

SUBMISSION ON

Enhancing economic resilience of industries and communities to persistent supply chain disruptions

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To: New Zealand Productivity Commission

Name of Submitter: Horticulture New Zealand

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Our submission

Horticulture New Zealand (HortNZ) thanks the New Zealand Productivity Commission for the opportunity to submit on the Improving Economic Resilience Issues Paper and welcomes any opportunity to continue to work with the Productivity Commission and to discuss our submission.

The details of HortNZ's submission and decisions we are seeking are set out in our submission below.

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

- Katikati Fruitgrowers Association
- New Zealand Asparagus Council
- New Zealand Tamarillo Growers Association Inc.
- Onions New Zealand
- Potatoes New Zealand
- Process Vegetables New Zealand
- Summerfruit New Zealand

HortNZ's Role

Background to HortNZ

HortNZ represents the interests of approximately 5,500 commercial fruit and vegetable growers in New Zealand who grow around 100 different fruit, and vegetables. The horticultural sector provides over 40,000 jobs.

There is approximately, 80,000 hectares of land in New Zealand producing fruit and vegetables for domestic consumers and supplying our global trading partners with high quality food.

It is not just the direct economic benefits associated with horticultural production that are important. Horticulture production provides a platform for long term prosperity for communities, supports the growth of knowledge-intensive agri-tech and suppliers along the supply chain; and plays a key role in helping to achieve New Zealand's climate change objectives.

The horticulture sector plays an important role in food security for New Zealanders. Over 80% of vegetables grown are for the domestic market and many varieties of fruits are grown to serve the domestic market.

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



Executive Summary

HortNZ welcomes efforts to identify policies and interventions that can enhance New Zealand's economic resilience to supply chain disruptions.

HortNZ agree that supply chains are primarily the domain of commercial entities, however we see opportunities for the government to a) reduce supply chain vulnerability and b) aide economic resilience when a disruption has occurred.

The key opportunities raised in the body of our submission are highlighted below:

- Resilient and fit for purpose crown-owned/maintained domestic infrastructure (e.g. roads, ports) and systems (e.g. the system for issuing phytosanitary certificates etc).
- A proactive effort to ensure that policy settings:
 - enable resilient supply chains and infrastructure to be built.
 - support rapid recovery from disruptions.
 - allow for diversification (land use, crop types, markets etc) as diversification improves resilience.
- Identification of nationally significant horticulture supply chains and infrastructure that is critical for domestic food security.
- Government and industry working together to improve national and regional resilience to supply chain disruptions.
- Support for increasing supply chain capability in businesses.
- Further horticulture-focussed conversation to better understand the needs and challenges of those who are often most impacted by supply chain disruptions, such as:
 - growers and horticultural businesses in different regions and at different scales
 - rural communities in horticultural production regions
 - cargo owners

Submission

HortNZ welcomes efforts to identify policies and interventions that can enhance New Zealand's resilience to supply chain disruptions.

HortNZ understand that the Commission's enquiry is focused on the medium-term, with the intention to identify policies with an implementation horizon of between one and ten years. We also note that for this inquiry, economic resilience is defined as "*the capacity of industries and associated communities to anticipate, prepare, absorb, recover and learn from supply chain disruptions.*"¹ We have endeavoured to answer the consultation questions with this scope in mind.

HortNZ would like to note that the horticulture sector spans two of the prioritised industries identified in table 5 in the issues paper¹. These are a) food and beverage and b) agriculture.

1. Horticulture supply chains

Like many New Zealand industries, reliable import, domestic and export supply chains are all critical for the sector. Horticulture relies heavily on physical supply chains - our core business involves moving a product from the place of production to the location of consumers.

The horticulture sector has suffered from significant and varied supply chain disruptions over recent years. Some of these disruptions have stemmed from known and ongoing issues, others have been a shock, and would have been very difficult to anticipate or predict. The causes of disruption are diverse, and include geopolitical dynamics (e.g. global unrest), natural disasters (e.g. cyclones), economic shifts (e.g. freight prices) and political decisions (e.g. border policies during the Covid-19 pandemic).

Goods and services moving through horticulture supply chains are diverse - from the flow of labour (examples include the seasonal workforce and specialist packhouse equipment technicians based overseas) to movement of crates and containers, produce, germplasm, machinery, equipment and much more.

There are a number of unique supply chain challenges for horticulture. These include:

- The product is delicate and requires care throughout the supply chain. Some product needs to be chilled, subject to controlled atmosphere conditions or frozen (e.g. frozen peas).
- Some horticultural crops have a timeframe of just days to get from the field to the consumer, others can be stored for weeks to months, allowing more time to get through the supply chain. If produce doesn't make it to markets in a timely manner it may spoil, decline in quality, or miss the supply window stipulated by the buyer.

¹ The Productivity Commission (2023) Issues Paper: Improving Economic Resilience. Enhancing economic resilience of industries and communities to persistent supply chain disruptions

- Inputs are often time critical. Crops are seasonal, and certain activities must take place at a certain time of the year to yield a viable crop. Many growers, particularly those with perennial fruit crops, work year-round but receive their annual income during one window only – at harvest. If critical inputs such as fertiliser, sowing equipment, seed or other inputs do not arrive in time due to supply chain disruptions, the whole crop and annual income can be put in jeopardy.
- Horticulture is not as ‘moveable’ as many other industries – outdoor growing must occur in the regions where the soils and climate are suitable for the crop. Indoor growing can be more varied, but is often located near an energy source e.g. greenhouse tomatoes being grown in the Taupo area to be close to geothermal energy sources. This means production often occurs far from major transport hubs and infrastructure.
- Growers have a limited ability to absorb increased supply chain costs. As fruit and vegetables are considered essential healthy foods that should be accessible to New Zealanders, there is limited ability to pass on cost increases to consumers.
- New Zealand is a small market for some horticultural products (for example crop protection products, agritech) and therefore some growers can face supply difficulties.
- Many crops have increased labour needs at certain times in the production cycle (for example pruning or harvest) and securing labour for these seasonal tasks can be difficult.

2. Response to consultation questions

2.1. Supply chain disruptions and trends that the horticulture industry are worried about

The horticulture sector faces unique supply chain pressures due to the nature of the industry and the perishable product. There are a number of supply chain disruptions and trends that the industry is concerned about.

2.1.1. SHIPPING

Most fruit and vegetable exports are shipped to overseas markets (fruit and vegetables that have a short shelf life are airfreighted) therefore a resilient, reliable shipping network is crucial for horticulture exports. Shipping is the most economical way to move large quantities of produce around the world, but has proven very vulnerable to disruptions for a range of reasons.

The periods of unpredictable shipping that have occurred since the pandemic are very difficult for the sector to manage. It remains difficult to get export produce off-shore as ships continue to arrive on an irregular basis which makes planning and filling containers with perishable goods a challenge.

Shipping disruption has led to port congestion which also leads to clearance delays. As international shipping lines often travel to multiple New Zealand ports, delays at one port

have implications for other ports. Delays can mean smaller ports are omitted, perishable cargo that needs to move through the supply chain quickly (e.g. fruit and vegetables) is compromised, and issues like too few plugs to keep the number of refrigerated containers powered can occur, whilst also exacerbating the shortage of empty containers available for loading with export goods.

Labour shortages also contribute to shipping issues - at the Port of Tauranga, there are generally in excess of ten ships waiting offshore to be unloaded due to crane driver shortages. Truck driver shortages can mean goods aren't removed from the port creating a back log. There is a critical shortage of truck drivers in New Zealand with a shortfall of thousands of drivers and an ageing workforce, with the average driver being 54 years old.²

In addition, Cyclone Gabrielle has shown that New Zealand's coastal shipping is not able to accommodate transport of produce between all regions in New Zealand.

The cost (both financial and staff time) of shipping logistical issues for the sector is enormous.

Case Study: Nelson apples

This season Nelson growers are paying a premium to transport their apples to market, but they often find that either the vessel omits Nelson to get back on schedule, or the apples get to Tauranga by road but miss the connection to critical markets. The alternative of Port of Lyttleton to meet a similar service is a \$6000 round trip for a container by road, making it unaffordable.

2.1.2. DISTANCE FROM MARKET

New Zealand supplies high quality fresh and processed fruit and vegetables to many distant world markets. This creates a number of issues such as long shipping times for a perishable product, concern about freight carbon emissions, the cost of long-distance transport, and our geographic isolation counting against us as a desirable market for global shipping companies and airlines to service.

Case Study: Reusable crates

The horticulture sector is keen to move to reusable crates for sustainability reasons. These crates can be sent to markets in Europe and North America packed with quality New Zealand produce, and then returned to New Zealand empty for re-use. However, at present, the economics of returning the crates back to remote New Zealand does not always stack up. For example, if a New Zealand exporter is supplying a smaller partner in an export country, it can take a long time to aggregate enough crates to return them to New Zealand so exporters can have a significant amount of capital tied up around the world.

2.1.3. AFFORDABILITY

HortNZ submitted on the Ministry of Transport's Freight and Supply Chain Strategy and noted that fruit and vegetables that have a short shelf life are airfreighted to overseas markets, therefore reliance on a reliable and cost-effective air freight system is essential.

² <https://www.newsroom.co.nz/truck-driver-shortage-shaking-up-the-industry>

Airfreight capacity for New Zealand imports and exports has been constrained, and with the high global demand for airfreight, it is also less profitable for dedicated air freighters to service New Zealand given our distance from major markets. Airfreight rates are likely to remain at two to three times pre pandemic levels. The cost of shipping freight by sea has also increased significantly since the pandemic. This is already impacting some of New Zealand's export industries, especially those with lower profit margins.

2.1.4. MARKET DISRUPTION

The war in Ukraine has resulted in the disruption of the flow of some goods around the world (e.g. wheat)³. This has highlighted the effect that geopolitics in a distant region can have on global supply chains. The sector is concerned about this, and other types of market and/or trade disruption such as risks associated with the supply of fertiliser from unstable parts of the world.

Market disruption can come from our trading partners (as customers, as suppliers or as members of international trade structures and systems). Covid is a good example, with different countries imposing different rules for the movement of goods and people during the pandemic. Political change can also disrupt global trade. The rules-based trade system is critical to enable safe and fair trade. Any disruption to this system would likely have flow on trade and supply chain impacts.

2.1.5. DOMESTIC INFRASTRUCTURE

Many New Zealand roads are not maintained at an optimal standard, or able to withstand significant adverse weather events. Some rural communities have no realistic alternative routes when the primary access route is damaged, as has been highlighted by cyclone Gabrielle.

New Zealand is a multi-island nation, and the critical freight connection between the North and South Island (the Cook Strait ferry) has proven remarkably unreliable. The regular cancellations and delays due to weather, the ageing fleet and mechanical issues of the new ferry have been disruptive and can cause spoiled produce, food security issues and financial constraints for growers.

The time and effort required to improve our domestic transport infrastructure is immense. Without a strategic national view of our sea logistics and the intermodal connections needed to service them, there is a tendency to make short term decisions or 'make do'. This can result in both storage and transport solutions being sub-optimal.

Case Study: Weather damage to SH6

State Highway 6 from Nelson to Blenheim/Picton was closed for seven weeks in late 2022 due to weather damage. The road closure required traffic to go via a lengthy detour using State Highway 63. The additional freight cost to reach Picton directly reduced business margins and exacerbated the shortage of trucks and drivers.

2.1.6. ATTRACTIVENESS OF NEW ZEALAND AS A MARKET

³ <https://www2.deloitte.com/xe/en/insights/focus/supply-chain/supply-chain-war-russia-ukraine.html>

Due to the geographic isolation of New Zealand from the main global shipping routes, attracting shipping lines with productive, efficient ports will be essential. Further port reform will be key to achieving this. As an example, New Zealand Ports are owned by local government or a mixture of private/public ownership (Port of Tauranga). The port is listed on the NZX and is New Zealand's best performing port as the ownership model enables investment for growth and productivity. Under public ownership, productivity can be restrained by red tape and politicised decision making. The last port sector reform was in 1988 which looked at improving port productivity.

The horticulture sector is very important to the country, but for a number of crops New Zealand is a relatively minor producer at the global scale. This makes us a small market to supply some crop protection products, germplasm, agritech/robotics and other products to. The small market coupled with a rigorous regulatory regime can mean that it is not worth an international companies' effort to supply New Zealand, particularly for minor crops.

2.1.7. BIOSECURITY

New Zealand's strong biosecurity system means that we have remained free of many of the pests and pathogens that other countries are grappling with. Our country's freedom status from certain organisms' aids our market access. New Zealand growers need access to important germplasm (vegetable seed, grain, budwood etc) from overseas. The supply chain for importation of germplasm into New Zealand is already vulnerable due to onshore infrastructure constraints, tight shipping timeframes and market dynamics. Some of the pests and pathogens that we want to remain free of have invaded many countries and continents around the world. As global spread continues, the number of pest-free areas and pest-free places of production⁴ from which to source clean germplasm reduces. This trend further constricts an already limited supply chain that is important for the sector and domestic food security.

Case Study: Seed supply timeliness

Most vegetables grown in New Zealand are destined for domestic consumption and the vast majority of these vegetables are grown from imported seed. It is becoming increasingly difficult to source seed that meets New Zealand's strict biosecurity requirements, and any delay in seed supply can mean the annual sowing window for the vegetable crop is missed. This presents a risk to domestic food security.

2.2. What the horticulture industry is currently doing or planning to do to address supply chain concerns

Due to the sectors reliance on reliable and timely supply chains, many in the horticulture industry have taken steps to increase their resilience to disruptions. However, a lot of the initiatives that would increase resilience are outside of the horticulture sectors direct control.

⁴ <https://www.ippc.int/en/core-activities/capacity-development/phytosanitary-system/pest-free-area-areas-of-low-pest-prevalence/>

2.2.1. STRATEGIC SECTOR FOCUS

The recently released Aotearoa Horticulture Action Plan has been developed by industry, Māori, research providers and government to ensure the commercial horticulture sector meets its target of increasing grower returns and achieving \$12 billion in revenue by 2035. For the industry to achieve this target, as well as respond to climate change and maintain its social licence, it needs to have clear and agreed outcomes and goals, and associated actions and resources.

Due to their critical importance for a successful horticulture industry, supply chains are singled out as an area of focus in this plan, with a dedicated outcome and associated action:

Desired outcome: Supply chain to retail market is optimised through successful collaboration systems that achieve critical volumes, reduce duplication across and within regions, and lower costs and emissions.

Associated action: Map existing supply chains and infrastructure by region to identify key intervention points for co-investment and potential use of cooperative models for the horticulture sector.

This outcome and action will be an area of strategic focus for the sector in the coming decade.

2.2.2. PROBLEM SOLVING AND ADAPTABILITY

Those involved with horticulture have often proven to be adaptable and good at rapid problem solving when faced with unexpected issues. This mindset has come to the fore with recent supply chain disruptions.

Growers have been creative and sent product that would usually travel by sea via air instead or have split their crop between air freight which is very costly, and local sales which have much lower transport costs. Horticulture businesses have found alternative routing of product if space on vessels is cut short e.g. Nelson in 2022. They have also sent product to alternative markets when necessary.

Some high value crops such as kiwifruit have overcome unpredictable shipping by chartering entire ships, rather than relying on usual commercial shipping practices. This however is not a financially viable option for all sectors, production volumes and markets.

Case Study: Kiwifruit sector charter vessels

Zespri charters vessels to deliver premium New Zealand-grown kiwifruit to global consumers in Asia, North America, Northern Europe and the Mediterranean. In the 2023 season, Zespri plans to use 53 charter vessels to deliver Zespri Green, SunGold and RubyRed Kiwifruit to more than 50 markets around the world⁵.

2.2.3. INNOVATION AND PRODUCT IMPROVEMENT

Innovation efforts from the horticulture industry and science community have improved the ability of produce to handle supply chain delays⁶. Onshore fruit and vegetable breeding

⁵ <https://www.zespri.com/en-NZ/newsroomdetail/First-ship-2023>

⁶ <http://martech.co.nz/images/11supply.pdf>

programmes assess and select for beneficial storage and supply chain traits. Packaging innovations protect produce better and controlled conditions (atmosphere, temperature, ethylene management etc) allow product to be stored or in transit for longer without compromising quality. Systems are in place to ensure only high-quality intact fruit and vegetables are selected to enter the supply chain, and many packhouses make use of cutting-edge grading machines to achieve this efficiently.

2.2.4. ADVOCATING FOR GOOD POLICY OUTCOMES

Horticulture industry bodies have and will continue to advocate for good policy outcomes in the supply chain space. This advocacy occurs across many areas including immigration settings, domestic transport infrastructure and strategy, national and regional land use planning, biosecurity, market access, emergency management, research and innovation and more. Considered, proactive policy efforts during business-as-usual can significantly increase sector and community resilience in periods of crisis.

Case Study: Workforce policy

The horticulture sector has been advocating for immigration policy settings that will supplement the horticulture sectors domestic workforce in order to meet long term and seasonal labour needs. Policy discussions have spanned working holiday visas, skilled migrant visas, and the recognised seasonal employer scheme.

2.3. How the government can help to enhance the resilience of the horticulture industry to supply chain disruptions

While much to do with supply chains sits in the domain of commercial entities, HortNZ see that there is also a clear role for government. The issues paper notes that “.. *the primary role of governments is to develop and protect the physical and social infrastructures underpinning supply chains, including working to ensure reliable supplies of some key inputs such as energy or pharmaceuticals, and intervening during emergencies.*”⁷

It is important that crown agencies align their work programmes, policies and legislation with their strategic intent. For example, The Fit for a Better World Agriculture, Food & Fibres Sector Vision and Strategic Direction Towards 2030 states that “*We aspire to an enriched future by providing the world’s most discerning consumers with outstanding, ethically produced food, natural fibres, drinks, co- and bioproducts, all sourced from our land and oceans.*”⁷

Supply chains that are resilient to disruption will be critical to achieve this national aspiration. Therefore, government agencies should be making every effort within their remit to assist supply chain functionality. We acknowledge that government interventions are likely to be at the industry level or regional level (rather than at the individual business level).

2.3.1. ENABLING AND PROACTIVE POLICY AND REFORM

HortNZ agrees with the sentiment in the issues paper “*Economic resilience is enhanced by economic diversity combined with the willingness and ability to adapt. A more diversified economy and more diverse society mean that no single disruption impacts everyone in the*

⁷ <https://fitforabetterworld.org.nz/assets/publications/PSC-report-2020.pdf>

same way - what may be a negative shock for one industry or community can create opportunities for others."¹. HortNZ believes that policy settings should enable diversification: diversification into horticulture from other land uses, and diversification within horticulture by supporting small or emerging crops that provide a good value proposition for New Zealand. We also believe that the government should acknowledge the desirability of market diversification when prioritising the market access work programme and when undertaking trade negotiations.

There is a need for enabling legislation to build resilient supply chains and infrastructure. A pathway for fast tracking essential new infrastructure such as port builds and/or extensions should be established.

The horticulture sector would like to see the cabotage laws to empower shipping lines to service our coastline efficiently retained, along with Vessel Sharing Agreements.

The emissions profile of transportation options is becoming increasingly relevant to international consumers of New Zealand exported products. The horticulture sector seeks lower emissions shipping, that does not add time to shipping routes, making them less suitable for transporting perishable products.

2.3.2. RESPONSIVENESS AND SUPPORT IN A CRISIS

Cyclone Gabrielle has shown the importance of government responsiveness when the unexpected happens. Government support is essential to aid business continuity and transition to recovery. What the government can provide and enable is beyond the capability and scale of individuals, industry bodies and sectors. The government also has a role in rapidly designing and implementing emergency legislation (when appropriate) to enable an effective response to the crisis at hand. This should be done in consultation with industry to ensure proposed legislation is fit for purpose and flexible enough for those affected to adapt to the new normal.

Case Study: Severe Weather Emergency Legislation Act 2023

The Severe Weather Emergency Recovery Legislation Bill has recently been proposed *"to ensure that Government agencies and Crown entities, and affected local authorities and communities, can appropriately respond to or recover from the recent severe weather events, or both, including by providing the Government with flexibility to facilitate, enable, and expedite the recovery."*⁸ A key focus of the work that will be facilitated by the Act is the re-building of critical infrastructure.

2.3.3. NATIONALLY SIGNIFICANT SUPPLY CHAINS

Because horticulture is critical for domestic food security, HortNZ would like to see the horticultural production input and domestic produce distribution supply chains identified as nationally significant critical supply chains. We believe that this designation would generate government support to act when needed.

The government and horticulture industry need to jointly identify vulnerable import supply chains and critical domestic infrastructure, and work to increase their resilience. It would be beneficial to reduce reliance on a few key pieces of infrastructure/roads/sites. However, it

⁸ <https://www.legislation.govt.nz/bill/government/2023/0242/8.0/d3100612e2.html>

is important that future supply chain builds have input from the horticulture sector and transport sector, rather than a government decision made in isolation.

2.3.4. CROWN-OWNED INFRASTRUCTURE

Recent disruptive events have highlighted that much crown-owned/maintained domestic infrastructure is not as resilient as hoped. HortNZ believes that the crown needs to ensure that critical supply chain infrastructure that is in their control (e.g. roads, ports) and systems (e.g. the system for issuing phytosanitary certificates, telecommunications/internet connectivity) is fit for purpose and built to withstand shocks.

Roading needs to be built to a decent standard and maintained. Ports of Auckland needs to improve its performance to prevent the shipping delays that have a flow on affect for other parts of the country. Ports of Auckland is owned by Auckland Council, and therefore improving the port's performance is within the domain of local government, and in the interest of the wider horticulture sector.

The industry would like to see more government investment in ensuring air freight remains competitive and is reliable for highly perishable produce.

2.3.5. CAPABILITY

HortNZ noted in the consultation document that in other countries (e.g. Australia) the government has provided financial support to businesses to allow them to improve supply chain capability.⁹ This seems a valuable initiative, and one that the New Zealand government should consider.

2.4. Suggested areas of study to learn more about the economic resilience of industries and communities

2.4.1. TALK TO INDUSTRY AND COMMUNITIES

The horticulture sector is diverse - there are over 5000 commercial growers in New Zealand who are spread from the top of the North Island to the bottom of the South Island and produce over 100 different crops. Horticulture operations range from very small family businesses to big corporations. Regardless of business size, type of crop or geographic location, all growers contribute to the prosperity of their community through employment opportunities, economic investment and supplying healthy fruit and vegetables for local consumption.

It is unlikely that a one size fits all approach to resilience in the face of supply chain disruption will work nationwide. The solutions need to be tailored to each region and must cater to the type and scale of business in that region.

HortNZ suggests that the Commission talks directly to:

- growers and horticultural businesses in different regions and at different scales, including operations that supply only the domestic market as well as those that supply both the domestic and export market.
- rural communities in horticultural production regions
- cargo owners

⁹ The Productivity Commission (2023) Issues Paper: Improving Economic Resilience. Enhancing economic resilience of industries and communities to persistent supply chain disruptions

This will allow the Commission to really understand the needs and challenges of those who are most impacted by supply chain disruptions. This information will also help to identify how to build the supply chain to create efficiencies for all users and modes of transport to suit each region and business.

3. Conclusion

HortNZ welcomes efforts to identify policies and interventions that can enhance New Zealand's resilience to supply chain disruptions - this is a critical issue for our sector, and one that is likely to become even more pressing and challenging to address in future.