



GROWING TOGETHER 2035

Aotearoa Horticulture Action Plan

Supply chain vulnerabilities

Reliable and resilient transport linkages are essential to maximise value across horticultural supply chains and prevent losses of highly perishable fruit and vegetables.

Many growing regions are reliant on a primary transport route or a single packing hub to get their product to market. These critical infrastructure nodes create significant vulnerability for horticulture crops which are often highly perishable and need to reach markets and consumers in reasonable timeframes.

This project built a body of evidence about regional supply chain infrastructure and the value of horticulture that the infrastructure supports.

Findings of note:

1. The largest regions for horticultural production are Bay of Plenty and Hawke's Bay – the produce generated in each of these regions exceeds \$1 billion in value. Both regions are heavily export focussed and infrastructure disruption in either region would put significant export earnings for New Zealand in jeopardy.
2. With New Zealand's horticulture production, packing and distribution concentrated in the 'golden triangle' of Auckland, Waikato and the Bay of Plenty, roads in the Waikato Region are at the core of horticulture produce movements. An estimated 50% of New Zealand's inter-regional produce movements transit over Waikato Region roads.
3. Some fresh produce supply chains have five or more movements between the paddock and the end customer (e.g. farm > packhouse > storage > wholesaler > distribution centre/export port > retailer). Transport disruption at any stage can compromise the crop. Over 20% of produce (by weight) crosses regional boundaries between the farm and distribution nodes of the supply chain. This excludes transport from distribution centre to retailer, an additional link (and therefore vulnerability) for domestic food supply.
4. In Gisborne, only 18% and Northland, 4% of the produce packed in the region is also distributed in the region, making inter-regional transport links particularly critical. Both regions have primary transport routes that are vulnerable to disruption, for example:
 - a. In 2024, State Highway 1 over the Brynderwyn Hills was closed for over 3 months for slip repairs. At the same time, the Mangamuka Gorge on State Highway 1 just south of Kaitaia had been closed for slip repairs since 2022. These road closures would have been detrimental for growers of avocado, citrus, blueberries and other crops in the Far North.
 - b. The Waiokea Gorge (State Highway 2 between Gisborne and Bay of Plenty) supports up to \$112m of produce movement out of Gisborne. This critical road linkage was closed at the time of publication due to slips, with significant flow on impacts for Gisborne-based horticulture businesses.



5. Inter-island ferries are an important transport link not only for end-products, but also key inputs into growing systems.
6. The distribution point for domestically consumed produce is typically Auckland. Auckland is an isthmus and there are limited alternative routes to move produce through the city if required, for example during extreme weather events.
7. A large proportion of domestic-bound fresh produce will pass through chilled distribution centres located in Auckland, Palmerston North, Wellington and Christchurch. This concentrates domestic supply in just a few locations, particularly for the South Island.
8. As horticulture crops are highly perishable, maintaining timely access to packhouses, safeguarding critical transport routes, and reducing the risk of cascading delays are central to protecting shelf life, meeting market requirements, and ensuring the best possible returns for growers.

Take the findings with a grain of salt....

This project revealed a significant lack of data within the sector about supply chain flows and the proportion of product destined for export vs domestic markets. Due to incomplete data sets, the analysis had to rely on a number of assumptions that mean the findings should be considered indicative only. For example, produce values are likely to be overestimated as export value was used for most produce. Despite these limitations, the data received still provided valuable insights about supply chain vulnerabilities that warrant further consideration.

How will this work be used?

This report will be provided to horticulture businesses, industry bodies, local government, and central government to use as an evidence base when considering local, regional and national infrastructure priorities. It ensures that infrastructure that is important for the movement of food can be recognised as a critical lifeline. The analysis provides evidence for regional and national infrastructure investment (public and private) and helps the sector to advocate for a) resilience improvements for the infrastructure that is most vulnerable and b) rapid repair when critical infrastructure does fail.

This project increases sector **resilience** by highlighting infrastructure that may be vulnerable to extreme weather events and quantifies the potential value this infrastructure supports. It also explains flow on **profitability** impacts for horticulture businesses resulting from disruption to a business e.g. loss of product, decreased quality, delays that result in missed transport links, higher transport costs etc.

This project contributes to the AHAP 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 (Key priority 2.3)

The report was made possible with funding from New Zealand Fruitgrowers Charitable Trust and HortNZ.