

NZGROWER[®]

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HORTICULTURE NEW ZEALAND

CRAVING CONSISTENCY

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A S Wilcox carrots supervisor Ben Edwards on a glorious day near Matamata, see page 13. Photo by Trefor Ward.

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- 60 Meeting places and shared spaces



HORTICULTURE IS THE FUTURE, BUT IT WILL BE DIFFERENT



Barry O'Neil : HortNZ president

We are going through turbulent times, trying to grow through ongoing weather events, the introduction of pricing for agriculture emissions, freshwater regulations and plans, and low prices for our products. On and on it seems to go. But I believe these are only speed bumps on the path towards the expansion of horticulture and will not slow its growth. Horticulture will become the dominant food production source in New Zealand and in the world.

If we take a twenty or thirty-year horizon, we can see past the immediate day-to-day challenges and gain a better view of what the future will be. I see a very positive future for horticulture, for all the right reasons. Plant-based diets are increasingly sought after, as are our natural, healthy and great tasting products which environmentally have the lowest overall footprint compared with any other outdoors food production system.

Traditional pastoral agriculture I hope will continue to succeed, but it has had its peak, and will over this horizon reduce in size to what some would argue is the rightsizing of this sector.

Covered cropping will probably be the area in horticulture with the most significant increase, with greater control of inputs including the weather, and management of discharges. We already have significant knowledge of undercover growing, but increasingly we are seeing more vertical farms, and after much hype they are at last starting to get a viable business model emerging.

Plenty®, the American based vertical farming enterprise, run by a Kiwi incidentally, is spending over \$1 billion building the largest vertical farm in the world, and is now looking to grow not only leafy greens and strawberries, but also tomatoes and kiwifruit. Up to 350 times the yield per acre of conventional farms with a fraction of the footprint, is their mantra.

So as we hit these speed bumps we need to keep our focus on the future, and not lose sight of all the opportunities ahead. Innovation has been a cornerstone of our country's success, and there are many pioneer innovators to thank for what we can enjoy today.

And congratulations to Murray McPhail who has just been awarded a King's Birthday honour for his contribution to horticulture. LeaderBrand, the company that Murray founded in 1975, has a focus on innovation, and provides a 200 percent guarantee on all its produce. Murray has not only been innovative but he is not afraid to take calculated risks.

It's great to see LeaderBrand expand into covered cropping with the nearly 12-hectare facility being built in

Gisborne, a tremendous innovative effort, showing us all how we can do things differently and better.

The opportunity for horticulture is for us to continue being innovative and taking calculated risks. In today's namby-pamby world, I sometimes ponder whether we are rushing to become extinct as a species, being unwilling to take risks and just sitting back in comfort waiting for the inevitable to happen!

“

Innovation has been a cornerstone of our country's success

If we are not prepared to take calculated risks and innovate, we will stagnate and sooner or later be disrupted, displaced and become redundant. Around the year I was born I marvel at the innovations that amazingly talented men and women of that time achieved, with the invention and commercialisation of the microwave oven, the TV remote controls which I assume a man invented (!), jet aircraft and computers.

If these were being invented in 2023. I wonder whether it would take ten years to get permission to do the research, and then another 20 years to get regulatory approval for their use.

And what I think is absolutely great about Kiwi innovation is that it often comes from the farm and orchard and not the laboratory. Clever farmers and growers who are also mechanics,

engineers, pilots, breeders, and so on, and who can practically do or make nearly everything.

New Zealand was the first country to successfully use light aircraft for sowing seeds and spreading fertiliser. The world's first farm bike was invented in 1963 by a New Plymouth farmer, and of course there's Gallagher's electric fence. Deer capture by helicopter might have been risky but it worked, as did breeding sheep for New Zealand's unique farming conditions, such as the Corriedale, Perendale and Drysdale.

And what about the HamiltonJet, or the Martin Jetpack, or John Britten's superbike, all amazing inventions from Kiwis who were practical and who used their talents to achieve really innovative products.

In 1900 New Zealand had the highest number of patent applications per capita in the world. In 2006 New Zealand was ranked fifth in the world on the basis of population for patents filed. Still good, but slipping away from the lead we once had.

So how can we get innovative thinking and action back into our ethos and culture? A focus on the future rather than the here and now or the past, seems to be very much needed, and we seem to be spending too much time stuck in the past or romanticising it, when it wasn't always actually that flash! A focus on a better future is definitely needed!

Taking away the ridiculous amount of time spent unnecessarily ticking boxes for local and central government compliance would surely be another. And allowing those that want to push the boat out to do things differently to get on with it, while not adversely impacting others.

“
A focus on a better future is definitely needed!

And investing in innovation is essential. Nationally our research and development (R&D) spend is about half that of the OECD (Organisation for Economic Co-operation & Development) average, and government research expenditure in the agricultural sector has fallen since the early 1990s. Not only are we spending too little on innovation and science, but we also have a short-term investment focus, which doesn't support solving more complex issues.

In these turbulent times let's do everything we can to stay energised and positive, not lose sight of where horticulture is going, and reinvigorate our focus on innovation by trialling new and different ways of growing. And tell our story and aspirations to everyone that will listen!

Kia kaha. ●

NZGROWER

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IT'S GREAT TO SEE LEADERBRAND EXPAND INTO COVERED CROPPING WITH THE NEARLY 12-HECTARE FACILITY BEING BUILT IN GISBORNE, A TREMENDOUS INNOVATIVE EFFORT, SHOWING US ALL HOW WE CAN DO THINGS DIFFERENTLY AND BETTER





TIME TO RESTORE HOPE



Nadine Tunley : HortNZ chief executive

More than 100,000 people - including politicians and government officials from Wellington - attended the Fielddays at Mystery Creek last week.

The Fielddays are a chance for the food and fibre sector to reflect, hear from different speakers, experience new technology, as well as socialise. It being an election year, these Fielddays were also an opportunity for politicians to have contact with the food and fibre sector's grassroots.

KPMG used the Fielddays to release its annual Agribusiness Agenda, which is titled Energising a World of Anxiety this year.

“

Uncertainty around the pathways for change is a significant factor in anxiety

The detailed report concludes that New Zealand's food and fibre sector is at a crossroad, and “uncertainty around the pathways for change is a significant factor in anxiety.”

This statement says it all for me. The horticulture industry knows it must change the way it grows because of climate change, labour shortages and changes in consumer preferences, etc. The industry also knows it has the solutions to some of New Zealand's challenges, especially around reducing emissions and “feeding our five million first” - another of the points the KPMG report makes.

However, which way is the best way to go? Particularly when some growers - like those affected by Cyclone Gabrielle in the Hawke's Bay and Tairāwhiti Gisborne - need to know the best way to go, right now.

I have been associated with the food and fibre sector for more than 30 years. Over that time, we've had our uncertainties, but today's challenges are the most numerous and complex we've faced, which is why the sector is so anxious.



HortNZ's Fielddays stand

So, what's the solution? Coming together to develop the solutions must be the answer. The challenge with this approach is to keep everyone in the tent while the different options are examined, as well as to ensure the process is as quick as possible, to give people the hope they need at this critical time.

In terms of the tent, there's a large number of stakeholders involved: central and local government, iwi, commercial players, as well as service providers like banks and insurance companies. And all these stakeholders must come together - and quickly - for the common good, and plan for a future that involves a greater number of extreme weather events.

Because of the size of the challenge, central government needs to take the lead. For a start, they must ensure that reform of the Resource Management Act supports communities to do what they must do to adapt - and quickly. Government also has access to a wealth of climate change impact modelling, which needs to be made freely available to support communities' decision making.

Then there's the funding of all this change. Taxpayer money needs to be applied wisely over a timeframe far longer than current government Budget setting processes allow. Plus, public/private funding arrangements need to be encouraged, and managed better than they have been in the past.

These are the challenges with coming together to plan and deliver the fundamental change that's needed. But coming together is the best way forward, as it will get us solutions that stick, empower, and restore hope. ●

2023 HortNZ AGM.

(Notices of Motion)

Please visit www.hortnz.co.nz for up-to-date information about the AGM and related documents. A proxy form and AGM information will be provided to eligible growers by email or by post, where we do not hold an email address for voting members. If you have not received the information please contact Edison Harris.

These motions will be considered at the Horticulture New Zealand Annual General Meeting (AGM) being held at Te Pae Convention Centre, 188 Oxford Terrace, Christchurch on **Thursday 3 August 2023 at 1.00pm.**

MOTION 1
That the minutes of the 17th AGM of Horticulture New Zealand (HortNZ), held on 21 September 2022 at Richmond, Nelson be taken as read and confirmed as a true and correct record of that meeting.

Proposed by the HortNZ Board

EXPLANATORY NOTE

A PDF of the Minutes of the 2022 AGM is available at www.hortnz.co.nz. If you have any questions or would like hard copies, please email edison.harris@hortnz.co.nz

MOTION 2
That the President's and CEO's Reports for the financial year ending 31 March 2023, as published in the Annual Report, be taken as read and adopted.

Proposed by the HortNZ Board

EXPLANATORY NOTE

A PDF of the Annual Report will be available at www.hortnz.co.nz. If you have any questions or would like hard copies, please email edison.harris@hortnz.co.nz



MOTION 3
That the audited financial statements for the year ended 31 March 2023 be adopted.

Proposed by the HortNZ Board

EXPLANATORY NOTE

A PDF of the Annual Report and Financial Statements will be available at www.hortnz.co.nz. If you have any questions or would like hard copies, please email edison.harris@hortnz.co.nz

MOTION 4
That the 2023 year levy rate for the purposes of the Commodity Levies (Vegetables and Fruit) Order 2019 remain and be set for domestic sales at 0.14% of the price received at the first point of sale, for export sales remain and be set at 0.14% of the price received after the deduction of all offshore costs and for processed sales remain and be set at 0.14% of the notional process value.

Proposed by the HortNZ Board

EXPLANATORY NOTE

The Commodity Levies (Vegetables and Fruit) Order 2019 allows a maximum rate to be set for vegetables and fruit at 0.15% for domestic sales and processed sales taken at the first point of sale and at 0.15% for export sales at the first point of sale after all offshore costs (including international freight) have been deducted. For processed vegetables and fruit the levy is deducted from the notional process value, which is defined in the Order. At the AGM levy paying growers may set any rate up to the maximum for the next calendar year. The current rate for vegetables and fruit is 0.14%. This levy funds the activities of HortNZ. The Board recommends that the levy rate be set and remain at 0.14% for the 2023 year to meet the commitments identified in HortNZ's Budget.

MOTION 5
That directors' remuneration remain at the 2022/23 level for the 2023/24 financial year as follows:

Position	Current Figure
Director	\$31,477
Vice-President	\$39,097
President	\$84,665

EXPLANATORY NOTE

The Board considered that with recent extreme weather events and the anticipated impact on levies, an increase in Board fees was not fiscally prudent. Therefore Board fees will remain at the 2022/23 level for the next 12 months.

Director fees are all inclusive; therefore, no additional per diem fees will be paid for Board sub-committee meetings, and regional or industry committee meetings attended on behalf of the Board.

MOTION 6
That the Budget for the year ended 31 March 2024 be endorsed.

Proposed by the HortNZ Board

EXPLANATORY NOTE

A copy of the Budget for the year ended 31 March 2024 is available on request. If you have any questions please email edison.harris@hortnz.co.nz

MOTION 7
That BDO, Wellington, be appointed auditors for the year ended 31 March 2024.

Proposed by the HortNZ Board

If you require further information about the AGM or would like a hardcopy of any of the AGM documents, please visit our website www.hortnz.co.nz, call us on the HortNZ free phone **0508 467 869** or email Edison Harris at edison.harris@hortnz.co.nz.

YOUR LEVY AT WORK

INDUSTRY WIDE ISSUES FOR INDUSTRY GOOD

HORTICULTURE'S POTENTIAL TO ACHIEVE GOVERNMENT GOALS

Michelle Sands : HortNZ general manager strategy and policy

Recently Horticulture New Zealand has submitted on the Second Emissions Reduction Plan, NZ ETS Price Settings, and the Rangitikei Spatial Plan - highlighting the value of horticulture in reducing emissions and diversifying the economy. Meanwhile, our team advocates for temporary law change to support growers in their recovery efforts following the cyclone.

Second Emissions Reduction Plan

The Second Emissions Reduction Plan is focused on reducing greenhouse gas emissions. One of the most certain ways to reduce agricultural emissions is through land use change to horticulture. However, infrastructure limitations, market barriers, water access issues, and labour shortages must be addressed.

The Emissions Reductions focus on systems change for pastoral farming. We consider the lack of emphasis on the opportunity horticulture presents for reducing emissions and improving food security is a missed opportunity. The emissions reductions that can be achieved through investing in removing barriers to horticulture are some of the most certain investments in emissions reductions that can be made.

Improving infrastructure, including rural road networks, is vital for efficient transportation and emissions reduction. Implementing a mandatory Grocery Code of Conduct can ensure fair trade practices in the domestic market.

Responsible water management and allocation that considers emissions implications is necessary. Support for labour through programmes like the Recognised Seasonal Employer scheme and investment in training projects will strengthen the horticultural industry and build confidence to support the investment required for diversification.

A comprehensive National Food Strategy should promote horticulture as an alternative land use. Climate policy assistance should prioritise food security for New Zealand and the Pacific and fund initiatives for decarbonisation, such as grants and investments in technology.

NZ ETS Price Settings

The NZ Emissions Trading Scheme (NZ ETS) price settings consultation is on annual updates to the NZ ETS unit settings for 2024-28.

Horticulture New Zealand agrees with the Climate Change Commission that managing the impact of high ETS prices on lower-income households is best achieved through targeted policies rather than ETS price control settings.

HortNZ supports using Free Industrial Allocations for their intended purpose. Emissions-intensive, trade-exposed growers rely on these allocations to offset the costs of their activities. However, growers have expressed concerns about the administrative burden of accessing and registering with the EPA (Environmental Protection Agency) for the Free Industrial Allocations process, as it is designed for larger participants and not well-suited for smaller growers. HortNZ believes that all eligible growers, regardless of size, should be able to complete the registration process without additional resources.



Burning Cyclone and Flood Waste Order in Council

HortNZ has submitted on a temporary law change being proposed through Order in Council under the Severe Weather Emergency Recovery Legislation Act 2023 (SWERLA), to permit open-air burning of cyclone and flood waste.

The early weather events in 2023 caused extensive damage in rural areas of Hawke's Bay and Tairāwhiti, resulting in the accumulation of various types of debris and waste. These waste piles comprise a mix of trees, crops, support structures, chemically treated and untreated timber, and different types of plastic, wire, metals, and sediment. The impact of these waste piles is particularly significant for horticultural businesses.

Clearing the waste is an essential initial step to restore the land's productivity. Due to the urgency of meeting specific timeframes for crop growth, it is crucial to remove the waste promptly. However, physically separating and removing the debris poses significant challenges, including health and safety, and is not practicable for larger piles or where the waste is intertwined.

HortNZ representing affected landowners has requested an Order in Council to provide a legal pathway (through a permitted activity status) for landowners to burn the mixed waste on their properties.

The feedback HortNZ has provided on the proposed Order in Council is to ensure the permitted activity standards are worded clearly enough to enable the user to judge the meaning and effect of the rule at face value without resorting to explanations or seeking advice from those who wrote it.

We have also discussed this proposed Order in Council with Hawke's Bay Winegrowers Association and support their submission seeking to shorten the time period within which burns could occur, changing the date that the Order in Council would lapse on 15 November 2023 – avoiding the risk of smoke tainting grapes after fruit set.

Rangitikei Spatial Plan

The Rangitikei District Council's Draft Community Spatial Plan acknowledges horticulture as a potential growth area to diversify the primary sector.

To harness the social, economic, and environmental benefits of diversifying into horticulture, the council should address development barriers by zoning productive land as rural, maintaining infrastructure for transportation, and allocating resources to low emissions industries. While the Horizons One Plan restricts intensive farming in Coastal Rangitikei, horticulture, including orchards and glasshouses, is not subject to these rules. The spatial plan should not assume that new commercial vegetable growing will always be challenging to establish, as policy changes to support vegetable production for domestic supply are likely in the coming years.

HortNZ sees a potential synergy between the spatial plan's goal of expanding horticulture and developing Bulls into a food processing and distribution hub. This industrial capacity could support the growing horticulture sector by facilitating packing and distribution. Preserving quality soils for primary production and allowing auxiliary activities like packhouses to establish nearby are crucial for achieving this vision.

HortNZ recommends against considering a block of LUC 2 soils (Land Use Capability class 2 soils) near Bulls, for lifestyle development due to potential negative effects on horticulture. The spatial plan labels it as fragmented, but horticulture can be economically viable even at smaller scales. Setting appropriate minimum lot sizes in rural areas is important to prevent the subdivision of farmland for non-agricultural use, which would result in permanent loss of productive land. HortNZ encourages the Council to maintain minimum lot sizes at a level suitable for primary production. ●

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AHEAD OF THE GAME

Gabi Hidvegi : HortNZ risk policy advisor



An adult brown-marmorated stink bug. Photo courtesy of Anna Rathé

Partnering to protect horticulture

In 2014, the Government Industry Agreement for Biosecurity Readiness and Response (GIA) was established with the signing of the GIA Deed. The Deed provides a framework for a collaborative partnership between industry and the Crown with the aim of achieving better biosecurity readiness and response outcomes (GIA, 2023).

The GIA Deed sets out the principles and commitments that industry and government signatories agree to, which includes implementing biosecurity readiness activities at a national, sector and threat specific level. Central to this agreement is improving the integrity and effectiveness of our biosecurity system by raising awareness of exotic pests, sharing information, and successfully managing any detections and eradications. Collective response arrangements, biosecurity readiness capacity and capability are enhanced through signatory engagement and co-investment, through contract like agreements called Operational Agreements (GIA, 2023).

In horticulture, there are many excellent examples of GIA readiness efforts in action, and in this article, we focus on two - the Brown Marmorated Stink Bug Council and the Fruit Fly Council. These two councils are composed of government and industry representatives who have been working hard behind the scenes to improve biosecurity readiness for their respective stakeholders (GIA, 2023).

In this article we highlight the successful contributions of these two councils to New Zealand horticulture.

Brown Marmorated Stink Bug Council (BMSBC)

The threat of Brown Marmorated Stink Bug was identified in the mid-2010s due to the devastating impact it had overseas and ongoing interceptions pre-and-post border (MPI, 2019). The BMSB Operational Agreement was signed in July 2017 which established the BMSB Council (BMSBC) which is leading New Zealand's national biosecurity readiness and response preparedness for BMSB (GIA, 2017). The BMSBC brings together the Ministry for Primary Industries (MPI), Horticulture New Zealand and eight other horticultural sector groups to enhance New Zealand's preparedness for this pest. The Council works to enhance our understanding of BMSB biology, its potential impact in New Zealand, establishment risk, ongoing surveillance, and response. Building support across the wider biosecurity system including international relationships remains key to achieving these outcomes.

Brown Marmorated Stink Bug Council chair, Nicola Robertson, noted that BMSB is a considerable threat to New Zealand.

"The potential impact of BMSB on New Zealand cannot be underestimated. It causes significant damage and is particularly difficult to control and overwinters in homes. With continued spread around the world, our risk of it establishing here continues to increase. This makes the GIA partnership particularly important to ensure we are all well prepared to respond as quickly and effectively as possible."



A nymph of the brown-marmorated stink bug. Photo courtesy of Anna Rathé

Examples of BMSBC efforts

Biological control approval

The small parasitic wasp *Trissolcus japonicus* also known as the samurai wasp, was pre-emptively approved for release by the Environmental Protection Authority in August 2018 as a tool to combat a potential BMSB incursion. This biocontrol agent was a world-first pre-emptive biocontrol approval (EPA, 2023) and provides New Zealand with permissions (within agreed parameters) to use an additional biosecurity tool in protecting horticulture in the event of a BMSB incursion. The application was prepared by the BMSBC.

World leading biosecurity response plan

By 2020, the BMSB Council had developed a sufficiently well conceptualised response plan to drive supporting logistics and enable operations planning. The response plan has been internationally reviewed and tested here to ensure New Zealand is well-equipped to mitigate and respond to any BMSB incursion. Efforts also extend to ensuring the appropriate chemistry has the approvals needed to control localised BMSB outbreaks.

Exercise Harvest Shield

Biosecurity New Zealand officials and industry partners completed a simulation - 'Exercise Harvest Shield' - in Hawke's Bay to test some elements of the BMSB operational plan in the field e.g., efficacy of

trapping and surveillance and BMSB management in an incursion. Following the trial, industry and government refined the biosecurity readiness programme so that New Zealand is in the best possible position to respond to a BMSB incursion.

National surveillance programme

An extensive national surveillance programme to detect any potential BMSB incursion was established via the BMSBC and is now integrated into Biosecurity New Zealand's annual surveillance programme. In 2020, the total number of trapping sites increased from 25 to 80 to bolster our biosecurity defence and provide greater BMSB detection capability across New Zealand (Scoop, 2020). Significant work into optimising surveillance strategies and trapping systems continues to ensure we can detect BMSB as early as possible and respond effectively.

Public awareness campaigns

The BMSB Council has undertaken several highly successful annual awareness campaigns including the spring-summer campaign of 2021-22 which saw over 13.5 million BMSB ads appear on household computer screens (MPI, 2022). A record number of public phone calls were received with potential BMSB sightings (Scoop, 2020). A high level of public awareness increases our chance of early detection of any BMSB incursion.



Fruit Fly Council (FFC)

In May 2016, an Operational Agreement was signed between industry and government to reduce the impact of a fruit fly incursion and to deliver better biosecurity outcomes for combating economically damaging fruit fly species e.g., Queensland fruit fly and oriental fruit fly (GIA, 2023).

Critical to the Fruit Fly Council's purpose is ensuring early detection, and successful biosecurity response and eradication of any exotic fruit fly incursion. The Fruit Fly Council also fosters the development of fruit fly-specific capability, coordinated and effective research and promoting awareness and education.

Fruit Fly Council chair, Matt Dyck, says the partnership between industry and government is continuing to deliver excellent outcomes for all New Zealanders.

"Fruit flies continue to be one of the biggest biosecurity threats facing horticulture. An unmanaged fruit fly incursion would cost the horticulture industry billions of dollars, and would have significant negative impacts on the economy, the community and New Zealand's trade relationships. By working together under GIA, government and affected industries have achieved far more than would have been possible working in isolation from each other," Matt commented.

Examples of FFC efforts

Comprehensive work programme

The Fruit Fly Council has completed several projects as part of a comprehensive work programme. The council work spans prevention and readiness, further enhancing our surveillance programme and ensuring that in the event of a fruit fly incursion, New Zealand has the capability to respond quickly and eradicate any individual fruit flies to maintain trade. Many projects are relevant to operational plans including the use of new technologies such as lures, baits and traps. Developing an understanding of the effectiveness of a combination of lures for fruit flies is one area of work.

Detection and successful eradication of Queensland Fruit Fly

Between February and July 2019, ten individual Queensland fruit flies were detected and captured during a biosecurity response operation in Auckland. A response was stood up under GIA, with industry and government partners sharing decision making and funding of response activities. After six months of trapping, intensive baiting and inspecting hundreds of kilos of fruit, MPI declared the success of the eradication programme and New Zealand's renewed fruit-fly free status (MPI, 2023). The total cost of the biosecurity response was \$18m between government and industry, however, the potential impact avoided to horticulture was immeasurable - the Queensland fruit fly is a serious threat to our multi-billion dollar horticulture sector with 80 percent of our crops vulnerable to this pest (RNZ, 2020, MPI, 2023).



The brown-marmorated stink bug (Halyomorpha halys) in Italy. Photo courtesy of Aotearoa Science Agency, 2019

Readiness optimisation

Fruit Fly Council efforts have ensured the readiness development for fruit fly is largely at an optimised state due to the ability to test and refine readiness products and processes over several past responses. MPI has sufficient stocks of fruit fly lures and traps, with the ability to procure replacements in a response situation. The council continually reviews and refines New Zealand's readiness from previous lessons learned to make New Zealand a world leader in fruit fly readiness.

Surveillance programme improvements

An MPI-led annual fruit fly surveillance programme runs from September to July to match the risk season of fruit flies. In November 2022, more than 7,800 traps were stationed around New Zealand (MPI, 2022). To consolidate our existing surveillance programme, industry and government worked collaboratively to trial 60 state-of-the-art RapidAIM traps which have the capability to detect the Queensland fruit fly and immediately send a notification of a suspected QFF individual to biosecurity officials (MPI, 2022).

BMSB and exotic fruit flies pose an ongoing threat to New Zealand horticulture, however, the partnership established between industry and government through the BMSB Council and Fruit Fly Council is proving successful in enhancing national biosecurity readiness and responding to incursions. Readiness is never 'done', and the efforts of both Councils are ongoing.

We acknowledge and thank the continued hard work and contribution made by those involved in protecting the horticulture sector and growers' livelihoods from exotic biosecurity threats. ●



For comments and questions, please contact Gabi Hidvegi:
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For more information visit:
www.gia.org.nz
www.mpi.govt.nz/biosecurity/



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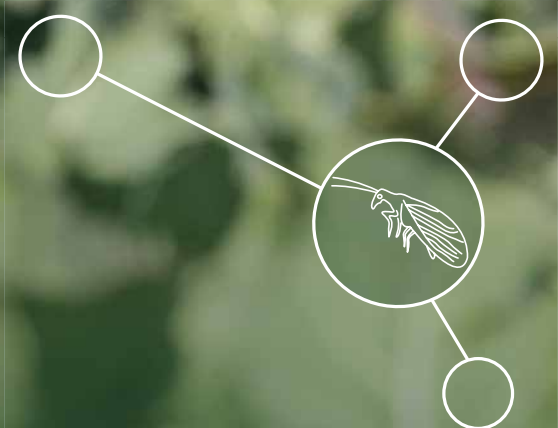
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YOUR INDUSTRY



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38 SUCCESS FOR
NEW GROWERS





WEATHER A CHALLENGE FOR CONSISTENT CARROT SUPPLY

Geoff Lewis

Photos: Trefor Ward



Carrots, along with potatoes and onions, are the essential products of Pukekohe-based vegetable grower A S Wilcox.

While this season has faced growers with challenging weather conditions, there are exciting times ahead in which new aspects of the consumer market provide fresh opportunities for growers, according to general manager of growing, Brent Wilcox.

Brent says that in a 'usual' season - and 2022-23 has been far from 'usual' - the business would grow around 7000 tonnes of carrots, which represents about 15 percent of Wilcox's overall fresh vege production. About 90 percent of the carrot crop goes into the domestic fresh market, with the remainder exported mostly to the Pacific Islands and a smaller quantity going to Asia.

The frost event in October 2022 which hit many growers in the Waikato and Bay of Plenty, didn't impact Wilcox's carrot season greatly, but the rain did, Brent explains.

"We started harvesting Pukekohe spring carrots in October. All through the spring season we had continual rain during October and November, which made getting the carrots out of the ground a struggle."

Brent holds up a printout record of local rainfall, indicating high rain days continuing right through the peak pre-Christmas supply period, which then just continued through January.

By mid-January the region had experienced about twice its usual rainfall - and that was before the Auckland Anniversary weekend weather bomb that pushed the rain record almost off the chart.

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The volatility of the weather has challenged maintaining continuity in supply

"We've had a much wetter season than usual, which hasn't had a high impact on our carrot crop quality, but has certainly challenged our ability to harvest and supply customers as we would have liked. We were able to move onto summer crops at Matamata and more latterly into main crop at Ohakune, the mainstay of our winter supply. The wet summer has had some impact on crop condition there, and while current product is satisfactory, if it continues to be wet into the winter it will have further deteriorating effects on quality.

"We are hoping for a cooler, drier winter to aid holding the quality, and storage in field through until October."



The A S Wilcox GPS-guided harvesting machines are 'amazing bits of kit'

Meanwhile, on a glorious day in a field near Matamata, A S Wilcox carrots supervisor, Ben Edwards and key operator, Campbell Catchpole, were busy harvesting a 15ha field of carrots. The planting and harvesting machines are GPS (global positioning system) guided. "Amazing bits of kit," Ben says.

When it comes to harvesting, it's all weather-dependent. So time management has become essential to take advantage of windows of opportunity to spray and harvest during the short periods of drier weather.

"The volatility of the weather has challenged maintaining continuity in supply and demonstrates the value in having regional spread of production risk. This volatility, together with significant inflationary pressure on input costs, has had a double whammy impact on the cost of production, as it has with most other product lines."

The true cost position can change markedly during the year depending on different field performance levels and harvest conditions. The need to maintain fresh washed quality means that crop is stored in the field until just prior to being needed. So crops destined for the later winter supply period are held for longer and have to withstand a greater risk from weather conditions, Brent says.

With its origins in Pukekohe, A S Wilcox has been around since the 1930s and gradually amassed growing areas in Pukekohe and surrounding locations including Waiuku and Pukekawa. It also grows in Matamata and in Ohakune, which plays a big part in its ability to supply continuity into the market.

“
Increasingly people are shopping for the day - so convenience is king

Carrots leave the field in 1 tonne bins, and arrive in Wilcox's central packhouse in Pukekohe where they are washed, sorted and bagged. While loose carrot sales remain a significant part of the retail market, prepack sales have increased measurably over the last ten years or so. This has been accentuated in more recent times by buying patterns during the Covid-19 pandemic which boosted packaged lines, Brent says.

Also, consumer preferences are changing and there is a need to cater to developing tastes and expectations with emphasis on continual retail supply.



Bagged carrots at A S Wilcox's central packhouse in Pukekohe



Loose carrots retail well but prepack sales have increased measurably

“Consumers are losing the understanding of produce seasonality. We have traditionally had a more seasonal offering, and this has had to be balanced to manage customer expectations for consistency throughout the year. Increasingly people are shopping for the day, so convenience is king.”

Wilcox actively trials new varieties across their product range and works on innovative product offerings to meet these needs. For example, their 'Beta Bites' offer a fresh snacking carrot that tastes great and can be eaten raw with convenience - no prep required.

“As a snacking product that can be eaten straight from the pack, Beta Bites require higher emphasis on sanitary standards that need to be delivered without fail to consumers. This does add some pressure across growing, packaging and distribution systems to continually deliver high quality taste and freshness. However, products like Beta Bites are a growing part of our market and at the end of the day, true to our purpose which is 'To Grow Healthy Communities from the Ground Up'. It's all about encouraging New Zealanders to eat more vegetables” says Brent. ●



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HORTICULTURE LOSSES IN TAIRĀWHITI WILL STRETCH INTO HUNDREDS OF MILLIONS



A NASA image of Cyclone Gabrielle bearing down on Tairāwhiti

In February Cyclone Gabrielle wiped out almost a third of Tairāwhiti's annual crop value, however those losses pale in comparison to the mounting losses the cyclone damage will cause over the next five years. KRISTINE WALSH previews the long-awaited report outlining the economic damage from Cyclone Gabrielle and, for horticulture, the news is not good.

Of the more than \$400 million in economic losses sustained in the Tairāwhiti region as a direct result of Cyclone Gabrielle, around half came from the horticulture industry, a new report says.

The long-awaited Trust Tairāwhiti *Economic Recovery Plan: Economic Losses From Cyclone Gabrielle* report was in late-June released by Trust Tairāwhiti, which was nominated to co-ordinate the overall response by East Coast MP Kiritapu Allan in her role as Regional Disaster Lead for Tairāwhiti and the Bay of Plenty.

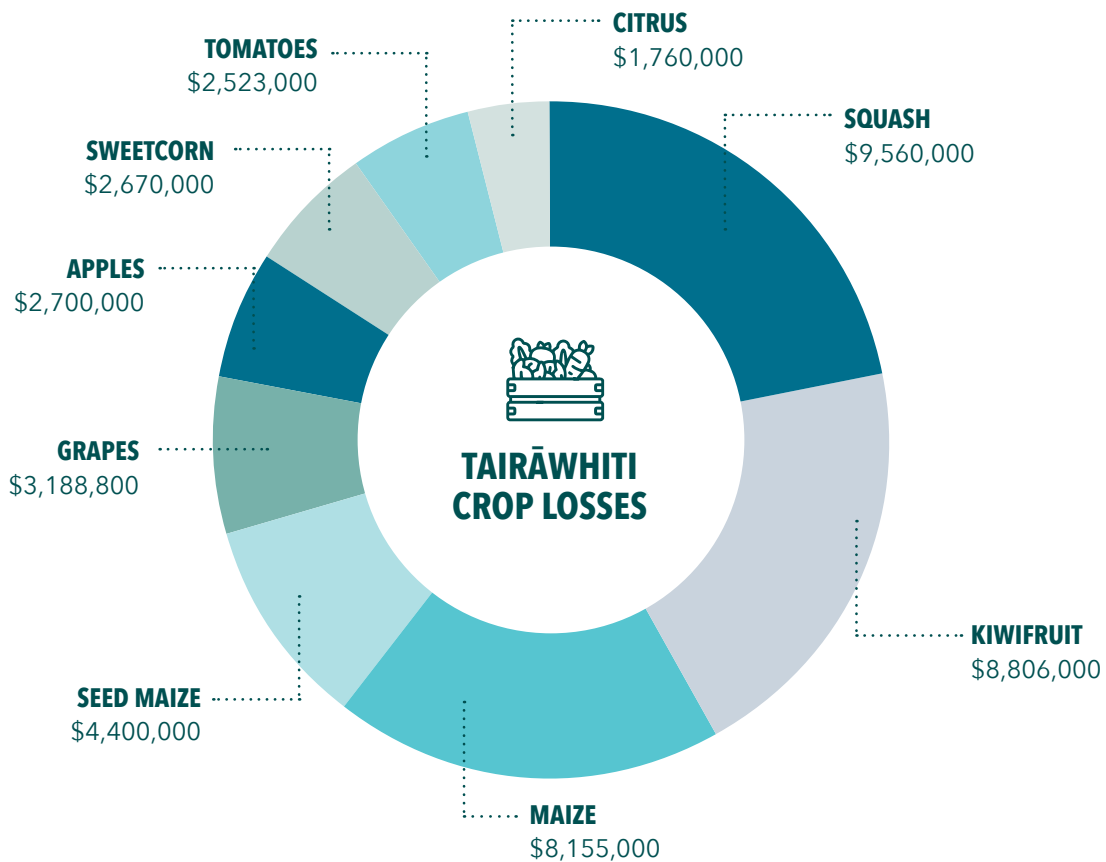
For the growing and orchard sector the research was done by the Tairāwhiti Horticulture Cyclone Recovery Group, made up of locals Bill Thorpe, Trevor Lupton and Elliot Callender, who were appointed by Trust Tairāwhiti in the weeks after the cyclone.

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Horticulture was estimated to have suffered the largest losses (\$200-220m) followed closely by agriculture (\$140-160m)

However, the horticultural report in itself has not been made available.

That was because the Horticulture Cyclone Recovery Group did “not consider it appropriate to publicise the detail of their submissions until the government process was completed”, Bill Thorpe said.



February's crop losses in Tairāwhiti reached almost \$44 million according to a preliminary summary

"We can say that the losses endured are significant and that government financial assistance to date covers only a small portion of the business loss," he added.

"We are hopeful that assurances given by Ministers (Grant) Robertson and (Kiri) Allan when they addressed the Gisborne post-cyclone grower/farmer meeting are followed through."

Prepared by Dr Paul Winton, founder/principal of capital investment company Temple, the Economic Recovery Plan drew on reports from across the five focus areas of small and medium enterprises (SMEs); tourism/hospitality/accommodation; agriculture; forestry; and horticulture.

Overall, the approach in Trust Tairāwhiti's Recovery Plan is an economic one, rather than the multi-issue approach taken in the Gisborne District Council's own *Our Road To Recovery* report.

"These sectors were identified in early post-Gabrielle discussions with stakeholder groups as having experienced significant loss and representing a large proportion of the business economy and land use," the Temple report says.

"In total, these sectors represent 42 percent of the region's GDP (\$1.0Bn), around half the number of employees and businesses (12,000 and 3000 respectively) and 74 percent of the land in the region (622,000 hectares)."

(The areas of Māori business and whenua were explored but put aside - for now - because of poor data quality.)

The report puts total losses across the five sectors at around \$415-475 million not including the costs of public infrastructure replacement and repair, nor second-order losses (such as less money spent in the region due to less income).

And even then it says that total estimate is conservative: "Longer term losses across land use and funding were recognised but due to data inadequacy and time constraints were not estimated. The total estimates of \$415-475m should therefore be considered a minimum estimate of the total business economic losses to Tairāwhiti."

Given the figures Dr Winton was working with, the report states that horticulture and agriculture accounted for around 80 percent of the losses, with forestry representing a further 12 percent of the total.



LATE-BREAKING NEWS

VITAL HELP FOR GROWERS IN GOVERNMENT PACKAGE

Shortly before *NZGrower* went to print, the government announced a new package to support growers affected by the North Island weather events earlier this year. Horticulture New Zealand chief executive Nadine Tunley welcomed the package, which is the result of cross-sector involvement. She joined officials in Hawke's Bay and Tairāwhiti to meet with growers and talk them through what's on offer and how to go about applying.

"This package will hopefully provide vital help to businesses across the areas affected by the weather events in the North Island, including horticulture businesses. We know many businesses are still grappling with funding repairs and rebuild efforts. We hope this package and announcement will help relieve the pressure and stress people are facing, so they can get on with the recovery and provide jobs for people in regional New Zealand."

The package includes:

- a bank loan guarantee scheme for loans of up to \$10 million
- concessionary loans and equity finance capped at \$4 million per business and up to \$240 million in total, in particular for severely affected businesses that have a reasonable likelihood of being commercially viable.

For details, see www.hortnz.co.nz



"Horticulture was estimated to have suffered the largest losses (\$200-220m) followed closely by agriculture (\$140-160m)," the report says.

“

Horticulture and agriculture accounted for around 80 percent of the losses

"In both cases the largest losses, accounting for around half of their totals, were caused by the loss of future crops due to downgraded land productivity."

Over half of the losses in the horticulture sector were attributed to loss of perennial crop productivity over the next five years, with the next largest loss of crop from the event itself such as through silt, flood damage and access issues.

However, the report notes that the regional losses in horticulture it records are likely to be much higher than estimated as it does not include figures from large, vertically integrated companies - those that take care of their own supply chain, such as LeaderBrand - "who chose to deal directly with government rather than contribute to the regional analysis".

LeaderBrand chose the direct approach as the company's situation could be quite complicated and had a lot of moving parts, says chief executive Richard Burke.

"Rather than counting what has been lost the real issue for us is about how we stand up business and our region going forward," he says. "This is still the focus and we are actively involved in both."

In the other sectors, over half of the estimated \$50-60m loss in forestry losses was also crop loss followed closely by crews unable to access logging sites or the port for several weeks) while SME and tourism, hospitality and accommodation businesses suffered a wide range of losses estimated at \$20-30m and \$5m respectively.

In putting the losses to horticulture in Tairāwhiti at \$200-\$220m, the report notes that Cyclone Gabrielle was the largest and most recent of an ongoing series of extreme events. ●

IMPACTS TO BE FELT FOR YEARS TO COME

The Trust Tairāwhiti *Economic Recovery Plan: Economic Losses From Cyclone Gabrielle* estimates that more than \$400 million in economic losses were sustained in the Tairāwhiti region as a direct result of Cyclone Gabrielle, around half of that from the horticulture industry.

IDENTIFIED ISSUES

Issues identified as having a particular impact on horticulture in the short term included:

- ⚠ Immediate clean-up including the removal of silt;
- ⚠ Crop loss from event;
- ⚠ Higher costs incurred in order to overcome constraints and keep operating (such as freight, or paying for trucked-in water for vegetable processing);
- ⚠ Volume impacts from upstream and downstream value chain constraints (such as packhouses that did not have enough product);
- ⚠ Infrastructure loss (such as fencing, orchard infrastructure and culverts).

In the medium term included:

- ⚠ Perennial crop productivity loss affecting revenue in the medium term and in some cases extending to 2030;
- ⚠ Risk to future crops due to changes in factors from trees and vines to lands and water;
- ⚠ Annual crop replant loss due to constraints such as land, infrastructure, labour or finance.

In the long term included:

- ⚠ Land use loss or heightened risk;
- ⚠ Inability or difficulty to retain or gain banking finance of acceptable terms.

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124-YEAR-OLD TRUST WINS MAJOR MĀORI AWARD

Elaine Fisher

Photos: John Cowpland



More than 900 people enjoyed the Ahuwhenua Trophy awards evening in Tauranga

The Wi Pere Trust established 124 years ago by a man described as 'ahead of his time' has won the Ahuwhenua Trophy for the top Māori horticultural enterprise.

The Minister for Māori Development, Willie Jackson made the announcement at an awards dinner, attended by 900 people in Tauranga on 10 June and there were jubilant scenes as Wi Pere whānau accepted the award.

It was Trudy Meredith, trustee and granddaughter of Wi Pere who founded the trust in 1899, who received the Ahuwhenua Trophy on behalf of the trust. This is the second time that Wi Pere Trust has won this prestigious award. In 2022 they were named the winner in the Ahuwhenua Trophy for the top sheep and beef farm.

“

All the finalists have once again demonstrated the strength and excellence of Māori horticulture

The other 2023 finalists were Māori Investments Ltd (MIL) – Whiritoa Orchards at Te Teko in the Bay of Plenty and Ngāi Tukairangi Trust which has orchard operations in four regions, the largest near Hastings in the Hawke's Bay.

Trudy said winning the Ahuwhenua Trophy was absolutely wonderful and her ancestor Wi Pere would have been amazed at the trust winning the Ahuwhenua Trophy for the second year in a row.

“

If I can do it, so can our future wāhine and tāne



“I thought we had gaps in our business where Ngāi Tukairangi and MIL, Whiritoa Orchards had many strengths – so everybody's taken lessons back from each other,” she said.

Trudy said the win was important and meant a lot for the people of Tairāwhiti because of what the region had recently gone through, including the ongoing impacts of Cyclone Gabrielle.

Located in Gisborne, Wi Pere Trust Horticulture has 79ha of permanent fruit crops, made up of 26ha of Gold kiwifruit (11ha of which is organic), four hectares of persimmons, 15ha of citrus, four hectares of blueberries and 20ha of Rockit and ten hectares of Tarzi® apples. Three separate orchards combine to make up the diverse horticultural operation: Toroa orchard at Waerenga-a-Hika, Tangihanga orchard at Waituhi and Manutuke orchard at Manutuke. Wi Pere Horticulture is managed by general manager Wayne Hall, with eight full-time staff and up to 85 casual workers at key times.



Front: Kingi Smiler and Trudy Meredith, Wi Pere trustees.
 Back: Barry O'Neil, president HortNZ; Brydon Nisbet, director HortNZ; Nadine Tunley, chief executive HortNZ; Wayne Hall, general manager horticulture Wi Pere Trust; Kate Longman, general manager engagement HortNZ; Dr Bruce Campbell, director HortNZ

The trust's founder, Wi Pere, a rangatira, tohunga, soldier, politician, Māori Land Court conductor, legislator, historian and entrepreneurial businessman was against the sale of Māori land and used his influence as a Member of Parliament to constitute the Wi Pere Trust on 14 April 1899. It was because of the united focus and determination of Wi (Wiremu) and his whānau to preserve the ancestral lands they owned that his descendants still own them today.

Kaitiakitanga (guardianship) and sustainability reflect the founding legacy of the ancestral lands that their tīpuna (ancestor) Wi Pere left to future generations to retain, protect, build and grow them for the benefit of his whānau.

Nukuhia Hadfield, chair of the Ahuwhenua Trophy Management Committee, said it had been a difficult year for most growers and farmers in the primary sector, but especially hard for all the finalists in the competition. A combination and accumulation of events such as frosts, floods and other unseasonal conditions created major problems for all the entrants. Despite this adversity, all the finalists remained in the competition and put together exceptionally good field days to showcase their respective orchards.

"I would not like to have been a judge in these circumstances, but certainly full praise to Wi Pere Trust for being judged the winner. I have seen their property and they are very worthy winners. But having said that, all the finalists have once again demonstrated the strength and excellence of Māori horticulture," she said.



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GRACE'S AHUWHENUA WIN HIGH POINT IN TURBULENT TIMES



Grace Rehu, a leading hand for Turners & Growers in Hawke's Bay won the Ahuwhenua Young Māori Grower trophy



Ahuwhenua Young Māori Grower Grace Rehu, right, thanked the two other finalists Alix Te Kere (left) and Erica Henare for their support

The last few months have been tumultuous for Grace Rehu, a leading hand for Turners & Growers in Puketapu, Hawke's Bay. In February, Cyclone Gabrielle caused widespread damage to the Hawke's Bay orchards she works on and then in June, Grace won the prestigious title of Ahuwhenua Young Māori Grower for 2023.

At 21, Grace (Rangitāne, Taranaki), was the youngest of the three finalists in the competition and her win was announced by Te Hāmua Nikora, Pou Tikanga, Te Tumu Paeroa. The other finalists in the competition were: Thirty-year-old Alix Te Kere (Ngāti Kahungunu, Ngāti Tu, Ngāti Maru, and Ngāti Maniapoto), health and safety advisor for Rokit Management Services, Hastings, and twenty-seven-year-old Erica Henare, (Ngāti Kahungunu, Ngāti Maniapoto), pipfruit and kiwifruit manager at Kono NZ LP, Motueka.

Grace said being part of the competition was an amazing experience and opportunity, and one she could not have completed without the support of the two other finalists by her side. She admits she was pushed into entering the competition without really knowing what was involved, but as her participation evolved, she fell in love with the kaupapa and kept on going.

This is the first time in the history of the competition that three wāhine Māori have been selected as finalists. To mark this special occasion each of the finalists received, in addition to their other prizes, \$5,000 from Te Tumu Paeroa (the professional trustee organisation for Māori).

Te Hāmua Nikora explained that Dr Charlotte Severne, the Māori Trustee and chief executive of Te Tumu Paeroa, has a very special place in her heart for other wāhine. "The way we see it at Te Tumu Paeroa is that if we help

this younger generation, particularly the women in this business, then they are going to do better for the land. When the land is healthy, the people are healthy," he said.

Grace's aspirations are to inspire rangatahi in horticulture and demonstrate that the industry is about more than just picking apples.

"Turners and Growers' vision is to "grow healthier futures through fresh produce" and I want to execute that vision every day. If I can do it, so can our future wāhine and tāne."

Being part of the Turners and Growers Emerging Leaders programme had a huge impact on her personal and professional development and also helped give Grace confidence to enter the awards.

Grace is part of a team of 15 permanent staff employed to work on 100 hectares of apple orchards, and in that role supervises a Samoan team of 11 Recognised Seasonal Employer scheme workers for the harvest season, as well as undertaking crop spraying, pruning and all tasks involved with fruit production.

Grace's passion for horticulture developed when she worked alongside her grandmother every summer school holidays at a strawberry farm in Hastings.

During her last year in high school, she worked night shifts at Turners and Growers East site packhouse, and after finishing school, Grace stayed on as a Quality Controller. She spent some time in the development team planting and redeveloping blocks, and then was offered a permanent position. ●

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PROCESSORS FIGHT TO KEEP FOOD ON THE TABLE

Photos: Florence Charvin

The three 'Cs' of Convenience, international Conflict and Covid have increased demand for canned and frozen produce more than ever, a situation compounded by the third 'C' ... Catastrophic rain. KRISTINE WALSH talks to two agronomists working in the front-line of processing in Hawke's Bay.

Love of Hawke's Bay remains despite tough landing

When Dr Allan Machakaire moved to New Zealand in January 2020 his employer, McCain Foods (Hastings), was ready to go.

"Its growers had crops planted that were maturing and many ready to harvest, so I knew it was going to be a busy time," says Allan, who was brought on board as a senior agronomist.

But by the time his wife and children joined him at the end of February, things were on the turn.

"The day they arrived at the airport we heard New Zealand had a case of Covid-19; three weeks later the borders were shut; and a few days later the country was in full lockdown. It did make things a little challenging!"

As an essential service, the McCain's factory in Hastings operated as best it could under contact restrictions, and Allan faced his own challenges.

"I had exemptions to travel to farms in our areas like the Manawatu, but of course, there were strict protocols in place," he says.

"We did get the job done - we had to - but it was hard to establish relationships with farmers when I couldn't actually meet them."

Now in the role of agriculture manager for McCain's operation in Hastings, Allan says that while working in a post-Covid environment is easier, other challenges have battered the industry.

The most obvious, he says, was Cyclone Gabrielle, which devastated the Hawke's Bay region and caused catastrophic crop losses.

"But that was on top of a wet spring and summer, so growers were already on the back foot."



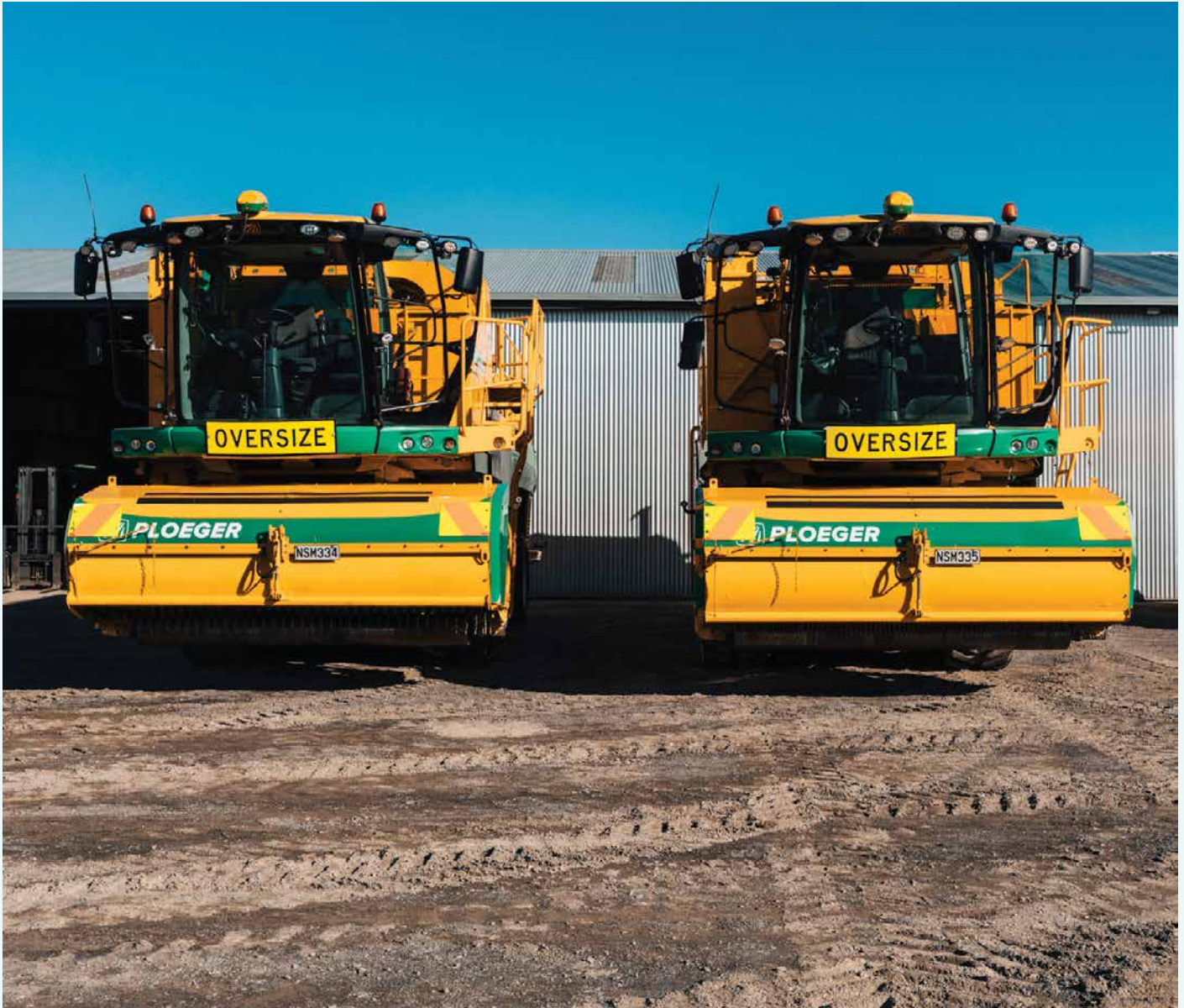
Dr Allan Machakaire, agriculture manager for McCain Foods, deals with between 120 and 200 growers a year

Established in Canada in the 1950s, McCain Foods operates across six continents with five sites in Australia and New Zealand.

In New Zealand, it is represented by the Hastings operation, which focuses on Individual Quick Frozen (IQF) peas, beans, sweetcorn and carrots, and one in Timaru where potatoes are big business, contributing to its reputation as the world's largest manufacturer of frozen french fries and potato speciality products.

The company has a commitment to regenerative agriculture and Allan Machakaire has a hand in that too, speaking at events like the LandWISE soil health conference about how McCain (and other operations) can achieve its aims.

All the will in the world, however, could not protect the company from the crop losses of 2023.



McCain Food's Hastings operation focuses on Individual Quick Frozen (IQF) peas, beans, sweetcorn and carrots

McCain likes to mitigate risk by having geographical spread, but had already moved out of Gisborne after wet weather caused issues with the harvest of 2022.

“
It was hard to establish relationships with farmers when I couldn't actually meet them

“We still have good coverage so, for example, last year the season in Manawatu was not great due to wet conditions, but Hawke's Bay was good, while this year Manawatu did well while Hawke's Bay absolutely did not.”

In Hastings, McCain's growers had already lost crops or were down on yield because of an inability to plant through the wet spring, then came the two cyclones –

Hale (January) and Gabrielle (February) – that destroyed a lot of what was there, says Allan, who deals with between 120 and 200 growers during the course of a year, overseeing territory of up to 6000 hectares.

“Across all our product groups, across all regions, we would have lost around half our crop, so it's been pretty tough on everyone.” McCain is doing its bit by supporting growers with initiatives like writing off some seed costs and deferring others so they can start all over again.

“In the meantime, we're sourcing some product locally from other regions,” Allan says.

“What's important for us is to have enough product in the market to avoid shortages for our customers.”

As for the future, Allan believes there is some protection in the sustainable farming initiatives McCain is involved in (including partnerships with the likes of LandWISE



New Zealand and the Hawke's Bay Future Farming Charitable Trust) and he would like to see central government invest more in that space.

"It's also important that it commit to maintaining infrastructure, to keep our communities safe, and that it gives growers certainty around what is going to happen to flood affected land, and what support they are going to have to move forward."

All that will take time, and Allan says that as he is here for the long haul, he'll do all he can to help.

Before his move to New Zealand, Allan Machakaire had already proven his worth in the decade he worked for McCain Foods in South Africa.

That's not where he got his foundation in the industry ... he grew up in a high-density area of the city of Harare, the capital of Zimbabwe, but spent school holidays at his grandparents' smallholding in a rural village.

He and his two siblings would help out planting, weeding and harvesting, as well as looking after livestock, and that he says, is where he got his passion for agriculture.

"They would mostly grow maize to make meal for sadza, which is much like mashed potatoes, but it was very much subsistence farming," he says.

"There was always food pressure, even in the rural areas, so the idea of work to help ease that was very appealing for me."

While his parents were not well off, they were committed to ensuring their children were well educated, so Allan headed first to boarding school, then to the universities where he earned his degree, masters and doctorate in agronomy.

After his first graduation ceremony in 2002 he worked for eight years in Zimbabwe, mainly overseeing the co-ordination and growing of crops for processing.

“

What's important for us is to have enough product in the market to avoid shortage

By that time the land reforms started in 1980 by former president Robert Mugabe were in full effect, with the economy staggering and an atmosphere of violence and intimidation.

"The farming sector had really gone downhill and it just wasn't a positive work environment, so that's why I decided to immigrate to South Africa.

"Then in 2019 I came to New Zealand on a business trip, looking at harvesting machines, and fell in love with the area of Hawke's Bay.



"My wife and two daughters too, had the dream of living in New Zealand. So it is a dream come true for all of us."

It's not been easy ... apart from the challenges at work, the pandemic meant it was two years before Allan could visit his parents, who have returned to run the smallholding in his father's home village.

But it's been worth it.

"Farming is farming, but the conditions you farm in are never the same from one territory to the next," he says.

"So for me, I get to apply my knowledge in a completely different environment, and that's been a wonderful experience."



Liaison with growers is a big part of Wattie's agriculture manager Bruce Mackay's role

Values at the core of iconic brand

Wattie's agriculture manager Bruce Mackay has for decades worked at the business end of primary production, but for him, it's not all about the bottom line.

"I see processors as being the people who put food on your shelves for the ten months of the year it is not available as fresh produce," he says. "What would happen if they weren't there?"

In his role, and with the support of a fruit agronomist, and two agronomists looking after arable crops, Bruce oversees the procurement and production of seasonal crops including peaches, pears, Black Doris plums, boysenberries, tomatoes, butternut pumpkins, beetroot and sweetcorn.

In Hawke's Bay it is all done by around 65 growing businesses across about 1400 hectares. And it all goes to the company's Hastings cannery, by far the largest in the country.

But that's not all that is pumped out of the Hawke's Bay facility.

"What a lot of people don't know is just how many brands we own and product groups we produce," says Bruce. "As one of New Zealand's largest suppliers to the grocery sector, we have multiple foods spread across supermarket shelves, freezers and chillers. And that's a big responsibility."

Founded in a four-room Hastings cottage in 1934, J Wattie Canneries (Wattie's) has over the decades been involved in a number of mergers, from its 1960s takeover of Melbourne companies Thompson & Hills and S Kirkpatrick & Co, to its 1968 union with General Foods (leading to the name change to Wattie Industries Ltd), to the 1987 merger with Goodman Fielder and, eventually, the 1992 sale of the Wattie's group to the US-based H J Heinz Company (Kraft Heinz), which retains ownership to this day.

Today, Heinz Wattie's Ltd has manufacturing bases in Hawke's Bay and Christchurch, with other facilities in Dunedin and Auckland, and across its product groups maintains relationships with some 2000 growers across the country.



Beetroot processing at the Wattie's factory in Hastings, the country's largest cannery

"Basically, our work is all about liaison with the growers, planning, agronomic advice, operating structures and maintenance and if you have all that in place, then the season is a breeze," says Bruce. "If you don't, it's going to be a nightmare."

“

We as a company lost nearly 80 percent of the crops expected from Hawke's Bay growers

One thing Bruce and his team could not plan for, however, was the nightmare of Cyclone Gabrielle, which hit with devastating effect to parts of the region causing loss of life, loss of property and of course, loss of crops.

At home near Havelock North, Bruce watched the Red Bridge all night as flood waters threatened to destroy it, along with the 14 other bridges lost in Hawke's Bay. But in the morning all he noticed was a tree had been downed and some of the driveway had been scoured out.

"In contrast, in places like the Esk Valley some people, including our growers, got absolutely dealt to with homes and properties flooded and buried under metres of silt."

Back in the 1980s Bruce owned a property at Haumoana where a Wattie's tomato crop approaching harvest was wiped out by the blast of Cyclone Bola.

"That event saw bricks from the partially-built houses swept for miles down the road, but it was nothing compared to Gabrielle. In addition to the personal devastation felt by many, we as a company lost nearly 80 percent of the crops expected from Hawke's Bay growers - more in some product areas, less in others.

"That was on top of 2022's horrible spring and huge rain events in both December and January. So in terms of the quality of the season, Gabrielle was the icing on top of a pretty nasty cake."

Like many growers - albeit on a much larger scale - Wattie's generally makes things work by using diversification to extend its season.

"At the factory in Hastings we have around 600 full-time employees plus around the same again during the season, and to keep it working, that season is getting longer and longer," says Bruce.

"In the first week of December we'll be processing beetroot and boysenberries, and from the end of January we see the real peak with all of our fresh produce coming through at the same time.

“We're making do and accepting that we're facing depleted inventory

"Off-season we focus on our simple recipes (baked beans, spaghetti and the like), more complicated meal products, labelling, frozen and chilled meals, jams, dressings and pet foods.

"So we're able to get peak efficiency by operating 24/5 or 24/7 for 12 months of the year, and that makes the best of what is a critical facility."

To do that they need product, and in the wake of the cyclone, as Bruce and his team have worked to support growers, the procurement arm of the company was sourcing shortfalls.

"We were able to get things like tomatoes and frozen sweetcorn, but for the rest, we're making do and accepting that we're facing depleted inventory," he says.

"As for the future, next season will be a new one for annual crops, but we're not entirely sure how things will pan out on the orchards. As the trees become dormant for winter they may look alright, but with those that have been in standing water or suffocated by silt, we're yet to see what happens."

At the time NZGrower spoke to Bruce Mackay*, growers were still waiting to hear what support they would see from central government in the wake of Cyclone Gabrielle, and he was disappointed in that.



Wattie's agriculture manager Bruce Mackay

"It would have been much easier for growers if there had been early and timely indication of the support that might be available," he says.

"Nobody expects government to give growers back the profit they have lost ... just to help them get back on their feet. Supporting primary producers is not a hand-out, it's an investment in our future."

In the meantime, Bruce says Wattie's will continue doing what it does best in an increasingly tough environment.

"Primary production is a difficult business but I absolutely love it, and along with putting out our other products, I think it's something we do particularly well.

"It's a fantastic brand with a powerful reputation and we nurture, protect and cherish that by keeping the quality really, really good.

"And that is what we are going to keep on doing, because that is the values we aspire to." ●

**EDITOR'S NOTE: Following Bruce Mackay's comments in this article and just before NZGrower went to print, the government announced a package to support businesses affected by the North Island weather events. See the details on page 18.*

An advertisement for the Trimax Force Flail Mower and Mulcher. The main image shows a red and silver mulcher in a grassy field. The text on the left reads: "TRIMAX FORCE FLAIL MOWER AND MULCHER", "DESIGNED AND MANUFACTURED IN NEW ZEALAND", and "CONTACT US TODAY FOR A FREE DEMO.". On the right, a circular callout says "MULCH BRANCHES UP TO 90MM IN DIAMETER". At the bottom, there is a green bar with the Trimax logo, the slogan "POWERING PERFORMANCE.", contact information (P +64 7 543 1892, E info@trimaxmowers.co.nz), and social media icons for Facebook, Twitter, Instagram, YouTube, and LinkedIn, along with the website "TRIMAXMOWERS.CO.NZ".



INDUSTRY STALWARTS RECOGNISED IN HONOURS LIST

Helena O'Neill

Three New Zealanders with links to the horticulture industry were recognised in the King's Birthday and Coronation Honours List.



*Murray McPhail, CNZM, LeaderBrand's founder and director.
Photo by Tessa Crisp*

Murray McPhail, CNZM

LeaderBrand's founder and director Murray McPhail was named a Companion of the New Zealand Order of Merit (CNZM) for his services to horticulture.

Murray was thrust into the family business as a 17-year-old when he took over a 150-hectare sheep and cattle farm near Gisborne after his father died.

In the late 1960s, New Zealand agriculture was sheep, sheep and more sheep, a few cattle and some dairy. Murray says horticulture was exciting as it was a centre of development for mechanisation, hybridisation of seeds, and delivering higher dollar returns to established agriculture of smaller areas of land.

He could also afford to lease this ground, negating the need to have vast amounts of capital to buy land.

LeaderBrand was founded in 1975 and the company now has farms in Gisborne, Canterbury, Matamata and Pukekohe. Fast-forward nearly 50 years and horticulture remains exciting for Murray.

"It's exciting as the returns can swing wildly based on supply and demand. The potential to grow a harvest, process and market your own product as well as being able to interact directly with customers. The opportunities are endless, and you have the ability to operate without boundaries."

When asked what our horticulture industry does well, Murray praises innovation.

"This is tricky because we're constantly competing on price, which leaves no margin to promote the values of our products. However, we are innovative and Kiwi ingenuity is always at the forefront of our farming practices."

LeaderBrand's chief executive Richard Burke says that Murray's vision to create a world-class farm is what continues to drive the team today.

"Murray's success was in realising quickly which produce grew best in which soil, and committing to crops that could be grown all year round. He also had a knack for picking future consumer trends and predicting what Kiwis would want to eat in the future. This was one of the key drivers of our investment in bagged salads and our undercover greenhouses."

Richard says Murray's career has not been without its challenges.

"Cyclone Bola in 1988 destroyed the farm. Many farmers, at the time, decided to sell up, but Murray's tenacity and drive drove him to replace and rebuild. It was this pioneering spirit and the Kiwi can-do attitude that drove us once again to dig in after this year's Cyclone Hale and Gabrielle," he says.

Murray says that his success has always been a team effort.

"To me, the success of LeaderBrand is all about its people. I started off growing plants but ended up growing people, something I'm very proud of."

Horticulture New Zealand president Barry O'Neil says Murray's honour reflects his contribution to horticulture as well as his investment in, and support of, regional New Zealand for almost 50 years.



Dr Howard Wearing, ONZM, at the 2019 release of his book *Farewell Silent Spring: The New Zealand Apple Story*

Dr Howard Wearing, ONZM

Plant & Food Research Honorary Fellow Dr Howard Wearing was named an Officer of the New Zealand Order of Merit (ONZM) for his services to entomology and the fruit and orchard industries.

Howard started his career at the Department of Scientific and Industrial Research (DSIR) in 1967, retiring from HortResearch in 2001. The scientific research programmes he led over those 30 years played a key role in the implementation of best-practice modern apple production in New Zealand, with Howard supporting growers to minimise damage to fruit while maintaining high yields.

His programme 'Biological Orchard Production Systems' and the associated Integrated Fruit Production programme reduced the use of insecticides by 90 percent and led to a significant increase in New Zealand's fruit exports, including organic apples. He also oversaw teams of scientists whose research made significant contributions to government-funded science nationally, including gaining pipfruit and summerfruit access to the Japanese market.

Despite retiring more than 20 years ago, Howard has continued to publish papers. His ongoing work has provided new insights that have guided the use of pest management strategies in low pesticide input and organic fruit production systems. As well as publishing more than 150 scientific papers, in 2019 he released his book *Farewell Silent Spring: The New Zealand Apple Story*, which is a rich source of information for professionals and students of horticulture, entomology and pest management around the world.

Tofilau Talalelei Taufale, MNZM

Napier resident Tofilau Talalelei Taufale was named a Member of the New Zealand Order of Merit (MNZM) for services to Pacific health. Tofilau has been a big support to Recognised Seasonal Employer (RSE) scheme workers in the Hawke's Bay region.

Tofilau says he was "blown away" by the news of his nomination.



Tofilau Talalelei Taufale, MNZM, is a speaker at the upcoming Horticulture Conference Week

"I rang my wife straight away and I reflected about my parents and their migrant journey from Samoa to Aotearoa and the sacrifices they made for us to have a better future. They would be so proud."

Tofilau is of Samoan heritage from the villages of Iva, Luatuanu'u and Falelatai. He is the Interim RSE National Lead and Interim Commissioning Lead for the Pacific Directorate of Te Whatu Ora.

During Cyclone Gabrielle, the Pacific community rallied around to host the 850 RSE workers that were displaced. Six Pacific churches provided emergency shelter, clothes, food and connectivity to families abroad.

"It wasn't easy."

He says the response of the Pacific community during the cyclone revealed the positive role that local churches and the Pacific community can play in the support and care of RSE workers, further enhancing what is possible when communities, employers and agencies come together.

"I am heartened by the openness of industry to open up and be led by collective approaches to support the wellbeing of RSE workers. Looking across Hawke's Bay I have seen an evolution from what it was ten years ago to a much-improved approach towards the pastoral care and wellbeing of RSE workers today. It's not perfect but through learning experiences through Covid-19 and the cyclone, we have a golden opportunity to work closer together to take the scheme forward into the future.

"It's about realising ethical approaches that will benefit all." ●

HORTICULTURE CONFERENCE SPEAKER

Tofilau Talalelei Taufale, MNZM, is one of the speakers at the upcoming Horticulture Conference Week from 31 July to 4 August at the Te Pae Christchurch Conference Centre.

conferences.co.nz/hort2023/



WHAT HAPPENED TO GISBORNE'S GREEN PEAS?



Though now somewhat faded and overgrown, a mural honouring Wattie's - by Gisborne artist the late Graeme Mudge - is located on a wall near where the original factory once stood. Photo by Kristine Walsh

Once a big part of Gisborne's growing programme, peas have been off the menu in the face of changing times and land use in the region. KRISTINE WALSH takes a look back at the 'good old days'.

Land value, climate and changing trends can impact on products grown in any given region, and for Gisborne, they all contributed to the virtual end of the pea growing industry.

Well-drained soils mean Canterbury has long been the major pea growing region in New Zealand, followed by Hawke's Bay, then to a smaller degree, Marlborough.

But for Gisborne too, green peas have been a significant crop with around 500 hectares in cultivation in recent years.

Local growers say sustained wet weather has not helped, but it was market forces that ultimately shut the product group down.

In recent years, Cedenco Foods alone was growing more than 400 hectares of peas in the Gisborne region, stopping in 2021 when the company shut down its IQF (individual quick freezing) facility.

The move came 21 years after Cedenco bought the Gisborne arm of Heinz Wattie's frozen business, under the guidance of then managing director, the late Dean Witters.

Current managing director Tim Chrisp says it pulled out of peas because the company did not have the water supply or trade waste infrastructure required to continue with its frozen pea and corn business.

"Our aim has been to reduce our footprint including water requirements, which have dropped by about half in the last decade, so that's a good indication of that approach working," Tim says.



A tractor-drawn loading elevator, driven by Stan Cooper, filling a truck, while loader-boy Guy Dods attends to stacking the vines

“At the same time, as land is an increasingly valuable resource, our strategy has been to focus on higher-value, added-value products.”

With Cedenco withdrawing from the market, contract growers in Gisborne found it tough to source buyers.

Long-time Gisborne/East Coast regional representative for Process Vegetables New Zealand, Dean Davies, used to grow peas for Cedenco, as did his father (the late Ross Davies) before him.

His last season was in 2020, after which he stepped away as demand from Cedenco decreased.

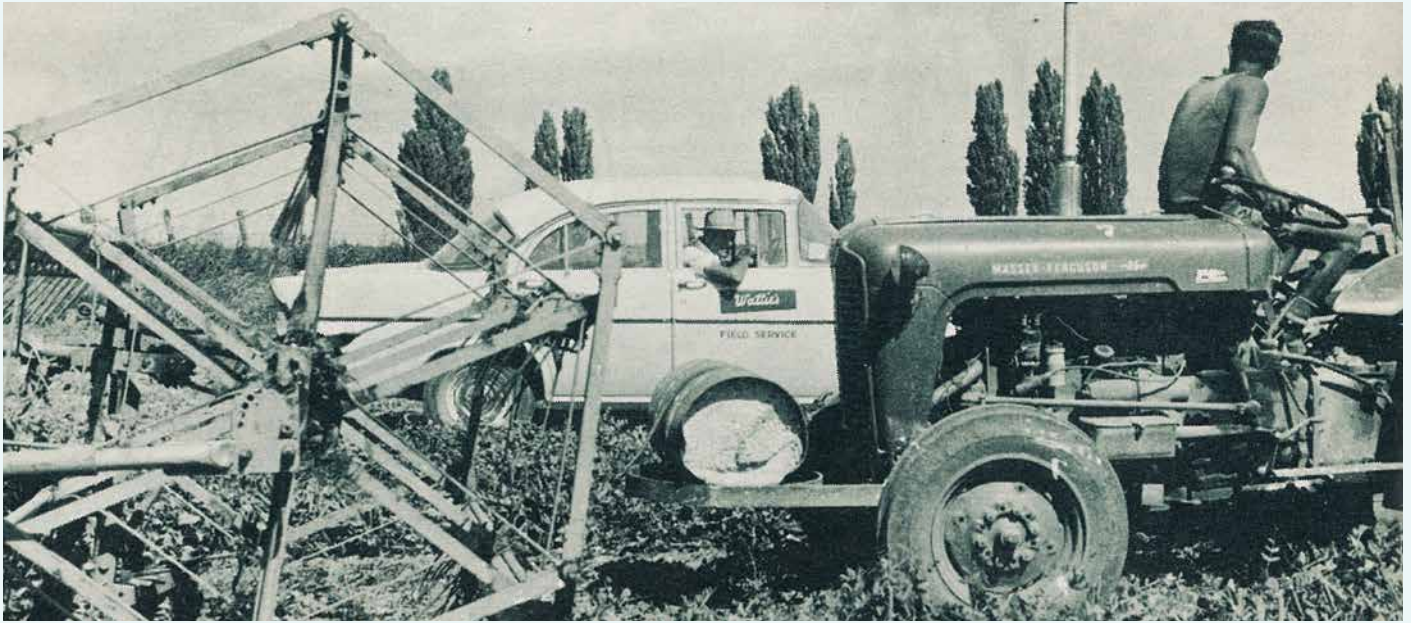
“The following year a couple of local growers put in crops for McCain Foods, the idea being that McCain could send over their gear a couple of weeks before the Hawke’s Bay season and get them harvested,” he says.

“But as it turned out the seasons overlapped, and that on top of a pretty wet growing period, so it didn’t work out and that was pretty much it. Now no commercial growers in Gisborne produce green peas.”

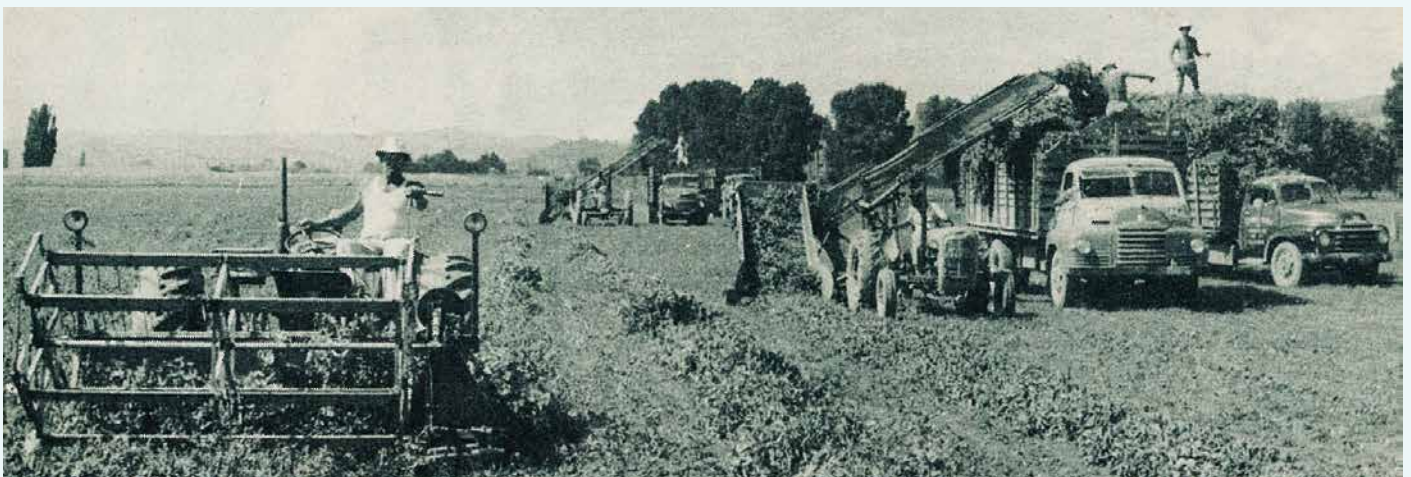
For Dean Davies, it was the end of an era, and while he’s getting good returns from seed maize and sweet corn he still misses growing peas on his property, just a few kilometres out of Gisborne city.



Gisborne/East Coast regional representative for Process Vegetables New Zealand, Dean Davies. Photo by Kristine Walsh



Field supervisor John Renouf checking on progress with mower operator J. Atkins, from his two-way radio-equipped car



The highly-organised harvesting machinery, pictured working in Mr H. H. Dods' paddock at Repongaere, consists of mowers that place the peas in long rows, and loaders to pick up the rows and elevate them onto the trucks that take them to the factory in town

"They can be challenging but as well as being a cash crop in their own right, they're a great break crop both to control disease and to improve soil health," he says.

"I guess we are just victims of a big wide world where it can be cheaper to import product than to grow it here, especially with land values being what they are. But it is a shame that local growers no longer have that option."

Commercial pea-growing in Gisborne was ramped up in the early 1950s when J Wattie Canneries (Wattie's) opened a new factory, but peas were not the original focus ... sweet corn was.

The company was started by James Wattie (1902-1974), a manager with Hawke's Bay Fruitgrowers Ltd who, in 1934, rented a four-room cottage in which to set up a jam manufacturing business to use up surplus fruit.

Within a year the fledgling Wattie Canneries Ltd was already in the black, and by 1937, was mechanised to the point where it was producing around 25,000 cans a day.

Then, speculating that Great Britain would provide a good market for canned vegetables, James Wattie was soon canning successful lines of peas, asparagus, and tomatoes that were in high demand during the Second World War.

“
We are just victims
of a big wide world



This demand accelerated the speed of growth: Wattie's was producing its own cans, buying its own farms, expanding its plant, and after the war, developing frozen lines to boost its hungry export market.

The 1952 establishment of a new plant in Gisborne, an area known for its sweet corn, made Wattie's the first food processor in New Zealand to offer both canned and frozen corn.



Feeding the peas into viners, while the waste is discharged into a truck to be used as silage

Within a decade some 2000 tonnes of peas were being grown on the Poverty Bay Flats which, according to local media, “supplied the modern housewife with a packet of frozen peas, which can be prepared and served in a matter of minutes”.

While other lines were continually developed, it is the peas and corn locals remember most as providing a fun, social workplace where sometimes whole whānau would be working at a time, all earning a decent income.

Just this year, former Gisborne Wattie’s staff held a get-together so they could reminisce about the ‘good old days’, while reflecting on what was lost when the plant closed in 1997, 45 years after the first produce started rolling in, and at the cost of 170 jobs.

One recalled how, when the machines broke down, local singer (and Wattie’s staffer) Paula Brown would keep everyone entertained until they could get back to work.

Between Wattie’s and the nearby freezing works, one former worker said, “most of the whānau in Kaiti worked there and the community was vibrant and healthy”.

Over the years there were various mergers, from Wattie’s 1960s takeover of Melbourne companies Thompson & Hills and S Kirkpatrick & Co, to its 1968 union with General Foods (leading to the name change to Wattie Industries Ltd), to the 1987 merger with Goodman Fielder and, eventually, the 1992 sale of the Wattie’s group to the US-based H J Heinz Company (Kraft Heinz), which retains ownership to this day.

Today, Wattie’s has manufacturing facilities in Hawke’s Bay, Christchurch, Dunedin and Auckland and across its product groups maintains relationships with some 2000 growers.

And while it lays claim to harvesting “the largest area of peas in the Southern Hemisphere”, producing more than half the national crop at some 38,000 tonnes, that has mostly been in Canterbury. ●

Source: *International Directory of Company Histories.*

Pictures: *Courtesy Gisborne Photo News (No. 104, February 21, 1963) supplied by Tairāwhiti Museum.*

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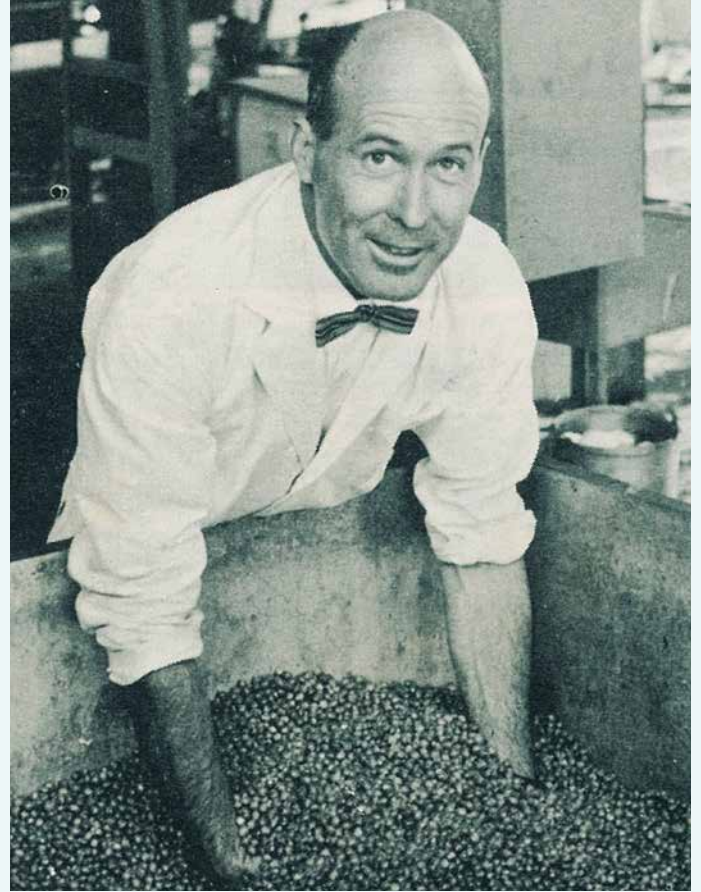
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Head field supervisor John Renouf examining a vine of peas before harvesting



Wattie's assistant manager Arthur Leaves examining podded peas in a 1000-pound weighing bin



PEAS A PART OF GISBORNE GROWING HISTORY

Gisborne Photo News celebrated the pea harvest with a pictorial feature published in its February 1963 edition.

"The rich, fertile, misnamed Poverty Bay flats this year yielded its biggest quantity of green peas ever - 2000 tonnes - for canning and freezing by the Gisborne branch of J. Wattie Canneries," Photo News said.

"Approximately 98 percent of this tonnage was distributed outside the Gisborne district for national consumption.

"The job of preparing, sowing, spraying, and tending the crop during its growth is done by individual farmers, under the supervision of Wattie's field staff.

"The various paddocks are staggered in growth over a period of two months to enable the factory to handle the vast quantity.

"Before a crop is harvested, sample peas are tested and examined in the cannery's laboratory, to ensure that they are at the correct stage of maturity.

"When the decision to harvest is made, a small convoy of mowers, loaders, and trucks moves in, working round the clock at times, to supply the factory with peas.

"Upon reaching the factory, the peas are fed into viners (podding machines), and are washed, weighed, size graded, blanched (cooked in boilers), inspected, packaged, frozen, and cold stored.

"From the time a pea is harvested, to the time it is frozen, perhaps an hour and a half would have elapsed, half an hour of which is spent in travelling."

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LOYAL STAFF HELPED KEEP BUSINESS 'WEATHERPROOF' IN STORM

Elaine Fisher



Emma and Gavin Visser made dramatic career changes when they bought Tasman Bay Herbs two years ago

Tunnel houses provide a controlled environment for the plants at Tasman Bay Herbs, but it was their staff who gave Emma and Gavin Visser's business its most needed protection during an extreme weather event.

"We were on holiday, biking in Samoa when the Tasman region was hit by a storm in August last year. Road transport was interrupted, and our staff did everything they could to get our product out, including sending it by air," says Emma who with Gavin owns Tasman Bay Herbs at Riwaka.

"Our staff were amazing. They kept us informed of what was happening, turned up each day despite the awful weather and ensured product was harvested, packed and dispatched to clients throughout the country."

Gavin and Emma bought the 25-year-old business two years ago, and some of their staff have been with the company since it began. "We have a lovely core group of staff who know the business well," says Gavin.

That knowledge and understanding of the chilled supply chain logistics, including the relationship with Air New Zealand, ensured Tasman Bay Herbs' products made it to 50 supermarkets from Northland to Queenstown, fresh each day, despite the impacts of a

weather event described by NIWA (the National Institute of Water & Atmospheric Research) as 'an atmospheric river'.

The rain caused widespread damage to the top of the South Island, with Nelson experiencing a one-in-120-year rain event and Tākaka receiving a third of its annual rainfall in just three days.

"When we returned from Samoa, there was a gift in the office from staff, with a note apologising for interrupting our holiday with phone calls," says Emma.

That kind of loyalty has to be earned, and long-time staff the NZGrower spoke to described Emma and Gavin as great employers. "They are nice people to work for," said Kate Hyde as she harvested sweet-smelling lemon thyme from one of the few outdoor gardens on the two-hectare property.

Ali Wilson, carefully snipping mint inside one of the large tunnel houses, agreed. "We couldn't wish for better owners." Ali has worked for Tasman Bay Herbs for 13 years.

Most of the staff are Riwaka or Motueka locals, some of them from the same family. Some are employed full-time, others like Graham Dear who is skilled at transplanting young plants, works just a few hours a week.

From the start, Gavin and Emma recognised how valuable their staff were to the business. "We were not horticulturalists so relied on the knowledge of our staff when we first took over, and we still do today."



Basil, among Tasman Bay Herbs' popular herbs, is slower growing in winter

Before making the significant career change to horticulture, Gavin had operated a galvanising business and Emma had worked in the car rental and tourism industries.

They were living in Christchurch when they decided to look for something different. "We were keeping an eye out for options when this business came up, and we loved the area," says Emma.

“We have really turned the business around since we bought it

The property, with large plastic greenhouses (currently covering more than 3,000 square metres), implement sheds, coolstore and packhouse facilities plus offices, was well set up as a hydroponic herb growing operation, with potential for growth.

However, Gavin and Emma didn't rush to make changes. They decided to learn all aspects of the business, including carrying out themselves the same tasks as the staff, before introducing anything new, and that strategy paid off.

"Now we understand the business, anything we do now will be very different from what we would have done two years ago."



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Michaela Donaldson checking young seedlings - her roles include office administration too

The couple work to their strengths in managing the business. Gavin has responsibility for the nutrition of the plants, monitoring and mixing the hydroponic formula to suit the needs of each crop, and Emma concentrates on administration and the production processes.

"Even though we are growing plants, much of the operation is process-driven," says Emma.

That process begins with seeds planted by hand in trays, which are placed on covered benches inside a tunnel house, where temperature is controlled in winter by diesel-fuelled boilers. In summer, salad plant seeds can be ready for transferring to the hydroponic gullies within a week. In winter, they need two weeks.

Tasman Bay Herbs aims to supply 100 percent of its product range throughout the year, so longer growing times must be factored into the production schedule.

Growing plants under cover hydroponically has benefits, including the efficient use of water. "This method was chosen as it is the most environmentally sustainable way of producing food, using up to 20 times less water than ground grown produce," Gavin explains. "It also means cleaner produce, less insects so no harmful sprays, and the product lasts longer."

With any leaks quickly fixed in the extensive plumbing system servicing the hundreds of hydroponic gullies, water loss is minimal and largely restricted to that taken up by the plants.



Ali Wilson has worked for Tasman Bay Herbs for 14 years

All water is recycled back to a control room where it is filtered. The right blend of nutrients is added and thoroughly mixed before the water is pumped back into the system to feed the next lot of plants.

The gullies in which the plants grow are placed on bench-height frames which enable staff to harvest by hand. With some plants, the leaves are harvested and the roots discarded, but other varieties such as chives and Italian parsley can be harvested up to three times.

Once emptied, gullies are placed on overhead frames, ready for cleaning and replanting, making room for harvesters to slide plant-filled gullies aside so they can walk between them to collect more product.

An integrated pest management system is in place, which includes trapping and monitoring any insects which make it into the greenhouses.

The range of more than 30 different varieties of herbs grown include basil, coriander, mint, rocket, salad greens, watercress, chives and thyme. A seasonal mix of edible flowers, calendula, cornflowers, pansies, violets and violas are also grown, some hydroponically and some in garden beds.

The Mediterranean herbs (rosemary, sage, oregano, thyme) are grown both outdoors or in unheated greenhouses in the soil, because they don't thrive in wet conditions and use little water to grow.



An exact blend of nutrients and the right temperature ensures salad greens grow well in the greenhouse

Plants are harvested six days a week, with work beginning at 6am. "Our orders close at 8.30am so we don't know for sure how much product is required until then," says Emma.

“Anything we do now will be very different from what we would have done two years ago

In winter, harvesting can happen in the afternoon but in summer when it's hot, early morning is the time to pick herbs at their best.

Most days thousands of bags and punnets of fresh herbs, flowers and salad greens are packed and dispatched to market.

Gavin and Emma have plans to grow and diversify the business. "We have really turned the business around since we bought it and there's still more potential here," says Gavin.

"We're proud of our fresh herbs and salads, our strict quality and food safety controls and our strong ethos: that every fresh herb or salad product leaving our premises should be near perfect with an optimum flavour and ready to use." ●

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FRESH INITIATIVE FOR WOMEN IN HORTICULTURE

Elaine Fisher



Women in Horticulture chair Paula Dudley and secretary Carmel Ireland

The organisation Women in Horticulture (WiH) is poised for the next step in its evolution now that United Fresh is leading the four-year-old industry collective.

“United Fresh and its members have been working for many years to raise the profile of the vital role that women play in New Zealand’s \$6 billion horticulture sector. We’re proud to be taking this next step towards that goal by leading Women in Horticulture,” Paula Dudley, general manager of United Fresh and chair of WiH says.

Paula says United Fresh New Zealand Incorporated, as New Zealand’s only pan-produce industry organisation with a vision to help support a sustainable fresh fruit and vegetable industry for New Zealand, is ideally placed to take WiH to the next level.

“Our diverse membership of more than 90 organisations representing the entire value chain from seed and grower through to producer associations and retailers, means we have a strong network to draw on.

“Management of Women in Horticulture is an exciting opportunity for us to champion women and diversity to promote the best possible productivity through inclusive practices.”

Paula says wide support for the networking group from women at all levels of the industry and throughout the country means it is now time to progress it further.

Founded in 2019 by a group of women leaders in the fresh fruit and vegetable industry, with initial support from Horticulture New Zealand, the aim of WiH is to foster an environment that empowers, values and supports all women to thrive in horticulture.

“United Fresh acknowledges the great mahi Horticulture New Zealand put in back in 2019 to get this project started, and the team has done a fantastic job. We’re honoured to be continuing this important kaupapa.”

The need for a woman-specific organisation is illustrated by the fact that women make up about 50 percent of the horticulture workforce but represent only about 20 percent of senior leadership.

“That’s a statistic that WiH and United Fresh are committed to changing, and this initiative has a critical part to play in supporting gender equity. The longer vision is to achieve a truly diverse industry. Starting with gender equity first will move us further to that bigger goal.”

Paula says many women working in horticulture face a unique set of challenges including juggling work and family commitments.

“WiH provides a platform to unite and support women at all levels of the industry and to advocate for equity on their behalf.”

The future direction of WiH will be planned during a strategy meeting at the Horticulture New Zealand conference in August. In the interim, United Fresh is developing a database of interested people within the industry to enable WiH to connect to women working in the regions. Nationwide activities will also be planned.

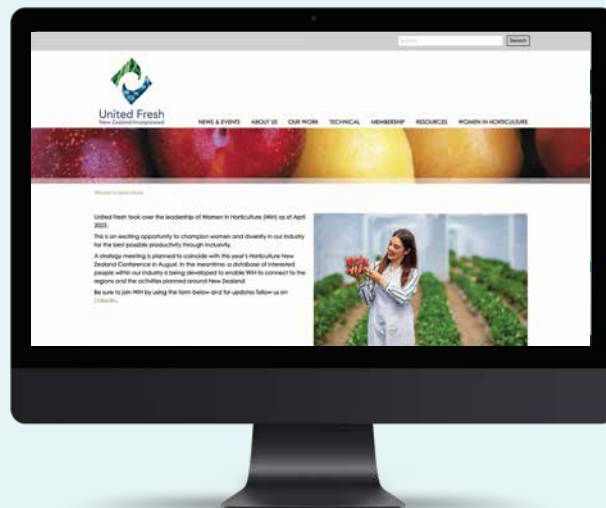
“We’re looking forward to sharing the important work of WiH to drive innovation and collaboration amongst everyone involved in keeping healthy kai on the tables of all New Zealanders.

“The support and empowerment of women in a sector which nurtures us all through the provision of fresh produce has been emphasised by the United Nations as part of its Sustainable Development Goals (SDGs).

“United Fresh adopted the UN’s SDGs as part of our vision for a sustainable fresh fruit and vegetable industry for

New Zealand. Like the UN, we recognise the wide range of horticultural activities that women are involved in throughout the country.” ●

Join Women in Horticulture or find out more.
unitedfresh.co.nz/women-in-horticulture



Aspirata

Excellent spring harvest crisphead variety, suited to mid September – mid December harvest dependent on region. Dark green well wrapped head. Clean butt and nice internal colour. Flat round shape. Resistance to BI 1-36 and Nasonovia.

SugarCrunch

Round, dark green almost black rind watermelon averaging 3.5-5.5kg. When ripe the brix is 12-14° making this a very sweet melon. Crisp deep red flesh adds to SugarCrunch’s appeal. Excellent eating quality with minimal seed numbers. Nearly as good as a seedless!

Aurous

Sutured medium ropey oval melon with ESL (extended shelf life). Strong vine with easy fruit set. Fruit are a good size around 1.8kg with a small cavity. Excellent flavour and flesh quality. Px, Fom:0,1,2



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TECHNICAL



THE LATEST INNOVATIONS AND IMPROVEMENTS



48 WAITING ON THE
WEATHER GODS





TEST DRIVING THE SVS TOOL N-SIGHT WITH GROWERS

Henry Stenning and Andrew Barber : Agrilink NZ

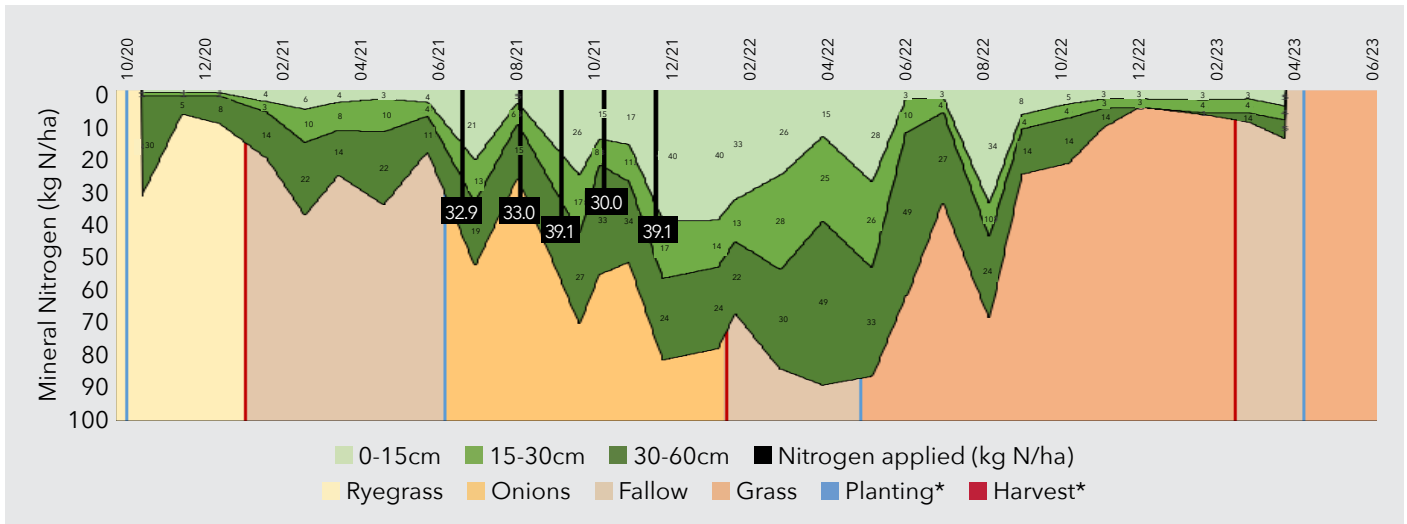


Figure 1: Soil mineral nitrogen fluctuations. The green shaded areas represent mineral nitrogen levels at different depth ranges within the soil

Sustainable Vegetable Systems (SVS) is about to enter its fourth year. Its tool, N-Sight, has been developed and will be tested over the next 12 months prior to its wider release in June 2024.

As part of the user testing programme, we are engaging with a wide range of fertiliser decision makers, modellers, service industry and regulators. One of our approaches is to conduct multiple case studies. These will further inform and refine the tool’s development, engage directly with decision makers, and provide material for dissemination. This article describes one such case study.

Current Practices

We took N-Sight to an outdoor vegetable growing operation in Pukekohe, growing a large mix of crop types on a diverse range of soils.

One of the primary objectives of the case study discussion was to understand the grower’s current practices relating

to nitrogen management, specifically the factors that drive their decision making.

The grower’s first step when determining their fertiliser programme is referencing the annual soil test for a block, typically taken in February to a depth of 15cm. The crop requirements are then determined based on expectations of crop uptake for the desired yield and quality, based on a combination of industry guidelines and past experience. The grower tests for Potentially Mineralisable Nitrogen (PMN), but does not test for mineral nitrogen, though they are investigating the use of Nitrate Quick Tests. To effectively test for mineral nitrogen, they would have to take soil samples prior to the main growth phase of the crop, or preferably prior to a nitrogen fertiliser application.

Figure 1 demonstrates the variability in soil mineral nitrogen levels, based on monthly monitoring conducted as part of SVS. In this example, mineral nitrogen levels ranged from 2 kg N/ha in the top 30cm to over 50 kg N/ha, and almost 100 kg N/ha down to 60cm. This variability underscores the importance of soil testing at critical times.





The grower’s decision-making process effectively results in a standard nutrient application formula for each crop and time of year, with variations from the formula based mostly on forecast or actual rainfall. Fertiliser applications are timed where possible to be made before low to moderate rainfall events so as to be watered into the soil, but are avoided prior to forecast large rainfall events (although that is difficult in Auckland where when it isn’t raining heavily, it is raining lightly).

SVS Tool Inputs

Our grower entered an example rotation into the SVS tool. The major inputs are specified in Tables 1 – 3, including yields, fertiliser application history, and nitrogen soil test results (collected through the SVS regional monitoring programme).

Table 1: Example rotation

Stage	Crop	Planting date	Harvest date	Yield (t/ha)	Residue treatment
Prior	Potato	06/06/21	15/12/21	50	Incorporated
Current	Carrot	05/08/22	13/01/23	90	Incorporated
Following	Onion	10/05/23	20/12/23	70	Surface

Table 2: Fertiliser applications made by the grower – carrot

Application date	kg N/ha
5/10/22	39
5/11/22	39
5/12/22	39

Table 3: Nitrogen soil test results

Test type	Sampling date	Depth	Unit	Result
PMN	01/08/22	0-15cm	kg N/ha	60
Mineral N	01/08/22	0-15cm	kg N/ha	5

SVS Tool Outputs

Based on the inputs, the tool estimated that the nitrogen fertiliser required to grow the carrot crop was 98 kg N/ha, slightly less than the 117 kg N/ha applied by the grower. This guidance was primarily driven by the Potentially Mineralisable Nitrogen test result of 60 kg N/ha, demonstrating the importance of having a good understanding of the mineralisable nitrogen pool, as it is potentially a significant source of free nitrogen.

The tool also provided a full nitrogen budget breakdown, as well as predictions for the soil mineral nitrogen supply for the following onion crop. For the carrot crop, the total nitrogen input, from all nitrogen sources, was calculated at approximately 220 kg N/ha. Of this 220 kg N/ha, the tool predicted that half (113 kg N/ha) would be exported from the field as the harvested carrot crop, while around 20 percent would remain in the field as carrot top residue (44 kg N/ha). The remaining 30 percent was split between losses from leaching and volatilisation (23 kg N/ha), and from mineral N remaining in the soil at harvest (41 kg N/ha).

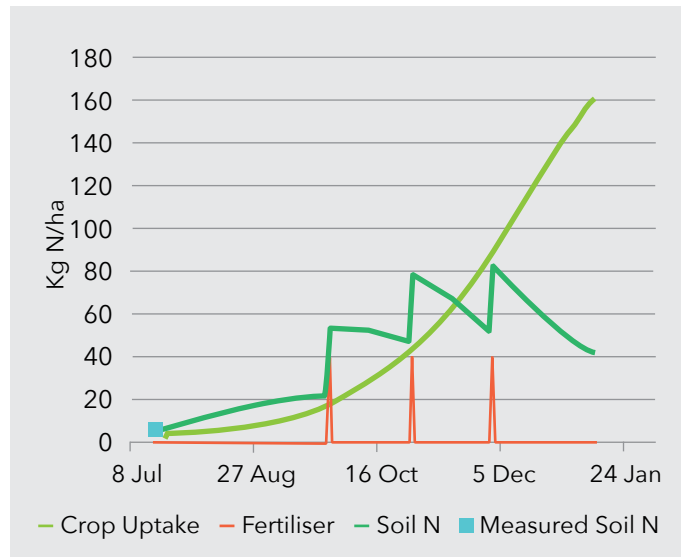


Figure 2: Crop uptake curve and soil mineral N shown on the SVS tool

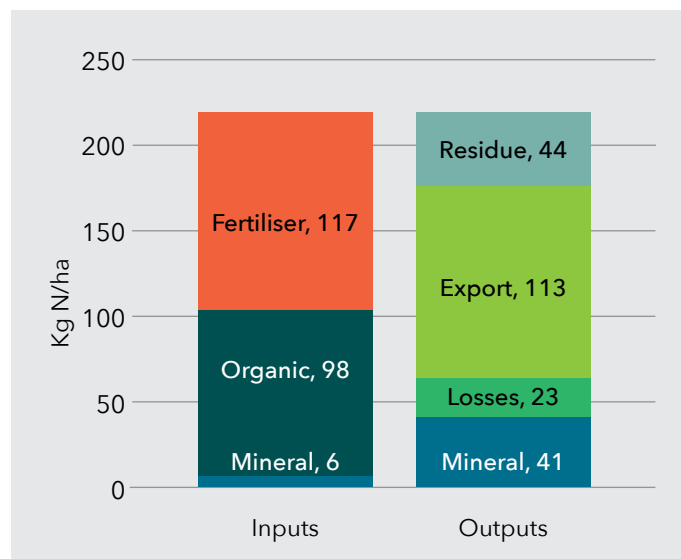


Figure 3: Carrot crop nitrogen balance from the tool

SVS Tool Testing and Feedback

Over the next year, getting direct feedback from fertiliser decision makers and other horticultural professionals is vital to producing a practical tool that will benefit the industry. This particular case study was incredibly helpful in guiding the tool development on grower requirements and potential enhancements to the model and tool.

Key takeaway learnings include:

1. The input data required by the tool was mostly practical to collect and enter.
2. Clear definitions and instructions were required.

The exception to the ‘easily to hand’ input data was soil test results. The SVS tool has inputs for two categories of nitrogen soil tests, Potentially Mineralisable Nitrogen (the Hot Water Nitrogen test) and Mineral Nitrogen.

The grower’s current practice is to test once a year for PMN. PMN levels typically stay consistent when taken at the same time of year. However, PMN levels vary through the year (temperature and moisture driven), and so only having

a single sample taken in February each year will not be accurate for plantings made in August, as in this example. Were the grower to take a soil test pre-planting, they would have further improved understanding and certainty.

While PMN testing can be enhanced relatively easily, testing for mineral nitrogen will be a more significant practice change. Soil mineral nitrogen changes rapidly, and often significantly. The only way to be truly confident of the soil's current mineral nitrogen status is to soil test.

This presents a challenge to growers. The SVS tool can make assumptions using default values, weather inputs, and previous field history to predict the quantity of mineral nitrogen in the soil and its changes over the course of a crop, but for predictions with higher levels of confidence, nitrogen test results – both PMN and mineral N – will increase grower confidence.

Our case study grower is currently investigating measures to efficiently take pre-planting soil nitrogen tests, specifically the Nitrate Quick Test, but full implementation of testing will take time and resources. Greater use of soil testing will significantly improve growers' confidence that they are optimising an expensive input, and will inevitably be required to meet regulatory requirements through proof of good management.

In terms of how the tool would fit into our grower's operation, they felt N-Sight would be helpful and practical when it came to fine-tuning their fertiliser programmes. Over time they saw themselves building a large resource of crop and soil records, which they could use to challenge or refine their own thinking to support their management practices and to inevitably meet future regulatory requirements. They could see the SVS tool, testing, and challenged thinking driving continuous improvement within their operation. ●



If you have feedback from a grower's or agronomist's perspective, please contact andrew@agrilink.co.nz



SVS'S NOBLE QUEST

In fields where potatoes proudly thrive, a project unfolds, helping growers strive. The SVS Programme, a beacon of grace, Where understanding nitrogen finds its place.

Nitrogen, the essence of life's green, a key ingredient in crops serene.

Through careful monitoring, scientists trace its path, how it leaches or sticks, avoiding aftermath, understanding its movement, its subtle dance, unravelling the secrets, as it takes a chance.

For nitrogen, when misplaced or lost, can harm the environment, at great cost.

Through research and trials, growers uncover the balance of nature, like no other.

Unlocking secrets, gaining insights, to lessen fertiliser's environmental plights. Investing to change practices for the best is Sustainable Vegetable Systems' noble quest.

This project is cool, its impact profound, unleashing magic, where solutions are found.

Let's celebrate the wonders of SVS, where science and nature beautifully mesh.

Poet: ChatGPT (Poet's teacher Sandra Mackenzie, MPI) Apologies to all poets.

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EL NIÑO AND THE LIKELY IMPACT FOR NEW ZEALAND



Georgina Griffiths : MetService meteorologist

El Niño declared

On 8 June, the National Oceanic and Atmospheric Administration (NOAA) Climate Prediction Center declared that El Niño is now in place in the tropical Pacific Ocean. This marks the official start of a natural climate phenomenon that has strong influence on weather patterns in the Pacific, but also influences other regions across the globe, including Aotearoa New Zealand.

El Niño Southern Oscillation (ENSO) is the single largest climate driver for planet Earth, and it causes a significant alteration in sea temperatures, trade winds and weather patterns across the Pacific Ocean. This has a domino effect on neighbouring regions. It is such a large and powerful climate system that it can be seen from space (see Figures 1 and 2).

The majority of climate models predict that this El Niño will strengthen between now and the end of the year - this is its typical life cycle - and most climate models signal a decent chance that this El Niño will be a **strong one**.

The headlines have led with "this El Niño may push us into our hottest year ever" - because **globally**, El Niño tends to enhance the background warming of climate change, with many regions of the globe running much hotter than usual during El Niño.

This warmth is caused by the so-called El Niño 'warm tongue' (Figure 1) - an area of warmer than usual seas that covers a significant part of the globe. Warmer sea temperatures lead to warmer than usual air temperatures in low-lying, coastal areas.

Importantly, El Niño impacts for New Zealand are very different to that expected globally - we tend to run cooler under El Niño.

Also no two El Niño are identical - this is because other climate drivers are always in play concurrently. A useful way to think about El Niño is that it **changes the odds** of a certain outcome (hot, dry, wet, cold) - but we recommend you keep up with our long-range commentary (<http://metservice.com/rural/monthly-outlook>) since other climate drivers (such as the Tasman Sea or Southern Ocean) can take over the steering wheel in the Australasian region for intermittent periods.

What does El Niño mean for New Zealand?

Winter - not much

Because this El Niño is only just getting going, winter weather patterns in the New Zealand region are expected to be still largely driven from what comes out of the Southern Ocean and Tasman Sea. Most Kiwis won't notice the El Niño climate pattern particularly, while we are dealing with a lot of weather through winter - pretty standard New Zealand winter fare!

“**El Niño Southern Oscillation (ENSO) is the single largest climate driver for planet Earth, and it causes a significant alteration in sea temperatures, trade winds and weather patterns**”

This winter, temperatures across New Zealand are forecast to be closer to average than seen for a good long while - a coolish winter will probably feel cold after several years of record winter warmth...

Odds of a cold spring increase

However, the hallmark of a decent El Niño is a **cold spring**, with **more frequent than normal southerly winds**.

Rainfall for the regions will depend on whether these southerlies are 'ridgey' (quickly followed by a High) or whether the southerly regime is due to lows sitting east of the country. The former outcome is relatively dry across the motu, while the latter is wetter than normal for eastern regions of both Islands.

Summer westerlies... buckle in!

If this El Niño winds up to be a strong one, expect westerly winds to REALLY fire up over New Zealand this summer. This is the typical outcome of this is drier, hotter and windier weather in northern and eastern regions of both Islands (Figure 3). Cooler, wetter and often cloudier weather might be expected for western areas of the South Island, and are also possible for Taranaki to Kāpiti, as well as Southland. ●

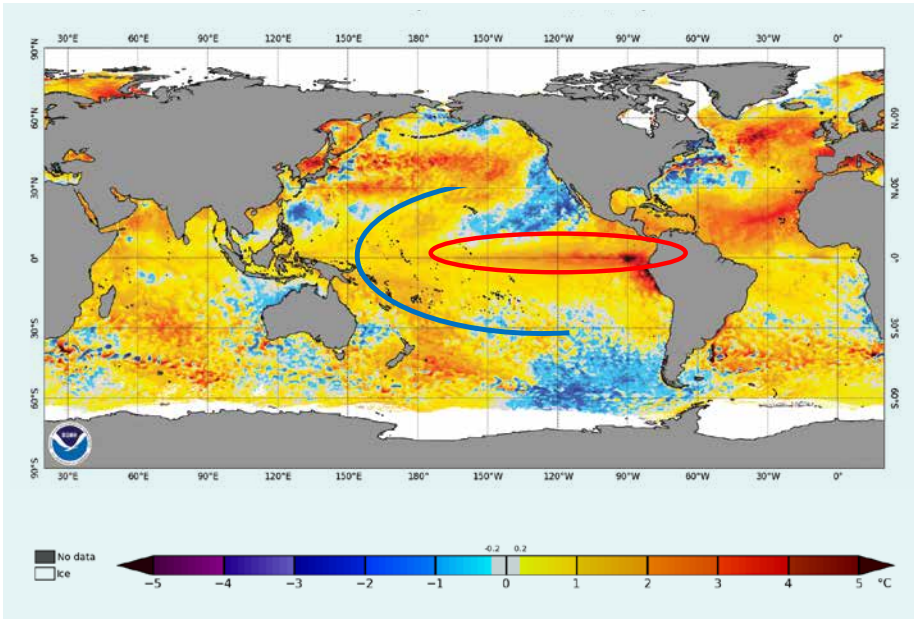


Figure 1: A snapshot of global sea surface temperature (SST) anomalies derived by satellite on 10 June 2023. Above average sea surface temperatures are shown in red colours, below average in blue colours.

The El Niño 'warm tongue' along the equatorial Pacific Ocean is circled in a red oval - this is the typical El Niño ocean response. Once the event strengthens, a 'cold horseshoe' (shown in blue) should develop around the warm tongue. (See Figure 2 for the opposite La Niña pattern)

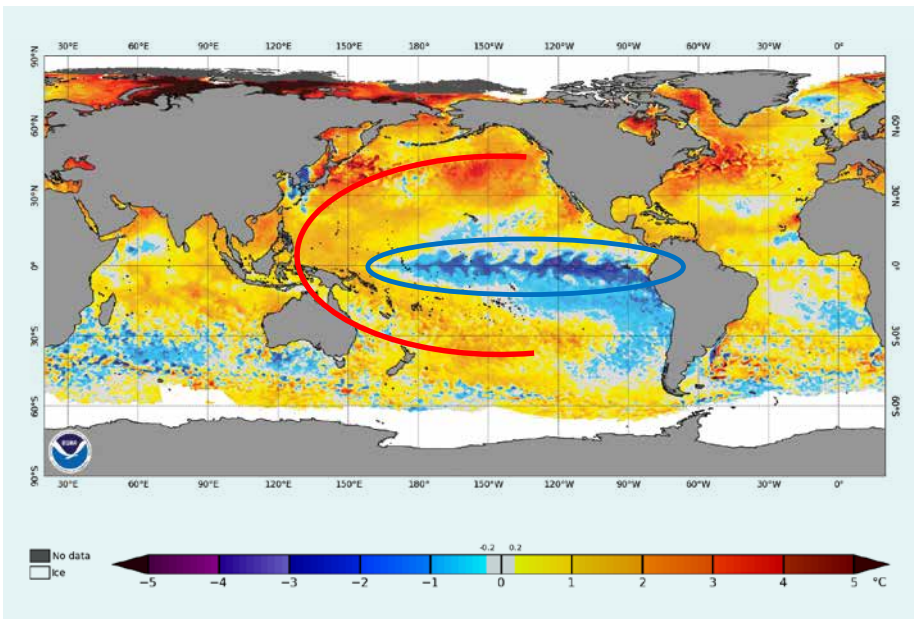


Figure 2: A snapshot of global sea surface temperature (SST) anomalies derived by satellite on 13 September 2020, when La Niña was in force. Above average sea surface temperatures are shown in red colours, below average in blue colours.

The La Niña 'cold tongue' along the equatorial Pacific Ocean is circled in a blue oval - this is the typical La Niña ocean response, helping to mitigate increased temperatures due to global warming. A 'warm horseshoe' (shown in red) is evident around the cold tongue.

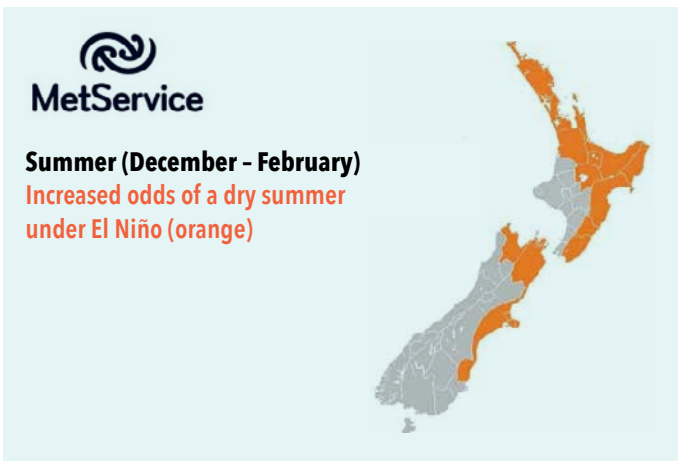


Figure 3: Regions with elevated risk of below normal summer (December - February) rainfall under El Niño

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MetService

Auckland Rain Radar

11:06am Thursday 8 Mar 2018

The image shows a hand holding a smartphone displaying a weather radar application. The background is a field of green crops under a blue sky.

PRODUCT GROUPS



ALL THE LATEST NEWS FROM YOUR PRODUCT GROUPS



58 FREE ENERGY
ASSESSMENT





UPDATES FROM THE TOMATOESNZ BOARD

Dinah Cohen : TomatoesNZ Inc business manager

TomatoesNZ AGM

The TomatoesNZ Board invites all members to the Annual General Meeting on 2 August 2023 at 5pm, at Te Pae Convention Centre in Christchurch. As well as announcing the board election results, confirming the budget for the year and other statutory requirements, we also look forward to hearing from Nigel Brunel, head of commodities and carbon trading at Jarden who will talk on the future of the Emissions Trading Scheme and potential implications for heated greenhouse growers. This is an important topic for growers as we enter the coldest months of the year and all types of heating fuel are at a premium.

The AGM is happening as part of the Horticulture Conference week. To register for the AGM, and to see the programme for the Vegetable Speaker Sessions and any other parts of the week, please use this link: <https://conferences.co.nz/hort2023/>

If you would like to attend the AGM only and can't make it in person, please email me Dinah.cohen@tomatoesnz.co.nz and I will send you a Zoom link.

Industrial Allocation

Are you registered yet on the Emissions Trading Scheme (ETS)? If you aren't you have until the end of the year to complete this task so that you can be awarded an industrial allocation for your tomato production this year. There was a series of articles developed by the Environmental Protection Authority (EPA) earlier this year which are now up on our website, which takes you through this process.

Check these out here: <https://www.tomatoesnz.co.nz/hot-topics/industrial-allocation-and-how-to-register/>

If you registered last year, have you completed the paperwork regarding your volume of tomatoes sold? You still have time to do this – it isn't too late! Depending on the documentation that you keep, providing this proof could be as easy as sending in a copy of a spreadsheet, or it could be a lot of work converting manual notes to an online format. If you use a wholesaler, it's worth asking them if they can provide you with a record of volume sold to them. The EPA only checks the information that you provide the first year that you apply. After that, they could audit you, so you still need to keep good records of the crop you produce. Industrial allocation is only for certain greenhouse grown crops and fresh tomatoes is luckily one of these. It doesn't matter if you don't heat or if you use recycled oil, all commercial fresh tomato growers can claim their entitlement. If you have any issues when completing this process, please contact me and I can help you.

Energy audit

TNZ is in talks with the Energy Efficiency & Conservation Authority (EECA) about changes that should be made to the current GIDI (Government Investment in Decarbonising Industry) fund. Currently only large projects can apply for co-funding opportunities to switch fuels. TNZ would like this fund to be open to more growers, with a wider range of projects that could be applied for and with no lower spending limit. To help argue this case, it would be really helpful if growers could complete a quick survey which will provide anonymous information about the needs of the fresh tomato industry in terms of an energy audit. This can be completed by anyone who has access to data about the size of your greenhouses and the equipment that you already have. It doesn't matter if you heat or don't heat and so on, all information is useful! ●

Here is the link to the TNZ Growers Energy Questionnaire 2023: <https://forms.office.com/r/gn2W2s9Wcq>



INTERIM CE REPORT STRATEGY RESET AT PNZ

Jon Davison : Potatoes New Zealand, interim chief executive



Brent Richardson at Alex McDonald Ltd hosted Cyril, Tristan, Paula, Iain, Bobby and Renu from the Potatoes New Zealand team at their premises in Springston, Canterbury

I have had the privilege of working with the Potatoes New Zealand team for the past two months in my interim role, assisting during the transition period while we search for a new chief executive following Chris Claridge's resignation in March.

One of the most rewarding experiences has been engaging face-to-face with growers at a series of Grower Insight Meetings held in Pukekohe, Palmerston North and Ashburton in May. I am immensely grateful to the growers who generously shared their time and provided valuable insights on the direction of our organisation and the services of utmost importance to them. A resounding and consistent message we have received is that growers truly value face-to-face interactions for crucial information and dialogue. We have taken note!

These Grower Insight Meetings form an integral part of our strategy reset programme, initiated by our Board of Directors, which focuses on fostering collaboration and listening to the perspectives of our team, growers and other stakeholders. We have dedicated time during our PNZ Conference and AGM on 22 August to share what we have learned thus far and gather further feedback.

In addition to meeting as many grower members as possible, another key priority for me has been delving deeper into our readiness and response commitments to Biosecurity NZ within our Government Industry Agreement (GIA). While the agreement offers certain benefits, we must acknowledge the ongoing risk associated with meeting our financial obligations in the event of a significant biological incursion. Recognising that this is a shared concern among various food groups, we are actively engaged in collaborative dialogues to find collective solutions.

I am eagerly looking forward to our upcoming conference and the opportunity to meet each of you in person. Let's come together to share insights, learn from one another, and shape the future of our industry. ●



ADDITIONS TO OUR TEAM AND MEMORABLE FIELD VISIT

We are thrilled to introduce our newest team members:

Bobby Hall our finance manager

Renu Ryder our communications and engagement manager

Their expertise and skills will undoubtedly strengthen our organisation.

We are actively searching for a new chief executive and will provide updates shortly.

During a recent planning session, our team had the opportunity to bond and enhance collaboration. As part of this session, we visited Alex McDonald Ltd, esteemed seed potato growers in Springston, Canterbury. We extend our sincere gratitude to Brent Richardson for his warm hospitality and insightful explanations about their operations.

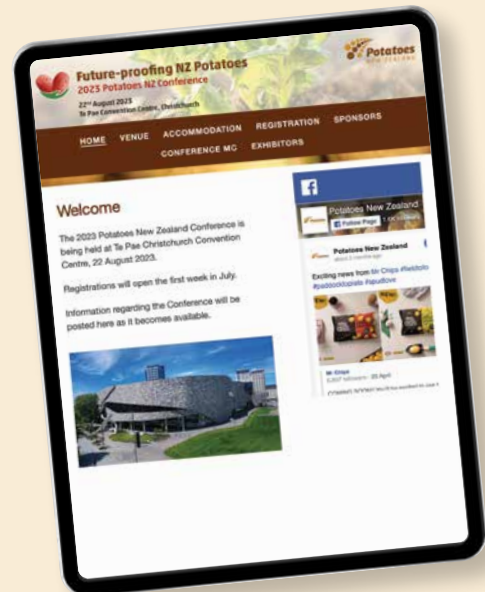
Our visit to Alex McDonald left us inspired and impressed by their professionalism. It deepened our understanding of the seed potato industry and energised us for our future endeavours.

PNZ CONFERENCE DATE AND LOCATION ANNOUNCED

Join us at the PNZ Conference on 22 August 2023, at the Te Pae Convention Centre in Christchurch! This exciting event will bring together growers and industry professionals for a day of knowledge, networking and entertainment. Engaging speakers, a vibrant exhibition and delicious catering await you. Save the date and be part of this unforgettable conference.

Interested in sponsorship or exhibiting? Contact **renu.ryder@potatoesnz.co.nz**.

Registrations open on 1 July. **potatoesnzconference.nz**



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VEGETABLES FRONT AND CENTRE



To help teachers to use New Zealand grown vegetables with creativity and confidence in the classroom, Vegetables.co.nz, as a gold partner of HETTANZ (Home Economic and Technology Teachers Association), took the opportunity to provide a masterclass at the association's annual conference held in Paihia in May.

The conference ran over three days, and was a fantastic opportunity to showcase New Zealand grown vegetables and the Food Skills for Life programme. Renowned chef Neil Brazier (of Sugar Club fame) delivered a hands-on, practical session for 30 teachers at nearby Kerikeri High School. His key focus: *seasoning and knife skills*.

In his personable and engaging manner, Neil shared his insights and extensive knowledge of the New Zealand hospitality industry; the current issues, and his take on the post-pandemic reset of the industry. His passion for cooking and fostering the next generation of chefs and home cooks was evident.

Citing seasoning and knife skills as the 'bread and butter' of cooking, and the foundation Neil himself looks for from any new chef arriving in his kitchen, he tailored the masterclass around these fundamental skills and used New Zealand grown vegetables as a vehicle to demonstrate them.

A humble leek and potato soup was the base for a fantastic hands-on activity to demonstrate the importance of seasoning, and possibilities beyond salt to enhance flavour. Teachers were given free rein to explore the effect



Chef Neil Brazier held a masterclass for 30 teachers at Kerikeri High School

of different seasonings such as miso and tamarind. A delicious start to the session.

Once in the kitchen, teachers were exposed to an abundant display of colourful vegetables of all shapes and sizes. Neil showed off his excellent knife skills by demonstrating the classic vegetable cuts and talking through their application. Sparking a lively debate regarding which vegetable cuts are relevant in a modern kitchen, and the most widely used cuts amongst the teachers in their teaching kitchens.

The teachers were then split into teams and tasked with preparing and presenting one of four vegetable-centric dishes. This practical exercise provided an opportunity to hone their knife skills and allow their own interpretation of seasoning. The teachers revelled in the opportunity to roll up their sleeves and get creative. The vegetable dishes varied across cuisine types and cooking methods, from vegetable and coconut dhal, to carrot and mushroom tart, vegetable tacos to onion and shallot tarte tatin.



There was a palpable energy in the kitchen as the teams prepared and cooked their recipes within the time limit. Neil encouraged group discussion on the presentation of dishes, offering nuggets of advice around modern plating techniques, and innovative ways to garnish using the vegetable components. He also highlighted the benefits of a flexible and fluid approach to cooking; not being afraid to swap out a particular vegetable for an alternative that is in season or more readily available.

Overall, a fantastic session celebrating New Zealand grown vegetables, with the teachers leaving inspired and armed with knowledge and tools to motivate their students. Feedback was overwhelmingly positive:

“NEIL AND TEAM LED AN EXCELLENT SESSION; I WOULD SAY THIS IS THE BEST MASTERCLASS I’VE EXPERIENCED IN 19 YEARS OF TEACHING. NEIL IS ENGAGING, ENTERTAINING AND HIGHLY INFORMATIVE; THE PERFECT TUTOR. THE SENSORY AND SEASONING ACTIVITY AT THE BEGINNING WAS GOLD.”

“THOROUGHLY LOVED THIS SESSION, HEAPS OF CREATIVE IDEAS AND SKILLS TO TAKE BACK FOR THE STUDENTS TO INSPIRE THEM.”

With a waitlist to attend, we are already receiving requests for a repeat masterclass session in 2024. ●



LOOK UP AND FIND INNOVATION

Antony Heywood : Vegetables New Zealand Inc. general manager



Andrew Kersley from Smart Machine demonstrating a prototype electric robot for vineyards and orchards being co-developed with RBE (Rural Building & Engineering), right here in Hawke's Bay

What makes a good conference? Conferences generally sit on a scale between relevance and time. We know how time poor most growers are, and given scarcity of resources, conferences need to deliver relevant topics if growers are going to give up time. Is my business ready for the new technology, will the technology improve my business, and deliver a better bottom line?

Allen Lim - VNZI director and owner of Jade Gardens - would say a good conference offers technical stuff to make us think better or do better. Our day-to-day focus is on completing the tasks, and that sometimes you cannot see the forest for the trees. This is OK because you are employing the right resources to get a known result. But the thing about dynamic global systems is that nothing

stands still. The result we get today is likely not the result we get next year as we employ faster processing or we have made the process more efficient due to innovation.

All growers need to look up occasionally and get to a conference. As it happens there is a great conference on 1 August in Christchurch, Horticulture Conference Week 2023. Vegetables New Zealand and the other vegetable product groups are hosting some great topics and will be facilitating discussion to ensure the concepts are developed in a New Zealand context.

With that in mind, Vegetables New Zealand decided to sponsor the LandWISE Conference again, LandWISE 23: Normal Practice Revisited, which took place on 24 to 25 May. We also encouraged a cohort of growers to attend this Hawke's Bay event. The key themes this year were regenerative farming and weeds. Both are related, so understanding one will give you some understanding of the other. The Ministry for Primary Industries currently have 20 regenerative projects on the books.



Tobias Euerl demonstrating the live2give MulchTec Planter, designed to transplant seedlings through thick mulches or straw

A keynote speaker to LandWISE 23 was Lynn Sosnoskie from Cornell University. She gave a summary of the technology that is leading the way in the United States context. Much of it is drawing on precision agriculture coupled with chemical or light controls or the use of electrical or laser equipment. As with any energy source there needs to be a pragmatic delivery mechanism so it does not need a power station on the back of the tractor to deliver the control.

Weeds and regenerative farming were also part of the Callaghan Innovation California Market Immersion Tour 11–24 June 2023. While the key focus of the tour was to be the Biological Summit in Salinas on the 19–24 June, crop protection and Integrated Pest Management Systems (IPM) need to consider biodiversity and herbicide controls.

The front end of the California Immersion Tour was access to Silicone Valley and leaders from the University of California, Davis. Callaghan Innovation with a number of Kiwi tech start-up businesses had a series of meetings with lead scientists at UC Davis, followed by visits to the tech hubs of Google, Kubota and Yamaha. The tour group then jumped on a bus and headed into the field to talk with US growers about how to implement technology into farming systems. The grower to grower network will be a highlight for most on the tour, as any technology is only useful if it can be applied in the field with reasonable cost outcomes.

The Callaghan Innovation California Market Immersion Tour is a technology extension programme to spark collaboration between people from government, tech start-ups, researchers and industry. The quadruple helix concept is used to advance change in business systems. Vegetables New Zealand partnered with Callaghan Innovation to advance the access of growers to the latest innovations in horticulture. The US market has the same challenges as growers face in New Zealand. The difference between the two countries is size and scale. The Immersion Tour is a recipe to attract future capital into horticulture. The growers from New Zealand will see first-hand what is working and what needs time before investment. Partnering with Callaghan Innovation and leaders from the United States and Australia will benefit all New Zealand growers in tech roll-out.

“
**There is a great conference on
 1 August in Christchurch, Horticulture
 Conference Week 2023**

Vegetables New Zealand was joined by Stuart Davis from LeaderBrand, Cameron Fong from The Fresh Grower, Adam Jory, and Maria Solovera from Woodhaven Gardens, Mariam Hall, of Plant & Food Research and John and Jess Murphy of Murphy's Garlic.

Subsequent NZGrower articles will highlight how the US growers are using technology, what is the cutting-edge technology that is the next great tech transfer to growers, and what is on the horizon to solve the next grower challenge.

VNZI has much to share... so I look forward to getting your feedback on what interests you. ●



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WANT TO REDUCE YOUR ENERGY COSTS? – TRY A FREE ENERGY ASSESSMENT!

Ellery Peters : Vegetables New Zealand Inc

With energy being one of the top three costs for many covered crop growers, undertaking an energy assessment can be a vital tool to reducing operating costs.

An energy assessment is a breakdown of the energy profile of your business and the options available to reduce emissions; both low-cost and higher-cost options providing a range of cost savings. It looks at different fuel switching methods suitable for your operation and provides an estimate of how much a new, low carbon method of heating will cost, with both the upfront costs and the ongoing costs. The energy assessment can be used to evaluate the best options and provide a guide on the next steps for reducing energy use and decarbonising your business. Importantly, it will link to any funding opportunities available to help support growers with these costs.

The first step of an energy assessment looks at the energy profile of your site. It shows a full breakdown of the energy use on site, a breakdown of the fuel usage per month, the CO₂ emissions generated on site, and a cost evaluation of current and future costs of running fossil fuel heating systems. Understanding your energy usage every month is crucial because you will be able to identify the peak energy demands during the year. This enables an accurate sizing of future renewable heating methods, driving down the initial capital cost, and can be used as a tool to see how process changes can reduce the energy costs for your business. The cost evaluation includes a comparison of how the price of coal or other fossil fuels will compare to alternative energy sources like biomass or electricity in the next five to ten years.

The second step of the energy assessment is an evaluation of the options available to reduce the energy usage of your site. This may include implementing process changes and installing new technology to drive a reduction in energy costs. Some of lower cost methods include insulating exposed pipework and hot surfaces, and redirecting your heating pipework closer to the plant to obtain better

heating of the plant and less heating wasted on the surroundings. These options can provide savings ranging from \$0-\$10,000 with a less than one year payback. The purpose of this section is to explore all the options applicable to the grower's operations, allowing you to assess the options that provide the best financial gain for your business.

The final step of the energy assessment is a review of the fuel switching options available. The main the key focus is a cost evaluation and assessment of the site suitability for a variety of different fuel switching methods. The methods typically explored are biomass boilers, electric boilers and heat pumps. In an energy assessment the estimated capital cost of each method will be provided based on the site's energy demand. The operational costs of each fuel type (electricity or biomass) will also be looked at over a ten-year life span to see which, if any, of these methods would be financially viable. This provides a guide for growers on the options that are available and the financial information needed to make decisions on next steps.

Energy assessments are a beneficial tool for all covered crop growers, providing a pathway for energy and carbon emissions reduction and fuel savings. Completing an energy assessment provides the first step towards understanding funding opportunities to help subsidise the cost of larger projects. Once the options are known a feasibility study can be done on the most promising option, and applications for funding programmes such as the Energy Efficiency and Conservation Authority's technology demonstration fund or the Government Investment in Decarbonising Industry fund sought. These funds have supported a range of successful projects in the covered crop industry, including installation of dehumidifiers and a 1MW heat pump replacing a coal boiler. ●

If you are interested in reducing your costs, contact Ellery Peters from Vegetables New Zealand who can conduct a free energy assessment for your covered crop business. Call Ellery on **027 322 2887** or email Ellery.Peters@hortnz.co.nz.



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MEETING PLACES AND SHARED SPACES



Kate Longman : HortNZ general manager engagement

Across this winter, the Horticulture New Zealand team is providing growers with the opportunity to connect and share what is top of mind. At Fielddays and the Horticulture Conference Week in Christchurch, HortNZ is raising the profile of fruit and vegetable growers and of grower success. We asked Kate Longman, HortNZ general manager engagement, about the highlights.



HOW WAS IT TO BE BACK AT FIELD DAYS WITH THE FULL FORMAT EVENT?

It's definitely an important date on the calendar for us in networking with government officials and Ministers. Horticulture hasn't always had a stand, the other exhibitors are mainly pastoral focused. The Zespri stand is an exception and makes sense because of the event's location near a significant kiwifruit growing region. In the past HortNZ has partnered with product groups to attract talent to the sector. This was our first year providing a place to meet with our growers and partners, as well as a separate stand in the Fielddays Opportunity Grows Here Careers Hub.

WHY IS IT IMPORTANT FOR HORTNZ TO FRONT UP AT FIELD DAYS?

Horticulture is a major contributor to New Zealand's economy and we should be present and get noticed. The politicians were out in force. So were the officials and the civil servants who are responsible for the primary sector. The horticulture stand acts as a flagship for growers. We were there to make sure we were part of the conversation. We had HortNZ staff from our projects and programmes to talk to growers and answer their questions.

IS HORTICULTURE APPEALING TO YOUNG PEOPLE AS A CAREER OPTION?

We had a stand at the new Opportunity Grows Here Careers Hub and we certainly saw interest in horticulture. We celebrated the opportunities throughout our supply chain, from production and technology to science and business. For many young people we're a great match for their own thinking about social and environmental issues, plant-based and low emission food security for example. We're sharing these stories and helping people with their next step.

WHAT CAN GROWERS EXPECT AT THIS YEAR'S HORTICULTURE CONFERENCE WEEK?

Conference Week is the biggest event on the calendar. We will be in Christchurch from 31 July to 4 August along with New Zealand Apples & Pears and the Recognised Seasonal Employer (RSE) conference. This year's theme is Sharing Successes to Strengthen Our Future. I hope that growers will leave the conference upbeat. There's no doubt about the hardship many growers have faced, so I for one am looking forward to getting together to share perspectives, celebrate successes, and connect and energise each other.



Horticulture
Conference
2023

Sharing Successes to strengthen our future

2 – 4 Aug | Te Pae Christchurch Convention Centre

This year the Horticulture Conference is part of the inaugural Horticulture Conference Week. Don't miss this opportunity to join with the whole horticulture industry in Christchurch this August.

Register now: conferences.co.nz/hort2023

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