

What drives young growers?

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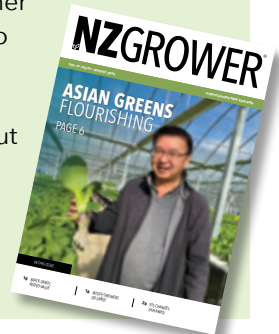
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It's been an honour and a privilege

This is my final column before I step down from my role as chief executive of Horticulture New Zealand in August.

Nadine Tunley : HortNZ chief executive

It has been a huge honour and privilege to have led HortNZ. When I was appointed in 2021, New Zealand and the world was emerging from the first round of a global pandemic and no one could have foreseen the ongoing challenges ahead including global supply chain issues, inflation and cyclones Hale and Gabrielle.

Through those difficult times and through my 30 years' experience in the primary sector, a real highlight for me has been the opportunity to engage with a wide and diverse group of growers, getting to see their hard work and passion for their product and the camaraderie and sense of community. That has never been more evident than during the cyclones last year.

I share that passion and it is a big part of what has inspired and driven me in this role to address the issues that matter to growers and their communities.

I am leaving with a better understanding of the diversity in our sector, and that understanding will help me continue to support the industry in future roles.

My parting message to you all is to work together and use this diversity to your advantage. As a collective, growers have so much more to offer New Zealand and the global food system. Take your place in the food and fibre sector - it is well earned!



A thriving horticulture sector is so important - not just to the New Zealand economy, but more importantly, to the health of the nation.

Fresh fruit and vegetables are essential nutrition - without a healthy horticulture sector the health of the country would suffer. Providing health and nutrition to New Zealand and the Pacific builds the platform for all primary sector exports to stand on when we sell our products to the world - showing international consumers that we're not just looking after the markets but our own people too.

HortNZ has spearheaded the sector's advocacy and I'm proud of the valuable contribution the team has made fighting for the interests of growers.



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As an industry group, we have to work within a central government framework that is often rigid. Our role in discussions with Ministers and officials is to do what is best for growers. We hear from you; we know what issues are important to you.

We may not always be successful in securing the ultimate outcome for growers - we don't have ultimate power after all - but the team works tirelessly for the best outcomes that we can possibly achieve. I know that this is what drives them and they work constantly behind the scenes for the good of the sector.

“

A thriving horticulture sector is so important - not just to the New Zealand economy, but more importantly, to the health of the nation

Never has that been more evident than the days and weeks following Cyclone Gabrielle.

We needed to be creative and worked closely with the government of the day, sometimes thumping the table and other times listening.

I recall an evening meeting with then-Ministers Grant Robertson and Damien O'Connor. We were really frank about the situation in the regions and the help that growers needed. Although many were not happy with the government's response, we did secure a cyclone recovery package that has enabled many businesses to carry on, and in doing so, provide employment for families in their regions.

“

I'm proud of the valuable contribution the team has made fighting for the interests of growers

Our advocacy also extends to local government where we work hard to educate officials on the realities of the sector. HortNZ often plays the role of a translator, which can be challenging, but also extremely rewarding.

As I prepare to finish up in this role, I see some ongoing challenges facing the sector and that's why HortNZ has set three top priorities - water, climate change and adaptation, and food security and supply.

Water is a critical resource for growing. Growers need certainty over water supply if they are to invest and increase production. The team are advocating strongly for policy settings that support expansion of, and investment in, water storage.





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“
I am leaving with a better understanding of the diversity in our sector, and that understanding will help me continue to support the industry in future roles

Outgoing HortNZ chief executive Nadine Tunley says growers delivered a very strong mandate for the work of the organisation in the recent levy referendum

Across the globe and in New Zealand, the notion of food security has become increasingly important.

We are advocating for policy and regulatory settings that enable growers to provide a reliable and resilient supply of fresh fruit and vegetables and contribute positively to New Zealand's food security, health and our economy.

HortNZ is working on behalf of growers to find more efficient ways of doing things and to share best practice to reduce their costs. And we are focused on boosting horticulture's social licence to operate.

As a levy group, we need to have the confidence of the majority, and it has been satisfying to round off my tenure with a significant turn-out of growers voting in the recent levy referendum, providing a very strong mandate for the work of the organisation.

But we also heard the calls for less duplication across different product groups and more focus on the strength of a united voice for all of horticulture. The team will continue to look at more ways of working better together to ensure growers get the most efficient and effective return on your levy investment.

Alongside growers, it has been a huge privilege working with the people in this organisation. Out of all my years in the sector, I am probably most proud of this team - especially my senior leaders - for their passion, tenacity, sense of purpose and lack of ego.

It is because of this team that I can move on from my time as chief executive with confidence. I will miss HortNZ considerably, but I want you to know that you have a small group of great leaders who will continue to work in your best interests. ●

I look forward to seeing as many of you as possible at our annual conference in August. For those unable to be there, thank you for your unwavering commitment to the production of the world's best produce.



2024 Annual General Meeting.

Notices of Motion



Please flip to the NZGrower side of this publication to see Notices of Motion on page 4.

These motions will be considered at the Horticulture New Zealand Annual General Meeting (AGM) at Mercury Baypark Events Centre, Mount Maunganui on Friday 30 August.

Hort history showcased in museum

The Food Bowl of Plenty exhibition at the Western Bay Museum in Katikati offers a captivating reflection on the transformation of the Western Bay of Plenty district, evolving from a dairy farming locale to the territory of the thriving horticultural giants that are the kiwifruit and avocado industries of today.

Contributed

The exhibition delves into the rich history of the citrus and nashi pear industries and the orchards that once adorned the landscape.

Within this showcase, the exhibition unveils narratives of innovation, progress and evolution within the kiwifruit and avocado sectors – undeniable pillars of horticultural prowess that significantly contribute to the economic vitality of the Western Bay of Plenty district.

“We have on display the Orbit kiwifruit grader that revolutionised the industry, kiwifruit promotional products used decades ago to advertise to the world, spray equipment, and much more,” says museum manager Paula Gaelic.

“

The focal point of the exhibition lies in honouring the individuals behind the flavours that grace the hospitality sector

The Taonga Māori section represents traditional food harvesting and gathering for autumn and winter with taonga (treasured objects) used centuries ago.

Inspired by the Flavours of Plenty Festival, the focal point of the exhibition lies in honouring the individuals behind the flavours that grace the hospitality sector. Nestled amidst the shelterbelts of the Western Bay of Plenty, an array of boutique growers and suppliers labour diligently, offering an assortment of exquisite delicacies and beverages, each presenting a hidden gem awaiting discovery.

Visitors can embark on a journey through truffle farming, the cultivation of kiwano (New Zealand horned melon), the artistry of Swiss chocolatiers, the allure of vanilla, strawberry and citrus and the history of their cultivation, extending across the harbour to the blueberries of Matakana, and beyond.

THE ORBIT KIWIFRUIT GRADER



The Orbit kiwifruit grader that revolutionised the industry is on display, along with kiwifruit promotional products used decades ago to advertise to the world, spray equipment, and much more.

Thirty suppliers and producers, including those specialising in cheese, nuts, oil, tamarillos and passionfruit, will be showcased.

Admission to this informing and enriching exhibition is free, and Paula extends a warm invitation to all, welcoming visitors seven days a week. The exhibition runs until the end of September. ●



Chloe Van Dyke at Nelson's Chia Sisters, which launched products into Australia last year

Authenticity key for Chia Sisters

Every brand has its marketing story and they can become a bit clichéd, but the team at Chia Sisters live and breathe their story about nutrition, people and the environment every day.

Anne Hardie

As a small Nelson company that produced its first hydrated chia seed drinks a little over a decade ago, Chia Sisters has added fruit smoothies, juices, an immunity tonic and even muesli over the years.

Chloe Van Dyke studied neuroscience and herbal medicine before embarking on two years of research and testing to produce her first chia superfood drink that combined the hydrated chia seeds with local blackcurrant juice. She tested it on her father, Ben, who was a world champion swimmer and her New Zealand triathlete sister, Florence, who then became a co-founder of the fledgling business.

Today, Chia Sisters uses berries, pipfruit, feijoa and citrus in its products and has made a name for itself nutritionally,



environmentally and in business, winning awards along the way. It has been a carbon zero business since 2019, was a founding business of Businesses for Climate Action, Nelson's first living wage employer and is a B Corp-certified business which is all about improving social and environmental impact.

Launching the chia drinks, immunity tonic and smoothie range into Australia has been a positive move for the company. Chloe says Australia has more health shops than New Zealand which enables them to really target their customers, who tend to be people interested in nutrition and being healthy. Testing the waters in the United States was also showing promise, but the company needed more resources to continue.

“We were in some pretty amazing stores like Erewhon, Bristol Farms and Central Market and it was going really well. But we didn’t have the resources for both markets, so pulled back to focus on Aussie.”

When the business created its first chia drinks, Chloe says the focus was very much on plant nutrition and health and there was little available on the market.

“There’s been a growing interest in health and nutrition and I feel like we’re just hitting the trend now a decade later.”

Though chasing trends is not even on the radar of Chia Sisters, as the company ethos is shaped by the environment and nutrition.

“

There’s been a growing interest in health and nutrition and I feel like we’re just hitting the trend now a decade later

“To me, health and nutrition is more than a trend.”

Sometimes, timing counts though, she says. Like the stainless-steel kegs which the business delved into four years ago, but Chloe says no one was interested. Now, the time is right.

“All entrepreneurs have to persevere and have optimism. For me, innovation is more than just a product; it’s creating a platform that is easy to innovate so you can respond quickly to your environment and the community.”

Because the business is all about nutrition and health, Chloe says part of the development process is ensuring the bioavailability of nutrients in drinks. More than simply stating nutrients on the bottle, bioavailability describes how much of a nutrient is absorbed and used within the body. Chloe says that is increasingly important when foods are more processed nowadays.

“We’re always trying to think about the actual impact on the person enjoying the drink. Drinks are packed with nutrition in a way the body will absorb it.”




Bioavailability of nutrients is increasingly important for consumers

One of the latest trends in the health and nutrition area is bringing together different plant bioactives that are beneficial for health, and that is a perfect fit with Chia Sisters.

“Different plants have different bioactives that have different outcomes on health and wellness. Understanding how those interact with each other and being able to do it from a scientific lens is a strength.”

The latest development for Chia Sisters is looking at the bioactives of indigenous plant species, and the company has carried out clinical trials with Wakatū Incorporation. Chloe says the way indigenous plants are commercialised needs to be led by iwi.

Again, it fits with the company’s ethos and as Chloe says, it helps that people are interested in being healthy more than ever. ●




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Get involved in this August's biosecurity awareness campaign

The Biosecurity Business Pledge (the Pledge) is the first initiative of its kind in New Zealand to create a pre-competitive network across the business community to improve and strengthen the New Zealand biosecurity system.

It equips businesses with knowledge, strategies and tools to effectively manage and communicate biosecurity risks with government entities. This will ultimately enhance New Zealand's risk mitigation capability and efficiency, reduce overall costs and adverse impacts of biosecurity issues to New Zealand as a whole.

The aim of the Pledge, and its member businesses, is to enhance their biosecurity awareness and enable them to integrate proactive biosecurity practices into their operations and supply chains. This helps to build a stronger protective framework not only for our primary sectors, but all of New Zealand. *It takes all of us to protect what we've got.*

On behalf of growers, Horticulture New Zealand has been a member of the Pledge since it started in 2020. We have helped to steer the strategic and effective direction to where it is today. Last year, the Pledge became an Incorporated Society supported by membership that aims to collaboratively enhance New Zealand's biosecurity system.



Biosecurity New Zealand (under the Ministry for Primary Industries) is a cornerstone partner of the Pledge. This enables a two-way dialogue and active engagement between business communities and the government to support better biosecurity outcomes. The following initiatives have been put in place:

- Throughout August, the Pledge is running a biosecurity awareness campaign that invites all businesses, their customers, staff and supply chains to learn about the importance of good biosecurity practices and what they look like. Resources have been developed that anyone can access and utilise. For example, biosecurity awareness posters identifying key pests and diseases that we don't want in New Zealand.
- An "Introduction to biosecurity" brochure has been developed for businesses.
- A training module has been designed specifically for people working in border clearance transitional facilities, to help build understanding about the actions they need to take if they find something out of the ordinary.

In addition, the Pledge is keen to identify and recognise the biosecurity heroes out in our communities. If you know of someone in your workplace or community whose actions are helping to strengthen New Zealand's biosecurity system, send their photo to thisisus@mpi.govt.nz before the end of August. Heroes will be posted on the Pledges social media channels and website. Alternatively, you can make a video and send it in. It does not need to be polished, keep it real. ●

To find out more about the Pledge and its activities visit the website here: www.thisisus.nz/biosecurity-business/biosecurity-business-pledge/tools-and-templates



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John Carroll (left) and Michael McDowell of Primor Produce

Promising signs for the next avocado season

Primor Produce recently undertook a change of guard, with the appointment of a new chief executive coming into effect in July. HELENA O'NEILL talks to both the outgoing and incoming chief executives for their predictions on the upcoming avocado season and the industry's future.

As with many crops in the horticulture industry over the past few years, avocado growers have faced rising pressure and significant challenges from poor returns, adverse weather events and oversupply.

Exporters and marketers like Primor Produce are critical to finding global buyers for what looks to be a sizeable volume season coming our way.

John Carroll, outgoing chief executive of Primor Produce, says there has been a significant investment in the avocado industry over the past few years with big dollars spent on developing orchards around the North Island.

"The industry has become a lot bigger but has remained largely around the Bay of Plenty and Northland for export avocados. In more recent times there has been a lot more planting in Northland. There have been some really positive

years where the economics were good and the industry grew, particularly in the Bay of Plenty, where the capital investment in kiwifruit helps avocados because our season is complementary to the kiwifruit harvest.

“

Exporters and marketers like Primor Produce are critical to finding global buyers



"The demand for avocados is increasing. Australia is our biggest market, with further potential for the Pacific Rim. It is worth noting that we have handled greater volumes in the last decade, but this is a nice volume lift from the last year or two."

Michael McDowall, incoming chief executive, says that Primor has a domestic supermarket programme for close to 12 months of the year. During the export season most of the fruit on the domestic market is a slightly lesser grade.

“The Australian retail landscape is looking pretty positively at New Zealand supply, but that’s primarily because the crops in their tri-state and Western Australian production area are well down. Demand in Australia is growing, and there are some alternate bearing years. When their crops are down then we have a big part to play in their spring and summer supply.”

Michael says he would like to think New Zealand always has a seat at the table in Australia.

“But the size of it and the timing of it will depend on what’s going on in their production areas, and they do have a range of them.”

John agrees: “Last year Western Australia had their biggest avocado crops that they’ve ever had, and the market was pretty congested.”

“It’s important that we have good quality fruit arrive in those destinations, be ripened and delivered to the distribution centres,” Michael says.

“We’ve got strong indications of demand from a number of markets, both established and emerging markets. We’re comfortable with the volume that we’re expecting to have along with the marketing plan that’s in place.”

John says that the avocado industry has come off a year when returns were soft for growers, with fruit performance impacted by Cyclone Gabrielle’s effects.



“

We’ve got strong indications of demand from a number of markets, both established and emerging markets

John Carroll, outgoing chief executive of Primor Produce

“It wasn’t just the obvious stuff that got graded out, but the inherent strength of the fruit as it got later in the season. We had a really difficult year. As Mike said, the prospects for the market, supply and demand, size of our export windows, different customers ... we have a much better scenario this year and we think values back to growers will be decent.”

Michael says there have been a lot of challenges faced by the industry, but there has been a lot of work industry-wide and across the supply chain to make many little improvements.

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Odd prepackaged kumara under the Nature's Quirks brand by Primor

"With a more kind growing season, all those little changes that have been made will become apparent. The other big factor is that the supply chain looks a lot more stable. We've had some tremendous challenges around shipping and for trans-Tasman, the sailings there look regular and on schedule."

Delivering consistently good fruit, shipment after shipment without delays, will help maximise returns for growers. Having that consistent quality is a huge focus and challenge for the avocado industry.

"We can achieve this with professional growing, not cutting corners on the orchard, doing everything best practice right through from harvest to packhouse to cool storage, shipping and arrival in store."

“

The demand for avocados is increasing. Australia is our biggest market, with further potential for the Pacific Rim

John is one of Primor's founders, having spotted an opportunity to establish a specialist marketing business linking growers and supermarkets in 1988. Until this July, John held the position of chief executive at Primor, deciding to stand aside from that role as he recently

reached retirement age and it was time for new talent to flourish. John remains with the company in a new executive role, general avocados manager with a primary focus on governance and supply relationships associated with the AVOCO joint venture of which Primor is a 50 percent partner. He remains chairman of the Primor board and also sits on the AVOCO board.

“

We've had some tremendous challenges around shipping and for trans-Tasman, the sailings there look regular and on schedule

He says the change in chief executive was planned for some time, being part of Primor's business transition plan designed to ensure a stable, seamless handover of responsibilities.

"The business is in great shape and continues to grow each year. We have committed significant capital investment in the past couple of years at our warehouse, ripening and distribution centre at Mt Wellington, as well as at our new Pukekohe site to support our vegetable and Pacific Island exports business units. Most recently we have added prepacking to our service offer, having installed new equipment at the Lockhart Place site." ●

Australian citrus innovation

Northland-based citrus grower TONY HAYWARD was sponsored by Citrus NZ and MG Charitable Trust to attend the Australian Citrus Congress, held from the 5 to 7 March 2024 on the Sunshine Coast. In this article, Tony reflects on his experience of the Congress.

These are my observations from the New Zealand citrus growers' trip to Australia in early March this year, where we travelled to the Sunraysia citrus growing area, Bundaberg and then on to the Sunshine Coast for the Australian Citrus Congress.

The Australian citrus industry is thriving on the implementation of innovations. This is being driven by contributions from the various stakeholders including smaller growers, corporate entities, plant breeders, plant nurseries, technology providers, research organisations, Hort Innovation in Australia and marketers through to the overarching Citrus Australia growers organisation. These stakeholders contribute uniquely to the innovative landscape of the Australian citrus industry. Their collective efforts ensure the sector remains competitive, sustainable and capable of meeting the evolving demands of growers and customers.

Before and during the Congress we were privileged to observe some of their cutting-edge innovations and research initiatives being implemented to ensure sustainability and enhance productivity and fruit quality in the industry.

Some of these key innovations include the use of **digital technology** such as drones, LiDAR (light detection and ranging) camera photography, orchard machinery guided by GPS (global positioning systems) technology, and remote sensing to refine farming practices for irrigation, fertilisation, pest control and 2D trellised high-density systems being implemented into commercial orchards. Digital technology is helping growers to improve yield, fruit quality, and economic sustainability. Some exciting innovations are also helping to ensure border biosecurity protection.

With an improved focus on **biosecurity preparedness** and utilising innovative technology, horticulture in Australia is in a good position moving forward to prevent or mitigate new pest and disease incursions into the country.

The Australian citrus industry is thriving on the implementation of innovations, driven by contributions from various stakeholders



The Australian citrus industry has a broad plan to manage biosecurity risk along with other industry partners and government agencies. The *Citrus Industry Biosecurity Strategy 2022-2027* is a comprehensive plan aimed at guiding biosecurity activities. This strategy is the first of its kind on a national scale and focuses on protecting the industry from exotic pests and diseases, with some serious pests and diseases already at Australia's borders.

Asian citrus psyllid and Citrus greening HLB (Huanglongbing) are reported to be in the citrus industries in Papua New Guinea and Indonesia.

Some exciting new tools are being developed to assist with the detection and management of these potential threats:

- Mobile 3D x-ray equipment to detect potential issues in transit, prior to crossing the Australian border.
- New technology for sniffing signature vapours and odours from insects and other pests in real-time.
- Portable eDNA molecular detection at any site. Detects animals, pests, pathogens, bacteria or viruses based solely on their DNA and RNA (genetic material).
- Artificial intelligence assisted insect identification at source in real-time, instead of the current time lag required for lab identification.

High health propagation material is managed by Auscitrus (Australian Citrus Propagation Association Incorporated).

Auscitrus clean plant material plays a crucial role in maintaining the health and quality status of the Australian citrus industry. By providing high health and high-quality propagation material, pathogen indexing and eliminating and preventing the spread of diseases, Auscitrus is ensuring the industry has access to the healthiest citrus varieties available worldwide.

Citrus plant material has been traditionally maintained in an open-orchard situation with routine testing, but an increased prevalence of HLB in neighbouring countries and greater pressure on Australia's quarantine borders means HLB poses a significant threat to the industry.

Auscitrus have just installed an innovative new climate-controlled growing house, which will house budwood trees under insect-screened conditions, securing a source of HLB-free budwood for the Australian citrus industry.

Citrus intensification using trellising and 2D growing systems represents a pioneering shift from traditional cultivation methods. This innovative approach revolves around maximising space utilisation, improving light exposure, improving crop management, and ultimately increasing yield and allowing for higher-density planting. Managing this growth into a trellis ensures that sunlight penetrates evenly throughout the plant canopy, enhancing photosynthesis and fruit ripening. Other benefits of trellising are ease of harvest and maintenance: Trellised plants are more accessible for pruning, pest control and harvesting, reducing labour costs and improving efficiency.



Single wire trellis training trees on Dean Morris' property

We visited Dean Morris in Leeton who is growing Afourer mandarins onto a trellis system. He began in 2007 using a six-wire 3.5-metre-high trellis. He started out using conventional espalier centre leader tree growth and at each wire, interval tying branches horizontally along the wire. Dean has now evolved the trellis into a single wire system at 70 cm high. Tying down the first vertical growth as soon as it reaches the desired length, creates the first cordon.

The following growing season a second vertical growth is tied down to create the other side of the first-tier cordon. Four to five vertical evenly spaced limbs are trained to approximately one-metre intervals, then the vertical growth is hedged to strengthen and create the production zones. The benefits of this newer cordon system are reduced trellising costs and better light penetration into each layer of the canopy, resulting in better productivity and fruit more evenly coloured. Dean believes these newer growing methods have improved yields and produced higher percentages of marketable fruit with better orchard gate returns.

We also visited the Primary Industries Institute at Dareton and met with Dr Dave Monks and Steve Falivene who were very enthusiastic about their innovative citrus work. They are studying various trellising systems with different rootstocks and scions. These systems include cordon, espalier and palmate methods (Figure 1).

“

As more growers witness the benefits, the adoption of trellising and 2D systems is expected to be scaled up

These three different training options will suit different rootstock or scions with a variety of growing habits. A uniformly structured canopy allows for more precise management of water and nutrients, as well as better pest control.

The Primary Industries Institute is doing in-depth research into the benefits of a high-density 2D canopy utilising platform harvesting, spray coverage, fruit sizing and colour grading. They are comparing the efficiency of irrigation and fertigation utilising drip versus sprinkler irrigation application. The Primary Industries Institute provide an economic analysis measuring the cost-benefit of each technique or system they research.



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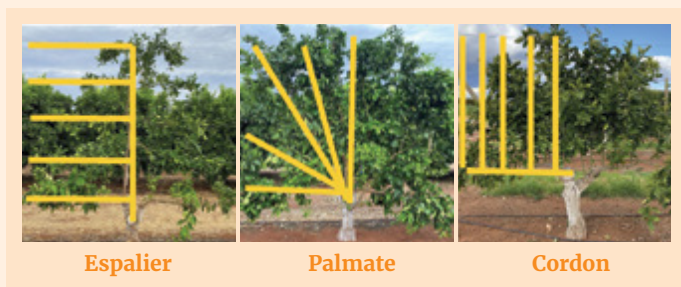


Figure 1: Trellising systems photo courtesy of Dr David Monks, NSW Department of Primary Industries

Their work also includes some very innovative LiDAR photography to measure canopy density for light penetration and to improve pruning techniques.

Intensification opportunities (from the Department of Primary Industries "Citrus Intensification" hand-out):

- **Automation:** A 2D narrow canopy would enable easier access for automated sprayers and a uniform canopy for platform harvesting.
- **Fruit Quality:** More intensive pruning and canopy shaping allows for improved spray coverage, more even colour and maturity.
- **Productivity:** A properly pruned trellis will result in maximising light penetration into the canopy, improving yields and income.
- **Labour utilisation:** Platform harvesting is more efficient and will reduce labour costs. It also allows for a broader range of potential workers.
- **Environmental:** A reduction of the sprays needed because of improved coverage. Reduced spray drift from slower fan speeds.

As more growers witness the benefits, the adoption of trellising and 2D systems is expected to be scaled up, further transforming the Australian citrus industry. As research continues to explore new ways to integrate technology, such as sensors and automation, more questions will be answered.

Citrus intensification through trellising and 2D growing systems is a key innovation driving the future of the Australian citrus industry. By focusing on these specific techniques, growers can achieve higher yields, better fruit quality, and increased sustainability. The Sunraysia region demonstrates the successful implementation of these methods, serving as a model for other citrus-growing areas.

This focused observation of some of the innovations of the Australian citrus industry in digital technology, biosecurity, high health plant material trellising and 2D growing systems, highlights the potential to similarly revolutionise citrus growing in New Zealand. ●

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Delivering on the vision for the avocado industry

Through the month of August avocado growers are being asked to vote on the continuation of the avocado commodity levy to ensure the industry can collectively deliver on its vision of enabling a prosperous export and domestic market and supporting the profitability of growers.

Brad Siebert : NZ Avocado chief executive

The commodity levy is essential for funding all industry activities. The levy supports research, quality assurance, market development and the advocacy efforts of the industry. It ensures a continued focus on our strategic objectives of developing and maintaining markets, optimising crop value and providing a consistent supply of fruit to meet market demands.

The avocado sector is also in a reset mode and assessing the structure of the industry body, and over the next 12 months will be consulting with its grower members to develop new rules and a refined industry model that's fit for purpose and set up to deliver the return on investment growers demand from their levy contributions.

Looking ahead, the 2024-25 season holds promise. The El Niño weather pattern is expected to enhance

avocado production and quality, with strong pollination and a more typical crop anticipated. Improved export pack-outs and further development of international markets are set to improve returns. Globally, the demand for avocados continues to surge, with New Zealand's seasonal timing and broad market access well positioned to capitalise on this. Strengthening relationships with Asian consumers and overcoming post-Covid-19 freight challenges also provide a competitive edge.

The avocado commodity levy is fundamental in seizing these opportunities and allows the industry to have a united voice when advocating for growers' needs with government. Growers are encouraged to engage in shaping the industry's direction and to vote for the levy to enable the delivery of these outcomes. ●



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SUMMERFRUIT UPDATE

Deep latitude growing: Central Otago vs Tasmania

Aimee Wilson

Central Otago has a cult status when it comes to fruit growing, driven by its reputation for producing award winning pinot noir and export quality cherries at deep latitudes, a Tasmanian Professor of production horticulture says.

Professor Dugald Close from the Tasmanian Institute of Agriculture, a research institute at the University of Tasmania, visited both Hawke's Bay and Central Otago in early July, hosting on-orchard SummerGreen technical presentations.

He also visited many growers in both regions and was impressed with Central Otago and its quality of fruit – saying both grapes and cherries have helped to put the region on the map internationally.

"The quality of the produce is something that Tasmanians sit up and notice," he says.

Describing local orchardists as forward thinking and innovative through necessity, he mentioned the example of the upright fruiting offshoots (UFO) planting system that has become more widespread in Central Otago compared to Tasmania.

Tasmanian soils are more vigorous than in Central Otago and UFO plantings are not as prominent due to the lack of appropriate root-stock varieties.

UFO training systems enable higher light penetration into the canopy and research has shown that trees are 102 percent more efficient for harvesting than those in traditional growing systems.

But Dugald says both Tasmania and New Zealand still have a long way to go until the benefits available in America and Europe can be realised here, such as widespread availability of dwarfing rootstocks.

He says there are semi-dwarfing rootstocks for cherries, but their availability is limited throughout Australasia.

Improving pollination is another issue for both countries as it is still very "hit and miss." There is work to do in artificial pollination, which is now commercialised in the United States.

On his first trip south to Central Otago, Dugald says every orchardist he has spoken to has been trialling new approaches to growing, through different training systems, varieties and approaches to pruning.

"It's about working with industries to support their missions to be both profitable and sustainable."

Dugald, Tasmanian born and bred, has current interests in water, nutrition and carbohydrate ecophysiology. He enjoys teaching horticulture at undergraduate and postgraduate levels at TIA and working with industry for practical outcomes.

He gave a talk at Webb's Fruit in Cromwell about space efficient growing systems suited to rain covers – from his research in Tasmania, as well as from his sabbatical in northern Italy.

“

It's about working with industries to support their missions to be both profitable and sustainable

He also talked about climate and its effects on tree water use under rain covers. Water availability is one of the main issues for stonefruit growers in Australia, but late season rainfall affected the profitability of cherries nationwide during the 2023-24 season. There were similar issues back in 2011 as well.

Tasmania enjoys international status as an area free of fruit fly, which allows for airfreight directly into Asian markets.

That is not the case for some other growing areas in Australia. As a result, 55 percent of total cherry exports out of Australia originate from Tasmania.

Summerfruit in Australia

Cherries, peaches, nectarines, apricots and plums:



26
regions



1200
growers



100k
tonnes of
production

2023- 24 season production ('000 tonnes):

62
peaches &
nectarines

25
plums

15
cherries

25
apricots

Most seasons the volume of cherries produced reaches 20,000 tonnes.



Visiting professor Dugald Close with Mariette Morkel of Hortcentre in Cromwell



On-orchard technical presentations on a peach block at Webb's Fruit in Cromwell

Dugald talked about his research into the efficient use of ventilated rain covers, which found that they improved the size of the fruit and the sugars, as well as tree vigour.

During the seasons under study, the fruit matured more quickly and was only slightly less firm, which would be indiscernible to the consumer.

His second study found that orchards using rain covers used three times less water – a drop from maximum midday water use of 3L/hour down to just 1L/hr. The covers were put on before flowering and left on right through the season.

In another study, fruit sugars and firmness were found to improve under moderately warm temperatures further from the boundary under rain covers.

Dugald gave the same talk to Hawke's Bay growers at the Camelot Fresh Fruit Company in Twyford at the start of his New Zealand visit, and said he was impressed with how apple growers in particular had innovated to remain competitive under difficult commercial conditions.

Having visited the Hawke's Bay ten years ago, he said the uptake of the Future Orchard Production Systems (FOPS) since then had been impressive.

"There has been widespread early adoption of the FOPS approach developed by Plant & Food Research NZ in pome and stonefruit that had pushed yields to impressive numbers whilst maintaining quality and packout," he said. ●

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New powerful technology to protect pipfruit crops

A powerful and dependable new active ingredient to protect apples and pears from key diseases is available for local growers this season. APTIVIS® fungicide is now registered for the control of black spot and powdery mildew on apples and pears, and Alternaria leaf blotch on apples.

APTIVIS® is a fourth generation SDHI (succinate dehydrogenase inhibitor) fungicide (Group 7) from Syngenta and contains pydiflumetofen (ADEPIDYN® technology), which controls infection of these significant diseases during a period when flowers and foliage are highly vulnerable.

Paul Hassan, technical services lead for Syngenta New Zealand, explains: "APTIVIS® powered by ADEPIDYN® technology is a next generation SDHI fungicide, due to its unique molecular structure and versatility. It works by interfering with the energy production of the fungal cell, making it unable to grow and reproduce, so the pathogens that come in contact with it quickly die."

“

APTIVIS® has consistently shown a high level of control against target diseases

After application, ADEPIDYN® technology moves quickly from the leaf or floral bud surface into the deeper plant tissues and from there systemically translocates within the plant's vascular system. This reservoir of active ingredient protects the growing plant tissues over an extended period to deliver powerful and dependable disease control.

"Black spot, powdery mildew and *Alternaria* are diseases that pipfruit growers must always contend with during spring. APTIVIS® has a great technical fit in pipfruit crop protection programmes against these diseases because they are highly sensitive to the potency of the active ingredient."

"In New Zealand development trials, APTIVIS® has consistently shown a high level of control against target diseases, when compared to older generation SDHI fungicides" says Paul.



Syngenta has thoroughly tested APTIVIS® with other products and it has shown excellent crop safety and compatibility when applied in tank mixture with a wide range of other fungicides, insecticides, plant growth regulators and foliar fertilisers. As well as this, it is compatible with Integrated Pest Management (IPM) programmes ensuring the safety of beneficial insects, including *Aphelinus mali* (a parasitoid wasp that exploits the woolly apple aphid), when applied according to label directions.

Syngenta has a proud history of providing high-quality fungicide solutions to the pipfruit market, including trusted products such as SCORE® WG, CHORUS® and SEGURIS® Flexi.

APTIVIS® should always be applied preventatively and according to the label. To comply with current SDHI resistance management guidelines, apply a maximum of four SDHI-containing products per season in alternation with an effective fungicide from a different mode of action group. Additionally, always apply in mixture with a multi-site protectant fungicide that is not at risk from resistance at full label rate.

APTIVIS® can be applied a maximum of three times and up to four times concentrate per season from tight cluster to 90 percent petal-fall. This pre-harvest interval will ensure nil detectable residues at harvest. Available in one-litre and five-litre containers. ●

For more information about APTIVIS® use in pipfruit, contact your local Syngenta territory sales manager or distributor representative.



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The elegant solution to frost protection

In the ever-evolving realm of frost protection, FrostBoss® has solidified its position as a leader in innovative solutions for growers worldwide.

Based in Hastings, New Zealand, FrostBoss® specialises in the design, manufacture, installation and servicing of frost fans. Now represented in 14 countries, their commitment to research and development has led to groundbreaking advancements in frost protection technology. Their latest offering, the Lay-down Frost Fan, is poised to set new industry standards.

The newly released Lay-down Frost Fan combines the reliability and performance of standard fixed tower fans with the added benefit of a lay-down design. This innovation reflects FrostBoss®'s dedication to providing versatile solutions that address the evolving needs of growers globally. One of the primary motivations behind this development was the increasing demand for frost protection solutions that preserve visual amenity and scenic beauty. With stringent regulations, particularly in UNESCO heritage areas like Saint-Émilion, France, where towers must be lowered outside the frost season, FrostBoss® recognised the need for a more elegant solution.

The benefits of the Lay-down Frost Fan extend beyond aesthetics. Its compatibility with pivot irrigation systems, already recognised in New Zealand, makes it an ideal choice for growers seeking to maximise efficiency without compromising performance. Furthermore, the Lay-down Frost Fan maintains the same level of noise, fuel consumption and coverage as standard models, ensuring reliable effectiveness year after year.

FrostBoss® distinguishes itself from competitors in the industry with a relentless pursuit of excellence in blade design. Collaborating with aerodynamics research engineer Richard Karn, FrostBoss® has developed proprietary composite blades that optimise noise reduction while maximising coverage. The FrostBoss® C49 (four-blade) frost fan, equipped with these state-of-the-art blades, has emerged as a game-changer in the industry, offering unparalleled performance and reliability, with their fans covering six to eight hectares depending on conditions. Growers worldwide are now upgrading their existing competitor fans with FrostBoss® blades, recognising the superior quality and benefits they offer.



FrostBoss® launches new lay-down fan tower

The introduction of the sophisticated FrostSmart® monitoring system marks a new era in frost protection. Designed for convenience and efficiency, FrostSmart® offers real-time monitoring of frost fans from any location, empowering growers with invaluable insights into their fan operations. With text alarms, historical data and temperature graphs readily accessible, FrostSmart® enables growers to make informed decisions and respond swiftly to changing conditions. This comprehensive solution exemplifies FrostBoss®'s commitment to innovation and customer satisfaction, with the majority of their customers opting to subscribe to the FrostSmart® monitoring service.

“

FrostBoss® distinguishes itself from competitors in the industry with a relentless pursuit of excellence in blade design

As the market leader in New Zealand and Australia, FrostBoss® is well-positioned to meet the growing demand for frost protection solutions worldwide. The FrostBoss® research and development team continues to explore innovations, ensuring they remain at the forefront of the industry with groundbreaking solutions. ●

For more information and customer testimonials, visit www.frostboss.com. Mike Annand, National Sales Manager
M: 027 533 3343 E: mike.annand@frostboss.com



Trelleborg Tyres helps orchards succeed

Orchards and vineyards form two critical parts of agricultural production and both face unique challenges, notably in root protection and terrain.

Vineyards often incorporate steep terrain and along with orchards, typically have narrow row operations with small spaces between vines or trees. Tracked vehicles can often be too wide to pass between rows with a comfortable margin for error.

PneuTrac® is a hybrid solution that combines the advantages of a radial agricultural tyre in terms of efficiency, comfort and handling, with the wide footprint and traction benefits of a track. It delivers unbeatable performance on both steep slopes and muddy terrain, reducing the stress on roots while ensuring healthy crops and better yields. In addition, on road applications the hybrid nature of the PneuTrac assures safety, handling and comfort along with fuel consumption performances in line with a modern radial pneumatic tyre.

“

We strongly believe that PneuTrac is a game changer for the New Zealand viticulture market and it again demonstrates Trelleborg's commitment to sustainable farming

One very happy user of PneuTrac tyres is Ross Tanner of Tanner Spraying, contractors based in Katikati. Ross has been running the Trelleborg PneuTrac on his New Holland tractor since 2022 and commented “The PneuTrac tyres mean I can go places I couldn't go before and with less mess.”

“We strongly believe that PneuTrac is a game changer for the New Zealand viticulture market and it again demonstrates Trelleborg's commitment to sustainable farming, helping to protect some of our most valuable agricultural assets,” says Mark Prentice, national sales



PneuTrac tyres in action

manager for TRS Tyre & Wheel Ltd. “When designing the PneuTrac, Trelleborg focused on the specialist requirements of key producers. For example, the roots of vines are incredibly precious and susceptible to damage. As with conventional agriculture, the topsoil needs to be protected and machine slippage could easily be a disaster for both the soil and roots.”

Powered by the ‘Omega Design’ sidewall and enhanced PneuTrac technology, its extended footprint ensures outstanding flotation, traction and exceptional lateral stability. The tyre has been shown to deliver solid traction even on slippery slopes typical of wine country. PneuTrac reduces machine downtime, a critical concern for farmers looking to increase productivity and gain substantial cost savings in fuel, maintenance and labour.

PneuTrac is available in VF (Very High Flexion) sizes 280/70R18, 280/70R20, 420/70R28 and 480/65R28. ●

TRS Tyre & Wheel, owned by the Yokohama Rubber Co, have a wide range of Trelleborg and Mitas tyres available in New Zealand. TRS are specialists in providing complete customer solutions, with over 40 years' experience in wheel manufacturing services. TRS can be contacted via the website www.trstyreandwheel.co.nz or on **0800 336 334**.





Figure 1: Postharvest facility with manual grading lines

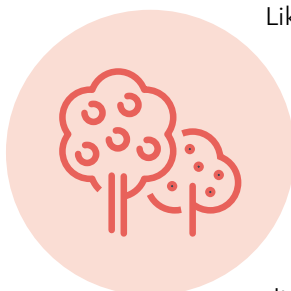
Using seasonal summaries to drive on-orchard decisions

Interpreting your harvest quality reports allows you to make positive management changes that take the guesswork out of growing.

Meg Becker - AgFirst Consultants

This is an important post-harvest reflection for all crop types, especially where growers are striving for excellence and high profitability.

Coming off the back of the 2022 and 2023 seasons where we experienced extreme La Niña weather patterns throughout the growing season particularly across the North Island, growers have had to adapt and think differently to keep ahead of the game and drive orchard performance. Despite the much-improved harvest conditions in the 2024 season, many orchards were still recovering from the impacts of Cyclone Gabrielle and extended periods of waterlogging.



Like many primary industry sectors, fruit growing carries significant risk, both in the field and beyond the orchard gate. Although much of this risk lies outside of our circle of control, we can influence the quality of fruit we produce – as well as put mitigations in place to manage the impacts and outcomes of external risks and influences.

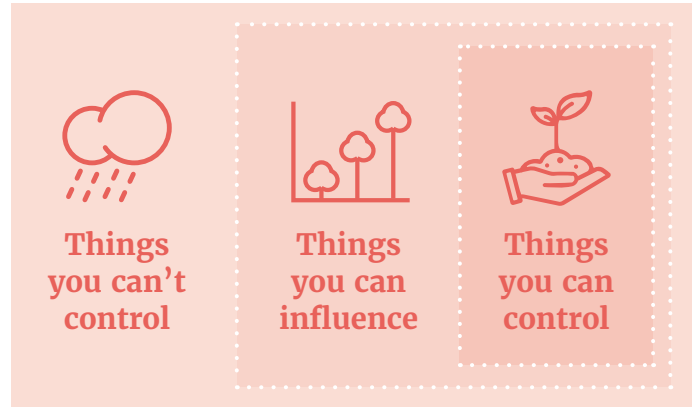
It can be easy to continuously attribute crop outcomes to climatic conditions and external influences without truly stopping to reflect. Upon review, it is important to look at the parameters you can influence, without being bogged down by the ones you can't.

Successful fruit growing is the ability to manage a matrix. It means growing the optimum quantity, with the highest quality outcome, that meets market demands whilst maximising return on investment and remaining financially sustainable. Controlling orchard inputs including perfecting task execution, optimising the timing, efficiency and implementation of each job on orchard is key to success. This should be reviewed and refined each season.



It is important to look at the parameters you can influence, without being bogged down by the ones you can't

Maturity reports, bin data and pack-out summaries outline and provide a record of seasonal outcomes. If used correctly, these play an important role in the management of the orchard and setting crop forecasts. But how many of us currently use this data loop to our advantage, or do we archive it in our emails and hope for better outcomes next season?



In the scenario where you aim to increase volumes, target bigger fruit size, and increase high grade percentage to a level the block has not achieved historically – what are you going to do differently to achieve this? And how will you quantify what changes will have the biggest impact so that these can be replicated year on year?

With this in mind, it is just as essential to review the seasonal successes. What did you achieve, how did you do it, and most importantly, how will you repeat it? There is no point in recreating the wheel if what you are doing is working!

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Maturity trends

Commonalities in maturity trends season to season tell us a lot about how to manage labour, seasonal peaks and efficiencies over harvest. Many fruit types and varieties have 'first start' incentives (for instance, Kiwistart). Through understanding the natural maturity characteristics of your blocks, you can then manipulate the naturally earlier areas to hit the earliest maturity brackets. This can also help streamline labour peaks by pushing blocks known to naturally hold maturity well, to later in the season. All this can be achieved by strategic use of dormancy breakers and plant growth regulators.

Maturity trends can also tell you a lot about your seasonal outcomes. Did maturity hold and therefore allow for incremental gains in late season fruit size, or were you racing SPI (starch pattern index) and fruit pressure, which meant you had to leave fruit behind?

It is important to understand why this happened, looking at maturity trends in the context of what dormancy breakers were used, the timing of application and therefore, what the floral characteristics were over spring. To review both the timing of budbreak, bloom and the spread over flowering.

As I write this, winter chill units in Hawke's Bay are well above the long-term average, indicating that if weather conditions are favourable in the spring, we could be in for an early 2025 season!

Volume outcomes

Did you meet your forecast, if not, why not? Crop load can cause numerous downstream impacts, so it is important to understand the successes and failures of each block, to drive excellence in coming seasons.

Parameters to consider include:

- **Pre-thin counts or cluster counts** - was fruit set an issue?
- **Post-thin counts** - was thinning implementation accurate?
- **Pick-out** - how much dropped or was left behind?
- **Maturity** - did maturity hold nicely allowing incremental gains in fruit size, or were you racing SPI or pressure to get the crop off while still in specification?



Also consider the historical volumes achieved. Was your crop forecast realistic with the block's cropping history, or has it been thrown into a biennial swing? How will you manage this if that is the case?

Another key consideration which impacts harvest efficiencies is what proportion of your crop went into picks 1, 2 or 3. What were the drivers behind these percentages? How will you manage maturity, colour, size and dry matter next season to get the bulk of the crop off in picks 1 and 2?



Figure 2: Kiwifruit preharvest -thinning targeted at optimising fruit size bell shape curve

Pack-out reports

Pack-out reports provide data to review the factual outcomes of the season, allowing growers to reflect on orchard management tasks carried out including timing, instruction and implementation of key jobs over the season, so that targeted (financially sensible) management changes can be made where necessary.

Fruit size outcomes

For most varieties targeting the Asian market, there is significant financial reward for growing large, red fruit (i.e. pipfruit and cherries). Fruit size outcomes allow growers to assess success in timing and execution of both pruning and thinning.

There are two key metrics to consider here:

- 1) Fruit size average
- 2) Fruit size bell shape curve

The 'average' fruit size outcome is often kept on record to compare season to season and reflects the achievements of the individual management areas.

But what do averages really tell us? If you succeeded and hit the varietal sweet spot 'average' fruit size, what percentage volume by count size did you achieve?

What changes do you need to implement over pruning to drive early fruit size development, so that thinning is focused around refining the bell shape curve to getting as much of the crop into the most profitable margin?

If fruit size average ended up smaller than target, was this caused by:



Excess post prune bud numbers heading into spring?



Success at flower thinning (chemically or by hand)?



Timing, and execution of hand thinning?



Soil moisture throughout the growing season, and therefore impeded root health?

It is also important to reflect on the positives, such as blocks that did meet fruit size target, or even exceeded expectations. If you achieved this, what data can you use to determine the cause, and replicate this in other management areas?

Refining the bell shape curve is not only done to improve the fruit size outcomes, but also to tighten the maturity on the tree at harvest. Small fruit are often set from a late flower or set off a lateral flower.

Reflecting on your bell shape curve outcomes allows you to assess the success of your size thinning of fruitlets (or thinning to king flowers over bloom), and then if necessary, adjust your strategy before next spring. What do you need to do to get the entire crop to target fruit numbers on time next season?

Class 1 Pack-out percentage

Quality is a key driver of profitability, therefore the higher proportion of Class 1 crop, the better the season outcomes. What percentage of your crop is Class 1 (export suitable), and is this an improvement on previous seasons?

It is important to reflect on the key defects identified. The main defect categories reported are often:

- **Blemish** (lenticel damage, russet, wind rub, sunburn etc.)
- **Shape** (misshapen, petal damage (parrot beak), undersize etc.)
- **Physical damage** (bruising, shrivel, cuts, cracking etc.)
- **Picker damage** (stem punctures, stem pulls, picker bruising etc.)
- **Pest and disease** (blackspot, rots, pest incursions, insect damage etc.)
- **Other** (low colour, export fruit, etc.)

What defects had the highest incidence, and are these within your circle of influence? If so, management strategies may include improved picker training around fruit handling and fruit selection, techniques such as stem clipping, or tight spraying regimes around potential blackspot or rot infection periods.

Can you take any learnings from your successful management areas? What did you do to drive quality?

Pack-out reports provide insight into management area pest and disease risks which you can then monitor over the growing season and potentially signal to your post-harvest facility for the coming season.

For varieties that run a high grade line, the focus should also be on the proportion of Class 1 crop that makes it into the high grade standard, maximising premiums. Colour standards are essential to achieve, especially if targeting these high grade incentives. High grade outcomes, or ability to meet colour standards, is an opportunity to reflect on the light optimisation through your canopy, your summer pruning strategy, crop load and fruit distribution through the tree, and the timing of reflective crop roll out.

Bin weight

Most pack-out reports disclose an average bin weight for each pack run, as well as your season summary report. There are numerous efficiencies in maximising bin weight (without over filling it which can result in fruit damage).

“

Reviewing your seasonal summaries by management area can add so much value, allowing educated decisions

For example, if you have an apple block producing 80t/ha, you need 200 bins to the hectare. If you fill each bin to 420kg instead of the standard 400kg, then you only need 190 bins. The downstream cost saving includes saving the grower the picking costs (if paying contract rates), trucking fees, bin storage fee of ten bins per hectare.

Conclusion

Reviewing your seasonal summaries by management area can add so much value, allowing educated decisions in order to alter or repeat management strategies. If you are going to alter your targets, you have to challenge the status quo, but making these changes with sound data to back up your decision making will give you confidence.

Understanding your seasonal summaries from maturity trends, bin reports and pack-out summaries provides significant insight, allowing for improvements across the orchard. ●



Resilience key for Gisborne young grower

Pip Terekia, a 30-year-old trainee orchard manager at Apata Group, won the 2024 Gisborne Young Grower of the Year competition on Thursday 27 June, held at the EIT (Eastern Institute of Technology) Rural Studies Unit in Gisborne.

Helena O'Neill

Photo by Strike Photography

The Young Grower competition celebrates the future leaders of the horticulture industry. Contestants must be working full-time in the fruit and vegetable industry, and 30 years of age or under as at 31 December 2023.

The competition tests the vegetable and fruit growing knowledge of contestants, along with the skills needed to be successful growers. Included are modules on soils, nutrition and fertigation, tractor operation, pests and diseases, health and safety, agrichemicals and biosecurity and risk mitigation. During the evening, they put their thinking caps on again for a horticulture quiz or panel discussion, and then a speech competition at the gala dinner.

It was a case of third time's the charm for winner Pip who first entered the competition in 2022, placing second, before returning to the event last year and placing third.

"We have a lot of resilience here in Gisborne, like me going in the competition three times, you have to keep getting back up and keep going. Have that never-give-up attitude. All the growers I've met just get stuck in."

Pip's speech "Family versus Corporate" discussed the future of family operations and whether they remain viable in horticulture.



“

We have a lot of resilience here in Gisborne, like me going in the competition three times, you have to keep getting back up and keep going

"It was good to research it - working for quite a corporate operation at Apata, it was nice to learn more about 'Mum and Dad-run' orchards and small family farms. They're kind of the backbone of the industry."

Along with an opportunity to brush up on some horticulture skills that aren't part of his usual daily tasks, Pip says the competition offers a chance to connect with other young growers.

"I enjoy the networking, there's a lot of familiar faces as I've been in horticulture for a while. I knew four competitors, and some of them I have worked with. Runner-up Dalem Otter works with me at Apata Group so that was a very good result."

The other competitors were: Makauri Anderson, Matt Davies, Paul Goodlet, Awatea Jobe, Aidan Stewart, Sirius Tamati-Smith, and Larissa Wooding-Ngata.

The six regional competitions - Pukekohe, Bay of Plenty, Gisborne, Hawke's Bay, Nelson and Central Otago - are run independently of the National Final. ●



Innovation a drawcard for Nelson winner

Farrah Richards had plans to study medicine when she left school until a stint on an orchard changed her career path, and at 21 she has been named Nelson Young Grower of the Year.

Anne Hardie

Photo and cover photo by Tim Cuff

It is her first year in the annual competition and she admits she was a bit apprehensive as her role on Fairfield Orchards near Riwaka is very much packhouse based, so she needed some last-minute study on everything that happens outside in the orchard.

"It was a bit of a two-week boot camp, to be fair. I was just hoping I wouldn't have to drive a tractor.

"So, I felt I was in a little bit over my head."

Farrah only recently celebrated her 21st birthday and said her win was "quite a cool present".

She stepped into horticulture three years ago in the midst of the Covid-19 pandemic, when she decided to spend a couple of months on her auntie and uncle's orchard - Aaron and Cherie Drummond. Instead of a short stint, she discovered a whole new career she had never contemplated. Plus, she says she didn't like the idea of a huge debt after years in medical school.

"I came into the packhouse and I just love it. We've got a fairly new automated packhouse. There's robotic packers and stackers and we've got the Tomra grading system with AI (artificial intelligence). So it's a great opportunity.



In our business, we're pretty thin on our costs - what we focus on is automation

“

"In our business, we're pretty thin on our costs - what we focus on is automation. For us in our business, this is where it is at to keep growing. Automation decreases labour which is a huge cost, and it attracts more people like myself who are enthusiastic about technology, instead of people who turn up just because it's a job.

"Automation can improve the quality of our product because we're all human and make mistakes. It has more consistency for our customers, which hopefully results in greater returns for our growers."

Second place in the Nelson competition went to Lian Price from JS Ewers, while third placegetter was Calab Aarsen from Connings. ●

"I did my first year in the old packhouse and then my second year it was all new to everyone which was quite exciting."

Farrah says her job revolves around documentation and packaging, or as she likes to tell people: "I do the stuff that's not the apple."

"I'm constantly walking around the packhouse."

For the evening speech competition, the topic was whether or not to cut costs if they were in charge of finance for a horticulture business. Farrah's speech focused on innovation rather than cutting costs in the industry and as she later said, that is the way forward.



BOP young grower wins big

No two days are the same in Lilah Rosenfeldt's job – and that's exactly how she likes it. The young Tauranga mum has done everything from packing kiwifruit to researching and conducting trials on kiwifruit orchards.

Zoe Hunter
Photo by Andrew Warner

In July, she put her knowledge to the test at the Bay of Plenty Young Grower competition for 2024 at Mount Maunganui College and Mercury Baypark, and came out a winner.

Lilah, a 26-year-old kiwifruit trials specialist at Zespri International, accepted the prestigious award at the competition's largest gala dinner to date.

Lilah said while she did not expect to win, it meant a lot to have been recognised as the region's top young grower. "I feel very honoured," she said. "I didn't go in it to win it, so it was unexpected. But it does feel amazing."

Lilah won the horticulture agrichemical safety award and the Holland Beckett Speech Competition, impressing the judges with her three-minute speech on how Gen Z values unlock new levels of profitability in the horticulture sector.

Competing for the second time, Lilah says she entered the Bay of Plenty young grower competition to learn new skills and meet other people passionate about the horticulture industry.

"I have spent a lot of my life in horticulture, and it was good to test my diverse knowledge," she says.

Her journey into horticulture began while she was still at school. Lilah would spend her time after the bell rang at the end of the school day, picking kiwifruit on local orchards.



“There are also so many different paths you can go down... no two days are the same”

On holiday to Gisborne she picked up some seasonal work until she was offered full-time work.

She loves all of the opportunities that a career in horticulture can give.

"There are also so many different paths you can go down," she says. "No two days are the same. I started as a picker and now I do trials and research on orchards, so you can definitely find your niche. I think that is really cool."

In her job, Lilah can either be found in the office writing reports, or out on orchards.

"It is quite diverse. I get the best of both worlds, being out in the orchards talking with growers and also gathering data, and trying new things."

Events like the Young Grower competition, Lilah says, help to showcase the many different career pathways in horticulture.

"Many people don't realise that there is more out there than just picking kiwifruit, as well as some really passionate young people in the industry."

Kiwifruit has huge potential, especially in the Bay of Plenty, Lilah says.

"There are so many people out there trying new things. Everyone is quite proactive in the industry, which is cool!" ●



Apple breeder Allan White (right) at the Cornell University cider apple orchard in New York with associate professor Gregory Peck

Could New Zealand cider become a billion-dollar industry?

A new report outlines an ambitious growth roadmap for New Zealand cider.

The Orchardist staff

The 'Roadmap for Premium Cider Industry in New Zealand' was recently released by Cider Apples NZ Ltd, founded by cider maker John Powell and apple breeder Allan White.

The roadmap, developed with funding support from the Ministry for Primary Industries and AGMARDT (the Agricultural and Marketing Research and Development Trust), outlines a comprehensive strategy including accelerated cider apple breeding, consumer research, and market pathways tailored to meet global demand trends.

"Globally, premium cider categories are gaining traction as a lower-alcohol alternative to wine, a gluten-free option

compared to beer, and due to their high levels of antioxidants and polyphenols," says John.

"The strongest growth is observed among affluent millennials and Gen-Z consumers seeking sophisticated beverage choices. Our cider apple breeding programme is achieving remarkable flavours and aromatics that will resonate with global cider enthusiasts."

To achieve the projected \$1 billion export milestone, Allan says approximately 2,232 hectares of cider apple orchards would be needed, producing 125 million litres of cider annually, assuming an average export price of \$8 per litre.

2,232 ha
of cider apple orchards
will be needed to achieve
the \$1 billion export
milestone



“The roadmap confirms substantial potential for New Zealand’s premium cider industry

John Powell,
cider maker



Apple breeder Allan White and Horowhenua cider maker Carmen Gray at Eris Cidery in Chicago

“The roadmap confirms substantial potential for New Zealand’s premium cider industry. We are actively seeking expressions of interest from apple growing businesses and beverage producers to work together with Cider Apples New Zealand on a new funding application to progress the roadmap and accelerate sector growth,” John continues.

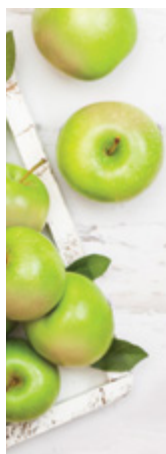
“We envision a future where New Zealand premium cider stands at the forefront of global markets, celebrated for its quality and authenticity.”

Today, the global cider market, though currently the smallest among fermented alcoholic beverages, shows promising growth trends. According to the Westons 2024 Cider Report, global consumption exceeds 2.6 billion litres, with a notable shift towards premiumisation echoing trends seen in wine and craft beer.

At its core, the project seeks to develop unique New Zealand ciders that captivate global consumers, much like New Zealand’s Sauvignon Blanc and aromatic hops have done with their distinct flavours and quality. Central to this vision is the cultivation of new cider apple cultivars boasting distinctive levels of tannins, polyphenols and sugars, coupled with enhanced pest and disease resistance and tolerance to climate change.

The initiative does not target the current practice of using processing grade fresh apples or traditional cider apple varieties that are often less productive and susceptible to pests and diseases. ●

Find out more at ciderapplesnz.com



Key Assumptions	
Full production tonnes/ha	80
Packout	100%
Mechanisation savings	50%
Cider apples price per kg	\$1.00
Kgs apples to litres juice	70%
Cidery revenue/L	\$8.00
Average cider ABV	6.5%
Excise tax per litre	\$2.84
Discount rate	8%
Time horizon years	20

\$25
per tree

10 hectares	
New orchard	
IRR	16%
NPV	\$1.23m
Redevelop existing orchard	
IRR	27%
NPV	\$1.76m
With mechanisation savings	
New orchard	
IRR	19%
NPV	\$1.29m
Redevelop existing orchard	
IRR	32%
NPV	\$1.86m

New 1 m litre capacity cidery	
IRR	21%
NPV	\$2.60m
Cidery revenue per litre	\$8.00
Distributor & Retail margin	50%
Retail price per litre	\$12.00
Per 750ml bottle	\$9.00
Per 500ml bottle	\$6.00

ABV: Alcohol by Volume IRR: Internal Rate of Return NPV: Net Present Value



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See *The Orchardist*, September 2023, for a detailed review of the Apata Group Ltd trial with a Safety II approach

Cultivating safety

A new era of workplace safety in New Zealand's horticulture industry

In New Zealand's lush landscapes, where the horticulture sector flourishes, a significant transformation is taking root.

The Grow Home Safe Project, funded through the Horticulture New Zealand (HortNZ) levy and an Accident Compensation Corporation (ACC) workplace injury prevention grant, is redefining safety standards across the sector. This project sprang from a critical need to address the rising incidence of workplace injuries, aiming to instil a culture where safety measures are as integral as the very crops being cultivated.

From the outset, the Grow Home Safe Project was ambitious in scope. It sought to overhaul existing safety practices by embedding a proactive safety culture through comprehensive training, the development of new programmes, and active engagement within the community. The initiative is structured around a series of strategic interventions designed to resonate deeply within the industry, from grassroots workers to top management.

From the outset, the Grow Home Safe Project was ambitious in scope.

It sought to overhaul existing safety practices by embedding a proactive safety culture.

The cornerstone of these efforts began with the insightful Mackie Research Report, which shed light on specific risks inherent to the horticulture industry. This report guided the creation of subsequent safety measures and became a pivotal resource for understanding how to target interventions effectively. Another key element was the Foundational Health and Safety Course, aimed at bridging significant knowledge gaps among workers, equipping them with essential safety knowledge tailored to their daily tasks and risks.

This course was developed collaboratively with SiteSafe and was a strategic component of the project's support initiative. It aimed to disseminate crucial health and safety resources and training in an accessible and practical manner. The course provided a foundational level of health and safety knowledge to workers in the horticulture and sector, addressing the challenges of variable worker competency and the generic nature of existing training options.

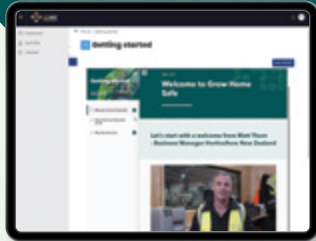
The course was designed for individual completion but also effectively used in group training sessions and refresher training for existing staff.

Further bolstering the project's foundation was the +IMPAC Risk Management Training, which enhanced participants' abilities to recognise and manage risks through scenario-based training exercises. This initiative was not just about learning in a classroom setting but about transforming those lessons into actionable insights that workers could apply in their everyday environments.

Perhaps the most stand out aspect of the project was the introduction of the Safety II / Learning Teams Approach. This methodology shifted the focus from merely reacting to safety incidents to a more holistic view that emphasises improving the safety capabilities of both individuals and organisations at large. It encourages ongoing dialogue and learning from safety events to prevent future incidents.

Real-world applications of these initiatives have demonstrated their effectiveness. For example,

The Grow Home Safe project is now complete, if you would like to know more about the initiatives developed head to the HortNZ website or email matt.thorn@hortnz.co.nz



LeaderBrand a vegetable growing enterprise in Gisborne, DMS Progrowers a kiwifruit and avocado packhouse and Apata Group Ltd both a kiwifruit packhouse and growing business adoption of the Learning Teams Approach led to a significant reduction in incident rates. The companies saw improved communication and procedural safety, which has been instrumental in fostering a safer working environment.

Similarly, Apata integrated new traffic management and manual handling practices, which not only reduced the risk of injuries but also enhanced overall workplace safety, demonstrating the practical benefits of the project's tailored interventions.

Feedback from the industry has been overwhelmingly positive, with many noting that the project has catalysed a shift from a reactive to a proactive safety culture. This cultural shift is crucial, as it represents a move towards sustainability in safety practices, ensuring that safety improvements are not just temporary but become a permanent fixture of the industry's operations. ●

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Winter chilling review

Richard Mills : Summerfruit NZ technical advisor

Over the past 40 years, the climate that we grow fruit in has got warmer as measured by a global sea surface temperature increase of 0.8°C. Deciduous fruit trees require cold during the winter to enable a successful wake-up in the spring. A good result is quality strong flowers and a short bloom period.

Winter chilling and cold temperatures are not necessarily the same thing, and there are a number of models that have been developed to enable comparisons and contrasts. Average temperature, hours under a nominated threshold (often 7.2°C or 45°F), and Richardson Chill Units or RCUs.

RCU model

The RCU model was developed in growth chambers using potted plants and seems to work well for New Zealand conditions. RCU optimum winter chill accumulation is at 4°C; no accumulation when under zero; and above 16°C accumulation can be taken away. When to start the modelling is another part of the matrix. Leaf fall would be a good time but if it is not cold, the RCU model doesn't accumulate anyway.

The comparisons used below are for the RCU model starting on 1 May and finishing at the end of August and allow for negative accumulation.

Requirements for winter chill vary between species and within a species, as seen in this table:

Species	RCU requirements
Apple	400-1000
Apricot	500-600
Cherry	700-800
Grape	100
Pear	600-800
European plum	800-900
Japanese plum	300-500
Kiwifruit	600-800

Early blooming varieties such as Royal Rosa apricots have a low chill requirement, while those such as Sundrop, developed in Canada, have a higher requirement.

The low chill grape requirement will help in understanding vineyards in Northland and Waiheke Island.

Potential impact of a warming climate

So, with the warming climate, are we going to run out of chilling? The average hourly RCU for the past 20 years and for the last five years, for some of our significant regions, is below chill requirements. Comparing these with the required amount of chilling suggests that there is some wiggle room. Interestingly, all the North Island weather stations are similar, as are the South Island stations to each other. Also worthy of note is that the past five years in the North Island have yielded about 150 units and the South Island, not many.

Weather Station	20-year average	Last 5-year average
Te Puke Research Orchard	1251	1114.7
Bay View Station	1222	1087.2
Longlands Road Station	1262	1113.4
Havelock North Research Orchard	1257	1140.7
Renwick Station	1557	1526.2
Riwaka Research Orchard	1584	1519.1
Clyde Research Orchard	1510	1510.7

The Havelock North station is typical of all the North Island stations with a decreasing trend and lots of variability. The poor 2016 year is mirrored in the other districts, so is unlikely to be due to a malfunctioning recorder. The trend line for Renwick (Marlborough), and Riwaka is flatter (showing slower long-term change) and Clyde Research Station has a marginally increasing trend.

La Niña and winter chilling

An attempt to pick up a correlation with La Niña events (2007, 2010, 2018 and the latest triple dip in 2020, 2021, 2022) affecting east coast stations is not really there. Common sense would suggest that cloudy years would be warmer, particularly at night, and therefore, there might be less chill accumulation.

Havelock North Research Orchard



Low chill varieties tend to mature first, are smaller in size and don't have the eating quality of main crop varieties. This seems reasonable as they have not been exposed to the same amount of sunshine. Once the main crop varieties are ready, it is unlikely that consumers would knowingly buy the low chill product.

Crystal ball

This year, the chill accumulation is very good: it is in the top five of the past 20 years, as of mid-July. Experience would suggest that a good start will lead to a good finish. But where we will be in five or ten years, who knows, and I am not in the prediction business. However, there doesn't seem to be a need to get too excited just yet, not that I want that thought to come back and haunt me. ●



Acknowledgements: Bryn Thompson at HortPlus, Mark Bart from Metris



“

This year, the chill accumulation is very good: it is in the top five of the past 20 years

Innovative solutions needed for Kiwi job seekers

Unemployment is rising. Matching the available workforce with growers is more important than ever, says Graham MacPherson, Northland Regional Commissioner at the Ministry of Social Development (MSD). He encourages growers to get involved in the recruitment process and help find innovative solutions to get New Zealanders working on our farms and orchards.

Earlier this year the Prime Minister announced a target for MSD to reduce the number of people receiving Jobseeker Support by 50,000 to 140,000 by June 2029. It is a challenging goal for the Ministry, which wants to engage with growers to help find solutions.

“The targets set for us are ambitious and we can’t achieve these by ourselves,” Graham says.

We all want New Zealand communities and our economy to thrive. Rising unemployment affects us all. In the year ending in June 2023, Treasury spent almost \$3.5 billion on Jobseeker Support and emergency benefit. The number of people on Jobseeker benefits has increased by about 70,000 since 2017, and about 40,000 more people have been receiving this support for a year or more.

Young people are disproportionately represented, comprising the highest percentage of all age groups in receipt of the Jobseeker Support benefit.

Equally the horticulture sector has its own ambitious targets, which will only be achievable if more people join the workforce. Relying on migrant labour and the Recognised Seasonal Employer (RSE) scheme is not a sustainable solution while unemployment at home grows.

“New Zealand needs immigration, there’s no dispute with that,” Graham continues. “It’s important we’re able to recruit people internationally for specialist roles and to fill gaps in the labour market. But parallel to that is the importance of us having access to the jobs for New Zealanders.”



Graham MacPherson is the Northland Regional Commissioner at the Ministry of Social Development

MSD asks that before employers hire migrant workers, they really think about what they need and whether they could train up a New Zealander.

“We have almost 12,000 job seekers in Northland. I’m confident that we have people suitable for employment in the industry. Somehow we’ve got to find the right balance.

“Part of the onus of finding the right balance belongs with us and the regions, but it’s also part of the relationships that we need to have with the growers and industry. If there are fundamental challenges in those relationships, then I want to be at the table having conversations with growers to iron those out.”

If you’re recruiting, MSD asks that you list your vacancy with them first – after all, they are New Zealand’s largest recruitment agency.

However, MSD recognises that the seasonal nature of horticulture work is a challenge that requires a collective response. It is important, Graham says, to find ways to keep people in sustainable employment that doesn’t end after a few weeks of picking.

“It’s quite hard for people to manage in that space. If we can better align that productivity in the calendar, you’ll have more people that will stay in the industry and see it as an industry job as opposed to a seasonal job. We want to invest in sustainable jobs – in people not coming back through our front door. Nothing is going to support industry like getting the right people and having a bit of sustainability around the jobs.”

MSD can provide tailored support for industry employers to share the workforce and in turn, provide sustainable full-time employment across the sector.

Each region has dedicated seasonal/horticulture teams to support the industry to develop regional solutions to regional issues. The New Zealand Seasonal Work Scheme (NZSWS) helps to remove some of the financial barriers to seasonal employment through helping with daily transport, clothing, training and accommodation costs.

Seasonal Work Assistance is available for seasonal workers who are no longer getting a benefit and have lost wages because of work missed due to bad weather.

Support also includes industry-specific training, short-term pre-employment or in-work training, and mentoring. MSD also provides tailored support for those who have more significant barriers to employment.

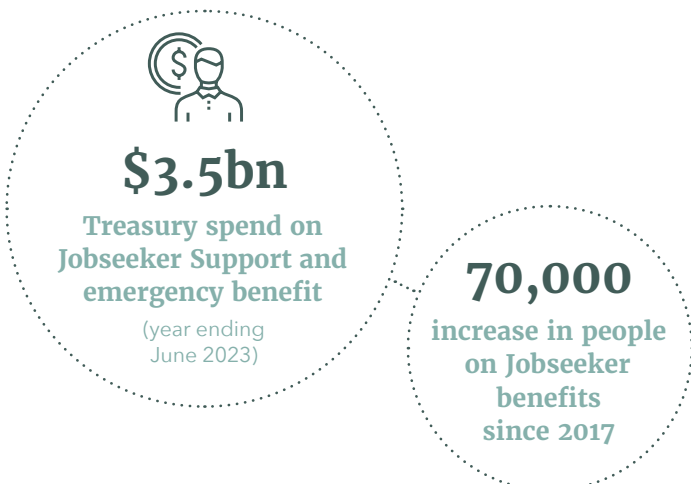
“If you’re recruiting, MSD asks that you list your vacancy with them first - after all, they are New Zealand’s largest recruitment agency

“We’re keen to work alongside the horticulture industry to educate young people on the industry’s value and career pathways and support them into sustainable employment.”

The key message for growers is to participate in the process when you are working with MSD to ensure better employment outcomes.

“I encourage you to ask about the opportunities to be part of the recruitment process to find employees for your business. It’s about having an active relationship rather than a passive approach.

“We need horticulture to do well. The benefits come back into the regions. Having a good workforce aligned to industry demand is essential. With increased numbers of crops and plantings, it’s important to have a coordinated approach to how you’re going to harvest.”



However, Graham acknowledges the expectations of being a genuine job seeker and motivated future employee in horticulture.

“We’re setting clearer expectations - people need to be actively looking for work. In June, we started 26-week job check-ins, so when people with work obligations have been on Jobseeker Support for about six months, we’ll catch up with them to discuss what progress they’ve made to find work, and check what support they might need.

“I think it’s critical that if people have just lost a job, the best time to get a job is now. It’s about getting people entered back into the labour market as quickly as possible because the longer people stay with us, the longer they’ll stay with us.” ●

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The Perth-based Skin Elements formulation team at work

From skin protection to crop protection

A specialist formulation laboratory in Western Australia is using its 20 years of expertise in natural organic wellness products for human health to focus on a solution for horticulture.

As pressure grows to find safe and sustainable solutions for crop health, research is turning to mechanisms which stimulate the plant's natural defenses against microbial diseases.

Research company Skin Elements Limited set out to find a formulation that was entirely plant-based, providing an eco-friendly bio-stimulant product that would also deliver results for the grower.

As concern grows around chemical residues, growers find themselves with fewer options to combat the growing microbial pressures on crops. When it comes to kiwifruit, healthy vines are the single biggest factor in achieving optimum yields and fruit quality. Unfortunately, in recent times in New Zealand as around the globe, factors such as Psa (*Pseudomonas syringae* pv. *Actinidiae*) and extreme weather events including flooding have put vines under immense pressure. The ability to withstand and recover from challenges can make a huge difference to outcomes and this is where high quality, thoroughly researched bio-stimulants can play a vital role.

ECO-Nurture plant bio-stimulant has been extensively trialled in New Zealand during the 2023 growing season, and alongside the excellent environmental profile of this product, the results have been sufficiently promising for Zespri to include ECO-Nurture on its 2024-25 Allowed Other Products Schedule.

Says Peter Malone, executive chairman, Skin Elements, "The outstanding results that ECO-Nurture has achieved is a further testament to the widespread efficacy of the SE Formula™ technology whilst maintaining natural and organic naturopathic principles." ●

ECO-Nurture is available at all Horticulture outlets, or for enquiries contact ECO-Nurture New Zealand on **0274 425 408**. For more information visit www.ECO-Nurture.com.au



New tool for nitrogen management

Nitrogen management is more important than ever to mitigate losses to the environment.

Nitrogen (N) is a key nutrient for fruit crops, often required in relatively large amounts compared to other nutrients. An excess of nitrogen is undesirable as it can cause excessive vegetative growth, and may lead to fruit with poor quality and storage characteristics.

Potentially Mineralisable Nitrogen (PMN) is a new test that offers a more robust prediction of the nitrogen mineralisation potential in cropping and horticulture soil. The PMN test is a more accurate replacement of the traditional Anaerobic Mineralisable Nitrogen (AMN) test.

Nitrogen is available in two forms in soil:

- **Mineral N** = readily available nitrate-N and ammonium-N
- **Mineralisable N** = N that is released (mineralised) from soil organic matter through microbial activity over the growing season

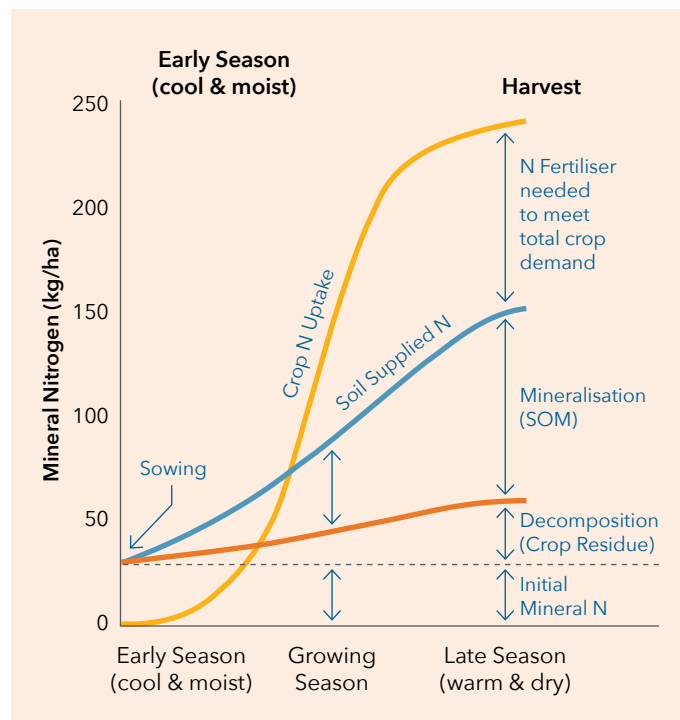
The diagram above describes the source and uptake of nitrogen for crops over a growing season. Nitrogen must be in a mineral form to be taken up by plants, whether that comes from the soil or from nitrogen fertiliser.

Mineral N in soil is directly measurable using existing laboratory tests which provide a point-in-time value. Testing often occurs at the beginning of the main growing season, and sometimes just prior to any side-dressing. Tests are usually done on soil samples taken at 0 - 30 cm in depth (or 0 - 60 cm), and results can be easily converted to kg N/ha using an appropriate field bulk density factor.

“

Potentially Mineralisable Nitrogen is a new test that offers a more robust prediction of the nitrogen mineralisation potential in cropping and horticulture soil

The newly researched PMN test is calculated from a laboratory measure of hot water extractable organic nitrogen (HWEON). The PMN test has been calibrated from extensive laboratory and field research recently



Stylised diagram showing source and uptake of nitrogen for crops over a season (Source: M Beare et al, Mineralisable N to improve on-farm N management, 2022)

completed in the Sustainable Food and Fibres Future Project 'Mineralisable N to improve on-farm N management'.

The PMN test only provides a 'potential' measure of the nitrogen that may be released from the soil organic matter under ideal conditions. The actual amount mineralised depends on moisture and temperature conditions over the whole growing period. Where the climate is warmer and wetter, a higher amount of nitrogen will be mineralised compared to a cooler and drier climate.

The range of potentially mineralisable N in cropped soil can vary greatly, from 40 to 300 kg N/ha per year depending on a range of factors. Measuring this potential supply for each crop block is very useful to determine additional inputs for good crop yield and quality and to avoid potential losses to the environment.

Complementary tools such as leaf and petiole analysis at specific growth stages help with informed nitrogen use decisions. Compost is a diverse material and testing it when used as an input is beneficial, particularly for the carbon to nitrogen ratio, which affects the availability of nitrogen for plant uptake.

The Hill Labs website (www.hill-labs.co.nz) has an extensive range of information, including services offered and crop guides, to assist with recommended sampling protocols and key tests. Testing provides the vital information needed to manage available resources more precisely, for both production and environmental benefits. ●

For more information visit www.hill-labs.co.nz

Trimax is proud to announce the release of the Trimax Fury

The Fury is Trimax's latest addition to their horticulture range – a commercially built, gear-driven rotary mower delivering market-leading cut quality and reliability in the tough conditions often found in horticulture and viticulture.

The Fury builds on Trimax's existing horticulture and viticulture range, which includes a wide variety of flail and rotary products, all designed and built in New Zealand for New Zealand conditions.

With over 40 years of experience in the New Zealand horticulture industry, Trimax designed the Fury in response to customers requesting a durable, low-maintenance gear-driven mower. This feedback, along with extensive testing in the field has resulted in a strong, reliable orchard mower with the cut quality synonymous with the Trimax name.

The Fury comes in three cutting widths: 1.6m, 1.8m, and 2m.

Durable Design

Trimax, understanding that different areas of the country have different durability requirements, created two main models for the Fury:

Standard-Duty Model

Features a **10mm** body reinforced with **10mm** stiffeners around the gearbox mountings. The rollers are **6mm** thick.

Heavy-Duty Model

Features a **15mm** thick body reinforced with **10mm** stiffeners around the gearbox. The rollers are **13mm** thick.

Certain design features were implemented in the construction of the body to make the Fury as durable as possible. Through consultation with orchard and vineyard managers, Trimax found that other gear-driven mowers often experienced cracking around the roller mount sites due to the mounts being bolted to the body rather than welded. All main mounting sites on the Trimax Fury, including the headstock, are welded through the body and monocoque.



Trimax Fury mowing in vineyard

As with other Trimax products, the Fury features an industry-leading warranty of three years for non-consumable parts, excluding the gearbox and rotors, which have a two-year warranty.

Ease of Use

One of the notable features of the Fury mower is the Titan roller bearings. They have a five-seal system that protects against dirt and moisture entering the bearing internals, ensuring a long life in tough conditions. The Titan bearing also contains a sealed, greased hub, removing any maintenance requirements over the life of the bearing.

Additionally, the Fury's unique clamped coupling design allows for the replacement of metal coupling components without the need to remove the gearboxes, further easing maintenance procedures.

The Fury has a range of options that make it suitable for a wide variety of horticulture and viticulture mowing requirements. The Fury offers two different discharge options: Side discharge allows the operator to discharge material out the side of the mower and under plantings to increase moisture retention and prevent the growth of weeds. Rear discharge evenly discharges clippings out the rear of the mower for orchards where side discharge isn't suitable. The Fury also has the option of swapping the rear roller for castors, which improves travel in soft or sandy soils.

With exceptional toughness and low-maintenance brilliance, the Fury highlights Trimax's commitment to providing reliable, high-quality mowing solutions to the New Zealand horticulture market. The Fury's robust design, user-friendly features and strong warranty make it a practical choice for professionals seeking dependable and efficient equipment. ●

NEW RELEASE

TRIMAX
FURY



**TO CELEBRATE THE LAUNCH OF
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- ✓ No daily maintenance
- ✓ Robust, durable design
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The Premier of the People's Republic of China, His Excellency Li Qiang, and members of the Plant & Food Research team. Photo courtesy of Plant & Food Research

Care for our Chinese consumers

After years of rapid trade growth with China, New Zealand's primary sector is feeling the pinch as growth in the world's second largest economy falters. However, new research highlights the special place that New Zealand holds in the hearts and minds of Chinese premium food consumers.

John Gauldie

Despite increasing competition and pressure on pricing, horticulture's largest market seems ripe for continued export growth if we can successfully manage the added value of brand New Zealand.

Horticulture was on the menu during the recent visit of China's Premier Li Qiang, the highest level Chinese visit to New Zealand in seven years. The delegation visited Plant & Food Research in Auckland to learn about ongoing research collaborations with Chinese organisations.

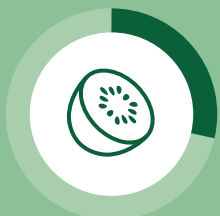
While the Chinese and New Zealand governments undoubtedly have many policy issues to discuss, the relationship between Chinese consumers and our New Zealand fruit and vegetable produce continues to blossom.

China has become New Zealand horticulture's largest export market (excluding wine), overtaking the European Union, and is poised to be our first market generating more than \$1 billion.

However, across the primary sector Chinese demand for New Zealand imports is softening as Chinese consumer confidence and household discretionary spending weakens, according to the Situation and Outlook for Primary Industries published by the Ministry for Primary Industries in June.

The outlook for horticulture exports to China looks more rosy than for other primary sector exports. China is an important market for New Zealand cherries and frozen peas.

CHINA IS THE EXPORT DESTINATION FOR:



29%
of **kiwifruit** exported from New Zealand (kiwifruit's largest market)

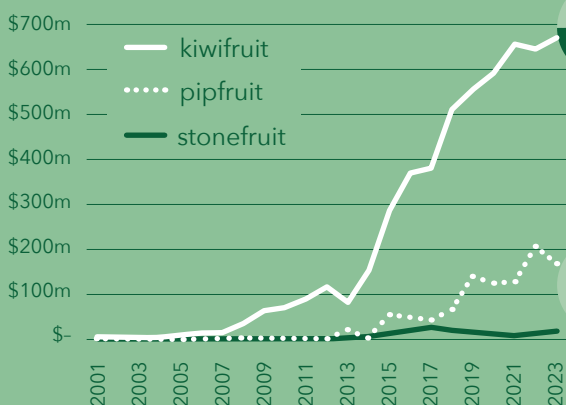


19%
of New Zealand **apples and pears** (pipfruit's largest market)



7%
of fresh and **processed vegetables** (mostly frozen peas)

EXPORTS TO CHINA: HORTICULTURE



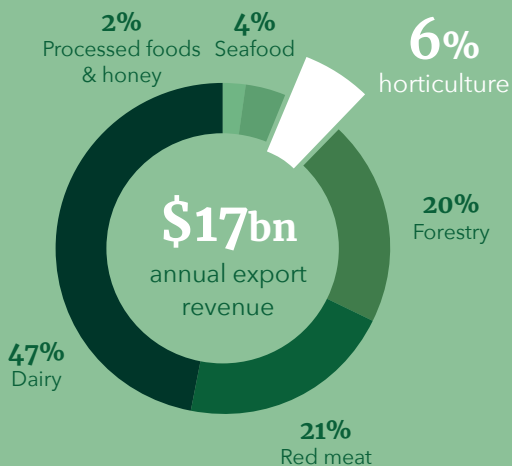
Kiwifruit
~75% of NZ horticulture exports to China



Pipfruit
~15% of NZ horticulture exports to China

EXPORTS TO CHINA: PRIMARY SECTOR

China is not only the largest market for New Zealand's horticulture, but also for our dairy, red meat, forestry and seafood sectors, worth a total of \$17 billion in annual export revenue.

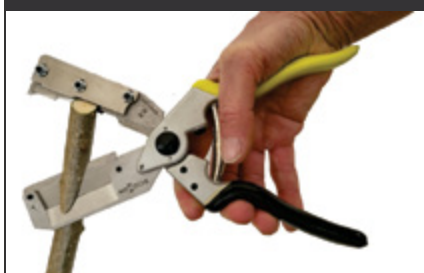


Source: Statistics NZ



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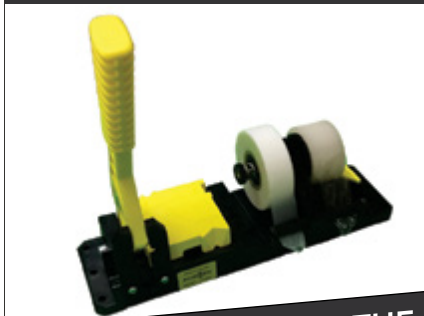
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Kiwifruit and pipfruit exports in 2024, aided by a strong harvest, continue to see strong demand with the volume of kiwifruit to China on track to grow by more than 40 percent following a large increase in the New Zealand kiwifruit crop.

Zespri has performed strongly in China despite the downward trend in local spending on fresh produce and it is working hard to maintain this, especially with increased local fruit now available.

Continued investment is necessary to protect our position and defend our intellectual property (IP) and brands. Incidents of unauthorised growing and counterfeit packaging are obviously a major concern.

New Zealand is a counter-seasonal supplier to Chinese consumers, but also shows great promise as an added value supplier thanks to our strong country-of-origin brand value in China. According to recent New Zealand Trade and Enterprise (NZTE) Made with Care research, China's premium consumers have a high awareness and consideration of the New Zealandness of the food and beverage products that they buy. It's a big contrast to countries like the United States, where awareness of New Zealand is much lower and the New Zealandness of a product matters much less to consumers.

"We know through Made with Care research that New Zealand has a premium food and beverage 'brand' in China - and horticulture benefits from that alongside other primary produce categories," says Fiona Acheson, head of food & beverage and consumer goods at NZTE.

“
Some parts of Greater China have the highest per capita consumption of fruit in the world



While most of the world considers New Zealand's dairy, red meat and wine as our top premium products, China is the only country in NZTE's research where New Zealand fruit has a place on the podium. Much of this is driven by the popularity of Zespri kiwifruit. This year more than one billion pieces of Zespri kiwifruit are expected to be sold in China, with 'New Zealand' printed on the sticker of each piece of fruit. This is despite horticulture's relatively small contribution to New Zealand's food and fibre exports to China - currently about six percent of total export revenue.



China's Premier Li Qiang visited Plant & Food Research in Auckland during his recent visit to New Zealand. Photo courtesy of Plant & Food Research

In China, fruit is one of the most popular products from imported categories and demand has grown strongly in recent years following the rapid increase in premium fruits, particularly durians and cherries. China's imported fruit category last year overtook total imported dairy products for the first time.

"Fruit is an important part of the Chinese diet - some parts of Greater China have the highest per capita consumption of fruit in the world," Fiona says. "Kiwifruit alone has been iconic for New Zealand fruit. There is a strong association on the marketing - when thinking of New Zealand, kiwifruit pops out."

New Zealand has traditionally struggled to create premium value from its country-of-origin branding, which has associations of sustainability, environmental responsibility, ethical choices and naturalness. These traits tend to rank low compared to claims consumers look for in premium products, such as associations of high quality, competence, established fine dining perceptions, and clearly identifiable and recognised cuisine.

However, New Zealand's particularly high standing in China clearly has a lot to do with trust and safety - factors which remain important in the Chinese market, Fiona explains.

"China is a market where food safety incidents have historically impacted on trust and perceptions of food, making them higher priority claims in this market. However, this does not remove the need for products which taste good.

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“Trust in food safety and quality is something we see as a ‘core need’ among consumers in order to sell in the market to begin with, but this is less of a driver of premiums.”

Once products have delivered on taste, trustworthiness and affordability, additional claims can then be used to develop a premium for the target consumer groups of interest.

The research shows that for Chinese consumers of fruit in particular, there is value in showcasing sustainability, nutritional claims, traceability and provenance to support a price premium.

Strong perceptions of sustainability and environmental friendliness set up brand New Zealand to be more closely tied to perceptions of organic production. The ‘organic’ claim caters to a specific segment of consumers who actively look for such attributes. China’s demand for organic food has grown at a fast pace in the past decade and it is expected to continue growing.

“Different claims appeal to different consumer groups, and so it is important to understand those groups being targeted and what they are looking for in the products they buy,” Fiona says.

However, there is also increasing competitive intensity from European market players, most notably from Italy and France, who are becoming more active in the Chinese market.

NZTE’s Made with Care campaigns are one way that New Zealand has promoted our brand in China for the past few years with a good level of customer recognition, especially in the digital space. For 2024 a Made with Care digital campaign focusing on New Zealand apples was carried out to increase the awareness of millions of Chinese consumers.

A recent trip organised by the NZTE Accelerate China programme helped shape the future direction for Darling Group in China, says Jacob Darling, chief executive of JH Leavy & Co., part of Darling Group.

“The programme highlighted the importance of investment in this market in terms of personnel and time as well as being extremely focused on who your customer is and how you will optimise your offer in China.

“New Zealand origin is part of Darling Group’s business story but at a customer level when discussing our products, the most important aspect is demonstrating constancy and quality of our avocados as a first step.

“The market drivers that apply to avocados in China (and more widely in Asia) are wellbeing and versatility of product. Chinese consumers are looking for more than an origin story - they are looking for how this origin story or other unique selling point translates to unique benefits for their lifestyle and wellbeing.


“We also need to have relevance in terms of volume and visibility. We are working towards this through our 12-month supply strategy which incorporates fruit from other origins to complement New Zealand’s harvest season.




Visit NZTE’s website www.nzte.govt.nz to download the consumer global summary research report. You can learn how foodies in China, Japan, Australia, the United States and the United Kingdom perceive New Zealand’s premium F&B ‘brand’, so you can tailor your product offer for greater impact.

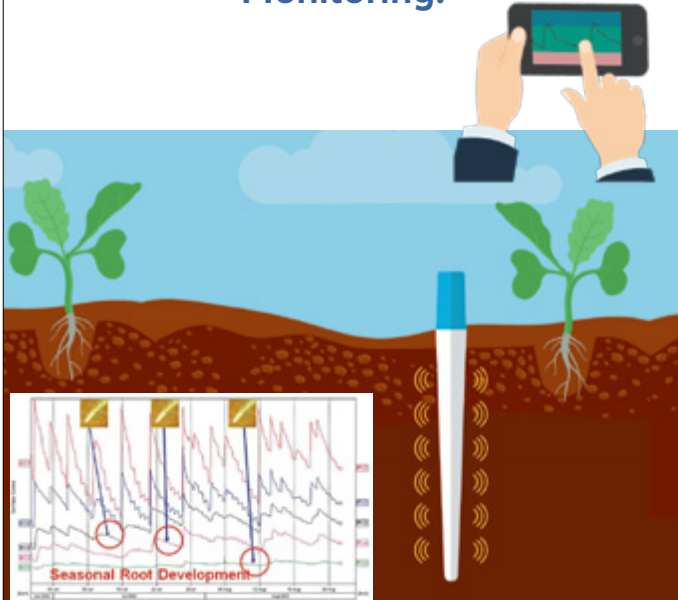
“Long term we need to be on the ground working to better understand the complexities and opportunities the market has to offer.”

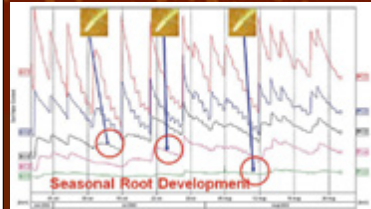
Meanwhile, market access negotiations with China continue for many product groups. Currently only 11 fresh fruit (kiwifruit, lemons, mandarins, oranges, persimmons, apples, avocados, cherries, plums, pears and grapes) and six fresh vegetables (celery, squash, yam, bottled gourd, peas and beans) can be imported from New Zealand. ●






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Two magazines in one – your feedback

For the last 18 years, Horticulture New Zealand has published NZGrower and The Orchardist as separate magazines – sent to vegetable growers and fruit growers respectively. As you will have noticed, our two magazines have been presented to you as one head-to-tail publication for the June, July and August issues.

Kate Longman: HortNZ general manager engagement

For the first time, all fruit and vegetable growers received both magazines in one. This was a first step as we evolve the magazines toward the future. We believe it makes sense to bring our horticulture sector together.

Thank you for your understanding throughout the trial. We also thank our advertisers who continue to make *NZGrower* and *The Orchardist* possible, as they have throughout the many evolutions of the magazines over the years.



Your feedback is welcome

We want to hear from you on what you thought about the most recent changes. Can you please take two minutes to complete this survey on the future of the *NZGrower* and *The Orchardist* magazines?

This feedback will inform the future direction of HortNZ's print communications channel. Follow the link below or use the QR link.

Upcoming changes in September

The head-to-tail format was a first step as we trial different formats. From September we will trial a different approach as we look toward the busy spring months.

The outcome of the trial will determine a renewed publication to better serve you and all our commercial fruit and vegetable growers in 2025.

If you have comments or questions now, please contact me at kate.longman@hortnz.co.nz or call **029 770 9874**.

