

Optimism returns

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Better Together: Solutions to help maximise your harvest value.

With 20 years of experience gained in very diverse and sometimes dramatic conditions, the AgroFresh team is setting itself for 2024 season and working alongside customers to achieve the best result for their businesses.



With a track record for working with customers in applying our pre- and post-harvest ethylene management expertise, we are exceptionally well placed for providing solutions to customers and helping maximise the value of their harvests.

Following the most recent season, our 20th, we took the opportunity with several customers and business partners to reflect on our journey so far. Here are a few of their comments that are both gratifying and very humbling.

AgroFresh has become a post-harvest leader in the apple space. It's brought a paradigm shift in growing, storing and marketing.

They have invested a lot in R&D to have top quality products.

It has a good record of bringing through new tools, and they still have a lot more to come."

SmartFresh made this good apple a truly great one.

We are now getting a seven- to eight-month selling season.

Without it I'm sure there would be a loss in packout and increased quality claims."



Given our range of varieties, Harvista allows us to spread the harvest, delay maturity and improve colour.

In achieving profitability, you cannot replace good harvest timing; this product allows such timing."



You can read these testimonials in full here:



For fast and efficient Harvista™ applications, just look up

AgroFresh introduced Harvista to our New Zealand customers in the 2021 season. It has allowed them to manage fruit maturity, achieve better quality and higher yield, expand the harvest window and gain more flexibility in labour and harvest management.



Until now Harvista has been applied using an orchard sprayer system. The impacts of Cyclone Gabrielle in Hawke's Bay resulted in regulatory support together with NZ Apples and Pears and Horticulture NZ to get Harvista applied from the air within 2 weeks. Growers were able to salvage their harvest where a ground application Harvista was not possible and delay maturity until pickers could access orchards.

The aerial application of Harvista is now registered with the ACVM. As with SmartFresh™, aerial applications of Harvista will be managed by AgroFresh as a service direct with its customers.

As more customers are keen to achieve the benefits of Harvista, application by helicopter is expected to become more broadly adopted. It will shorten spray times and help reduce customers' investments on sprayers and tractor equipment.

Ag Tech solutions from AgroFresh

FreshCloud™ is an integrated digital platform providing end-to-end visibility into fruit quality inspection data, reporting and insights. The AgroFresh team works closely to tailor FreshCloud to specific operations and existing IT systems no matter how big or small. It helps bring inspection data together for growers, packers and exporters for making informed decisions about their fruit quality in real time.



AgroFresh is launching a monitoring service using Strella wireless sensor technology that measures ethylene, CO₂, O₂, temperature and humidity for interpreting the relative maturity of apples in controlled atmosphere storage. Strella sensors are designed to track ethylene trends and guide rooms being opened at the right time, avoiding loss due to over maturity. The data from the sensors is presented as a dashboard which is accessed in real time by the customer via AgroFresh's FreshCloud data platform.



As we enter our 21st season, the **AgroFresh NZ team** can be relied on for combining our expertise, solution-based technologies and services to provide a **Total Quality System** experience across the supply chain for customers.

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2023 is a year we will remember!

It started off with the worst weather imaginable, had plenty of drama and intrigue in between, and ended up with us getting a new trifecta government that collectively has promised everything!

Barry O'Neil : HortNZ president

A change in PM with Chippy taking the reins early in the year, multiple ministers resigning after they lost their way, a 'new' 74-year-old king for New Zealand, and the last of the Covid-19 restrictions finally being removed, were to me some of the notable events that happened. Up the Wahs is now part of our lexicon, and we even nearly won the Rugby World Cup - unfortunately we came second, but well done to the boys in black who did New Zealand proud!

It's also been a huge year for Horticulture New Zealand, with too much significant policy change being pushed by the outgoing government, trying to finish off what they had started before the election. The most contentious being labour reforms with totally unnecessary costs being imposed on employers, environmental freshwater reforms that significantly restricted what could be grown and where, and pricing for emissions being imposed before technology is available to mitigate.

And then there was Cyclone Gabrielle, the impacts of which will be with us for years to come, especially in Hawke's Bay and Tairāwhiti. It's heartbreaking still to see the destruction that Gabrielle caused, but also wonderful what a difference spring can make, and seeing apples in flower in lovely warm Hawke's Bay weather is a wonderful sight! I am very proud of the work that the industry and HortNZ did in supporting growers in the immediate aftermath, as well as the ongoing work in securing government support to assist growers in getting back on their feet.

A really positive highlight for the year but one that isn't often front of mind or in the news so much, is with the programme of work called A Lighter Touch, which is changing our approaches to crop production with a transition from agrichemical pest management to agroecological crop protection. Some really exciting work is happening across multiple product groups in



finding ways of growing that require fewer agrichemicals, and I congratulate all involved, and we want to be doing everything we can to ensure this work continues.

The Aotearoa Horticulture Action Plan being finalised and transitioning to implementation is for me a wonderful achievement and another highlight. Especially with all the challenges during the year it's really easy to focus on the problems, rather than investing time and resource in the opportunities. HortNZ is committed to doing its part to finalise the action plan and has fully aligned its own strategy with it, and we look forward to working with industry and the new government on enabling its implementation.

As we wrap up the year and think about what just was, it's good to also be thinking what will 2024 deliver for us? First on my list would be better growing conditions than what we have just endured and suffered, which for growers hopefully the El Niño system will bring, but we also know there are some really big challenges ahead for us all and for our country.

In any country there is only so much taxpayer funding that can go around, and always there will be tensions with what is the highest priority. Health care, law and order, education and welfare support are all very important but they also are big users of the taxpayer dollar, and borrowing excessively to fund these only leaves a difficult legacy for our grandchildren. Getting our economy working for New Zealand has to be the number one priority for the new government, so we can continue to afford and deliver what our country needs.

Horticulture has become a significant part of our economy and will be even more so in the years ahead, as well as being so important for enabling us to have healthy lives. We are calling for this government to have a greater focus on horticulture, and not for it to be a subset of a future pastoral



“
Seeing apples
in flower in lovely
warm weather
is a wonderful
sight!”

Photo by Florence Charvin

focused agriculture minister's portfolio. The Ministry for Primary Industries also needs to have a specific focus on horticulture, as they do for fisheries and forestry, so that we can get greater understanding of our sector, and greater ability to work together on future opportunities and issues.

“
**We are calling for this
government to have a
greater focus on horticulture**



Finally, while it may sound appealing for a new government to repeal legislation, like the Natural and Built Environment Act, such actions won't come without challenges - including what replaces it, and do we go back to the old Resource Management Act which we all know wasn't working that well at all, that is assuming it is never going to be a free-for-all?

And for me whatever the legislative changes that will be happening, they don't take away our need and responsibility to grow better, whether that is because of the changing climate, whether that is because of a catchment's poor water quality, or whether that is because we absolutely must maintain our social licence to operate with our communities. We actually don't need to wait for government direction, and it's great to see so many horticultural companies and growing businesses having decided to get on with doing what they believe is needed irrespective of government direction, and as such positioning themselves for future success.

Thanks to our members for your support over 2023, and thanks to our chief executive and staff for the tremendous work over the year. My best wishes to all for this Christmas period, and while it's a busy growing time of the year I hope you find time away from your work to spend with family and friends.

Meri Kirihimete me te Hape Nū Ia! ●



'Tis the season

Wishing you a fruitful Christmas

May you reap the rewards of your labour this harvest and enjoy a favourable growing season in 2024.
Merry Christmas.



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Adversity yields learnings for a better future

The year 2023, which brought so much pain to so many, especially our growers, is drawing to a close, and many of us won't be sorry to say goodbye to the past 12 months.

Nadine Tunley : HortNZ chief executive

The year began with the Auckland anniversary weekend storm and got worse by Valentine's Day when Cyclone Gabrielle caused havoc across the Hawke's Bay, Tairāwhiti Gisborne, Northland, Bay of Plenty and northern Manawātū regions. I know many growers, their families and staff are still trying to recover emotionally and financially; it has been a very long and arduous road, our thoughts are with you all.

On reflection, 2023 did deliver some positives for horticulture, and as is the nature of our industry and our growers, learnings for a better future have been found from adversity.

The heartening thing that I witnessed during all of these horrendous times was the camaraderie and collaboration amongst communities and wider New Zealand. People often ask me why I do my job and at the very core of it, it is because the horticulture sector is by in large made up of people who come to work every day because they care. You care about producing food that nourishes everyone, you care about the land that you

produce that food from, and you care and take pride in how you achieve these things. It is this pride and care that creates an environment and magnetism where I and others in our sector want to support this cause.



On top of the challenges Mother Nature threw at us in 2023, there were the added and often unrelenting regulatory and compliance changes that the previous government wanted to push through before the election, again with such a cyclone-like style in delivering much of this change that we all had to brace for the worst and hope for the best. In some cases, however, we had some positive outcomes, and after six years of hard work by the Horticulture New Zealand environment policy team led by Michelle Sands and supported with robust grower advocacy, we were rewarded in August with news that the Natural and Built Environment Act (NBA) would support commercial fruit and vegetable growing in New Zealand. This is an explicit recognition of the importance of food security for generations to come.

At times when I write about how resilient you all are as growers I cringe because you are having to be resilient in the face of adversity. With the passage of time however, there are always learnings and hence usually improvements, and we saw this play out in Pukekohe in January when the benefits of planning ahead were clearly demonstrated. While rain washed away some crops in just a few hours, the extent and degree of damage was significantly less than Pukekohe growers have previously experienced. That's because in the last 25-plus years, growers, councils and the wider horticulture industry have worked to form the Franklin Sustainability Project and an Integrated Stormwater Management System for parts of Pukekohe Hill.

Then in February immediately after and during Cyclone Gabrielle, growers, industry groups, district associations and Horticulture New Zealand sprang into action to help those suffering its impacts. I know of growers who used resources like helicopters and tractors to rescue people. Some of those same growers had also lost everything - their crops, machinery, homes and all their possessions. We are all grateful for your selfless actions.

Following this, primary sector leaders got together to develop a plan to address immediate needs, as well as the long-term recovery of the affected regions. As the frequency and severity of adverse weather events increase, steps to mitigate or reduce damage become even more crucial.

In early February there was a positive for horticulture with the launch of the *Aotearoa Horticulture Action Plan*. This document was over two years in development, with extensive consultation across the partners of industry, science, Māori and government. It is a plan ultimately working on initiatives to double farmgate values by 2035 in a way that improves prosperity for our people and protects our environment along the way.

On any road to recovery, it is important to network, socialise, plan and envision a brighter future - which is exactly what our inaugural Horticulture Conference Week (31 July to 4 August) gave our industry participants the chance to do. It was a rich smorgasbord of content and while no one was denying the challenges, the tone of the week was forward looking and positive and celebrated our theme *sharing successes to strengthen our future*.

I know the horticulture industry stands ready and willing to continue to make a significant contribution to growing a prosperous and sustainable economy while ensuring food security for New Zealanders.

But to do so we must first take care of ourselves and our loved ones. Please take some time to relax and celebrate the festive season together and look forward to a brighter 2024. ●



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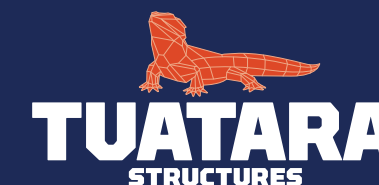


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YOUR INDUSTRY

ACROSS THE SECTOR — ACROSS THE COUNTRY

Bumper
summerfruit crop

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YOUR INDUSTRY



Tom Heeney and Fee Edwards own EHC Orchard Management and grow 18.5ha of kiwifruit

Hanging in there in green

Hayward kiwifruit has had two back-to-back challenging seasons. Next season Zespri is forecasting green returns per tray at \$9.00 compared to last season's \$5.78. However, as one green grower tells CARLY GIBBS, hugely fluctuating returns and high investment costs still make sticking it out with green a tough decision for many growers.

Tom Heeney and Fee Edwards own 18.5 hectares of kiwifruit, and while 7ha of that is gold, and cream of their crop, they haven't lost hope for their remaining 11.5ha of green.

"I still like green as a product, I still like growing it, and I still like eating it," Tom says.

The couple owns Edwards Heeney Consulting Ltd (EHC) in Te Puke, where they employ upwards of 50 staff and manage 550ha of Bay of Plenty kiwifruit.

After two challenging back-to-back seasons due to labour shortages and severe weather, the financial viability of growing Hayward is increasingly being questioned.

Top of many green growers' minds, says Tom, is orchard gate returns (OGR) that don't have "massive fluctuations" year-on-year.

At the start of this year, green growers had 50c a tray slashed off last year's crop due to ongoing quality issues,

having already suffered a \$1.95 tray reduction last August. In total, the variety faced a downgrade of \$2.80 a tray on quality grounds, or almost \$180 million. Then, after this August's forecast of \$8.10, Zespri's November forecast raised the OGR to \$9.00 per tray.

"One year you are making okay money, and the next year you're breaking even. Gold is not typically doing the massive yo-yos like green is," Tom says.

Added to this, labour costs are high, and most "Joe Bloggs growers" are mainpack growers, meaning only a minority receive Zespri's KiwiStart early taste payout, which significantly ups earnings.

Growers need a consistent yield and a good price per tray to feel content, he says.

Tom has over 40 years of rural experience behind his opinions and has held many roles on the way to becoming an orchard manager and owner.

He was brought up on a dry stock farm in Hawke's Bay before his parents moved to the Waikato, and then Te Puke when he was 13, buying their first kiwifruit orchard in 1980 and eventually going on to acquire over 30ha and a packhouse, which was later sold to Huka Pak.

“

Top of many green growers' minds is orchard gate returns that don't have "massive fluctuations" year-on-year



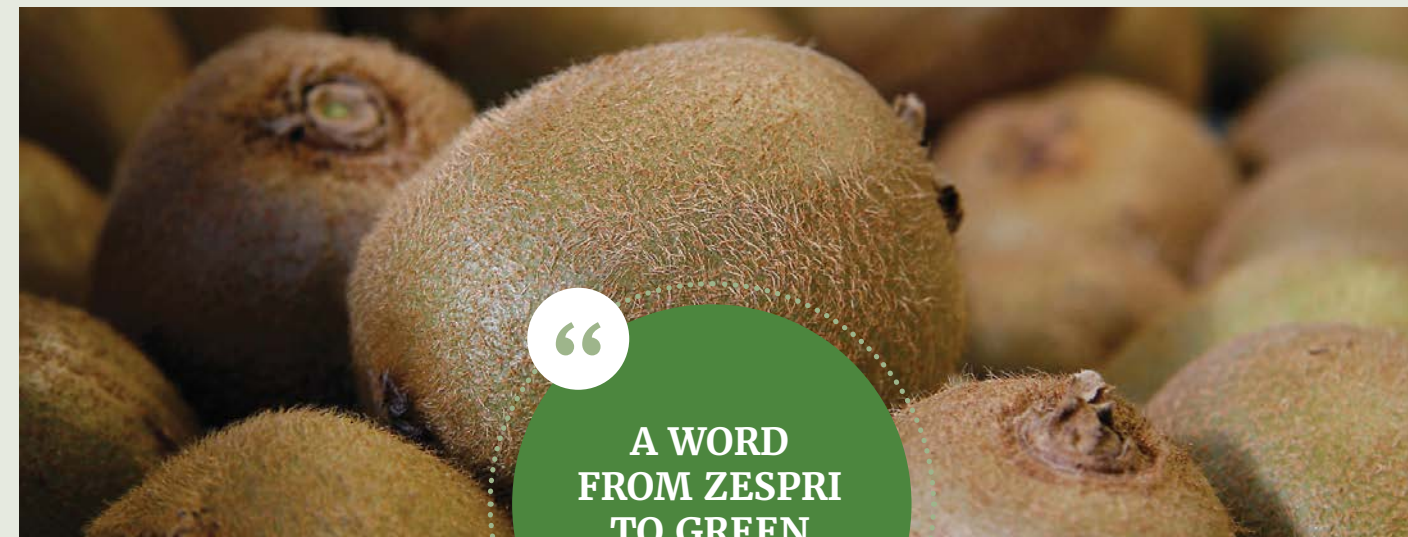
Tom gained a Diploma in Horticulture and a Bachelor of Agriculture (Rural Valuation) at Massey University, and worked for Williams and Kettle (W&K) as a trainee cadet before becoming a stock agent, and then returning to Te Puke with Fee and entering the family business alongside his older brother.

Tom and Fee started up EHC Orchard Management in 2004.

He has seen the industry in good times and bad, and says that last year was one of the worst years for kiwifruit with a late spring frost and floods. He and Fee had two of their own five orchards frosted, and then two of their sites were hit by hail, destroying 50 percent of the mostly gold crop.

Last month NZ Kiwifruit Growers (NZKGI) held green grower symposiums where they shared the results of a grower survey that asked growers what questions they would like answered about the green category. The symposium addressed the questions.

NZKGI chief executive Colin Bond says just like the quality challenge of 2022, the solution to green profitability requires incremental improvement throughout the supply chain.



“

A WORD FROM ZESPRI TO GREEN GROWERS

Zespri's head of global public affairs Michael Fox, acknowledges it's been a challenging couple of years for the industry and in particular for green growers.

This includes the pandemic, the labour shortage, several severe weather events, and the quality issues of last season, and then yields were down significantly this year.

"All of that has taken a lot of value out of the industry and put growers under pressure," he says, adding that a significant amount of work is underway across the supply chain to continue to maximise returns for growers.

"One thing we do know is that every piece of fruit we can get to market will sell and sell well. There is a huge amount of demand for Zespri kiwifruit – green, gold and

red – and we are continuing to grow value through investing in the brand and building demand to maximise returns for growers.

"One of the key ways we can do that is through the focus on quality, supply chain efficiency, managing costs and capturing value in the markets, and those remain a critical focus."

Fox says their November forecast of green returns at a record level of \$9.00 per tray reflects both the efforts of the industry to address the quality issues and the demand in the market.

Zespri is continuing to invest in exploring new green cultivars that might be more climate resilient and which deliver higher yields, and in the longer term, "a differentiated cultivar that offers a great taste experience along with more health benefits for consumers."

A message from a panel of green growers to those with lower yields was that they needed to focus on lifting productivity on orchards.

Key messages from a grower panel were to focus on knowing your orchard, attention to detail, filling gaps in the canopy and getting things done on time. Added to this, post-harvest needs to continue to step up to the difficult task of packing multiple varieties.

“

I think it took everybody by surprise how high the tender price went for this year



Zespri confirmed that green kiwifruit remains sought after in the market, but the prevalence of competition does limit the ability to increase the price.

Colin says NZKGI encourages Zespri to focus on those markets that can optimise returns for growers.

Right now, gold continues to be the stronghold of the industry, with green under 50 percent of total fruit, and that gap is likely to widen.

Many green growers have diversified into adding other varieties, but for those who haven't, Tom feels they have 'missed the boat'.

"Their returns aren't high enough in their green. There's not enough left to go and spend \$600,000 a hectare, unfortunately. I think it took everybody by surprise how high the tender price went for this year."

“

Last year was one of the worst years for kiwifruit

The license was released in two pools. A 200ha cutover pool – \$678,000 (incl GST) and a 150ha (148.8ha) greenfields pool – \$700,000 (incl GST).

Sole green orchards may become harder to sell. Red kiwifruit is still in its infancy and new varieties are still some years away, Tom says.

"Green orchards, if you look at it purely on return on investment, it's not a high dollar value. To run a green orchard, the average of which is 4.5ha, it's about \$45,000 a hectare. That's without any debt servicing and rates. Last year the industry only grew an average of 7,500 trays a hectare (down on 11,000 to 12,000 the previous year). At \$7.50 a tray, it doesn't leave much OGR. That's \$56,000, and if running costs are \$45,000, you've got \$10,000 left. You're better off with a job in retail."

Those who are riding out the pay fluctuations are those who have steady yields and receive additional income away from their orchard. They have low or no debt, and do some of the work themselves like mowing or spraying. For those green growers, it's "not all doom and gloom".

However, his advice for all green growers, regardless of their situation, is to avoid the temptation to cut costs right now.

"Sometimes that can be a vicious spiral downwards. What we do on the orchard this year, particularly in summer vine management, has a big impact on the following year's crop.

"If you are letting your canopy get dark or you let your males get shaded, that will impact your volume."

Lean on industry expertise, he says. Managers can advise on where to reduce the likes of fertiliser, foliar feed and beehives, but only if there is low volume.

"It's just about being smarter with what's in front of you." ●



After this August's forecast of \$8.10, Zespri's November forecast raised the OGR to \$9.00 per tray

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Cartons of the puréed fruit snack, Fruit Hitz

Turning waste apples into healthy snacks

New Zealand Apple Products is popular among its orcharding neighbours because it takes their waste apples and turns them into healthy snacks that are eaten around the globe.

Anne Hardie

Stephan Clark is the third generation on Tyrella Orchards and 23 years ago he took the low-grade apples and began working with technology to turn them into snacks free from preservatives and additives.

The golden rings of apples he produced in the early days are still one of the mainstays of the business, though it has become easier to sell them. Back then, customers wanted white apple rings that could only be achieved with sulphites, but Stephan refused to go down that line, and today customers are more discerning about what goes into their food.

"The difficulty in our product is getting the colour and quality right without using preservatives. Most of the products without preservatives and additives are brown. And the flavour is so much better if you can keep the sulphites out.

"That's what sets our factory apart – our unique point of difference."

Over two decades, the range of products has grown to freeze-dried and puréed as well as the original air-dried rings, and other fruits are in the mix. Pouches of baby puréed fruit head to China, dried apple rings to Trader Joe's in the United States, and the local market gets a share.

The orchard and factory have expanded over the years, with the latter fitted out with the latest technology including electronic defect sorting of the apple ring slices. As apple slices fly through the air, cameras top and bottom pick up dark patches and tiny air jets affect the flight path of the rejected apple slices so that they effectively do not make the jump with the superior slices.



The original soft, golden apple rings

"It is pretty cool," Stephan admits. It is also right up his alley.

"I'm technology minded and I like stainless steel.

"There's nothing related to growing apples in here; it's solely food processing. But the goal of the factory is bringing the waste apples in here and turning them into products, and the only thing coming out is pips and skins which go to local sheep and dairy farmers."

“

We don't push the domestic market heavily because it is so much work



It has not been all plain sailing to get to this point though. Early on, Stephan teamed up with Annies which had famous fruit snacks, until it collapsed and was bought out. Trial and error followed for many years as "we were finding our way".

Covid-19 happened and like growers, the company faced hefty shipping costs to export product to customers who were struggling. Stephan says they were working on their online business before Covid, but the pandemic created an urgency to work on it faster.

In the midst of Covid challenges, the Boxing Day hailstorm that wreaked havoc around Motueka in 2020 wiped out 90 percent of the crop on the family's orchard. The orchard has grown to 90ha after purchasing a neighbouring orchard, and runs its own packhouse with the latest Compac Spectrim™ defect sorting technology, plus coolstore facilities which cater for other orchardists as well. The orchard and factory have a close relationship in the sense that when one is struggling, the other hopefully props it up. But the mix of Covid-19 and hail hammered both sides of the business.

It has been a period of settling and consolidation following Covid. Markets have bounced back and the business is now developing new product, utilising their new freeze dryer that has been purchased to process larger volumes of fruit.

While Fruit Hitz is New Zealand Apple Products' showcase brand, much of its products are processed for private labels, using the fruit and technology supplied by the company. Stephan says someone will come up with an idea for a product and the company basically does everything from processing to shipping. Then the products are handed to the client to market.

Fruit purée pouches were introduced into the business when the former Enza juice factory in Nelson closed. New Zealand Apple Products bought the part of the business that ran a small format pouch factory, and operated from the site for three years until the building was demolished. That was when Stephan expanded the site with a new production line, so that everything is now located on the Central Road site. The company now manufactures more than one million pouches each year of purée snacks for kids and babies in both domestic and international markets, either under its own brand or through private label companies.

Creating and processing product for private labels provides a good balance for the business because Stephan says it is hard work marketing a product.



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Stephan Clark began drying apple rings more than 20 years ago

"It's easier to build a factory. Going out and selling a product to make a profit – that's the hard bit."

It makes long-term relationships with customers precious, such as Trader Joe's that has been with New Zealand Apple Products for 15 years now. Domestic sales have always been challenging though and it is one of the reasons they contract marketing companies to do the work, selling products in New Zealand under its Fruit Hitz brand.

"We don't push the domestic market heavily because it is so much work."

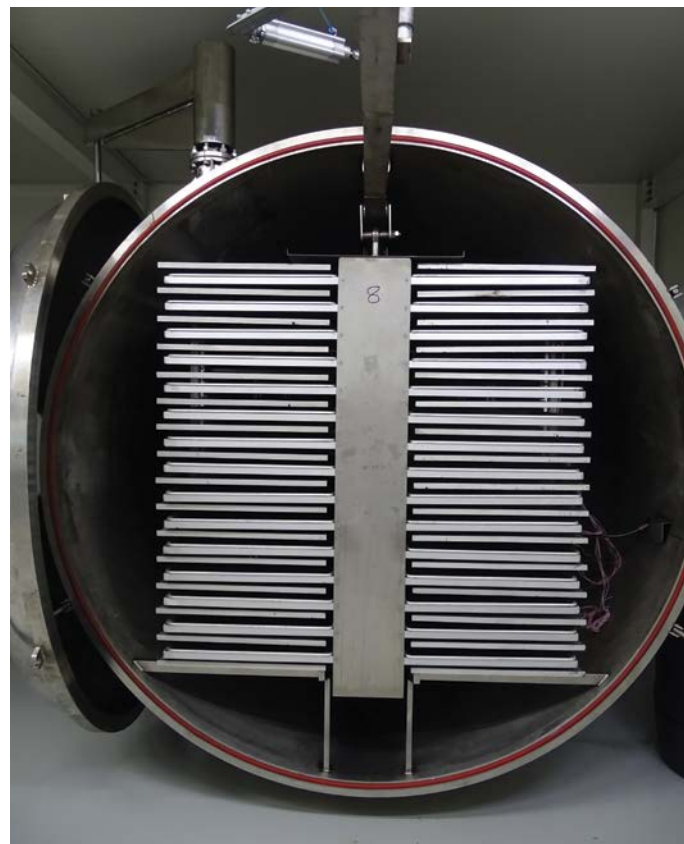
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The goal of the factory is bringing the waste apples in here and turning them into products



All up, about 3500 tonnes of juice-quality apples are processed each year, plus other fruit including kiwifruit and berries. To do that, the company employs 35 "loyal and devoted" staff that keep the factory running six days a week. Batches of fruit are prepared during the day and the dryers do their work overnight, so the following day the fruit can be bagged and prepared for shipment.

He says there have been few options for local orchardists since Cedenco Foods relocated its apple processing from



The freeze dryer is part of the technology mix

Nelson to its Hastings site at the end of the 2020 season.

"Getting rid of the waste from orchard packhouses is very difficult, so a factory like this is very beneficial to the district."

Plus, the business continues to diversify and Stephan says it will continue to invest in technology, with research and development playing a vital role.

"We're still developing new products and currently putting in a new production line. We're developing new things all the time."

Innovation goes beyond the factory as well. After the hailstorm, finances were tight and crop protection became critical. Stephan analysed all the hail netting options available and ended up designing his own system with a balance between effective crop protection and cost efficiency. He combined what he considered the best aspects of all other products and created a V-system which offloads hail into the middle of the rows, with clips he designed to attach the netting. Now he is supplying other orchardists with the design and materials through his sideline business, Smarter Imports. It also imports rapid doors and racking for coolstores, which have also been designed over "a long period of time to get it right".

Someone who has enjoyed the diversification in the family business is Stephan's father, Gordon, who at 82 is still working on the orchard every day doing odd jobs.

"He just loves coming to work to see what is happening and being part of what is going on." ●

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Orchardists in Hawke's Bay have been waiting to see how their affected trees would perform

Cyclone affected trees give mixed spring performance

Hawke's Bay growers have been waiting in earnest to see what spring would bring. Would trees flower and thrive in a glorious return, or wither and die?

Bonnie Flaws

Photos : Florence Charvin

Turns out, the result is a completely mixed bag. There are a lot of dead trees across the region, but the impact of the flooding and silt affected them differently even if, as in some cases, they were only separated by a few rows.

Taylor Corporation, a family business, has blocks all over the area, and while hit very hard by the flooding of the Tūtaekurī and the Ngaruroro rivers, has other blocks that bounced back fine. Cameron Taylor tells me that the impacts for blocks by the Ngaruroro was much worse due to the clay type silt that was deposited.

"So we've seen more deaths there. More suffocation. It's only a small block, 2.5 hectares, but we have had to walk away from it. About 60 percent of the trees flowered and then curled up and died. They didn't have the energy, the roots were bugged."

And this was a block on which there was very little silt build-up, about 100 millilitres. Another block about one kilometre down the road had 200 to 300mls of silt, and only a middle strip in that block died. Yet another block lost nothing at all, but the block right beside it on his neighbour's property, planted with the same rootstock, is losing trees.

COVER STORY



Orchard manager Mike Ofa and Cameron Taylor on the Taylor Corporation orchards

"It's a completely mixed bag with no rhyme or reason," he says.

In order not to stress the trees too much, they brought in more Recognised Seasonal Employer (RSE) scheme workers and avoided crop loading. Chemical thinning had the potential to be too stressful for the crop, he says. "You don't know how they will react and if you stress your tree are you going to lose your whole crop, it was a scary time to make decisions."

But some crops have fared well. Pacific Queen thinned out naturally and had a massive bloom and drop, which he hopes will mean a full crop. On another block, 14 rows of Royal Gala died, which he speculates may be due to hollows in the soil where water may have sat, affecting the roots.

"It's hard to say how much we have lost. After what survived the cyclone, there has been a further 30 percent of deaths on top," Cameron says.

Danielle Adsett, market access manager at NZ Apples and Pears, says that spring has certainly sprung and there is more positivity among growers.

About
60%
of the trees
flowered and
then curled up
and died

"Bloom is looking better than expected on some trees affected by the cyclone, but some trees haven't survived and will need to be removed. It continues to be a really tough time for many growers."

For trees that have survived, the conditions for pollination have been good, which has gone some way towards establishing the next season's crop.

"We have seen a bit of natural drop - which is expected if a tree has been under stress. It is still early days, so we don't have a full picture of whether or not we have a full crop load. We will have a better idea in January."



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On surviving trees, the crop looks to be clean and of high quality

Overall, the crop looks to be clean and of high quality, she says.

Up in Dartmoor, Stu Kilmister says he also saw huge variability in tree health block by block. Places where trees were under water aren't carrying much fruit, and trees that were tipped over in the cyclone but were rescued, also aren't producing much.

"Considering the circumstances, it's good and they will bounce back next year. There has been a huge natural drop, and some of the dwarfing rootstock seemed to perform better, and we might have some full crops on a lot of those blocks.

"Overall, we'll be down 20 percent on our normal crop. The sizing will be interesting, at the moment it looks like that is going okay. Some parts of the block we have trees dying and we are managing that," Stu says.

Marty Cooke from LE Cooke Nurseryman says although his apples are looking good, his peaches and plums for next year are very poor due to bad bud take. The wet had prevented callousing and the nursery will be down between 60 and 70 percent on plums and at least 60 percent on peaches.

"Apples are looking good for next year in terms of quality. They are in a lighter more free-draining block that didn't have too much of an issue with the wetness. We were lucky enough to get some spring budding, about 35,000 to 40,000 spring buds in the apples, which has helped. Pears aren't looking too bad. Cherry bud take is looking alright."



Next year is going to be quieter, particularly with his garden centre trade, but 2025 delivery is expected to be better, Marty says.

In Pakowhai, Paul Paynter says his stonefruit was definitely worse off than he thought it was going to be. Too much wet for too long meant there had been a steady progress of tree deaths. "Some blocks are so dead we are going to rip them out and replant."

“It's a completely mixed bag with no rhyme or reason



But for many growers replanting just won't happen, he says. "Growers will need to think it's a good idea to replant, and many of them are north of 60 and it's a ten-year project. There is a lack of cash and a disappointing level of interest in Kānoa loans. Growers didn't want to take on more debt and more risk. Most have said 'nah'."

Paul is worried this will lead to a protracted downturn for the region, due to its reliance on the primary sector, and he predicts that growers like him will turn to foreign investors and happily sell a stake in their business.

Marty Cooke also thinks the Kānoa loans were not as popular as he had expected, as growers were not flocking to order stock. "There is not that much of the government funding stuff coming through. I've only got two orders -



Cameron Taylor has rebuilt his packhouse that was washed away in the floods

a substantial number of trees - but I thought it would be a bit bigger than what it was. One of the rules was that if the bank would lend you money you weren't eligible for a Kānoa loan."

Paul notes that in order for many growers to get back on their feet, they will need to be more or less 100 percent debt funded, leaving no room for any bad surprises. And in horticulture, that is not a safe bet.

Cameron says his bank has said the right things, and he's been able to rebuild the packhouse that was washed away in the floods. His biggest worry now is the rising cost of labour and transport, he says.

"I lost 80 percent of my crop in the flood, and 20 percent of my trees - but that was my working capital for the year wiped out." He says it was bad luck that all Taylor Corp's producing blocks were in flooded areas, but what has come to the rescue are some big new blocks with three- to four-year-old trees that were not flood affected.

"They have saved me, because they are coming into production now and they are all the new high-density plantings capable of producing around 90 tonnes per hectare, so that is actually helping me." With their packhouse and its niche marketing into the Asian market, Cameron is positive the business will be okay.

"It is difficult out there, but hey, I would have taken the insurance money if I didn't believe in it." ●

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Orchard worker Jenna Wilkes on Kerrimuir Orchards at Roxburgh East

Growing optimism for this season's summerfruit

Central Otago apricot growers are hopeful for a bumper crop this year, after a few challenging seasons.

Aimee Wilson

Simon Webb of Cromwell, who grows 12 different apricot varieties, says last season's snow event in mid-October wiped out much of his crop, but this year it is quite a different story.

We have bucket loads of high quality fruit. Apricots are biennial and they have set really well this year, thanks to great weather for pollination.

"We're already talking to the supermarkets so they are prepared and can promote the abundance well, particularly as the fruit will be at good prices."

As well as a large crop, Simon is confident the fruit will be of good quality as well. "They seem to stay firmer and don't all ripen at once."

In early November, a lot of time was invested into thinning out the fruit, with up to 90 percent of the apricot crop pulled off the trees.

"We're pretty much taking off eight to one, because apricots are really variable in their pollination so we had a lot more flowers on the trees.

"We pruned harder in the winter, but it's still a heavy crop."

Peaches and nectarines are also looking good, and there should be plenty of staff this season for picking, with numbers back up to what they used to be pre-Covid-19.

Down in the Teviot Valley, grower Stephen Darling says a good fruit set has made for a positive start to the apricot

season, but cooler days during October to November pushed back the harvest time.

"We're looking forward to seeing volumes of the new varieties coming through, but we have to get the fruit off the orchard first and then to market."

Being cautiously optimistic, he says this season there is a good opportunity to look at restarting export programmes for apricots, to help stabilise the market.

Stephen is chair of NZ Summer Fresh, which represents more than 20 growers nationwide who are growing the new NZsummer2, 3 and 4 varieties.

“

I'm hopeful it's going to be an amazing summer



"Across the Teviot Valley, we have been fortunate to have two good weeks of critical flowering and pollination after some tough frosts last year."

The later harvest early in the New Year would make it easier to find staff after everyone has had their holidays.

Stephen said 2017 and 2018 were both bumper crops with record volumes of apricots and an early harvest, but it did clash with the holiday period.

Summerfruit NZ technical advisor Richard Mills says moderate apricot volumes in Hawke's Bay this year will lead to a slightly earlier harvest. "If the weather systems equally affect both regions, then the full crop in Central Otago could be slightly delayed.

"These factors help alleviate the possible competitive crossover with the large Central Otago crop," he says.

Richard says the fruit on the trees at this stage of the season "looks as clean as it has ever been," and the El Niño weather pattern could make for some good fruit for consumers.

"Peaches and nectarines in both growing districts look to have a full crop of clean fruit. Business as usual is the expectation at this stage."

Earnscleugh orchardist Jeremy Hiscock says they have been very lucky this year as El Niño has produced quite a different frost profile.

During September, the orchard only used a quarter of the diesel it used for frost fighting in 2022.



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1 Apricots popping out of their shucks in September, 2 Growers are expecting a similar cherry crop to last season, 3 Strong apricot growth on an orchard in Central Otago

October brought both flooding and repeat snow this year, with two weeks of murky weather over cherry pollination. "While we haven't had significant damage, it has eroded my sleep," Jeremy says.

"I'm hopeful it's going to be an amazing summer. Historically, Central Otago could have frosts up until the last week of November. El Niño was meant to change all that, but we've had enough niggly frosts to take the gloss off it."

“

We have bucket loads of high quality fruit

He says pollination of fruit was a bit messy on some cherries, as every variety has its own "sweet spot" and there is always the risk of cherry shedding three weeks later.

Orchard consultant Earnscy Weaver explains that cherry shedding is a physiological thing that happens to all stonefruit, but with cherries, it is more pronounced.

He says shedding could happen due to a range of different conditions, from the weather, to tree health, to soil type. "It's never just one thing that drives it."

Some varieties of cherry shed more than others, such as Regina™ and Kordia. They are the most difficult to grow in Central Otago.

And of course, sometimes you want shedding to happen when the cherry crop is heavy, to enable a good fruit size, Earnscy says.

Gourmet Summerfruit manager Matt Tyrrell, who operates one of the biggest cherry orchards in the Teviot Valley, says this season's light frosts made for quite different pollination windows.

He says a lot of their varieties are looking good, such as Lapin, Kordia and Staccato™, but Stella and Sweetheart™ are challenging.

"We're looking like we'll have a similar crop to last season."

On a positive note, the later 10 February Chinese New Year in 2024 suits growers better. ●

Despite the cyclone, 2023 was not all bad news for fruit industry

The industry snapshot highlighted in the latest Fresh Facts publication ends a tough year in fruit growing on an optimistic note. ELAINE FISHER spoke with the publication's new editor Dr Hans Maurer about the importance of the data, which is widely referenced by government, banks, investors, research and international organisations.

Extreme weather events, tough export markets, poor fruit quality and labour shortages are among the adverse impacts experienced by New Zealand's fruit and vegetable growers in the past year.

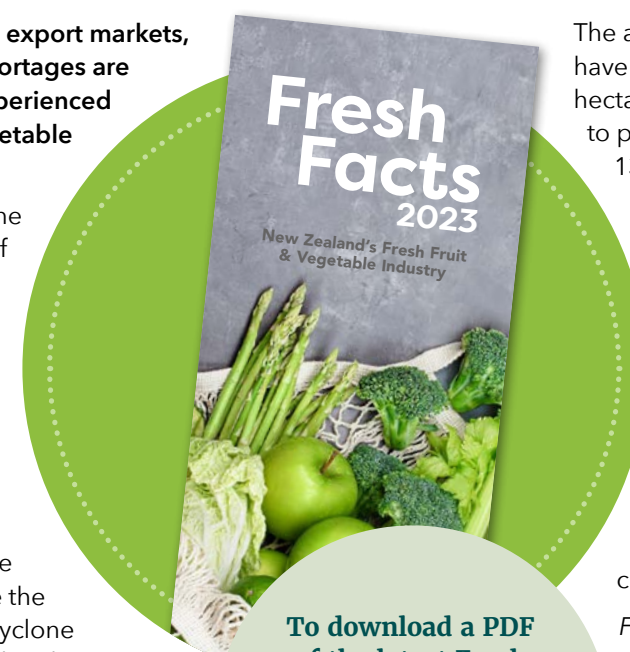
Those impacts are captured in the facts and figures on the pages of the 2023 edition of the pocket-sized publication *Fresh Facts* which for 23 years has been documenting the highs and lows of horticulture.

However, Dr Hans Maurer, chair of the Technical Advisory Group at United Fresh and *Fresh Facts* editor says not all the news in the latest *Fresh Facts* is bad. Despite the significant damage caused by Cyclone Gabrielle in the Hawke's Bay and Gisborne apple-growing regions in mid-February 2023, 53% of the Hawke's Bay orchards, accounting for some 4400 ha of production, were able to continue picking, packing and exporting of apples.

Production in New Zealand's other apple growing regions of Nelson, Marlborough, Central Otago, South Canterbury and Waikato was not affected by the cyclone.

"The good news was that total apple exports from New Zealand for March 2023 were valued at \$99 million, up \$4.4 million from March 2022," he says.

However, Hans told *The Orchardist* that the full impacts of the loss of tens of thousands of fruit trees and damage to soils and orchard structures caused by the cyclone will be felt for years to come.



To download a PDF of the latest Fresh Facts edition, visit unitedfresh.co.nz/technical-advisory-group/fresh-facts

The apple and pear industries, which have been expanding in planted hectares at a rate of 3.5%, continue to prepare for the future with 13% of the industry's orchards planted with 'robot ready' structures. It is anticipated that this will increase to 35% of combined orchard land area by 2026, *Fresh Facts* reports.

Kiwifruit growers have had a tough season, with returns down because of fruit quality issues, partly caused by severe labour shortages, cost increases and supply chain challenges.

Fresh Facts reports that Zespri's total global fruit sales revenue of NZ\$3.92 billion in 2022-23 was down 3% on the previous season's returns, with global sales volumes down from 201.5 million trays to 183.5 million trays.

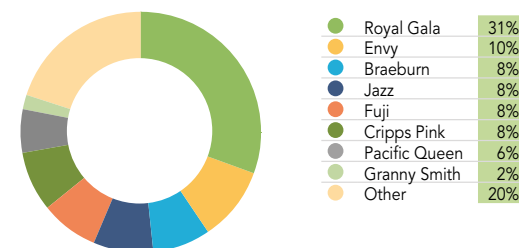
Avocados, which are grown predominantly in Northland and the Bay of Plenty, showed a slight drop in orchard gate returns to growers in 2022-23, with a decrease in the value of domestic sales while export returns showed a slight increase.

The New Zealand domestic market delivered \$55.9 million in sales of 3.08 million trays of fresh and 815,000 trays of processed avocados.

While Australia accounts for 73.56% of export avocados, exports to Asia increased by 143% from 550,000 trays in 2020 to 1.3 million in 2022.

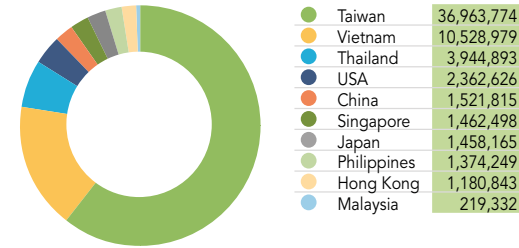
SOME EXAMPLE FRESH FACTS

New Zealand Apple Exports by Variety 2022



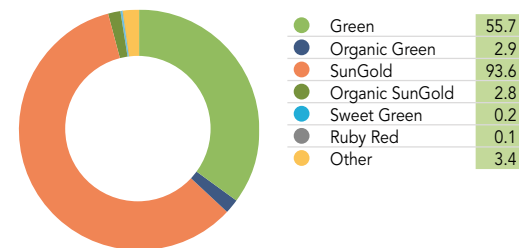
Source: Apples & Pears New Zealand data, August 2023.

Top 10 Cherry Export Destinations for 2022 (\$)



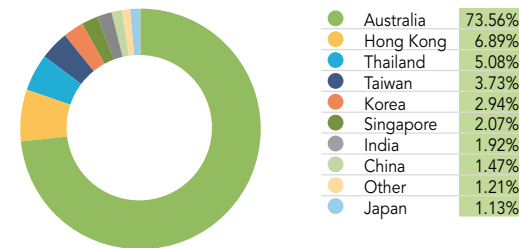
Source: Horticulture Export Authority Summerfruit Trade page, accessed 29 May 2023.

New Zealand Grown Kiwifruit Volume by Variety (3.6kg Trays, 000')



Source: Zespri Annual Report 2022/23.

Avocado Export Market Destinations (TEs, 000's)



Source: New Zealand Avocado 2023 Annual Report.

United Kingdom & Ireland		
2023	2020	
\$45m	\$26m	↑
Apples.....\$35m		
Onions.....\$10m		

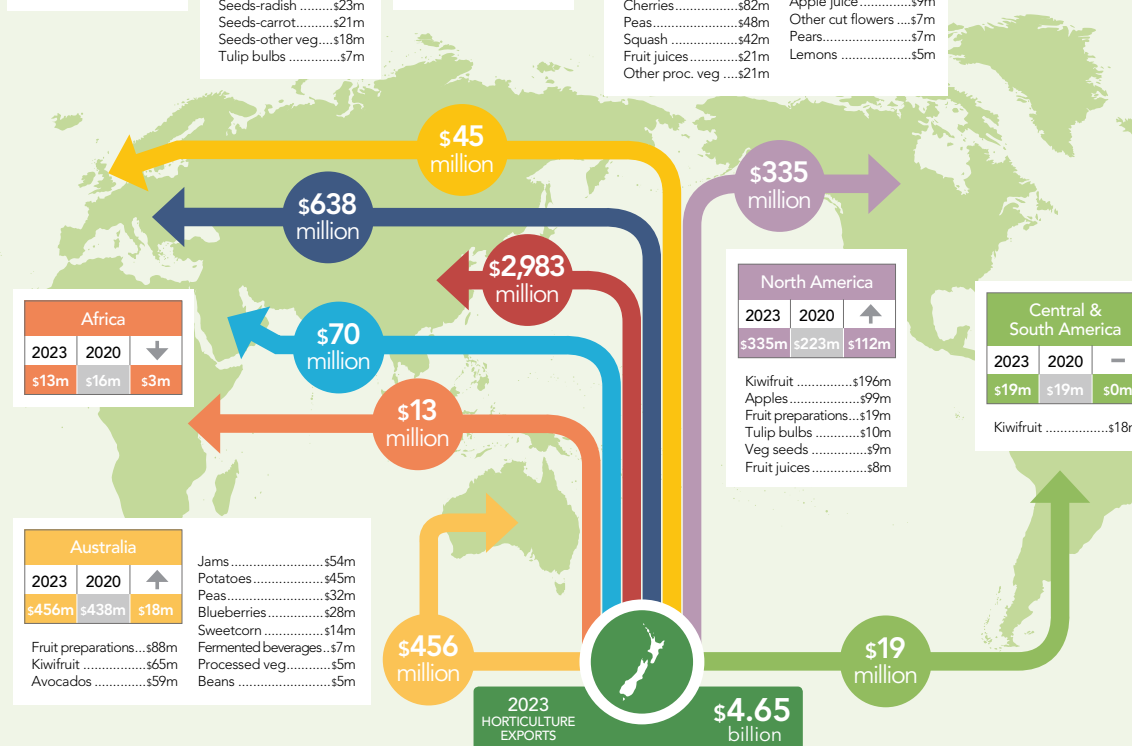
Continental Europe		
2023	2020	
\$638m	\$846m	↓
Kiwifruit.....\$522m		
Onions.....\$58m		
Apples.....\$52m		
Seeds-radish.....\$23m		
Seeds-carrot.....\$21m		
Seeds-other veg.....\$18m		
Tulip bulbs.....\$7m		

Middle East		
2023	2020	
\$70m	\$58m	↑
Apples.....\$42m		
Kiwifruit.....\$15m		
Frozen veg.....\$9m		

Asia		
2023	2020	
\$3,070m	\$2,500m	↑
Kiwifruit.....\$1,727m		
Apples.....\$655m		
Onions.....\$87.3m		
Cherries.....\$82m		
Peas.....\$48m		
Squash.....\$42m		
Fruit juices.....\$21m		
Other proc. veg.....\$21m		

North America		
2023	2020	
\$335m	\$223m	↑
Kiwifruit.....\$196m		
Apples.....\$99m		
Fruit preparations.....\$19m		
Tulip bulbs.....\$10m		
Veg seeds.....\$9m		
Fruit juices.....\$8m		

Reference
Entries only included if value to a destination exceeded \$5 million.



Fresh Facts data shows that throughout the whole of New Zealand there was a 3% increase in total hectares of planted orchard land from 35,000 ha in 2012 to 36,866 ha in 2022. That increase included new plantings in the Bay of Plenty, (13,776 ha), Hawke's Bay (6779 ha) and Northland (3290 ha).

The number of hectares planted in apples has increased by 7% between 2012 and 2022 to a total of 9500 ha. Kiwifruit plantings have grown by 14% to 14,600 ha, and avocado plantings are up 24% to 5152 ha. Citrus, berryfruit, olives, subtropical and other fruits all show a decrease in planted hectares.

Fresh Facts data shows that cherry exports represent 71% of all summerfruit tariff value, largely due to the 0.8% tariff into Japan, which will drop to zero in the 2023-24 season.

"Cherries have taken over as the single most successful crop in the stonefruit category," says Hans.

In the 2022-23 season, export cherries accounted for 54% of the entire crop. The remaining 46% was sold on the domestic market and to processing plants.

New Zealand is the Southern Hemisphere's largest supplier of blackcurrants, accounting for approximately 5% of world production. Blackcurrant exports, reports *Fresh Facts*, had a combined value of \$11.6 million in 2022. Frozen concentrate and IQF (Individually Quick Frozen) blackcurrant volumes decreased 84% and 4% respectively while there was an almost five-fold increase in the value of 'other' blackcurrants to almost \$7 million. The industry is now focusing on the global nutraceutical market. ●



To download a PDF of the latest *Fresh Facts* edition, visit United Fresh: www.unitedfresh.co.nz

FUTURE OF FRESH FACTS DEPENDS ON CREDIBLE INDUSTRY DATA

The experience of editing the 2023 edition of *Fresh Facts* has reinforced Dr Hans Maurer's view that "horticulture is a wonderful industry to be in and that it is an industry, as a country, we need to cherish".

Hans, chair of the Technical Advisory Group at United Fresh became the editor last year when United Fresh agreed to produce the publication, which was founded in 1999 by Plant & Food Research. In recent years it has been a collaboration between Plant & Food Research and Horticulture New Zealand, but both have decided to discontinue their direct involvement.

Hans acknowledges the previous work of Plant & Food Research and the MARTEC teams, who have worked hard to generate annual *Fresh Facts* data sets.

"United Fresh is grateful for their commitment over the last 20 plus years and we plan to build on their efforts over the coming years, having started with *Fresh Facts* 2023."

Fresh Facts, a pocket-size publication, also available online, has proved to be a valuable reference document for anyone who wants to invest in the horticultural industry. "It provides a picture for an outsider considering investing in the industry about what provides the best returns and where the risks are. In that regard it is quite an important document."

The publication is also widely referenced by government departments, banks, Massey University, international organisations and other horticultural industry participants.

Now the primary goal is to see *Fresh Facts* play an even more central role in the data-based decision-making processes that are integral for the continued growth of the industry.

The annual publication date of *Fresh Facts* has been moved from March to September which facilitates a more comprehensive and diverse reporting season for the major produce groups.

It no longer contains information about the honey, hops or wine industries. "Instead, our focus will increase on those products which are typically sold in supermarket fresh produce departments, greengrocers and through other channels where produce reaches consumers in a 'fresh' state. We have also raised the profile of the domestic produce value chain."

Hans says it has not been possible to source accurate data on all aspects of the industry. "The publication provides not only quality data where it is available but features blank spaces where data ought to have been placed but hasn't been available.

"We would prefer to show the gaps in the hope that those who have access to what we consider missing data will work with us in the lead-up to the 2024 edition to ensure these gaps are plugged over time."



Dr Annette Richardson, winner of the 2023 Kiwifruit Innovation Award, with Zespri chairman Bruce Cameron. Photo by Brydie Thompson

The difficult search for Hi-Cane alternatives

The world of plants has fascinated Dr Annette Richardson since she was a child, and after four decades of research into fruiting trees and vines, that fascination hasn't diminished.

Elaine Fisher

"I think plant people have a certain view of the world and see plants differently. Every time I wander out into the Plant & Food Research orchard, I see something new and question why that is happening and how it links to fruit production and quality," says Annette, winner of the 2023 Kiwifruit Innovation Award for her work in exploring budbreak.

Annette, a Plant & Food Research scientist at Kerikeri, is an expert in plant physiology. In the 1980s she worked with Dr Eric Walton and Dr Ron Henzell on the discovery and introduction of Hi-Cane® (Hydrogen Cyanamide HC), a budbreak enhancer used mainly in the kiwifruit industry.

Hi-Cane is an important tool for many kiwifruit growers and is used under strict conditions once a year in late July to early September when the vines are dormant. The spray

helps to produce greater yields of quality fruit which mature at the same time, making it easier to harvest.

The Environmental Protection Agency (EPA) is considering a ban on the use of Hi-Cane, and Annette and her team have for some years been working to find alternatives.

"We were lucky with Hi-Cane as finding it was relatively easy, but finding viable alternatives has not been so easy.

"We have tested a lot of alternative products. Some are used commercially and show positive results in certain conditions, but it appears growers will need to use a package of tools to deliver similar results to Hi-Cane. Growers need to grow vines really well throughout the season to produce productive canes, and also use alternative products.

"Should it be banned, Hi-Cane will be hugely missed by the industry. It has so many beneficial effects not only in improving the amount of budbreak and flowering, but also in reducing variability within the crop as flowering occurs over a shorter time frame. It also facilitates the thinning of lateral flowers which are typically smaller than the king or terminal flowers."

In Northland, where research into Hi-Cane began, kiwifruit typically have a longer flowering period. "Without Hi-Cane to compact that flowering, orchardists would not only have lower yields but experience other issues including managing picking, packing and storage of fruit."

“

Independent economic studies estimate a ban would cost over \$1.5 billion to the New Zealand economy



NZ Kiwifruit Growers (NZKGI) opposes the EPA decision to ban Hydrogen Cyanamide HC. NZKGI states in its submissions to the EPA that: "HC has been used in the kiwifruit industry since it became commercially available in the 1980s, and today's use is restricted by regulation and controls designed to keep people and the environment protected. Estimations of yield production, job losses and GDP contribution (nearly \$2b) will seriously impact growers, supply chains and communities if HC is banned. There are no alternatives with comparable efficacy to HC. Retaining the use of HC is critical."

Independent economic studies estimate a ban would cost over \$1.5 billion to the New Zealand economy.



Scientist Dr Annette Richardson at the Plant & Food Research orchard. Photo by Kristina Brecko

Annette's role in helping develop Hi-Cane and her ongoing research into finding alternatives was acknowledged by the industry when she was awarded the 2023 Kiwifruit Innovation Award.

Zespri chairman and award judge Bruce Cameron says Annette has been instrumental in the continued growth and success of the kiwifruit industry.

"Dr Richardson's knowledge of plants and how they grow under varying conditions has helped the industry remain resilient while also helping pave the way for a more sustainable future. She has the incredible ability to take complex science and convey it to the industry in a way which people can understand and use.

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"Her work in researching kiwifruit budbreak and vines, in new cultivar development and in supporting the industry's ongoing use of Hi-Cane through modifying it for new gold and red varieties, as well as its alternatives – has helped shape the way kiwifruit is grown, and ensured the industry can adapt to meet growing demand for kiwifruit around the world and return more value back to growers and our communities."

NZKGI chair and award judge Mark Mayston says, "Dr Richardson's work with Hi-Cane has been instrumental to the success of the kiwifruit industry today. The certainty that budbreak enhancers create allows for the prosperity of our industry, the returns of which flow back into New Zealand's communities."

Fellow judge Kristy McDonald, chair of kiwifruit industry regulator Kiwifruit New Zealand, says: "Research that is targeted, sustained and innovative is vital to the continuing success of New Zealand kiwifruit in a world that is facing environmental challenges and ever-increasing costs. Dr Richardson's work focuses both on the science and the development of real-world solutions that will benefit growers and the industry."

“

The certainty that budbreak enhancers create allows for the prosperity of our industry

Winning the innovation award has been a career highlight for Annette. "It was fantastic to receive the award and very special to be acknowledged in this way."

"This is an exciting industry to be a part of – it's really rewarding to see all that industry has achieved over a few decades, and I know there's an exciting future ahead. Collaboration is a key part of the sector's success and Plant & Food Research is fortunate to be working alongside great partners such as Zespri, NZ Kiwifruit Growers, Kiwifruit Vine Health and the Kiwifruit Breeding Centre as well as kiwifruit growers."

Annette grew up and was educated in Upper Hutt, before starting a Bachelor of Science degree at Victoria University. "I decided it was not for me as I wasn't sure where it was taking me. I looked around and thought horticulture looked exciting, so moved to Massey University to complete a horticultural degree."

Horticulture's appeal was rooted in Annette's childhood. "My grandfather was a particularly keen gardener. He lived through the hard times of the Depression of the 1930s and had grown all his own vegetables. In many ways he was into organics and managing the environment. I picked up on that."

After completing her degree Annette worked at Massey University, and then in 1984 joined research scientists at



ZESPRI LAUNCHES INNOVATION FUND

The ZAG fund is designed to attract innovative problem solvers to partner with Zespri to help create new value streams for growers and to address some of the challenges the industry faces. ZAG brings existing innovation resources including the allocated funding from across our business together into a US\$2 million contestable annual fund. In his November update to growers, chief executive Dan Mathieson said the fund is designed to allow Zespri to broaden its efforts by collaborating with global innovators. "A particular focus is how we can partner with agri and food-tech innovators to create sustainable long-term value for growers and build a successful industry for tomorrow."

Kerikeri in what was originally a Ministry of Agriculture and Fisheries site. Today it is a Plant & Food Research station.

Her first research was to help find solutions to the problems Northland growers of green kiwifruit experienced with budbreak and yields, largely because of the region's mild winters.

Now Annette says climate change is bringing those conditions to other regions. "I believe the winter chilling data for the Bay of Plenty for this year was similar to that for Northland. Things are changing far faster than a lot of people perceive, and the climate is not changing quite as we thought it might. For instance, this spring Northland has had several late or near frosts, which is unusual."

As well as kiwifruit, Annette has worked on research into citrus, cherimoya, tamarillo and macadamia nuts. "There's always something new and challenging. Talking to growers is a huge source of information, going back and forth with ideas that they have often been thinking about before us."

"Horticulture is an innovative industry and it's fun and stimulating to work with interesting people across it. That includes the fantastic team I work with at Plant & Food Research. We are a close team, a super bunch of people, including some who are new to science. They keep challenging me and I try to inspire them." ●



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FRUITION DIPLOMA IN HORTICULTURE PRODUCTION (LEVEL 6)

In 2021 Fruition Horticulture (BOP) Ltd began delivery of their Fruition Diploma in Horticulture Production for those working in the horticulture and viticulture industries.

The delivery mode has meant that learners can engage in-person at the Fruition office in Tauranga or engage on-line from anywhere in Aotearoa New Zealand.

When qualifications are placed on the NZ Qualifications Framework, they specify what exactly a graduate of the programme should be able to do, know and think as a result of completing the programme.

So – three years into the delivery of the programme how are graduates matching up to these outcomes? Fruition systematically collects data, from the learners as they progress through the Diploma but also once they graduate and from their employers.

One hundred percent of the learners and their employers interviewed indicated that they have met the specific graduate outcomes of the qualification.

There have also been some unintended outcomes from the programme. Steve Huxtable, of GroChem commented that, by as a matter of standard practice, using an on-line writing assistant the quality of his emails and internal reports has lifted considerably. Others have commented that the tools shared during the delivery of the programme have improved the learners' writing.

Another graduate focused her reports on an industry she was involved with which resulted in research projects into passionfruit rootstocks and passionfruit packaging.

Consider this Diploma if you yourself or someone you know wants to develop their higher level analytical and technical skills.

Comments made by learners and their employers include:

"I speak really highly of Fruition. I found you guys super supportive. I could work full time and still study. You explained things really well in class. In the breakout rooms we learnt a lot off other students. It was a really good, supportive and positive learning environment. It is a course worth doing. I have nothing but good things to say."

Alice Buschl, Waimea Nurseries

"Its relatable to work. Very flexible in the areas that you can learn in. It allowed me to achieve high quality education levels. It turns out that I'm really good at critical analysis but not good at regurgitating information for an exam."

Kyra Fielden, Just Avocados

"Because the assignments were business centric the work Kyra did really added value to the business."

Andrew Cutfield, Just Avocados
(former manager of a graduate)

"I am definitely more engaged as an employee, I see every job completely differently now, I am much more confident and can be sure of myself. I am more keen to take on new tasks and responsibilities I notice I work much more diligently as I understand the importance of each role and how it adds to the bigger picture."

Ryan Fong, The Fresh Grower



Classes start again in January 2024.

Find out more on our website:
fruition.ac.nz/programmes/level-6-diploma





Klara Kubistova (left) from the Czech Republic lives in a cabin on-site and works under the supervision of Rui 'Louie' Ishizuka (right), herself a former backpacker

Backpackers boost Gisborne growers' workforce

They come and they go, but between them, backpackers provide a solid labour force for growers. KRISTINE WALSH finds a resurgence of interest in horticulture among working holiday visa holders.

Freedom campsites are available all year round in Gisborne, but the best ones - those at the most picturesque beach spots - are only open in summer.

Happily, that coincides with a busy season in the fields and on orchards, so travellers with Working Holiday Visas (WHVs) have places to park up while also having lots of work options.

Also happily, many growers offer year-round campsites for travellers, who can set up on-orchard and make a home away from home.

One such grower is Rick Thorpe who, in addition to his award-winning Waimata Cheese operation, is a long-time grower of persimmons and apples at three orchards on the outskirts of town.

At his Fruitworx orchard and packhouse he has installed cabins and sites for campervans, along with an ablutions block and an airy, barn-like space furnished with squishy

couches, where his team can cook, socialise and relax after a long day.

It makes for a multi-national workplace where a core team of local workers are supplemented by travellers who stay - and work - for months at a time ... or longer.

"In fact we sponsored one former backpacker to become part of our permanent team," says Rick, "and after being with us for three years she's now supervisor at that site."

That's Rui Ishizuka - or 'Louie' - who came to New Zealand on a WHV in January 2020, working in hospitality in Mount Maunganui until August, when she and her partner headed to Gisborne.

Being from a busy city near Tokyo, the more gentle pace of Gisborne appealed.

"But the main reason was to work," she says. "Working in agriculture meant I could extend my WHV by a few more months and I was really keen to do that."

"In those early days I really had to stay because of the Covid-19 border closures, but now I just love the environment in New Zealand and the relaxed lifestyle we have here in Gisborne."

Louie has worked for Rick Thorpe for her entire time in Gisborne, and because of the sponsored visa he organised she's able to stay until the end of 2024.

And she has rewarded him by becoming a valued member of the team, going from tying apple branches and thinning persimmons to supervising the work programme and staff, including those who live both on and off-site.

That does not mean she has given up on travel: this year alone Louie and her partner have been to see her family in Japan and his in Argentina.

“

We try to make it a great experience and to support those who want to stay on and develop a career in horticulture



"We've had the best experiences and that's due to the sponsorship from Rick, which allowed both me and my partner to stay together, to work and to enjoy our lives."

"We are so grateful for that."

But Louie (29) is a bit of an outlier in the Fruitworx team. Rick says while he has hosted travellers from all over the world, those from the Czech Republic seem to dominate his backpacker workforce.

"That comes from a time when we had on staff a woman from the Czech Republic who connected us with new workers," he says.

"The next year we had 50 Czech workers turn up, and they've since been a continued presence in the business."

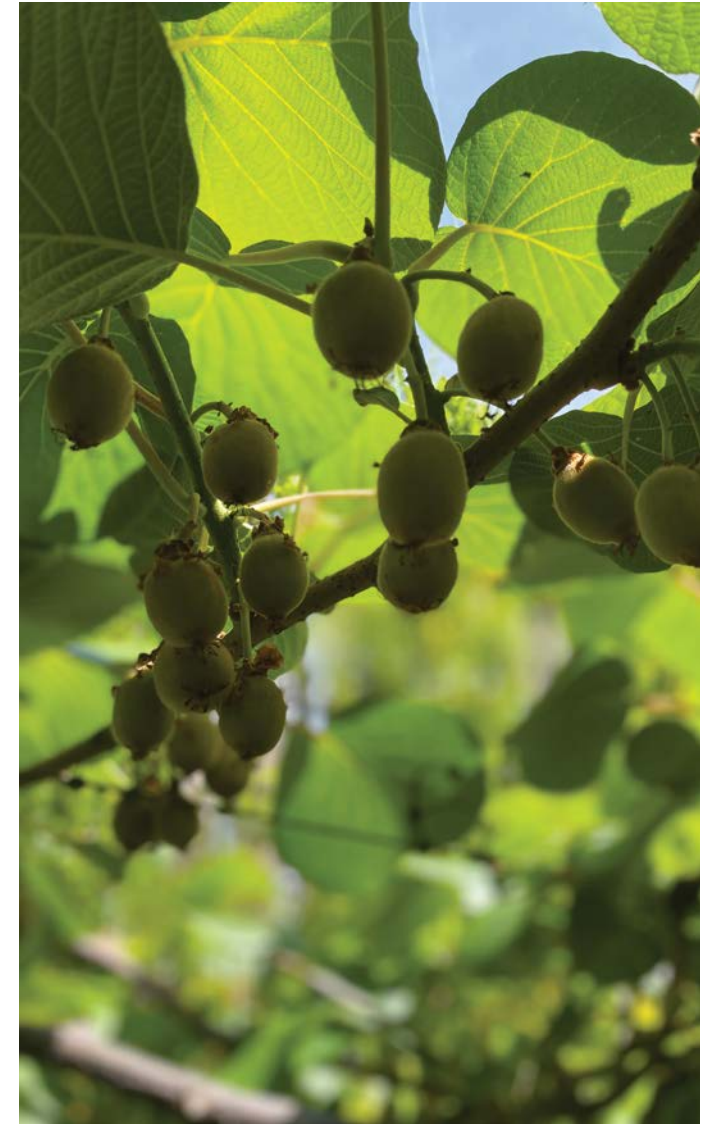
Rick needs a lot of staff to work across the packhouse, 24 hectares of persimmons and 22 hectares of apples.

"At the peak of harvest, around May to June, we require up to 80 workers and tend to see a split of about 50 percent locals to the same of backpackers," he says.

"Of course travel was affected through the Covid-19 pandemic, but now they're flowing through nicely and we're not having any trouble finding new team members."

The great thing about backpackers is that they are often on gap-years or extended trips so tend to be smart, quick to learn and keen to work, he added.

"They're a great pool of labour, and because they're keen to socialise and have new experiences, they blend in well with the locals."



THE ORCHARDIST ARTICLES TAKE HOME PRIZE

Congratulations to Tairāwhiti-based writer Kristine Walsh, who wrote and took the photos for this article, for her recognition by the New Zealand Guild of Agricultural Journalists and Communicators. Kristine was awarded runner-up for the Ministry for Primary Industries Rongo Award for two articles published in this year's March and April issues of *The Orchardist*. Her articles impressed the judges by looking behind the headlines at the personal stories of Gisborne growers affected by the cyclone.



Czech Republic backpacker Petra Hruskova stays on-orchard in her campervan, pictured with Harper Road orchard manager Bruce Van Dorp

For Rick, the key to getting – and keeping – travelling workers is to look after them, and be flexible when they get itchy feet.

“We try to make it a great experience and to support those who want to stay on and develop a career in horticulture,” he says.

“But the reality for most is that they are travelling, and want to keep travelling, so might be keen to do something like head down south to pick cherries.

“So we focus on accepting that dynamic and being comfortable as they come and go, and that works for everyone.”

Just down the road, horticulturist Bruce Van Dorp has for more than three decades run the 23-hectare Harper Road orchard which until 2022, was owned by Rick Thorpe’s older brother Bill.

As well as overseeing the healthy production of gold kiwifruit, persimmons and mandarins, Bruce has become known as a hospitable host to the backpackers he welcomes on site.

Around six years ago he established an accommodation area with parking sites for campervans, an ablutions block, kitchen facilities and a homely area for socialising.

Setting it up was bittersweet for Bruce. On one hand, the backpackers’ ‘home’ is on the same site as the house he, his late wife Adele and their two children lived in until the turn of the new millennium. On the other, he loves the energy the young travellers bring to the operation.

And it’s been great for attracting a solid stream of workers, a tradition maintained under new owners, the Bay of Plenty-based Ngāi Tukairangi Trust.



40,000

The number of WHVs issued has increased, bringing it back around the historical base range of 30,000 to 40,000 after the Covid-19 induced slump



INTEREST FROM WORKING HOLIDAYERS ON THE RISE

Data from the Ministry of Business, Innovation and Employment shows that, to the end of September 2023, the number of Working Holiday Visa (WHV) holders in New Zealand was on the rise.

The number of WHVs issued also increased, bringing it back around the historical base range of 30,000 to 40,000 after the Covid-19 induced slump.

Meanwhile, the population of WHV holders living in the country at the time was “stable and increasing” at just under 31,000 people, ten percent more than the month before.

The number of WHVs issued during the month of September this year was 4332, around 20 percent less than the monthly count of around 5000 recorded in months prior to the Covid-19 pandemic.

But even that decrease was a vast improvement on the 50 percent decline recorded after the borders were closed in March 2020.

Seasonal hiring experts PICMI say the resurgence of interest was due to steps taken by the former government to increase caps and reissue visas.

Experienced hands in the horticulture industry, the trust is fully on board and has approved funding for improvements to be made to the bathroom and kitchen facilities.

And Ngāi Tukairangi’s ownership of orchards across Northland, Hawke’s Bay, Gisborne and the Bay of Plenty means there is potential for workers to move between locations.

“

Ngāi Tukairangi’s ownership of orchards across Northland, Hawke’s Bay, Gisborne and the Bay of Plenty means there is potential for workers to move between locations



“We do have a big focus on employing locals, and those with affiliations to Ngāi Tukairangi,” says Bruce. “But at busy times our workforce needs to triple, and backpackers are a great option for getting those seasonal jobs done.

“They’re keen to work, they learn fast and they’re great fun. And they all talk among themselves so, if you look after them, they’ll keep on coming.

“But it’s not just about business. You think ‘how would I want my kids to be treated if they were travelling?’ and then give them the same care.” ●



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Tamariki harvest silverbeet from their garden at Papatoetoe West School

Cultivating young growers in schools

More than 300 schools across the country are taking part in a programme to build skills for life through highly practical hands-on experiences both in the kitchen and the garden. Students learn growing and cooking skills but also build awareness of individual and collective responsibility for the environment, seasonal and nutritious eating and community connectivity. HELENA O'NEILL talks with schools and a fruit grower about 'Garden to Table'.

Garden to Table sessions usually last 90 minutes, with half the class working in the garden and half working in the kitchen for the first hour. The groups come together to share the kai (food) for the last 30 minutes of the session. Trained and supported by Garden to Table, each school programme is run by its own team including a kitchen specialist, garden specialist, and a programme champion who connects the project across the wider teaching staff and school.

Garden to Table chief executive Ani Brunet says school and community volunteers are hugely valued, and it's a satisfying and fun way for enthusiast adults who enjoy gardening and cooking to pass on knowledge and skills to children by volunteering at their local Garden to Table school.

Throughout the year, students observe the changing seasons and full food cycle and how planting, harvesting and cooking change to reflect seasonality. Garden to Table is curriculum-linked, meaning kids are learning core subjects while getting their hands dirty in the garden and kitchen.

"This real-world approach gets taken back into the classroom to support student learning," she says.

Candace Weir is a regional coordinator in Tāmaki Makaurau, Auckland, currently supporting 34 schools across east and south Auckland to deliver their own Garden to Table programmes. Schools are provided training to help them get started, as well as to sustain and embed the programme across their schools.



Papatoetoe West School garden specialist Alice McMaster (left) and Garden to Table regional coordinator in Tāmaki Makaurau, Auckland, Candace Weir

Member schools also have access to a wealth of Garden to Table resources on topics such as pollination, soil health, kūmara growing, practical 'how to' guides, and hundreds of tried and tested recipes that make the most of seasonal fruit and vegetables the tamariki grow themselves in their school gardens.

One of the schools Candace works with is Papatoetoe West School, which joined Garden to Table in 2015. Their team is made up of kitchen specialist Phillipa Pritchard, garden specialist Alice McMaster, and programme champion Emma McKeown.

When the school joined Garden to Table, the charity Oke also helped the school to set up its garden space. Ani says that working with like-minded organisations is all part of supporting schools to empower their students to get growing and cooking affordable and sustainable kai.

“Throughout the year, students observe the changing seasons and full food cycle

Alice has been running the school's four Garden to Table sessions each week for the past three years.

"Seeing them get to grow everything themselves is the best. They're so proud and excited," Alice says.

The children grow the food on site. It is harvested and taken to the kitchen, where under the watchful eye of Phillipa, the tamariki turn fresh produce into a delicious veggie-

based dish. Phillipa says each child learns the basics, from setting a table to knife skills and other important cooking techniques.

Scraps from the kitchen are reused by the students for their on-site composting and feeding the school's worm farm and chickens.

When it comes to mealtime, tables are decorated with flowers from the school's garden, along with a jar of conversation starters. Before kai, one of the children shares a karakia (prayer) and then children and adults alike share the food they made themselves, with conversation flowing about their shared garden and kitchen experiences.

Ani says demand for Garden to Table has increased rapidly over the past few years as parents, whānau and educators recognise the educational, social and environmental impacts of teaching children to grow and cook kai. Schools value the hands-on and real-world approach to learning that benefits ākonga (students) right across subjects from maths and science to literacy and art.

Forrest Hill School on Auckland's North Shore has been part of the programme for the past six years, and is a model school for Garden to Table, hosting visitors, supporters and staff from other schools interested in joining the programme.

Deputy principal Angela White says that Garden to Table is an embedded part of Forrest Hill School life. Students become very independent in their growing and cooking abilities, highly capable in all garden and kitchen activities – cooking three-course meals in each session.



Children make scones under the watchful eye of kitchen specialist Phillipa Pritchard

Angela says the school's garden is almost sustainable, producing its own compost soil. They have also planted an orchard in the hope of feeding anyone who is hungry. Many children have begun cooking for their families and have started their own gardens at home.

"The coming together as a group to sit down and share a meal has been a key highlight of the programme. When asked about what they love about our kura (school), Garden to Table features high on the list of the students' favourite experiences," Angela says.

"Six years on, there is a real sense of community and whānau involvement. Local businesses continue to support us in generous ways by regularly donating plants, seedlings, compost and kitchen

equipment, and many other local companies offer discounted prices. We are well supported by volunteers."

Bay of Plenty kiwifruit grower and apple investor Ian Greaves volunteers with Garden to Table at regional and national levels. He describes his involvement as an enabler, supporter and encourager.

"Using my horticultural and business experience and the wide circle of contacts, I am introducing people and schools, community supporters and donors as well as offering encouragement and mentoring."

Ian says his passion is for practical 'hand up not hand out' support to offer people choices in their lives by empowering them with knowledge and skills.

Starting to grow food at a young age can be transformational in an individual's life, and assist the wider family

"NEVER TOO YOUNG TO EXPERIENCE THE PRIDE AND JOY OF GROWING AND PREPARING YOUR OWN FRUIT AND VEGGIES."

Garden to Table is running a pilot to adapt its growing and cooking programme into early childhood education centres (ECEs) and kindergartens. Sponsored by the Jenkins Foundation, the project will inform how the programme can best meet the needs of pre-schoolers. To mark this new step towards expanding Garden to Table's programme, and to celebrate ten years of partnership, a team of T&G Global volunteers joined the charity at Colwill Kindergarten in Massey, Auckland, to build their first garden beds and plant fruit and veggie seedlings with the kids and whānau.



T&G's head of corporate affairs Adrienne Sharp says the charity plays a fundamental role in growing healthy futures for New Zealand's tamariki.

"At T&G our purpose is to grow healthier futures, and Garden to Table is doing amazing work to get kids excited about fresh nutritious food through growing and cooking their own fruit and vegetables".

T&G Global first partnered with the Garden to Table Trust in 2013, and Adrienne says the success of the Garden to Table programme shows the value of providing a hands-on learning experience.

"My wife Nicola was a secondary school horticulture and science teacher, both of us are obsessive gardeners who love nothing more than to grow our own food and produce. Garden to Table is such a natural fit. In times of financial constraint, it seems so sensible to teach people how to grow, harvest and prepare food for themselves and their families."

He says that starting to grow food at a young age can be transformational in an individual's life, and assist the wider family.

"Growing plants, for food and pleasure seems such a natural and wholesome thing to do. Getting your fingers into soil and immersing yourself in nature is so healthy for overall wellbeing. I started growing things as a child when

my sister and I had our own small plots in our parents' garden. I grew seedling annuals and kowhai trees at school to raise funds to travel once I left school."

After completing his horticulture studies and joining the kiwifruit industry, Ian has always had a garden that has grown and developed.

"Growing kiwifruit is the commercial side of my vocation. There's been much talk of a shortage of labour in our industry, but by having a whole generation introduced to plants as young people there's a natural seedbed for future employees. What I love most of all is to know that children are being introduced to this vital ingredient of life, being in creation and creating." ●

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This year's Young Horticulturist of the Year is Meryn Whitehead, who represented fruit and vegetables after winning last year's Young Grower of the Year

Orchardist wins Young Horticulturist of the Year

Nelson orchardist Meryn Whitehead has won the New Zealand Young Horticulturist of the Year. After taking home the 2022 Young Grower of the Year title, Meryn battled it out against six competitors representing other horticultural sectors during a two-day final held in Karaka in November.

The Orchardist staff

The 29-year-old is a team co-ordinator at Vailima Orchard, a fourth-generation, family-owned business with more than 200 hectares of apple orchards stretching over the Tasman District's Waimea plains.

Speaking after being announced the winner, Meryn said she felt a sense of disbelief.

"The other competitors knew their stuff and were an intimidating bunch to go up against. Having said that, it never felt like a competition; we were more like a support group for each other. It was a lovely group to be with and I felt privileged and lucky to be part of that," she said.

Held in November each year, the Young Horticulturist Competition is a grand final that brings together the best young talent in horticulture. Finalists are tested on their horticultural practical skills, leadership ability, speechcraft, business acumen and industry knowledge.

Meryn (from the fruit & vegetable sector) was up against competitors from the following sectors: winegrowers, amenity horticulture, plant producers, landscapers, arborists and florists/flower growers.

For Meryn, who has been at Vailima Orchard for three years, becoming an orchardist was never a clear-cut

career decision. She had always figured she wanted to work outdoors, but it took a trip across the world to New Zealand to clarify what that would look like.

"After leaving university in Wales I decided to come travelling before beginning a career. I reached New Zealand and did some seasonal work on a small-scale stonefruit orchard in Hastings and enjoyed it so much I went back the next summer.

“

I want to keep encouraging other people to take these chances and opportunities



"In my travels around New Zealand, between these two seasons, I met a Kiwi and decided to give New Zealand a bit more of my time than originally planned. That was eight years ago," laughs this young woman who describes herself as "a bit of a hybrid," having been born in England, spent most of her life in Wales, and now calling New Zealand home.

Back in the United Kingdom, Meryn's very horticulture-focused family is celebrating her success. Her younger sister, for example, recently acquired an apprenticeship at the National Botanic Gardens of Wales, and her father manages a National Trust estate.

While Meryn very much stumbled into orchard work, she has found it ticks a lot of her desired career boxes.

"I've always been active and love that this job lets me get out and about with the practical side of things, but also love the office work I do, whether that's organising teams, or coming up with ways to make work more efficient and easier for our staff," Meryn enthuses.

She enjoys the variety, and especially relishes the opportunity to encourage newer or younger staff members to push themselves, and to find the area of the business which they really enjoy. Now as Young Horticulturist of the Year she is even more committed to this.

“

Horticulture's future is in highly skilled and capable hands

"I know I want to keep encouraging other people to take these chances and opportunities like this competition, as it really pays off. And I want to pass on my passion for an industry I have stumbled into, and want young people to see there are opportunities in this industry for anyone," she says.



Meryn Whitehead is team co-ordinator at Vailima Orchard in the Tasman District

Young Horticulturist Competition chairperson Hamish Gates says the competition - now in its 18th year - continues to seed the future of horticulture.

"We feel very privileged to be able to continue fostering the future leaders of this wonderful industry. Over the past few years, we have seen rapidly growing support from our sectors, helpers, and sponsors alike. As a result, we are getting finalists who are more prepared, more impressive, and more competitive showing off their talent. Horticulture's future is in highly skilled and capable hands," he says.

The competition's official partners are Woolworths NZ, Fruited Supplies and T&G Fresh. ●



Harry Jnr, Tasha and four kids – a new era at Roberts Family Orchard

Family orchard handed over to the next generation

It's the beginning of a new era at Roberts Family Orchard in Earnscleugh. There's a new Harry at the helm and his wife Tasha is bringing in her business skills to turn the rural market fruit stall into a proper country store. Tasha owns a hair salon in Alexandra and her business is now on the market so she can concentrate on the family orchard. "We always knew we wanted to take over the business, and the time was right now and with the kids all grown up and left home," she says.

Aimee Wilson

Harry Jnr and Tasha met when she was just 15 and he was 17. There are also four (now grown up) kids who have all worked at Roberts Family Orchard at various stages throughout their younger years, and still from time to time come home to work or even just help out.

Originally a motorbike mechanic after leaving high school, Harry decided to make the change to the family orchard in his early twenties. He says he loves the challenge of fruit growing.

For Tasha it's the lifestyle mixed in with family life and the people from all walks of life who come to work for them every spring to summer.

"We've always got family and other people around. It's a real hub, and we love that," she says.

Harry Jnr and Tasha have stepped up to now take full responsibility of the 50ha working orchard, in the first changing of the guard since 1978.



Harry Snr, Harry Jnr and Joan at Roberts Family Orchard

Harry Snr and Joan Roberts will still be involved – it's in their blood. As a Hinton, Joan grew up around fruit growing, and most recently has been running their rural market after overseeing the packhouse and quality control for many years. Joan is happy she can head off a bit more to their second home on the West Coast to relax and go whitebaiting – she often spends two or three months a year over there every spring.

Harry Jnr will continue to manage the orchard, and the couple have already digitalised their administration so they can work smarter – particularly with labour.

“

It can be a rocky sort of road, with a lot of bends in it

The family orchard has always brought in its own group of Recognised Seasonal Employer (RSE) scheme workers, many of whom have been coming every season for the past 17 years. There are also plenty of other Central Otago families whose teenagers have worked for Harry Roberts over the years as well. And there's a pretty good chance he'll remember most of them too.

The young couple are excited about the next generation of fruit growers coming through, allowing them to connect with other young business owners in the district.

"We'll probably think a lot differently too," Harry Jnr says.



Harry Snr with his son filling up frost pots after Joan and Harry took over the family orchard in 1978



Harry and Joan Roberts on one of their favourite blocks on their Earnsclough orchard

“WE WANT THE YOUNG ONES TO DO WELL.”

Seventy-five-year-old Harry Roberts says fruit growing is a lifetime commitment, and it is lovely to see the next generation of his family coming through to take over the Earnsclough orchard.

“We’ve had some wonderful times but it’s all hard work. I want to work until I croak,” he says, although his failing eyesight has been a problem in recent years.

He talks often about how tough it is to be an orchardist, and the tighter regulations and increased costs associated have started to weigh him down, and he is mindful that the road ahead for his son won’t be easy.

“The journey is so up and down. It can be a rocky sort of road, with a lot of bends in it.”

He misses the camaraderie with fellow family orchardists through the fruitgrowers associations of the day, and where resources were always shared.

“If someone was sick we used to help each other out, but not so much now, because so much of it is big commercial (operations). You’re hardly going to offer your help to a syndicate.”

Both he and Joan are hesitant to completely sign off, “and we want the young ones to do well because it’s just such a hard industry.”

The pressure was always on, and the weather patterns made life on the orchard so unpredictable – in 2018–2019 he grew the best cherries he’d ever seen.

But then the rain came on Christmas Eve and he spent the next few days using the fans of five sprayers through the night to dry them.

“We put in too much effort and should have just walked away. You can spend a lot of money keeping your crop. But you learn your lessons.”

Then Covid-19 hit, cutting off their staff like it did for everyone else around the country.

Roberts Family Fruit has always grown using traditional methods, but this week Harry Snr mentioned UFO (upright fruiting offshoots) in his conversation, suggesting the ship might be turning.

Roberts Rural Market is the only one on Earnsclough Road, and from December 2023 the Roberts Family Fruit Country Store will grow from having their own fruit and produce to bringing in other fresh fruit and vegetables from across the country. “We hope to work directly with other family growers from all over New Zealand,” Tasha says, as well as condiments, and gifts from other local businesses across New Zealand. Fresh coffee and real fruit ice creams will be another drawcard.

People will even be able to bring their own bottles and fill up on kombucha on tap, thanks to Wanaka brewed b-effect. “We’re going into this on a high and we’re very excited about it.”

Renowned for having one of the coldest blocks in Earnsclough, there have been weather events on the Roberts Family Orchard that have made national news, and perhaps that’s how Harry Snr was recognised for his talent in the media – starring as the main guy in the Mainland spreadable butter advert on television, as well as numerous others for Foodstuffs NZ.

“

With at least five different soil types on the orchard, fruit and vegetables grow plentifully



“Central Otago has always been a wee bit extreme.” Joan remembers one year in the 1990s the entire orchard got hailed out and they lost every last piece of fruit. “It was devastating. We tried to salvage everything but it wasn’t worth it.”

September 18, 1971 is another date the Roberts family will never forget. The biggest storm in the history of the orchard. Nine days straight of frost fighting and three days without sleep.

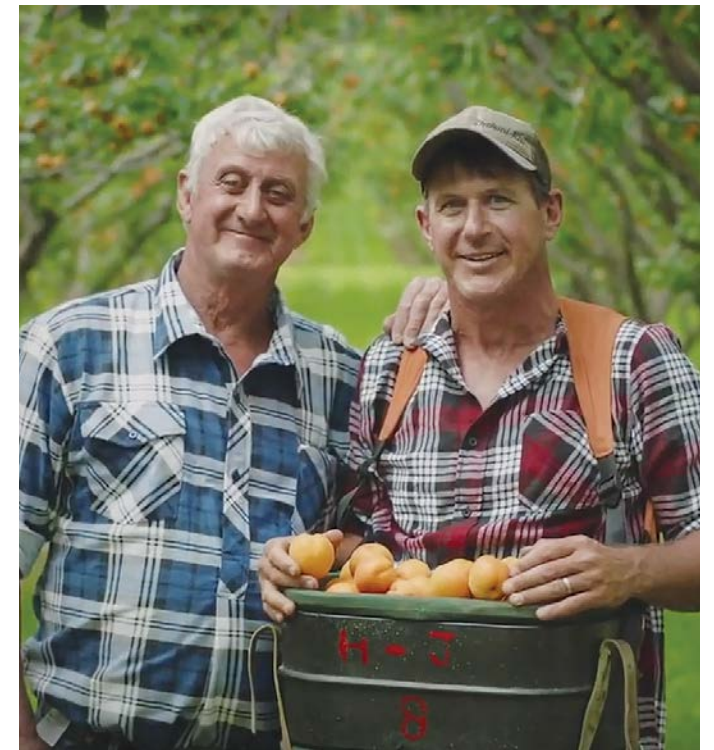
“Yes I’ve learned there is no such thing as a frost-free Central Otago,” Harry Jnr says.

The family orchard was originally bought by Harry’s father Heck and mother Nancy after moving from Dunedin, followed by brothers Heck and Dave, and then Bill in 1971.

Joan and Harry took over the family orchard in 1978 and it eventually grew from the original 12ha ‘Home Block’ to four more (50ha plus), and now Harry Jnr and Tash also own their own separate block as well.

Joan and Harry also have two other children – Vicky (who still works on the orchard) and Maryann.

Joan can remember when cherries were flown straight out of Alexandra airport in the large Bristol Freighter aircraft for Blenheim, where they were packed and sent off to Japan. They used to export into Europe as well, but like other orchardists, are now competing with Chile and Australia.



Harry Snr bought his first shares in the family orchard at just 16, saving up his wages – back when orchardists were able to make a living out of smaller blocks of just 15ha – “but it’s certainly changed now.”

“We got good money for fruit then. And they were worth a lot more than they are today.”

The export market has increasingly strived for big, hard, crunchy cherries and Roberts Family Orchard prides itself on building up its quality over the years. Buyers overseas recognise and even request their distinctive box that their export fruit is packaged in.

With at least five different soil types on the orchard, fruit and vegetables grow plentifully in this small corner of paradise, and there are always many new things in the trail phase. ●



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Feijoa grower meeting ushers in new management

The Orchardist staff

Feijoa growers held their Annual General Meeting in Gisborne on 3 November. The meeting took place at the Waikanae Surf Life Saving Club, which is sponsored by Kaiaponi Farms. Dave Hansen from Kaiaponi Farms helped organise a tour around the Gisborne region for about 20 growers. This included a field visit to Dan and Katie Griffin's cyclone-affected orchard. They may pick this season but are then not sure of their future plans.

"We also had a tour of Kaiaponi's orchard and packhouse. It was great to see their new investment in cool storage and orchards," says Matt Thorn, the new business manager for the NZ Feijoa Growers Association, which represents about 50 growers. This new responsibility is part of Matt's role at Horticulture New Zealand, which manages the product group on behalf of feijoa growers.

NZ Feijoa Growers Association chair Roger Matthews, who runs Pounamu Orchards in Morrinsville, thanked outgoing business manager Ian Turk for his 18 years of excellent service to the organisation. Ian is taking a step back but says the highlights of his time in the feijoa sector include dealing with the industry's most serious threats in recent times – including guava moth and the fungus anthracnose, which has hit Northland growers particularly hard.

“

I hope that after some pretty tough years and awful weather, that this summer will provide growers with better conditions

Ian says his role in helping obtain significant Sustainable Food & Fibre Futures (SFFF) funding to help growers tackle these threats has been rewarding. "Both were approximately \$400,000 multi-year projects which were aimed at major industry issues. Both were impacted by the Covid-19 response and needed variations."

He also looks back at some very enjoyable afternoons on grower field trips and socialising with members. He says he hopes to see the feijoa industry reach its potential.



Kaiaponi Farms kiwifruit and feijoa manager Alan Knight speaking with growers on the field trip

"The fruit has a unique place in New Zealand culture, and with some focused strategic action should be well placed to grow as a local and export crop."

Matt Thorn agrees and is looking forward to the challenge as growers prepare for the next season. "I hope that after some pretty tough years and awful weather, that this summer will provide growers with better conditions. It's important that New Zealanders keep enjoying this special fruit." ●



For more information about feijoa growing, contact NZ Feijoa Growers Association business manager Matt Thorn on:
027 553 7848
matt.thorn@hortnz.co.nz

Avocado growers appoint new chief executive



Matthew Ball : NZ Avocado marketing and communications manager

The New Zealand avocado industry is about halfway through its season, and with export programmes well underway.

Since mid-August, NZ Avocado has been under the leadership of acting chief executive Brad Siebert. The newly elected Executive of grower representatives has decided to appoint Brad formally as chief executive of NZ Avocado with their full confidence behind him. Brad's commitment to biosecurity, market access, sustainability and trade policy aligns seamlessly with the industry's evolving landscape, emphasising the importance of adaptability and foresight. Brad Siebert, with extensive experience and strategic vision having spent much of his career in primary industries and over nine years with NZ Avocado, is well equipped for the role.

The avocado industry in New Zealand is at an interesting juncture, dealing with the climatic events that have influenced fruit size and quality over the past year. While nearly 50 percent of the forecast volume for the season has been successfully harvested, challenges persist. The impact of these events is evident in lower export pack-out rates and an increased volume of fruit entering the New Zealand domestic market.

“

The objective is to ensure the industry remains agile and responsive to the dynamic nature of market conditions, enabling swift adaptation to changes

On the global front, the last decade has witnessed a remarkable seven percent compound annual growth rate in avocado production. As the industry positions itself in key export markets, the heightened competition demands strategic focus. Despite these challenges, the current season has seen a positive development with fruit reaching a greater number of markets than ever before. This expansion underscores the commitment to market diversification, a strategic focus for the sector.



Brad Siebert has been appointed chief executive of NZ Avocado by the newly elected Executive of grower representatives

Looking forward, the preliminary outlook for the 2024-25 season suggests a larger crop. To navigate this potential abundance and capitalise on export opportunities, the industry will be reviewing its strategy. The objective is to ensure the industry remains agile and responsive to the dynamic nature of market conditions, enabling swift adaptation to changes.

“

The avocado industry in New Zealand is at an interesting juncture

As the industry continues to navigate challenges and opportunities in the avocado sector, the collective efforts of the new leadership will be crucial. The focus on biosecurity, market access, sustainability and trade policy will be paramount as the industry works towards securing its future and maintaining its position as a key player in the global avocado market. ●

Innovative solutions crucial for horticulture

The Orchardist staff

Animal and Plant Health New Zealand, the peak industry association representing companies in crop protection science and technology among others, recently appointed Dr Liz Shackleton as its new chief executive. She brings a wealth of leadership experience in agriculture and biosecurity. A veterinarian by training, Liz has a passion for crop protection and the success of the primary sector. She is a chartered member of the NZ Institute of Directors and a board member of the NZ Veterinary Council.

? What is your message to growers in New Zealand?

Our growers need access to innovation to update our toolkit to manage pests and weeds, not just today but into the future. We are facing new pests, such as fall armyworm, the challenges of weather changes and new or longer life cycles of pests. We must support growers by bringing these innovations to New Zealand to tackle these issues before we hit crisis mode. New Zealand's biosecurity system is a crucial part of this as biosecurity threats can, and do, get past the border.

? What excites you about your new role at Animal and Plant Health NZ?

I'm thrilled about supporting our diverse member organisations, representing nearly 90 entities ranging from small family businesses to global multinationals. Their science and innovation play a crucial role in New Zealand's primary sector and economy, addressing biosecurity challenges, ensuring food security, and contributing to global competitiveness.

? What are your goals for the future?

Our vision revolves around healthy crops and healthy animals safeguarding New Zealand's sustainability. I aim to engage with the government and partners to advocate for science, innovation, supportive regulation, and effective storytelling. Urgent priorities include unblocking access to innovation, fostering strategic partnerships, and adapting to future challenges.

? What should the new government prioritise?

Unblocking access to innovation. This has been a long-standing issue and if we can't embrace new technology,



Dr Liz Shackleton is the new chief executive of Animal and Plant Health New Zealand

New Zealand risks an increasingly limited toolkit to manage pests, diseases, climate challenges, and sustain productivity. This poses a threat to the agriculture sector, exports, and overall food security, with global investors expressing concerns and withdrawing from the market. Urgent collaboration is needed to address this risk to New Zealand's brand and economy.

? What misconceptions about the industry would you most like to address?

There is no rest stop on the misconception highway, with plenty about our industry and the primary industry in general. What we hear less of is the collaboration and constructive action being taken in sustainability and stewardship, such as responsible use and resistance management. We need to continue to lean on the important tools that have long-term and preventative benefits – biosecurity, disease surveillance, diagnostics, management practices, and other health technologies. This means accessing innovation as technology and our product life cycles age.

? What do you like to do outside of work?

Parenthood is my primary focus outside of work. I also enjoy trail runs in nature, and time with friends. ●

Farewell to a connoisseur of music, food, and crop protection solutions

Grant Hagerty will be remembered for his infectious laughter, generous spirit, love of food and music, and incredible catalogue of technical information on crop protection products.

Known as the go-to person for technical information on managing pests and weeds, BASF's technical manager, Grant Hagerty, sadly passed away in August 2023, leaving a legacy that will be remembered by the next generation of growers.

With his extensive knowledge, Grant was phenomenal at answering technical questions – typically from memory or by consulting his vast collection of electronic or paper files. He made outstanding contributions to agriculture in New Zealand and was instrumental in maximising agricultural productivity and enabling horticultural exports to the world.

Throughout his career, Grant introduced cutting-edge products into the market and collaborated on agrichemical resistance management strategies. He was instrumental in developing and registering herbicides, fungicides, and plant growth regulators in New Zealand, with a knowledge and passion that were second to none – spanning from the early years of crop protection to the latest cutting-edge innovations.

Grant was a passionate advocate of food and music, a great friend, an amazing colleague with an outstanding sense of humour, and a straight shooter. Grant's tenure with BASF, which endured for more than 40 years, leaves a lasting impression on his colleagues as they share their thoughts on working with Grant.

"Grant's infectious laughter, passion for his work, willingness to lend a helping hand, and his unwavering commitment to his job made a lasting impact on all who had the privilege of knowing him. I learnt a lot from Grant

and will miss him as both a friend and colleague," says Gavin Jackson, head of agricultural solutions – Australia & New Zealand.

"Grant had a huge stature in the New Zealand agriculture and horticulture industry. His memory of trials done over the decades was phenomenal. In the over 37 years I knew Grant, I never stopped learning from him." – Tim Herman, senior technical services specialist.

"Farewell, Grant. We already miss your comments, your laughs, your knowledge. You have left a giant hole in the industry that few can fill. We can only try and maintain your legacy. The challenge is ours to try" says Tim Geuze, territory manager – New Zealand.

Mamoun Al-Farra, regulatory affairs manager, comments: "I am grateful for the memories shared with Grant and the positive influence he had on our team. Grant's vibrant spirit will live on in our hearts and minds forever."

Grant was awarded the Animal and Plant Health NZ Outstanding Contribution Award at the association's July conference. The Award recognised Grant's contributions, including championing the needs of fellow members on industry issues, promoting the industry to the wider community, developing innovative ideas and solutions for the industry, and lending a hand on technical issues.

Grant had the utmost commitment to agriculture, was a valued friend of the industry and, above all, was a great man. ●



Grant Hagerty (right) shares Revystar® demonstration plots with New Zealand farmers and agronomists at the Foundation for Arable Research Arable Field Day

Review your crop loading and thinning approach

As I write this article, we are assessing the results of our chemical thinning strategy in pipfruit. My take on the result is that the Hawke's Bay crop has been largely hard to shift.

Jack Wilson : AgFirst Hawke's Bay consultant

We have had great fruit set conditions, largely warm days and cool nights, meaning the trees have come back and fruit has stuck with a vengeance. In the Nelson region, similarly the spring has given good pollination and fruit set conditions with early signs of a promising chemical thinning result. Regardless of the chemical result, in this article I want to talk about the crop loading stage of the season with two main factors in mind, fruit quality targets and labour efficiency during thinning.

By publication date however, you will be well through your thinning, so this will be a good opportunity to review your thinning approach compared to some of the ideas presented in this article.

The end product

Prior to setting your strategy for thinning and crop load, you need to first know where you're going. Every block of trees is unique, and each will have its own target. The combination of yield and vigour has a huge bearing on the quality of the crop here in New Zealand with our unique microclimate and rich soils. The market wants a big red apple. If we grow fruit too small, we lose the premium, so we must make sure our crop load target achieves good size with good red colouration. In certain circumstances, a heavy

crop load may grow a decent sized fruit, but it will struggle to colour within a good maturity specification.

Goals for every block need to be:

- Maximising Class 1 yield
- Achieve the size outcomes that maximise returns for a particular variety
- Achieve a good proportion of high-grade colour for premium varieties
- That most of the crop can be picked with good colour and good maturity specifications during an efficient timeframe.

Getting all this right will help set up a good crop for the following year.

Target tonnage

We can all agree that these goals are relatively universal and so the question is, how do we achieve this? First, we need to start with a target then look at the rules for the use of thinners, and fruit prioritisation.

There is a very good three-point yield checklist we use to help growers set targets:

1. Fruit per trunk cross-seasonal area (TCA)
2. Tree row volume (TRV)
3. Block cropping history and benchmarking

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Figure 1: Example of an optimal Envy™ crop load at ten fruit/cm² (left) and an excessive crop load at 15 fruit/cm² (right)

Fruit per TCA

The size of the trunk has a direct correlation to the tree’s cropping potential. Therefore, using the area of the trunk, we can determine how many fruit to carry on each tree. There has been extensive research and experience in identifying the sweet spot for different varieties at different tree ages. The sweet spot for varieties like Envy™ and Dazzle™ is ten to 12 harvested fruit/cm². This range will change for fruit targeting different size profiles. For a block that needs more canopy growth, the yield target will be on the lower level of that range, and for a block that needs slowing down you will need to target the higher end. This method is an excellent option for younger trees, and it is important to note that the relationship between TCA and yield diminishes as the trees mature. Like anything we measure in the orchard, representation is important, so make sure when measuring TCA that you are measuring 25cm above the graft union on ten to 20 representative trees in the block.

Tree row volume

The second check is the tree row volume or percentage of full canopy. This measure takes the potential yield multiplied by the percentage of full canopy to get your target yield. For example, if a potential yield of a block at full maturity is 100t/ha and the block’s canopy is 70 percent

full, the target yield for that year would be 70 percent of 100t/ha, which is 70t/ha.

Cropping history

The third check is the block’s cropping history. There is a lot that can be learnt using the yield progression along with fruit size and quality outcomes, to justify the next year’s crop.

The reason for using all three methods is a cross check. In a particular block, all three methods should end up at a very similar target. If they don’t, often there will be a problem with the block regarding the relationship between crop load and vigour.

The example block in Figure 2 shows the damage that can be done with excessive crop load. This block had a third leaf estimate of 40t/ha based on ten fruit per TCA, the lower end of the scale to ensure continued canopy growth. Post thinning fruit counts indicated the block was on target, with 65 fruit per tree (the target was 62). However, with inaccurate counting, Quality Control or misrepresentation of tree size, the actual yield resulted in 48t/ha at 14.5 fruit per TCA. In hindsight this was too high, resulting in a less than optimal high-grade percentage colour, fruit size and more importantly the creation of a biennial swing. With accurate counting or scanning this would have been prevented, resulting in a much healthier accumulative yield.

Thinning Report
Season Ending 2019



THOMPSON																
South End																
ENVY™																
Blockname	Ssn	Type	Gross Kg/ha	Class 1 Kg/ha	Class 1 P/O %	HG %	Fruit Weight (g)	Harvested Fruit/Tree	TCA	Harvested Fruit/TCA	Tree Pickout %	Target Fruit/Tree post-thin	Fruit Pre-thin	Fruit Monitor thin	Fruit Post-thin	
Envy™ THO 2016	2019	Est	40,000	30,000	75	70	300	56	5.6	10.0	90	62	-	-	-	
		Act	48,038	34,587	72	57	248	81	5.6	14.5	125	-	-	-	65	
	2018	Act	11,783	8,248	70	60	330	15	3.0	5.0	100	17	-	-	15	
	2017	Act	0	0	-	60	300	0	1.2	0.0	-	0	-	-	-	

Figure 2: Thinning report for a 3rd leaf Envy™ block via OrchardNet

Thinning rules

Now we have our crop and yield targets, we need to identify strategies to achieve them with our thinners. Two good methods for developing rules for your thinners include cluster counting and monitor thinning:

1. Counting the clusters before you thin will give you the number of fruiting sites on the tree you can work with. From there you can calculate whether you can hold the fruit in singles, singles spaced, or if you need to hang the odd double. You will then count the fruit afterward to assess the accuracy to target.

2. Monitor thinning includes getting a member of management or Quality Control team to thin several monitor trees under a set of rules, for example singles spaced, then count the tree afterward and assess whether the rules need to change to hit the target. If there is a big change needed you may need to include doubles. If it’s a minor change all you will need to do is alter the spacing between fruit. Often a change of spacing from the size of a fist to a spread palm can make all the difference.

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Envy™ Production vs Age

comparison: National, Type – Envy™
Research Blocks Excluded

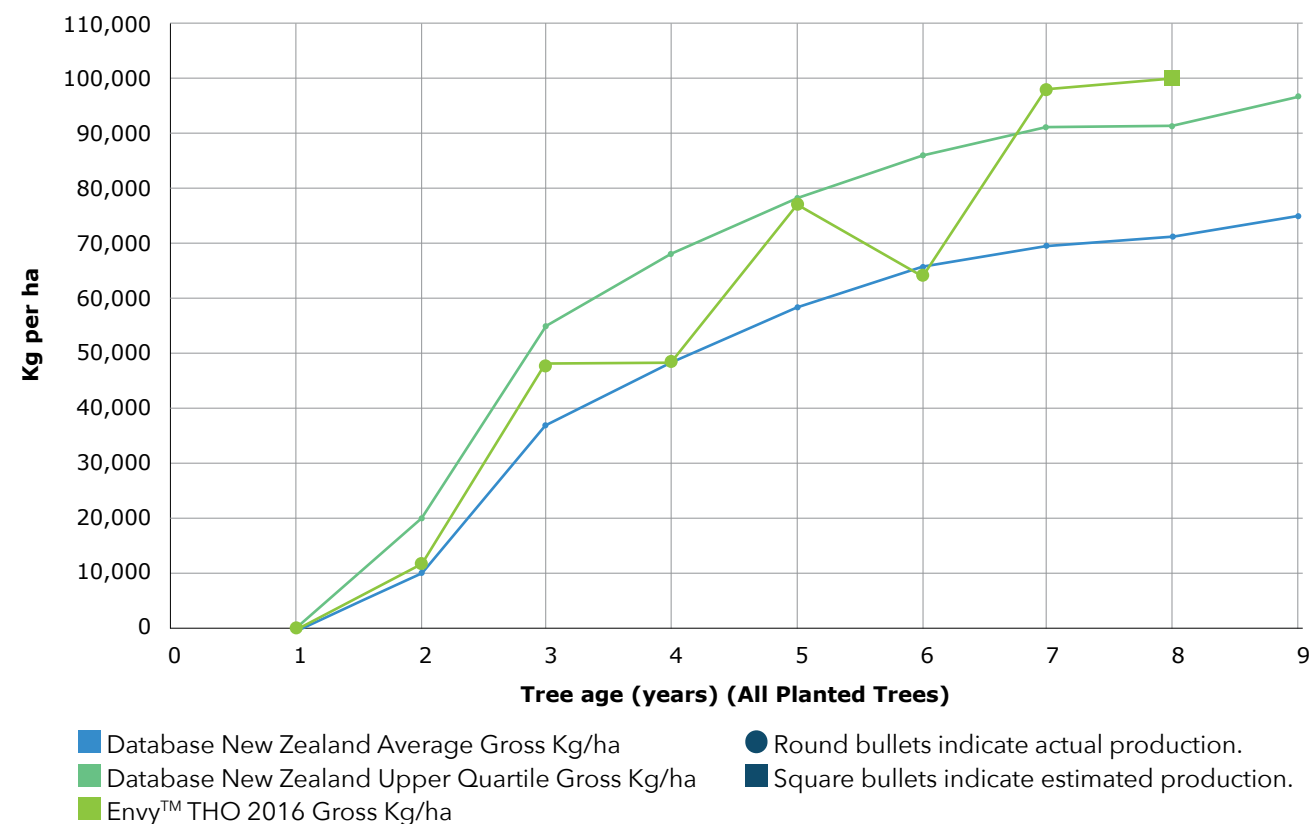


Figure 3: Cropping history by tree age of an Envy™ block overcropped in year 3. Block data is benchmarked against the average and upper quartile for all Envy™ production in New Zealand

Thinning efficiency

Once you have the thinning quantity rules in check, then you can move to the thinner efficiency.

1. As the thinners on your team start a new season, they often take some time to get into the swing of things. This is also the time they are most receptive to a change in what they're doing. This period will be the peak of your Quality Control work.
2. One often unnoticed cost saver is doing a smart thinning job early. Getting numbers down to target with good spacing reduces the number of picks required at harvest. Harvest is the most expensive labour cost during the growing season, therefore making this more efficient is worth its weight in gold. This requires good, regular Quality Control work behind the thinning crew.
3. If you have excessive fruit numbers, sometimes the cheapest thinning is done with a pair of secateurs removing small branches on the underside, shaded part of the tree.

Desirable fruit

When thinning, you are not only thinning for target numbers, but you are starting the first cosmetic groom of the crop. Not every fruit is the same before hand thinning, so being selective puts us closer to achieving the desired quality outcome come harvest. Here are several cosmetic elements for deciding what fruit to leave on the tree:

1. Remove smaller fruit in preference to the bigger fruit. You have grown the carbohydrate so you may as well capture as much as you can in fruit size.
2. Choose the cleanest fruit. Russet, hail and wind often leave unwanted cosmetic changes, so removing defect fruit increases Class 1 yield and saves cost at the packhouse.
3. Prioritise fruit that is sitting out in the light. Fruit out in the light has a better chance of achieving high-grade colour and size.
4. For many varieties in today's market, we want to make sure all fruit are sitting as a single, and often spaced.



Figure 4: In a big fruit size crop like Dazzle™, what looks like big spacing at thinning is perfect at harvest

Fruit size monitoring

Once fruitlets are around six weeks after full bloom (AFB) it becomes possible to differentiate fruit by size and use fruitlet size to forecast harvest size. This gives the ability to make changes as the season progresses.

At 65 days AFB, which for Royal Gala in Hawke's Bay this year is likely to be around mid-December, average fruit size should be 42 to 45.5mm in diameter. If it's a small size year the average size will be at the lower end of this range. In a large fruit size year, the 65 days AFB fruit size will be at the upper end of this range. Average fruit sizing per week for Royal Gala around 65 days AFB is in the range of

4 to 4.5mm a week. By 95 days AFB (mid-January) the fruit sizing rate will have dropped off to 3 to 3.5mm a week. If trees are over-cropped, or under stress, fruit sizing may stall at this stage. At 95 days AFB a 110 count fruit size will be about 57mm in diameter.

Fruit size measurement over mid-December through to the end of January will give a good guide as to how the crop is sizing. Checking fruit sizing will help with later crop management and harvest strategies.

If you detect that fruit sizing has begun to stall, proactive action aimed at reducing crop loads with removal of smaller or damaged fruit will, along with application of ReTain® or Harvista™ delaying harvest, will improve fruit growth rates and extend the growth period. Through harvest, varieties such as Royal Gala types will continue to size at about one percent per day. Delaying harvest by ten days will give a count size increase in average fruit size, provided the trees are not under excessive stress.

Summary

This Hawke's Bay spring has given us an excellent start to the season with good winter chilling, warm days and cool nights. It has meant we have had to be aggressive with chemical thinners and are now zoned into our yield targets, and the strategies used to achieve them. I cannot emphasise enough the importance of counting. We will be in a stage now where some block thinning will be completed, and an assessment of the thinning result will be done. Find who your best counters are, potentially use aerial tree size mapping to point counters in the right direction of tree representation, or enquire about our fruit count scanning technology to get full block count data and fruit size from 10mm fruit. Like the example above, we don't want to leave money on the table due to poor counting or representation.

Your thinning execution now will either make life very easy or difficult when harvest comes around. Farming by numbers takes the gut feel out of the equation, and identifies where the peaks and pitfalls of our production are. ●

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Owners should check if dams or water retention structures on their property fall under the new regulations

Navigating New Zealand's new dam safety regulations

If you own a dam, you may already know that new dam safety regulations come into effect next May. What you might not know is whether your dam is classifiable, and what your next steps are. WSP New Zealand technical experts Margaret Stoffel, Lisa Arnold, Evan Giles, and Rex Corlett explain.

Across the country, thousands of dams play a pivotal role in sustaining the agricultural and horticultural sectors. From irrigation to livestock water supply, dams are the lifeblood of the industry. While some, like those owned by councils, are large and prominent, many smaller dams used by growers often remain under the radar.

Change for New Zealand dams is on the horizon. With it comes a more rigorous approach to dam management and safety. From 13 May 2024, owners of dams that meet or exceed regulatory height and volume restrictions will need to confirm the potential risk their dam poses, put in place safety plans, and undertake regular dam inspections.

Are you affected – yes, or no?

First, you need to find out where your dam or water retention structure falls under the new regulations. There are special requirements for dams that are either four

metres or higher and with a volume greater than 20,000m³, or one metre or higher and with a volume greater than 40,000m³. The height of the dam is typically the vertical distance from the crest of the dam to the lowest elevation at the outside limit of the dam (i.e. top to toe).

To help make things easy, the Ministry of Business, Innovation and Employment (MBIE) has set out in colour illustrations, what is (and isn't) classified as a dam. We recommend you take a look – they are in Section 7 of MBIE's Dam Safety Guidance.

If you have access to your dam's original design drawings, it may be clear as day that it's classifiable. Or it could be less certain. Either way, it's important you find out. Initially, it may not be more complex than getting out a measuring tape and level, together with measuring up the dam's surface area from a map. But there are some nuances around where the



WSP inspectors assessing flood control

measurements need to be taken from. Again, we recommend looking at Section 7 of MBIE's Dam Safety Guidance.

Is your dam classifiable?

If you have a classifiable dam, there are some important things to know. From next May, owners of classifiable dams must arrange for a Potential Impact Classification (PIC) to assess the hypothetical consequences of it failing.

Importantly, a PIC is not an evaluation of the dam's structural adequacy. Instead, it focuses on assessing the potential consequences if a dam were to fail – even if the dam is well-designed and properly constructed.

“

These new regulations are finally ushering in a more comprehensive approach to dam management



The consequences of dam failure can be catastrophic, affecting communities, property and the environment. A recent example from Waikato, which sent 23,000m³ of silt-laden water through homes and gardens, underscores the importance and urgency of the new regulations.

You can do the PIC yourself (Section 7 of the Dam Safety Guidance sets out how to do this) or get a professional engineer to help. Either way, your PIC will need to be audited and certified by a Recognised Engineer (Dam Safety) and sent to your local regional authority.

If your dam has a 'medium' or 'high' PIC, you will then have to prepare what is known as a Dam Safety Assurance Programme (DSAP), which must have effective procedures for running the dam and reservoir, and effective surveillance procedures (such as visual inspections) for keeping it safe. The DSAP must also include emergency action steps to notify affected parties of a potential incident. That plan too needs to be certified by a Recognised Engineer.

Why you should act now

With the regulations coming into force soon it is vital you understand the timeline and act proactively. Doing nothing is not an option. Under the new regulations you have responsibilities to meet if you have a classifiable dam. The last thing you want is to fall foul of the regulations, have a dam failure with damaging downstream impacts, and end up in court. That is likely to cost you dearly.

With PICs due no later than three months after the regulations come into force (or no later than three months after a new dam is commissioned) there is not a large window of time.

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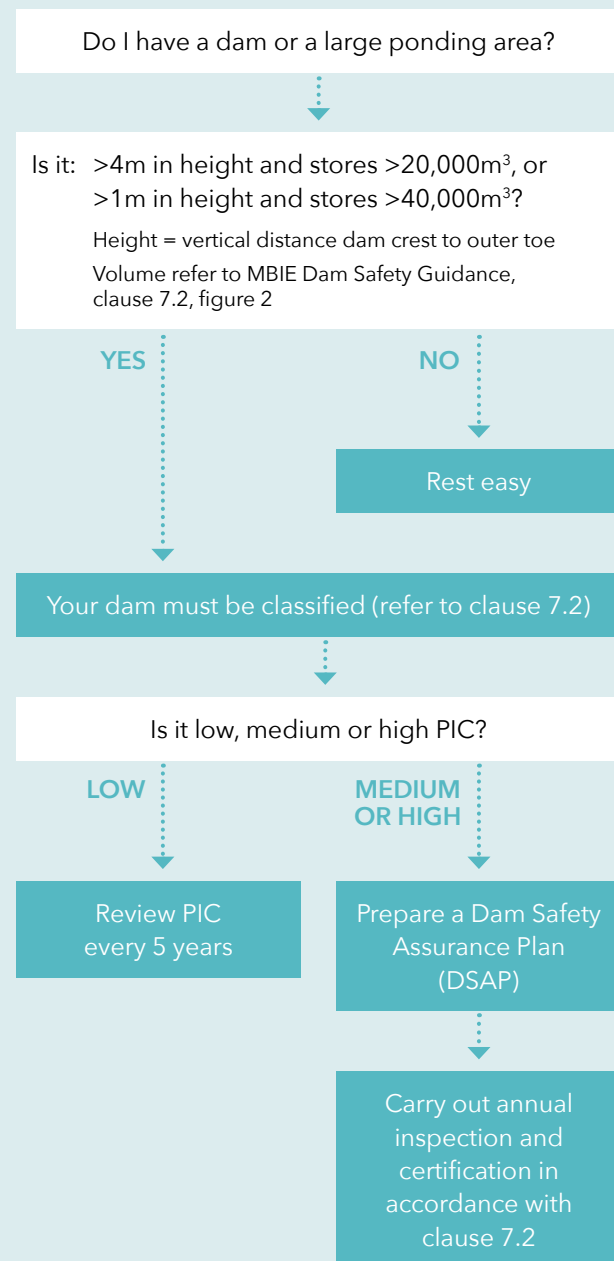
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SIMPLIFIED FLOWCHART TO COMPLY WITH NEW DAM SAFETY REGULATIONS



Comments

- Regardless of the outcome, good housekeeping would include an annual walk-over inspection to 'look for trouble'. At the end of the wet season during August is good.
- Read the MBIE Dam Safety Guidance and in particular Section 7.
- Decide early whether you need help to determine the PIC.
- Engage a recognised engineer early.
- Many dams will not require classification. Most of those classified are likely to be low PIC. An energetic approach now will recap the best rewards to be low PIC. An energetic approach now will reap the best rewards.

Waiting until the last minute to complete your PIC could lead to unnecessary stress and delays in the approval process. Procrastination can result in a bottleneck – and no-one wants that. Starting well in advance will allow for a more streamlined review by engineering professionals, saving time for both you and the relatively small community of recognised dam safety practitioners.

Help protect people and property

These new regulations are far from a tick box affair; they are an essential safety measure aimed at protecting people in downstream communities, infrastructure, environmental, cultural and historic features.

While many horticultural and farm dams are in remote areas, the potential impact of a dam failure cannot be underestimated. Failure can result from several factors, including floods, earthquakes, landslides, animal-induced damage, volcanic activity, or even sabotage.

It is important to consider that, while a dam may have existed for many years, changes in population, infrastructure and human activity downstream following its construction could now pose risks that were not present before.

Water management benefits

The benefits of these new regulations go beyond safety. Effectively managing a dam and keeping it safe are essential for ensuring water availability and avoiding costly repairs. A well-maintained dam also plays a significant role in water management. It can reduce water wastage due to seepage and piping problems. It can also help with groundwater recharge, offering ecological benefits and reducing the burden on the water supply.

These new regulations are finally ushering in a more comprehensive approach to dam management, emphasising the importance of safety and environmental considerations. In the farmlands and orchards of New Zealand, the safety and sustainability of dams now cannot be overlooked.

While compliance may initially seem like a burdensome process, we urge all dam owners to recognise the significance of the regulations and embrace them as a way of protecting their communities, preserving the environment, and ensuring the continuity of the horticultural industry.

With clear guidelines and proactive measures, we are confident that affected dam-owning growers can navigate these new regulations – contributing to a safer and more sustainable future for all. ●



For more details, visit
[www.building.govt.nz/
managing-buildings/dam-safety](http://www.building.govt.nz/managing-buildings/dam-safety)

Swapping the boardroom for greener pastures

After growing up on a farm and building a career in advertising, Mel Paton's love for the outdoors and a desire to help her son's eczema led her back to her roots.

Mel grew up in Rāhui Pōkeka (Huntly), and her attraction to the advertising industry was to turn boring, unappealing TV ads into inspiring stories.

After 10 years in this field, Mel became more focused on the people in the (inspiring) stories rather than selling products. This led to a career change and her completing a Diploma in Career Guidance. She then facilitated career advice and social support in community centres throughout the Bay of Plenty.

When Mel's son started to suffer from eczema her path changed again. "After doing some research I learnt about the benefits of herbal remedies, so I returned to gardening, growing calendula and making balms. I enrolled in the NZ Certificate in Organic Crop Production with Toi Ohomai | Te Pūkenga so I could learn how to grow organic medicinal herbs."



Mel's tutor, Steven Cantor, identified Mel's passion and teaching potential. After plenty of encouragement, Mel got a role as a tutor too. "For me it's the perfect job: facilitating real life experiences in the horticulture space. It's so rewarding giving ākongā the opportunity to have a go and do things they haven't had a chance to do before. The personal benefits are a bonus too: working outdoors with like-minded people, fresh air, and space to decompress, problem solve, and keep fit."

Ākongā that Mel has tutored have gone on to do great roles including becoming a head market gardener for a local organic grower, further study in environmental conservation, mahi in retail garden centres, and others have set up their own properties to begin the organic certification process as market gardeners.

Upskill with a fruit production course

Designed for those working in the horticulture industry and looking to learn on-the-job.

NZ Certificate in Horticulture (Level 3), Strand in Fruit Production. Starts Monday, 19 February (Tauranga).

NZ Certificate in Horticulture Production (Level 4), Strand in Fruit Production. Starts Monday, 12 February (Tauranga).

Fruit Production for Profit (Level 5). Starts July (date tbc) (Tauranga)

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Waiting to see what El Niño brings

Ben Noll : NIWA Meteorologist

Spring 2023: a season of weather surprises

Spring has seen some interesting weather twists and turns. From fluctuating temperatures to powerful wind events and unique rainfall patterns, the season has brought a lot of surprises.

During October, the Tasman Sea and the North Island experienced higher than normal mean sea-level pressure, while lower than normal pressure was seen to the south of Aotearoa New Zealand. This configuration led to more westerly airflows than usual, a pattern often associated with El Niño.

Those in the South Island and lower North Island probably felt the impact of this, with westerly airflows contributing to several strong to damaging wind events throughout the month. In fact, there were 21 locations where record or near-record maximum wind gusts for October were reported. It was a blustery month, to say the least!

But October wasn't all about the winds. Several cold fronts from the Southern Ocean brought occasional cold spells and even low-elevation snow to the South Island. It is unusual to see snow down to the lake level in Queenstown

and flurries in Dunedin's central business district, and even more so in late October!

October ended with the remnants of ex-Tropical Cyclone Lola making an appearance, with heavy rainfall and strong winds for the upper North Island. And in November ex-Tropical Cyclone Mal passed to the northeast of New Zealand after tracking through Fiji.

Looking ahead: the outlook for November 2023 to January 2024

As we look ahead towards the summer months, it is essential to know what Mother Nature has in store for New Zealand. The outlook is shaped by a few key factors, so let's break it down:

El Niño continues: El Niño, which was officially declared for New Zealand in late September, is expected to intensify over the coming months. We're almost certain that El Niño will continue during this period, and that it has an 80 percent chance of lingering into autumn, continuing to influence New Zealand's climate.

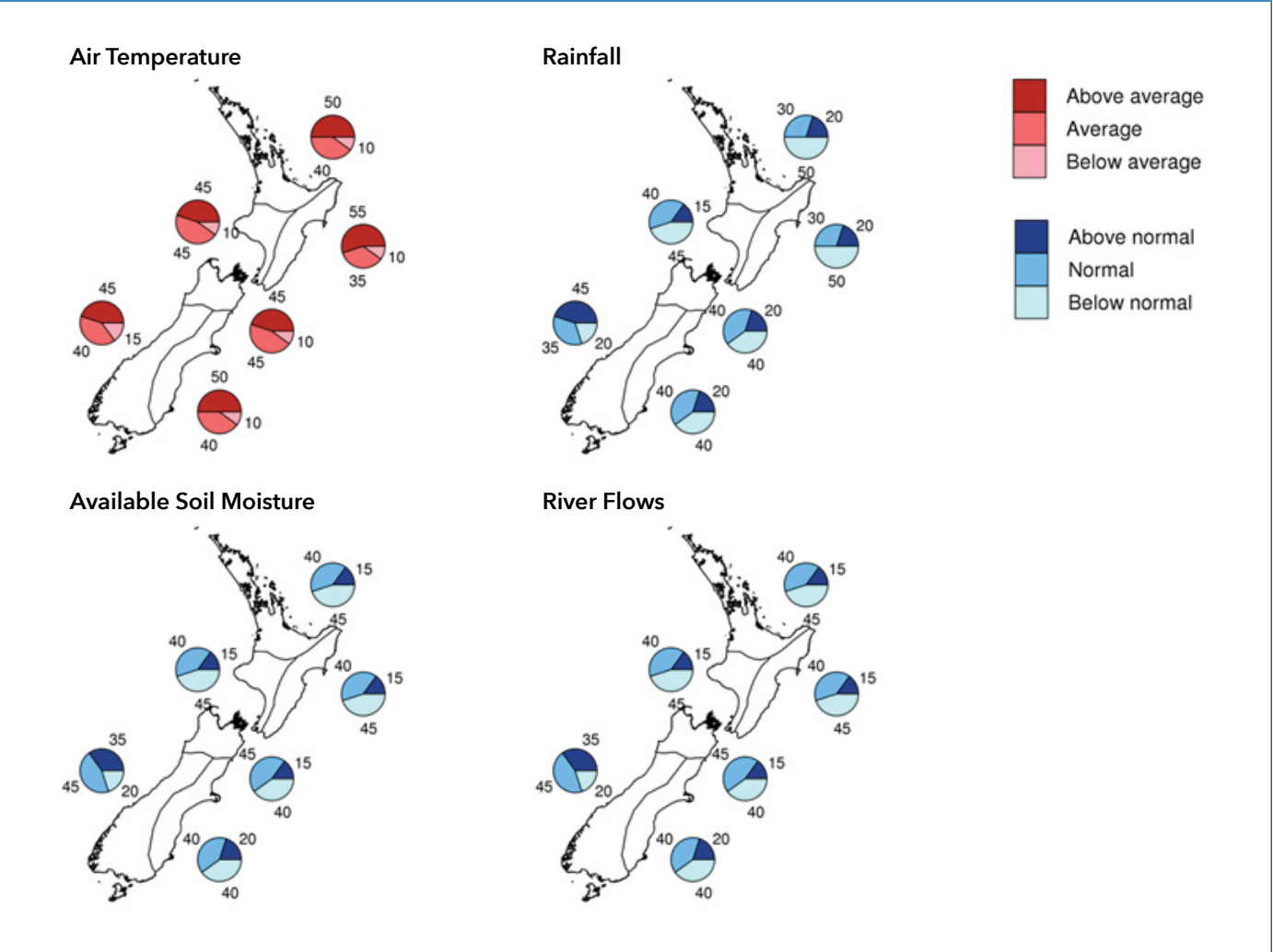
Air pressure: The air pressure forecast indicates above-normal pressure near New Zealand, especially over the North Island. To the south, we can expect lower than normal pressure. The pressure pattern is expected to deliver more westerly winds.

Rainfall: The outlook shows that the north and east of the North Island are likely to experience below-normal rainfall. In contrast, the west of the South Island is expected to see above-normal rainfall. Other regions have about an equal likelihood of near-normal or below-normal rainfall. Prolonged dry spells are likely in several regions.

Drought: As of mid-November, no regions across Aotearoa New Zealand were experiencing very dry or drought conditions, but that can change quickly as the days get longer, hotter, and feature strong winds at times. The strongest signal for below normal summer rainfall is from Northland through Hawke's Bay, as illustrated in the image below. These regions, among others, should remain prepared for the dry.

Temperatures: Early summer is likely to see above-average temperatures, particularly in the eastern regions of both

Outlook for November 2023 – January 2024



islands and the north of the North Island, as air masses occasionally migrate over from Australia. Temperatures are about equally likely to be near average or above average in all other regions.

Wind strength: Brace yourself for some more windy days! The seasonal wind strength is forecast to be above normal across most of the country, thanks to a stronger than normal pressure gradient (difference in pressure over distance) near New Zealand. This increased wind strength comes with a higher risk for periods of damaging winds.

Coastal sea surface temperatures: Coastal sea surface temperatures ranged from 0.35°C to 0.64°C above average during October. We could see localised marine heatwaves in northern and eastern coastal areas in the months ahead.

Soil moisture and river flows: The west of the South Island is expected to have near-normal soil moisture and river flows. In all other regions, there's an equal likelihood of near-normal or below-normal values.

Fire danger: While late October saw low fire danger across the country, it is essential to remain vigilant. Normal or above-normal wildfire activity is expected through summer, particularly during periods of hot, windy weather in northern and eastern areas of both islands.

So, whether you're tending to your crops, planning for potential irrigation needs, thinking about summer outdoor adventures or simply enjoying the beauty of our diverse landscapes, it is wise to stay informed and prepared for what the weather may bring in the coming months. From windy days to potential hot, dry spells, New Zealand's weather is full of twists and turns – don't be caught off guard by Mother Nature's surprises. ●

NIWA Seasonal Climate Outlooks: niwa.co.nz/outlook
 NIWA and Ministry for Primary Industries (MPI) Drought Dashboard: shiny.niwa.co.nz/drought-forecast



Planning crucial to surviving El Niño drought

El Niño has arrived in New Zealand and its impacts, including drought, are likely to become more severe and last into 2024.

The Orchardist staff

Every El Niño is different – and unstoppable – but with advanced warning and well-planned preparations, growers and their crops can get through.

El Niño weather patterns typically occur every three to seven years, usually peaking during late spring or early summer and then weakening the following year. Under a 'normal' El Niño, summer is likely to bring stronger or more frequent westerly winds, drier conditions in the east and more rain in the west. What is different this time is that New Zealand will be affected by two weather patterns, one in the Pacific and one in the Indian Ocean. This combination brought substantial and widespread drought to New Zealand in 2019 and 2020.

The Ministry for Primary Industries (MPI) has prepared a helpful resource that explains El Niño and the predicted weather patterns this summer. This can be found on the MPI website: <https://www.mpi.govt.nz/funding-rural-support/adverse-events/preparing-for-el-nino>.

New Zealand growers and orchardists are facing what may be a tough growing season, and Horticulture New Zealand urges you to be prepared.

It is important to make a plan and act early, and then review and revise your plan along the way. Think about the outcomes you want to achieve and set specific dates for making key decisions depending on financial, weather, soil, moisture and crop conditions at those times.

Active monitoring enables horticultural strategies to be adjusted to manage drought conditions effectively, optimise water use, maintain crop health, and ensure long-term sustainability. Monitor the daily weather forecasts, seasonal forecasts, extreme weather and fire warnings. Using on-farm weather stations will allow you to closely monitor the localised weather conditions and tailor your strategy to them.

Have a robust and realistic budget and check it frequently to manage financial impacts of reduced crop yields or increased costs associated with drought conditions.



HortNZ recommends that you undertake water budgeting to plan for water restrictions, and use irrigation water as efficiently as possible. Make sure you consider your irrigation output as well as all water inputs such as rainfall, surface water and sub-surface water. Regularly check your irrigation systems to ensure they are well maintained, free of leaks and optimised for economical water use. Watering plants during the coolest part of the day will minimise water loss due to evaporation.

Other techniques for adjusting your irrigation programme that you can consider include:

- Using a Regulated Deficit Irrigation (RDI) strategy, which involves fully irrigating during critical periods for crops and limiting irrigation during non-critical periods. This is an effective strategy as the sensitivity of crops to water deficit varies at different growing stages.
- Irrigating your most profitable blocks first. Focusing fixed water resources on smaller areas may increase net yield compared to spreading the same volume of water across larger areas.
- Monitoring soil moisture using sensors and taking plant water stress measurements and using these to schedule irrigation and direct water to the plants that most need it.

If you need help and advice talk to your regional On Farm Support advisor, rural professional or talk to experts, such as your bank, accountant, professional advisers, and peers who have navigated drought conditions before. If you are unsure where to go for advice or assistance, get in touch with the Rural Support Trust. ●



For links to sector wide information, including the a drought forecasting tool, daily updates on soil moisture and rainfall, river flow predictions, and managing stress, visit www.hortnz.co.nz

New training to increase fruit production skills and opportunities across the country

New fruit production training from Primary ITO | Te Pūkenga promises to make it easier for employees and businesses to get the skills they need.

The updated New Zealand Certificate in Fruit Production Level 3 offers on-the-job training with options designed to mean that people can get the training best suited to their region and business.

New learners will join the approximately 350 other people learning about fruit production on the job, across New Zealand's orchards and farms.

Hamish Gordon, Primary ITO sector manager for horticulture production, says the new programme makes it easier to focus on the particular skills needs for specific regions and businesses.

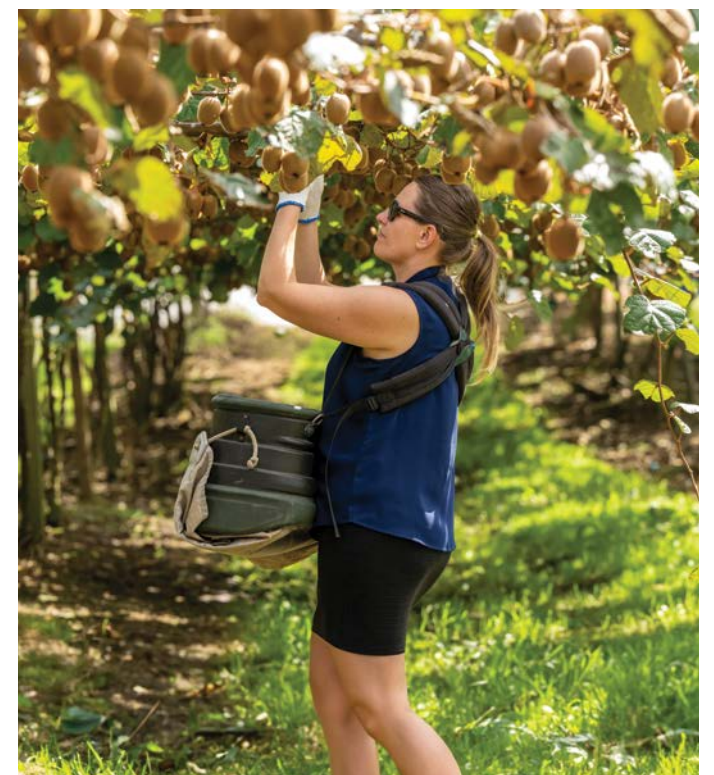
"For example, whereas frost protection is very important in the South Island, it's much less the focus in the far north. We're always looking at what's important for different regions and crops, whether that's in the biggest fruit growing region of Bay of Plenty where we've got more than 100 learners and around 100 orchards and farms for kiwifruit, avocados and apples, or in a smaller fruit growing area like New Plymouth with a handful of learners in organic fruit and olives.

"A real strength for Primary ITO | Te Pūkenga is our expert team of training advisers. They're dedicated to the industry and supporting learners and employers to upskill. They visit learners several times a year no matter where they are in the country, which makes a huge difference to succeeding in training."

Hamish says while there are new training options for things like pruning younger or mature trees, frost protection and how to interpret weather maps, the key principles set people up for a career in fruit production. "It's very broad and does fit into a lot of systems, whether that's blueberries, kiwifruit on vines, or tree fruit."

He says the industry needs to focus on upskilling people as it can't rely on being able to employ people already fully skilled.

"It's an aging industry, with managers and directors in their 60s and we need more skilled people coming through to fill those managerial positions. Even when people are trained, they're not necessarily choosing to step up into management, so investing in training is critical."



The new Level 4 New Zealand Certificate is available now, and a new Level 3 certificate has launched earlier this month. They can be combined into a New Zealand Apprenticeship. It's the Level 4 where people will learn management skills, says Hamish.

"It involves a lot of critical thinking about why you do things within a production system, as well as how to supervise and talk to your team." ●

For more information or to enrol, contact Primary ITO | Te Pūkenga on **0800 20 80 20**, email info@primaryito.ac.nz or visit primaryito.ac.nz/newfruitproduction to connect with your local Training Adviser.

Horticulture's 2035 action plan gets into gear



Anna Rathé

Aotearoa Horticulture Action Plan programme manager

The Aotearoa Horticulture Action Plan aims to double the farmgate value of horticultural production from \$6 to \$12 billion by 2035, in a way that improves prosperity for New Zealanders and protects the environment. The plan was created in a collaborative partnership, with input from industry, Māori, research providers and government - now it is up to all of us in the sector to make it happen. Horticulture New Zealand has appointed Anna Rathé as programme manager on behalf of the plan's partners.



? Remind us why this plan is important?

The Minister of Agriculture launched the plan in Gisborne, just days before Cyclone Gabrielle hit. Obviously the events that followed have put the industry under huge strain, but I think that reflects why the Aotearoa Horticulture Action Plan is so important. As a sector we have to deal with immediate challenges, but we also need to take action on long-term issues like climate adaptation. The Aotearoa Horticulture Action Plan is our chance to be proactive and grasp opportunities now that will enable the future prosperity and growth of our industry, even while we grapple with immediate challenges like cyclone recovery.

? Where is the plan at now?

Launching the plan gave horticulture our 'guiding compass'. In the next phase we are developing the projects that will deliver the plan's outcomes, and organising the people and the investment required. We want to take action on big projects that will deliver results over a ten-year programme. However, we are also working on smaller projects that we can execute quickly. Most of all, we want to make sure that the whole programme is efficient and well-managed, so all growers and stakeholders can see progress being made towards the goal.

? What inspires you about the plan?

It was really impressive to see how horticulture came together in recognising the importance of the Aotearoa Horticulture Action Plan. It wasn't easy to align priorities, but this plan points us all in the same direction. Now is the time for everyone to get behind it for the good of the country. It's about how the sector reacts to opportunities as well as risks. Despite all the challenges, it's a very exciting time to be in horticulture in New Zealand. ●

To find out more, visit:

www.hortnz.co.nz/about-us/aotearoa-horticulture-action-plan
or email: anna.rathe@hortnz.co.nz

HORTICULTURE NEW ZEALAND

HortNZ advocates for and represents the interests of New Zealand's 4200 commercial fruit and vegetable growers. HortNZ's purpose is creating an enduring environment where growers thrive. HortNZ has 20 affiliated product groups and more than 30 affiliated local and regional grower associations. Find out more on www.hortnz.co.nz.



Make sure your team is protected this summer:
hat, sunscreen and water. www.growhomesafe.co.nz



New Zealand Certificate in Horticulture

Level 3 Fruit Production

We are excited to launch the new Level 3 Fruit Production programme to set learners up with the essentials they need to be successful in their role.

New topics for graduates include:

- Describe compost making and make compost in organic horticulture.
- Prune mature fruit trees.
- Train and prune young fruit trees.
- Describe weather, climate and micro-climate characteristics, and interpret weather maps.

Graduates will also be able to:

- Work as an effective team member using a range of effective communication and interpersonal skills and apply safe work practices.
- Carry out routine seasonal plant production tasks.
- Carry out routine crop harvesting.
- Demonstrate an understanding of factors influencing plant growing cycles and basic soil science.
- Carry out routine maintenance tasks.
- Identify and report signs of weeds, plant pests, diseases, and disorders.
- Control weeds, plant pests and diseases.

Get in touch with your local Training Adviser today on 0800 20 80 20, email info@primaryito.ac.nz or visit primaryito.ac.nz/newfruitproduction



PrimaryITO



Te Pūkenga