



BUILDING SYSTEMS CAPABILITY TO REDUCE HARM IN THE HORTICULTURE SECTOR

Stage 1: Understand

Kat Gilbert | Clare Tedestedt George | Hamish Mackie

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Prepared by: Mackie Research

Signed



Date

Revision history

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1	Minor corrections requested by Emily Lake and Kate Truffitt	Kat Gilbert	6/10/2022
2	Additional data and context added after review by governance group	Kat Gilbert	18/10/2022
3	Report finalized	Kat Gilbert	3/11/2022

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Authorship: This document was written by the authors mentioned above. For further information, please contact Mackie Research using the contact details below.

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Mackie Research:

Physical address

Level 2
1 Albert St
Auckland 1010

Postal address

PO Box 106525
Auckland City
Auckland 1143



Ph 09 394 7041
MB 021 067 0337

www.mackieresearch.co.nz

FOREWORD

The horticulture sector is diverse and complex – spanning large corporates to small family operations. We know growers face many challenges, and this has been especially evident over the past few years with COVID-19.

The horticulture sector spans more than 20 sector groups, all acting on behalf of their stakeholder growers. Horticulture New Zealand is at the core of the sector, with numerous connections, relationships, and an established position of trust. The sector recognises that harm is increasing, and that new, evidence-based system wide approaches are required to decrease harm.

To ensure the safety of our sector's workers, our project is built around four key objectives – **Understand > Intervene > Support > Lead**. Each objective addresses a specific problem and establishes new approaches to reduce harm.

Publicly accessible accident and injury data is only made available under agriculture, making it hard to understand horticulture-specific harm rates. Our sector currently makes assumptions when it comes to horticulture statistics. As a result, a vital aspect of this project has been to develop a more accurate understanding of horticulture specific data. This report is the first step to developing this better understanding.

There are multiple variables present in near misses, incidents and accidents. At present, little is known about how the different variables combine to increase or decrease the risk of harm. By developing this understanding, interventions can be much more targeted to have the highest impact.

The project emphasises socialisation and sharing of knowledge and resources. By developing a cross-sector community of practice around health and safety, the project will enhance workplace health and safety nationally.



Kate Truffitt
Director – Horticulture New Zealand

ACKNOWLEDGEMENTS

Thank you to all those who took time out of their busy schedules to show us their work. For many, this involved face-to-face meetings during a time when COVID-19 was a significant risk. We are grateful for your time, and your trust in us to share the work you do.

There were challenges during this project phase because of COVID-19 in the community in New Zealand. As such, the site visits were delayed until after the first COVID-19 wave in early 2022. They would not have been possible if not for the tireless work of Emily Lake, who was able to pull together a schedule that covered New Zealand and many crop types at short notice.

Through this work, it has been clear that many in the sector face substantial workloads and have had a tough couple of years. Those we engaged with (via workshops, interviews, site visits and a survey) were open and forthcoming about the challenges they faced.

Finally, we want to acknowledge and thank Horticulture New Zealand, their governance group and all those that provided insight and feedback along the way. We want to especially thank Kate Trufitt for her in-depth and well-thought-out feedback, guidance, and intelligent questions.

SUMMARY

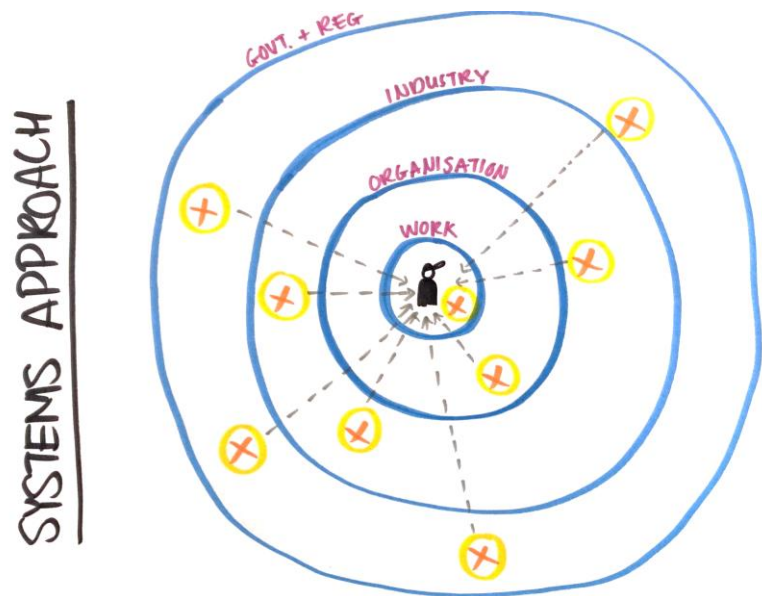
Horticulture feeds our country and is a vital part of the New Zealand economy. Those in the sector have a reputation for taking on hard work and getting it done, often in challenging conditions. Between 2016 and 2020, the number of ACC claims in horticulture remained relatively steady, however, there's was a spike in 2021. This project looks at how work is done in horticulture, the patterns of harm that are emerging, what is already in place to manage harm and support wellbeing, and what further system capabilities could be built within the sector.

The three-year project is led by Horticulture New Zealand and funded by ACC through a Workplace Injury Prevention Grant and Horticulture New Zealand. There are four stages to the project: Understand > Intervene > Support > Lead, and this report outlines Stage one (Understand), led by Mackie Research working closely with Horticulture New Zealand.

Harm from vineyards and grape growing is included in this project. Grape growing and harvest involves many similar tasks to horticulture, and it was considered appropriate to consider these parts of viticulture as well. The manufacture of wine is not included in this project.

Systems approach

This project is guided by a systems approach that acknowledges that harm (or wellbeing) does not occur in isolation, but rather results from a combination of many factors throughout the system. The goal is, therefore, to understand how work is done in horticulture and how system factors contribute to harm, or alternatively are preventing harm from happening. Shared responsibility is a key principle – everyone in the system has a role in keeping workers safe and well. With this knowledge of the horticulture work system performance, capabilities can be developed to maintain safety and wellbeing.



What we did

Stage one of the project (Understand) examined summarised data supplied by ACC and a sample of WorkSafe System for Work-related Injury Forecasting and Targeting (SWIFT), investigation summaries, notifications, and assessment data to identify claim patterns and the nature of harm events.

We then engaged with the sector via a range of online and in-person activities to better understand the sector and understand trends:



13 participants across two key informant online workshops to begin engagement and scope key areas of focus



228 respondents to a survey on the health and wellbeing of those in horticulture and viticulture



17 site visits to gather workers' perspectives and add context to previous data.

All the data was synthesised, analysed and mapped to understand typical causal pathways leading to harm events, particularly focussing on 'upstream' or system influences. System wide harm hotspots were then identified along with suggested areas of focus for next steps. This provided a platform for system capability initiatives in later stages of the project.

What we learned

The horticulture sector in New Zealand is growing. Data from Horticulture New Zealand suggests the sector has grown by 25-29% between 2017 and 2022, and by 5-11% in 2021 alone. While ACC claims data does show a spike in 2021 that was larger than other related industries, there are additional contextual reasons as to why that might be. These included that the sector has been under substantial pressure with the restrictions of the COVID-19 pandemic, including the closed border, significantly reducing available labour, supply chain issues and regulations changing the way work could be done. There have also been several extreme weather events putting pressure on horticulture, causing managers to focus on immediate issues rather than considering a wider range of concerns.

The ACC data showed that lumbar sprains, cuts to hands and fingers, other back or shoulder injuries, and eye injuries were the most common injuries in claims. A deeper inspection of the ACC data told us:

- The spike in claims in 2021 may be related to more minor claims
- While horticulture has a similar proportion of claims requiring time off work as construction and agriculture, staff in horticulture are generally requiring less days off
- While the number of claims in horticulture has spiked in 2021, the size of the sector has also increased, partially but likely not fully, explaining the spike

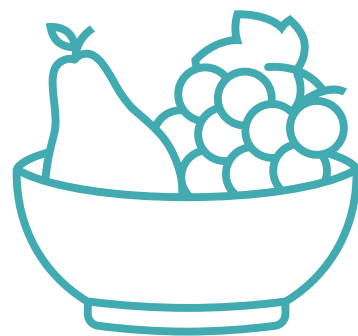
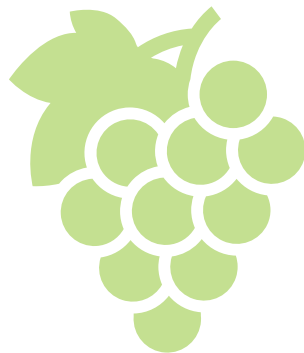
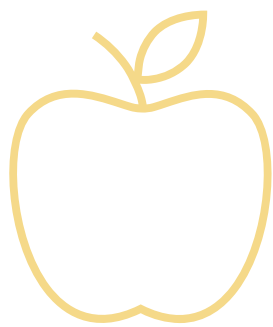
While the sector is diverse, many tasks are similar between different crops, and during the workshops and site visits, we asked how the common injuries happened. Across sites there were similar experiences of lumbar sprains, and other back and shoulder injuries; for example, lifting, carrying heavy crates, and moving ladders. Cuts and eye injuries were more dependent on the crop types. For example, eye injuries were more common in fruit tree pruning- and picking-related tasks.

Those who engaged with the project reported a wide range of influences impacting their work. Commonly reported was the COVID-19 pandemic causing pressure and stress within the sector.

A lack of workers led to staff shortages and increased pressure on existing staff, many staff who did fill the gaps were not well conditioned, and it was common for Recognised Seasonal Employer (RSE) scheme workers to stay on longer than anticipated in New Zealand. Coupled with new challenges such as new regulatory requirements, and restricted access to overseas markets, we learned how these pressures led to increased mental and physical strain and may explain the sharp increase in claims in 2021.

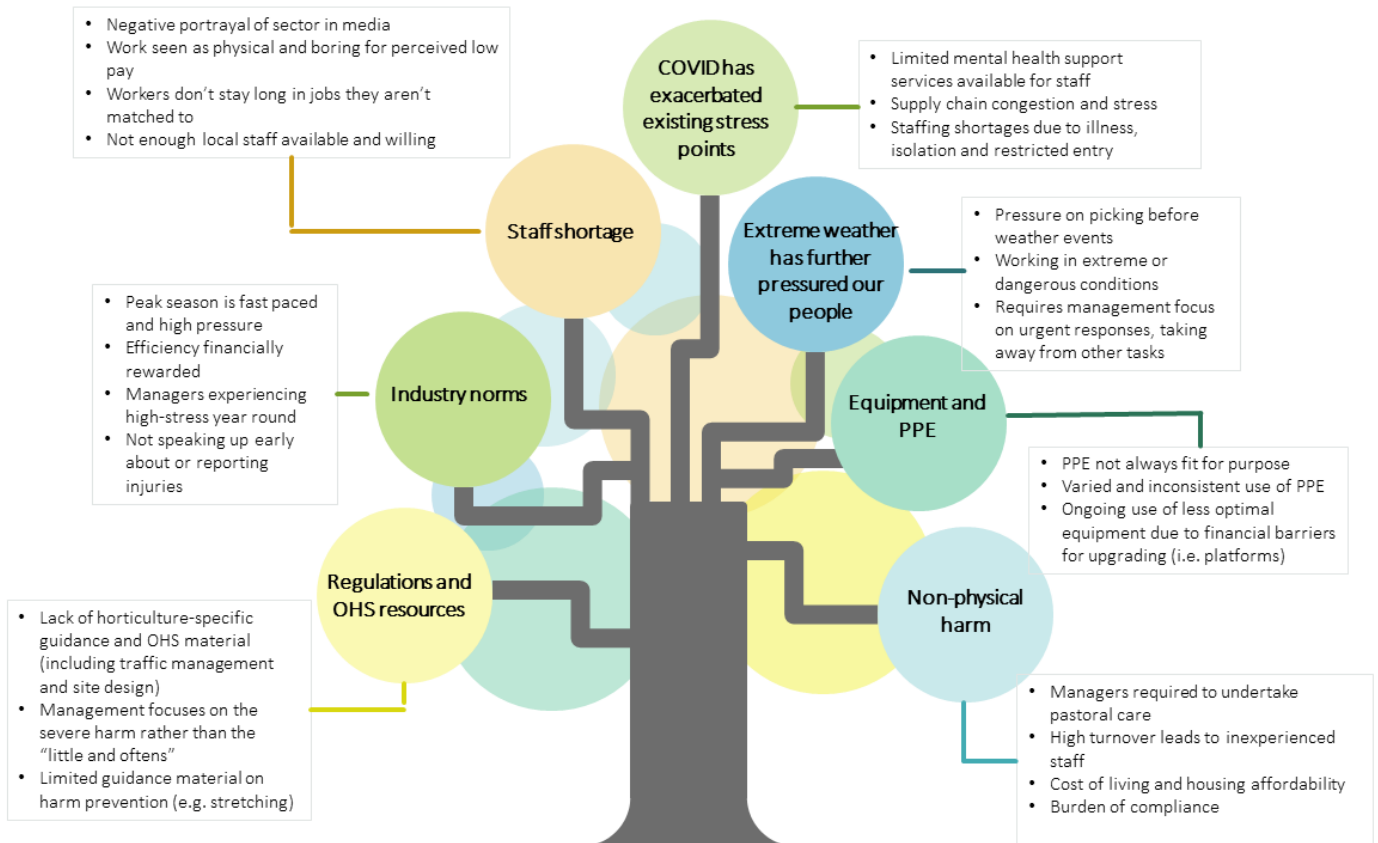
Despite these pressures and others, we found examples of innovative ways to manage harm, such as developing trees that are easier to work with, information packs about alternative duties for doctors when people were injured, technological solutions for strenuous tasks, and flexible work options.

Overall, the survey findings showed a positive attitude towards safety and a sense that generally organisations are engaged in keeping people safe. Many reported working for organisations where safety was a priority, safety procedures made sense, and they felt they could do their jobs safely. Further, when the survey participants were asked how often they had worked in a safe and healthy environment over the previous past 12 months, 92% provided a positive response. The survey also showed that two thirds of respondents reported feeling levels of stress that were uncomfortable for them, and one third responded that they have experienced incentives to work longer or quicker than is safe in the last 12 months.



What we did with the information

The data collected across all sources was used to identify system-focused causal pathways and harm hotspots occurring within horticulture. The tree shows a summary of the consistent harm hotspots identified across crop types and sites visited in this stage of the project.



Harm hotspots identified from our system analysis

An overarching theme is that the COVID-19 pandemic, extreme weather and staff shortages have put pressure on the whole sector. There is also considerable variation in crops, approaches to tasks, use of equipment and Personal Protective Equipment (PPE), and approaches to health and safety. Mental harm emerged as a concern, many faced work in difficult conditions, external pressures, and increasing living costs.

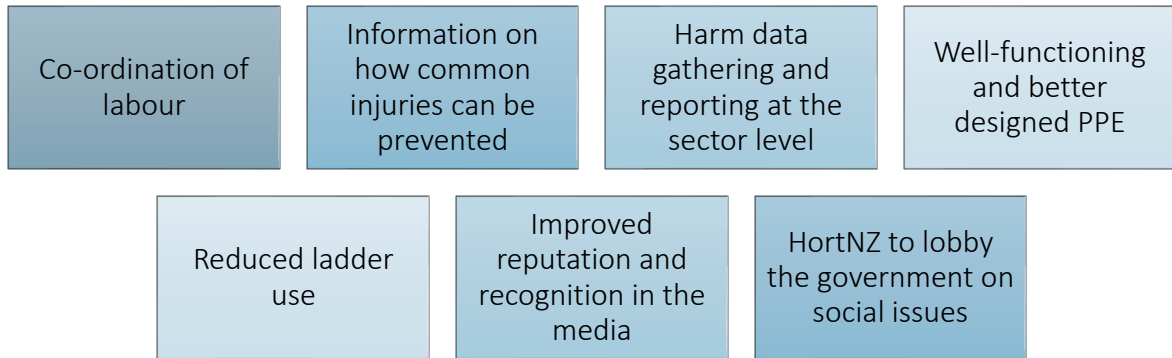
What the sector told us they were already doing to reduce harm

While talking with people in horticulture and viticulture and observing their work, we heard a great deal about effort already underway by businesses to reduce harm. We also saw first-hand many initiatives that are likely to make a tangible improvement to health and safety outcomes. Many of the activities listed below tend to be undertaken by the larger organisations that have available health and safety resources, and yet there is a hunger from smaller growers to understand how they too can be effective with their limited resources.



What the sector told us they want more of

During data collection, we heard suggestions from the sector about what they think still needs to be done. The issues shown below are wide-ranging, and while some of these are within the scope of the sector alone to progress, others will require coordination with government organisations and other agencies to achieve.



Next steps

Overall, we saw a sector that's working hard to maintain the wellbeing of workers and growers, particularly within the context of recent global challenges. But there is also inconsistency across the sector and a need to support smaller organisations. The focus of this HortNZ initiative is on building health, safety, and wellbeing systems capability. Hence, the suggested next steps focus on system-level initiatives that will allow the sector to grow and build on examples of good practice and share that knowledge, while also addressing gaps. Based on the findings of our study, there is an overall theme of a further need for collaboration and connection across the sector.



Suggested system-level next steps designed to reduce harm in horticulture