<sup>37</sup> PerrinAg 2023 Horticulture Typology Modelling for FWMT a Technical modelling report. [horticulture-typology-modelling-for-the-fwmt.pdf \(aucklanddesignmanual.co.nz\)](https://www.aucklanddesignmanual.co.nz/horticulture-typology-modelling-for-the-fwmt.pdf)