


NZGROWER[®]



VOL 77 | NO 07 | AUGUST 2022

HORTICULTURE NEW ZEALAND

BUSINESS BOUNCES BACK

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Microgreens business bounces back, see page 18.
Photo by Trefor Ward.

WHAT'S NEW

A regular advertorial section of new products and services. This publication does not endorse the products or services featured here.

- 52 Bayer Vegetable Seeds team bringing global innovation to New Zealand corn industry



'IN THE FUTURE EVERYONE WILL BE WORLD FAMOUS FOR FIFTEEN MINUTES' – ANDY WARHOL



Bernadine Guilleux : HortNZ vice president

This is a phrase that was attributed to American pop-culture artist Andy Warhol in 1968 that would seem exceptionally perceptive in the social media age we live in today.

The interpretation of his art was this: over time, the hierarchy of what is worthy of representation will dissipate, and channels for representation will proliferate (think all media channels, including individual accounts within digitised platforms). This will make everything – and anything – worthy of being represented in the public domain – for at least fifteen minutes.

“

If every grower used their fifteen minutes of fame with intent, the combined exposure of their careful messaging would be our opportunity to build the public's perception of our industry

Warhol understood the media's insatiable appetite for the new, and our multi-channel environment has ramped this appetite up even more. The relevance to us in the horticulture industry today is that fame is fleeting

and should be treated as such. A person can only process and recall a limited number of individual sound bites and images, so what really matters is the general picture that is built up on a subject by the multiple exposures a person has to it. *That is, it is not the representation of the subject itself that matters, rather the picture that we otherwise call public perception.*

The Commodity Levies Act – passed in 1990 – notes that promotion of the industry (including generic advertising) is a permitted use of the levy. The media environment at the time this legislation was drafted was very different to what it is now, and we need to make sure our strategies adapt accordingly. Horticulture New Zealand has identified its role in managing the overall perception of industry on behalf of growers. While HortNZ and product groups all have public representation functions, in my view, the real opportunity lies in growers appreciating the importance of their individual voices and the role they can play in representing the industry within the multi-channel environment we live in.

While HortNZ core team's focus is on advocacy in Wellington, from a public promotion perspective, it is the growers who are the stars of the show. This month we saw Jay Clarke from Woodhaven Gardens in Levin, and Jacob Coombridge from Webb's Fruit in Central Otago on the mainstream news. The media picked these stories up because they saw a story worthy

for them to tell – directly. If every grower used their fifteen minutes of fame with intent, the combined exposure of their careful messaging would be our opportunity to build the public's perception of our industry, which will help us to maintain our social licence, and also attract future talent.

“

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Minister Michael Wood, with combined portfolios of Immigration (Modern Slavery and Exploitation Bill) and Workplace Relations (Fair Pay Agreements), spoke very matter-of-factly in response to the hospitality sector's workforce shortages. He said that the hospitality sector needs to consider how to make its 'low-wage, insecure work conditions industry' a more attractive place to work.

The combination of impending workplace relations reform and changes to immigration settings will affect our sector. While advocacy remains focussed on educating government Ministers on just how intricate and diverse our employment environment is, the New Zealand horticulture industry has to put its most competitive game face on to attract and retain our future workforce.

It is one thing to succeed in attracting future talent. We must also find a way to keep them with us. Retention rates in horticulture are the worst¹ in the primary sector, and while this situation may be owed in part to the seasonal nature of our work, this data feeds into policy.

We need to be honest and understand what our industry is like for people to work in and what we can do to improve these statistics. We all know that individual wellbeing matters. If an industry can support its businesses to look after the wellbeing of their workforce, then industry should do so. This is the actual purpose behind the ACC Safety and Wellbeing in Horticulture survey that you will have seen being circulated. If you can make the time to respond, it is a 10-minute investment to give insight into what is happening and what can be done. All up, in 25 minutes you have the possibility to do your bit to shape horticulture as an attractive, popular industry to be in. ●

Take the ACC Safety and Wellbeing in Horticulture survey here:

www.hortnz.co.nz/news-events-and-media/media-releases/help-reduce-injury-and-death/



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NZGrower is produced by Horticulture New Zealand and is free for all levy payers. The magazine is also supported by: Vegetables New Zealand Inc, Process Vegetables NZ, TomatoesNZ, Potatoes New Zealand Inc, Onions New Zealand Inc.

The individual comments and views in this magazine do not necessarily represent the view of Horticulture New Zealand.

ISSN: 2230-2700 (Print)

ISSN: 2744-5712 (Online)



MPA Associate Member (NZ)



This publication uses vegetable based inks and environmentally responsible paper produced from Forest Stewardship Council® (FSC®) certified, Mixed Source pulp from Responsible Sources.



Paper produced using Elemental Chlorine Free (ECF) and manufactured under the strict ISO14001 Environmental Management System.

This magazine is posted in an EcoPure plastic sleeve. EcoPure accelerates the biodegradation of treated plastics in microbe-rich environments. Plastics made with EcoPure are biodegradable in aerobic and anaerobic environments.

¹ <https://www.mpi.govt.nz/dmsdocument/29270-Primary-industries-workforce-fact-sheets>



LISTENING TO AND SUPPORTING YOUNG GROWERS



Nadine Tunley : HortNZ chief executive

Recent events such as horticulture's national Young Grower of the Year regional finals, and the Primary Industries Summit in Auckland, have given young people in the primary sector a profile and a voice.

At the summit, a discussion panel of young people from across the wider primary sector emphasised the role of older mentors. That is, someone with experience and a commitment to bringing young people on board, who made the time to encourage and guide, usually very early on in the young farmer or grower's career. Quite often, this involvement started at secondary school, however, what was consistent was that the listening and guiding ear was readily available, as the young person traversed education and training options and early career choices.

Young Grower of the Year contestants all have to stand up and make speeches in front of a few hundred of the people they work with in our industry and their wider community. To most, it would seem that this is the most daunting task in the competition, as we all know few people relish the opportunity to speak publicly, no matter how often they do it...

While the speeches may vary in content, the focus is always on the industry's future - what it could be like and how the various challenges - such as climate change, labour and changing consumer preferences - could be addressed.

Most contestants touch on the role of technology and automation to address these changes. However, while the speech makers may entertain or entice us with a futuristic vision full of drones, driverless tractors and disease resistant new varieties, they emphasise the role of the human being to *direct* the growing. They also worry about how automation and robotics could take away the pride that every grower takes in the produce that they grow, as an intersection of land, water, warmth and light.

The current government sees automation and robotics as the key to reducing our industry's labour needs. It also believes that somehow, our industry has underinvested in this 'solution'. Well, these Ministers and their advising

officials can't have visited a modern packhouse lately, where quality control, food safety, human safety and speed are all down to the millions that individual growers have invested and continue to invest in technology and automation advances.

Sure, crops like broccoli and asparagus are still picked by hand, but they are the world over because it is the most efficient way to harvest these crops. But even here, New Zealand growers are exploring the future, through the robotic asparagus harvester being developed through a partnership involving growers, the government, technology developers and university academic researchers.

Standing back

The Young Grower of the Year and events like industry summits provide us with the opportunity to stand back, reflect and think about the future. This is vital in an industry that requires considerable doing on a daily basis, which has been exacerbated over the past two plus years by Covid-19.

Young people - like all of us - have been affected by Covid. I think their optimism has been drained as they are even more worried about the future and New Zealand horticulture's place in it.

What they do see however, is a future and a place for them in it. A future that will take advantage of research and development, and automation gains, but will always involve the grower as director and decision maker, as well as a key member of regional communities across New Zealand.

Events like the Young Grower also bring communities together, and this year all the regional awards nights have been oversubscribed as people are hungry for interaction and celebration, as well as reflection and food for thought.

It is perhaps a cliché to say our industry is in 'safe hands' and the 'future looks bright', but it is. And why? Because of the talented young people coming through, and their perspectives and commitment to growing the best produce in the world, while addressing all of the world's challenges through future tools and techniques.

So how can we older industry members help? By making ourselves available, listening and guiding and helping map out the bright future that is New Zealand horticulture. ●

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YOUR LEVY AT WORK

INDUSTRY WIDE ISSUES FOR INDUSTRY GOOD

NATURAL RESOURCES AND ENVIRONMENT

Michelle Sands : HortNZ environment manager

Water Services Entities Bill

Horticulture New Zealand developed a submission on the Water Services Entities Bill. HortNZ's primary concern with the Bill is its potential impact on the domestic supply of fresh vegetables. There is also a need to protect primary production in peri-urban catchments from water abstractions and discharges.

“

It is essential that when water entities are deciding how to achieve their objectives, they are mindful of the impacts of their water abstractions and discharges on wider social, cultural and economic well-beings

Horticultural land is often located close to urban centres and shares water sources and receiving waters with urban activities. If water is transferred away from highly productive land to provide lower cost water to support new housing and urban growth, it could undermine domestic food security and the productive capacity of highly productive land. Domestic food supply and food security can also be compromised where freshwater resources, upon which primary production relies, are inevitably degraded by urban growth through reduced recharge, increased peak flows, alteration of stream network functioning, and increased discharge of sediment, metals and hydrocarbons.

It is essential that when water entities are deciding how to achieve their objectives, they are mindful of the impacts of their water abstractions and discharges on wider social,

cultural and economic well-beings. We seek that the Bill direct entities to cooperate with rural water and land users to seek solutions to water management that optimise outcomes across all well-beings and all hierarchies of Te Mana o te Wai.

Emissions Reduction Plan

HortNZ presented to the Environment Select Committee in August on New Zealand's first Emissions Budget and the Emissions Reduction Plan.

The Emissions Reduction Plan sets New Zealand's direction for climate action for the next 15 years.

The key issues that HortNZ raised in its submission and to the Select Committee are:

- The importance of safeguarding food security for New Zealanders and the Pacific
- Enabling land use change to horticulture and enabling the use of highly productive land for lower emissions food production
- Promoting assurance systems aligned with international practice (such as GAP).

Freshwater vision and values - Bay of Plenty and Waikato

The National Policy Statement for Freshwater Management (NPSFM) requires regional councils to develop Freshwater Plan Changes by 2024.

The NPSFM outlines a process through which communities are to have input into the freshwater vision, values and outcomes setting process. Regional councils are starting conversations with their communities on freshwater vision and values. One of the issues we are highlighting to regional



councils is that the NPSFM vision is about historical and current pressures, and future catchment uses for freshwater. Councils must give effect to Te Mana o Te Wai and apply the hierarchy of obligations when setting a freshwater vision.

“
The water bodies identified in the Proposed Plan Change 7 are the ‘best of the best’ within the region

The freshwater vision should speak to freshwater outcomes and limits. As a result, it needs to reflect the hierarchy of values associated with water bodies, including abstractions and discharges in the catchment.



HortNZ has a consistent long-term vision for regions where fruit and vegetables are grown. It is that food production is supported by innovative and sustainable land and water management practices, which:

- Provide for the domestic supply of fresh vegetables
- Maintain food security for New Zealanders
- Support the transition to low emissions land use
- Improve resilience to the effects of climate change
- Support the use of highly productive land for primary production.

Hawke’s Bay - outstanding water bodies mediation

Hawke’s Bay Regional Council Plan Change 7: Outstanding Water Bodies proposes to change the Regional Resource Management Plan (RRMP) to include a list of the region’s outstanding water bodies, together with a framework that prescribes a high level of protection for these water bodies in future plan making.

The water bodies identified in the Proposed Plan Change 7 are the ‘best of the best’ within the region, featuring exceptional cultural, spiritual, recreational, natural character, landscape, geological, or ecological values which are remarkable in Hawke’s Bay.

The decision on the plan change was appealed by parties wanting to add more water bodies and more criteria. HortNZ has joined the appeal and is participating in the mediation.

The focus of HortNZ’s involvement is to help make the plan provisions clear and easy to understand; to ensure that the identification of outstanding water bodies is related to the purpose of the NPSFM, and that only those water bodies that are truly outstanding are captured by the plan change. ●



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A GUIDE TO NEW ZEALAND'S BIOSECURITY SYSTEM: THE ROLE OF POST-BORDER BIOSECURITY IN KEEPING US PEST FREE

Eve Pleydell : Biosecurity expert

Anyone involved in a biosecurity response will know first-hand the challenges that involves. In this fourth article about New Zealand's biosecurity system, we take a look at the crucial roles played by the layers of the system that are on our side of the border and how we can all help to strengthen post-border biosecurity.

Key points:

- Even though New Zealand has a world-leading biosecurity system, it is inevitable that an unwanted pest or disease will occasionally find its way into the country.
- The post-border surveillance system is designed to rapidly detect an invader as soon as possible after its arrival.
- As growers, orchardists and packhouse operators, you can play an important role in protecting New Zealand from damage caused by an invading pest or disease by swiftly reporting anything unusual that you see.
- Developing and implementing a biosecurity plan for your property can also help to keep your own crops and products safe.

In the first article in this series, we likened the layers of the biosecurity system to a line of Swiss cheeses. On its own, no layer is sufficient to prevent pests and diseases from reaching New Zealand and causing damage here, but multiple layers together provide stronger protection. However, this protection is not absolute. Biosecurity New Zealand, the biosecurity arm of the Ministry for Primary Industries (MPI), talks of layers of protection – starting offshore at the border and here in New Zealand. But zero risk cannot feasibly be achieved. For this reason, it is important that anything unusual is reported as quickly as possible.

One of the ways this can be done is by establishing pest and disease surveillance programmes. Some of these are targeted at specific insects or diseases. For example, Biosecurity New Zealand has surveillance programmes in place for fruit flies, invasive ants and spongy moths (previously known as gypsy moths). Using knowledge of the biology of each pest, traps with lures or baits are placed around possible entry points and regular checking of the traps occurs during the months that they would be most likely to arrive here. These are effective but costly programmes that are reserved for higher priority pests that could have a big impact here. Occasionally, a non-target pest species may be detected this way, which happened in April this year when a fall armyworm moth laid her eggs on a trap for spongy moths near the Port of Tauranga.

What is known as passive surveillance is also an important part of post-border biosecurity, although in truth, it is not really a passive system as it relies on everyone to actively report unusual things that may be biosecurity hazards. You can notify Biosecurity New Zealand directly using two methods: phoning the pest and disease hotline (0800 80 99 66) or using the new online reporting tool – report.mpi.govt.nz. An alternative is the Find-a-Pest app for insects and weeds. This app allows users to post photos of odd-looking pests for identification by other users. If designated experts using the app identify a pest as being a potentially unwanted species, a notification is sent to Biosecurity New Zealand for investigation.

Any reports of pests or diseases are assessed by a Biosecurity New Zealand specialist. Their role is to assess whether it is an unwanted organism and if so, where it may have come from and for how long it could have been here. If the surveillance system is working well, then new, unwanted pests and diseases are discovered early before they have spread to many places – which makes them far easier to manage than if they have been here for weeks or months and have spread far and wide already.

There are a number of options for managing these unwanted intruders. If they have not yet spread too far and eradication looks feasible, then a biosecurity response may be initiated to 'seek and destroy' this organism. For an eradication response to be

It is important that anything unusual is reported as quickly as possible.

You can notify Biosecurity New Zealand directly using two methods:



Phoning the pest and disease hotline
0800 80 99 66



Use the new online reporting tool
report.mpi.govt.nz

effective, all locations that the insect or disease has spread to must be identified and then control measures applied to remove the infected plants or insect infestations. While response teams spend considerable time trying to trace the movements of the pest or disease, people proactively reporting unusual things greatly increases the speed at which the tracing can occur. This is important, because it requires speed to get ahead of an invasive pest or disease that is spreading through our communities.

Despite best efforts, it is not always possible to eradicate an unwanted intruder. Sometimes, we have to learn to live with it. In such cases, specific biosecurity practices may be able to contain the pest or disease to a particular area or slow down the rate at which the pest or disease is spreading. In these cases, a long-term management plan may be developed, which is typically managed by the biosecurity team in the local regional council. These plans are designed to assist the region to manage the pest and minimise its negative impacts.



The early stages of any biosecurity response are anxious times for growers and farmers - everyone has questions, but there are often very few certain answers. Growers naturally have concerns about what may happen on their property if an unwanted organism is found there. One of those questions to which there are usually insufficient answers at this stage is 'what will happen if this unwanted intruder does manage to establish on my farm?' What is more certain, is that working with the response team to tackle the situation is far more likely to result in a positive

outcome, than turning a blind eye and hoping for the best. In addition to this, implementing good daily biosecurity practices on your own farm is by far the best way to protect your property, whether an actual response is in progress or not. ●


Case Study

As a young vet in practice in the United Kingdom, I was given a valuable lesson in biosecurity from one of our farming clients during the 2001 foot and mouth disease epidemic. I was called to assist with a difficult calving at a high genetic value dairy herd. The cows in this herd were each worth tens of thousands of pounds. If just one of them had tested positive, then the whole herd would have been culled. I arrived at the farm to find the gate closed and the farmer politely, but firmly, refusing to open it. He gave me a pair of dedicated gumboots, checked my overalls were freshly clean and asked me to disinfect my equipment before allowing me to walk onto the farm leaving my car behind me. Due to his biosecurity vigilance, even though the virus came within a few short kilometres of his farm on several occasions, none of his animals became infected and his high-performing herd remained intact. Being ready to instigate effective control measures to protect your own crops and property during an outbreak of an unwanted pest or disease really can be a powerful defence tool.


Eve Pleydell




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MAJOR PRIMARY INDUSTRIES AWARD RECOGNISES RAPID RESPONSE TO FEED THE HUNGRY AND SUPPORT GROWERS DURING LOCKDOWN

Supplied

United Fresh New Zealand Incorporated has been presented the Primary Industries NZ Summit Team Award for their work delivering 300,000 boxes of fresh fruit and vegetables to whānau during the Covid-19 lockdowns.

The management team of five were responsible for the development of the *Fruit and Vegetable Box Project*, a

clever adaptation of existing relationships and supply networks to address food shortages and provide an outlet for fresh produce that had been destined for restaurants, tourism outlets, cruise ships and airline catering.

United Fresh general manager, Paula Dudley, says the award is a recognition of the whole supply chain.

"We're absolutely thrilled with this award," Paula says. "It's testament to the long-term relationships between United Fresh members and the professionalism of the food distribution centres that we worked alongside."

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The *Fruit and Vegetable Box Project* was an adaptation of United Fresh’s Ministry of Health-funded initiative, Fruit & Vegetables in Schools (FIS).

“Heading into lockdown, we knew that school closures meant the fruit and vegetables destined for FIS could not be delivered. This amounted to over 120,000 tamariki potentially missing out on vital nutrition every day,” says Paula.

“**The Primary Industries award consolidates United Fresh as the leading pan-produce industry organisation, with 30 years of experience all culminating in this project**

“With approval from the Ministry of Health to redirect existing funding, we presented a proposal to the Ministry for Primary Industries for further assistance and liaised with United Fresh member, Foodstuffs, to secure a donation of 700 boxes of fruit and vegetables.

“We then used our existing supply chain relationships to send over 10 tonnes of produce to foodbanks and City Missions throughout the lockdown periods.”

United Fresh managed to get the *Fruit and Vegetable Box Project* up and running less than two weeks after the initial lockdown was announced and set in place quality control systems to manage the initiative as well as a suite of financial and reporting measures, all while negotiating the challenges of a team split into two bubbles for safety.

“**We’re absolutely thrilled with this award**

“We’ve set up projects of this size before, but not under such extreme circumstances,” says Paula. “It’s only the years of teamwork within our small group and alongside our members that enabled us to respond so quickly.

“The Primary Industries award consolidates United Fresh as the leading pan-produce industry organisation, with 30 years of experience all culminating in this project. It’s a huge honour for our small team and we acknowledge the support of all our members who helped us to take care of our community.” ●



The winning team, Carmel Ireland, Steph Wrathall and Paula Dudley

The Fruit and Vegetable Box Project Statistics:



10
regions



25
food distribution centres



125
satellite organisations



294,000
boxes delivered in 2020



50,000
boxes delivered in 2021

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*Free training only available up until December 2022. Some fees will apply if the programme duration goes longer or you have staff enrolled in multiple programmes at once.



COIN TOSS, HARD WORK AND INGENUITY FOUNDATIONS FOR MAKIKIHI FRIES



Jac and June Bleeker who began growing potatoes commercially not long after they married in the mid-1950s

If the toss of a coin, 72 years ago, hadn't gone Jac Bleeker's way, New Zealanders may never have enjoyed the golden chips produced by Makikihi Fries. ELAINE FISHER speaks to Makikihi Fries' new generation on where the business is today.

In 1953, the then 22-year-old Dutchman Jac Bleeker, who went on to establish the South Canterbury company, agreed to decide on the flip of a coin where he would emigrate.

"He and a friend were on a dock with two ships about to leave, one to Canada and one to New Zealand," says Jac's son and potato grower Jeff Bleeker.

"The friend wanted to go to Canada and Dad wanted to come to New Zealand, so they made the decision by flipping a coin." Jac won and with just a few pounds in his pocket, boarded the ship the Sebakak, bound for a new life.

Jac died aged 84 on Christmas day in 2013. The drive to succeed, which began as a necessity when he left his family and homeland, was evident throughout his long life. Born on 29 October 1930 in Heerhugowaard, Holland, Jacobus

Bleeker was the son of Cornelius and Alida Bleeker. He had seven brothers and four sisters.

Jac attended agricultural college and gained early agricultural experience on his father's 20-acre farm, which specialised in potatoes and cabbages. His skills were to stand him in good stead across the other side of the world.



Makikihi Fries won Gold at the 2022 Outstanding NZ Food Producer Awards

"When Dad landed in New Zealand," Jeff explains, "he went to work on a farm near Oamaru where they grew a lot of vegetables. He then went sheep shearing for a couple of years, but eventually found a job on a farm at Makikihi owned by George Parks."

“

The friend wanted to go to Canada and Dad wanted to come to New Zealand, so they made the decision by flipping a coin

"George was a single guy who had no kids or siblings. He gave Dad a bit of land to grow strawberries and vegetables. When George got too old to farm, he offered to sell the land to Dad."

Jac was keen but didn't have enough money to make the purchase. "So George said, you give me a cheque once a year until the day I die and bring it to me on my birthday because no other bugger will come to see me. And that's what Dad did. I remember him going off to give George a cheque every year on his birthday."

Within a few years of arriving at Makikihi, Jac met and married a local girl named June. Together they raised three sons and a daughter, and eventually built a business based on growing potatoes.

In 1957, Jac grew his first commercial crop of potatoes, selling it through local markets and going on to supply the Smith's Potato Crisps factory in Dunedin. Later the factory was deemed structurally unsafe and Jac, who was its sole supplier of potatoes, offered to build a factory at Makikihi in order to continue production.

"The company took up his offer, but when Smith's Potato Crisps was later taken over by ETA Foods, the factory was closed down."

“

The drive to succeed, which began as a necessity when he left his family and homeland, was evident throughout his long life

Jac's next venture was to supply another small Dunedin company Jack's Snacks. By that time Jeff had his heavy traffic licence and every second day, delivered a truck and trailer load of potatoes to them. When that company was bought out, Jac turned his attention to making use of his then vacant factory building and adding value to the potatoes he grew.



Jac Bleeker on a tractor pulling the wooden potato harvester he built, which was one of the very first bulk handling potato systems in New Zealand



Jac Bleeker, sitting on top of the wooden potato harvester nicknamed 'Spud-nik' that he built in the late 1960s, is pictured with family and friends



Founder of Makikihi Fries the late Jac Bleeker (centre) with his sons Jeff Bleeker (left) and Mark Bleeker



Makikihi Fries golden chips are processed in a purpose-built factory at Makikihi near Waimate in South Canterbury

Build it yourself

“We got to work in the farm workshop to design and build machinery for making chips. Dad was mechanically minded. He knew what he wanted and what he needed, but no one else could build it.”

Jeff recalls the day in 1983 when the machinery was finally installed in the factory. “It was 5pm on a Friday night - the time we usually knocked off and went to the pub for a beer. Dad said no one was leaving until the first chips came off the line - that didn’t happen until around 10pm, but we did go to the pub afterwards.”

That was the beginning of Makikihi Fries, a family company built on ingenuity, quality and taste. It was not the first time that Jac had used his skills and innovation to build the equipment he needed to grow his business.

“**For the small communities of Makikihi and nearby Waimate, Makikihi Fries has for decades been an important part of the local economy**

There’s a favourite family photo of Jac on a tractor pulling an old wooden potato harvester driven alongside a bulk truck. “That is one of the very first, if not the first bulk handling system for potatoes in New Zealand. In the late 1960s, Dad made it out of wood and bearings because steel was not available. It could harvest 60 to 70 tonnes of potatoes a day, enough to make 25 tonnes of chips.”

In the early days of the business, production was limited to South Island supply only. “We used to get people from

the North Island asking why they couldn’t buy our chips. Tongue in cheek, Dad would say it was because they were too good for North Islanders. The truth was the factory couldn’t produce enough to send north.”

That’s not the case today with Makikihi Fries being sold in supermarkets throughout the country, as well as to takeaway businesses and restaurants nationwide.

“**The factory employs around 16 staff and planting, harvesting and transporting potatoes also create employment**



When Jac retired his son Mark bought the factory and he and Jeff were its sole suppliers of potatoes. Today the factory is owned by Mark’s son Simon Bleeker and Jeff supplies around a quarter of its requirements, grown on 45ha of mainly leased land. Two other growers make up the balance of supply.

Much has changed

Much has changed in the four decades since Makikihi Fries was founded, including improved mechanisation in the factory as well as in the planting, growing and harvesting of potatoes.

“With two harvesters running, I can knock out 500 to 600 tonnes a day. Technology has sped up planting too, and the ecologically appropriate agrichemicals chemicals now available has improved the way we grow potatoes,” says Jeff.



The 'Spud-nik' wooden potato harvester built by Jac Bleeker

Planting for the early crops begins in the first week in September, with the main crop planted in the first week in November. All the potatoes are out of the ground by the end of April.

Makikihi Fries are distinctive because of their golden colour. "They aren't white like so many other chips. Dad got the seed potatoes from a Dutchman who brought them to New Zealand and it's what we have grown ever since."

“ Makikihi Fries are distinctive because of their golden colour. “They aren't white like so many other chips. Dad got the seed potatoes from a Dutchman who brought them to New Zealand”

For the small communities of Makikihi and nearby Waimate, Makikihi Fries has for decades been an important part of the local economy. The factory employs around 16 staff and planting, harvesting and transporting potatoes also create employment.

Growing potatoes is getting increasingly expensive, says Jeff. "If people think inflation is bad now, they haven't seen anything yet. This coming growing season my costs are going to skyrocket. "I'll be paying almost triple what it cost last season for fertiliser. We use a lot of fuel and get a good discount, but I will be paying around an extra \$100 an hour to operate my big tractors, compared with last season.



The next generation of chip makers - Jac Bleeker's grandson Simon Bleeker, who now owns the Makikihi Fries factory, is pictured with his wife Jazzmin and children Boden and Theodora

"I'll be paying almost triple what it cost last season for fertiliser. We use a lot of fuel and get a good discount, but I will be paying around an extra \$100 an hour to operate my big tractors, compared with last season.

"We are not alone in facing increased costs, and those costs have got to be passed on to the end consumer."

Jeff is also concerned about the environmental and consent pressures facing growers, and is worried about the impacts of the Three Waters Reform. "They could be sending us a hefty bill for the water which falls on our land and I draw the line at that.

"I still enjoy farming and growing but with everything that's going on right now, if I had my time over again, I don't know if I'd bother." ●



MICROGREENS BUSINESS BOUNCES BACK AFTER COVID

Geoff Lewis

Photos Trefor Ward



Evan Su harvesting microgreens

Hank Kang came to New Zealand with his parents from China in 2005. Today he is the owner and manager of Blinkgreen, a burgeoning microgreens and edible flowers operation just outside Hamilton that's experiencing phenomenal growth post-Covid-19.

The Kangs bought an asparagus farm on the Morrinsville highway in 2012, which they initially left in grass and cropped for maize.

“

Seedlings for the field vegetables are brought in from Nga Rakau Nurseries and the Makaurau Marae Nursery

Today, the 18-hectare property includes 12-ha in open fields which are used to grow broccolini, the larger form of spinach and smaller variety of bok choy. Coriander is also grown outdoors and under cover during summer.



Pea shoots

Seedlings for the field vegetables are brought in from Nga Rakau Nurseries and the Makaurau Marae Nursery.

Hank graduated from Waikato University with a degree in accounting and then went to work at Southern Fresh near Matangi for five years, which gave him a background in horticulture.

“Working for Southern Fresh was a big learning experience,” Hank says. “They provided a training course and I learned how to plant and spray.”

“I used to look after the microgreens for them but when the Covid hit and sales fell off, we separated and I concentrated on establishing my own business, Blinkgreen. My experience at Southern Fresh helped me choose what I wanted to grow.”

“

During the height of the Covid-19 pandemic Hank was working by himself filling small orders. But at this point market demand is bouncing back and Blinkgreen is struggling to fill orders

In establishing Blinkgreen he searched for a crop mix that would provide a good return and a quick turnover. This ruled out crops that take years to establish.



Lisa Hou harvesting edible flowers

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Blinkgreen owner, Hank Kang

Stainless steel hydroponic 'flood' tables were obtained from Silwood Exports - a business near Katikati which had grown microgreens and edible flowers for 30 years but was clearing out as it was in the path of a motorway development.

"We brought in 16 tunnel houses totalling 10,000 sqm from China and assembled them on-site over a couple of weeks."

“

There's more demand than we can supply," he says. The operation has a workforce of six who pack Blinkgreen product in punnets and bags made from environmentally friendly recycled paper with clear plastic tops and view-windows

The operation took several weeks to assemble, along with organising the water supply - an essential part of hydroponics. A new and deeper bore is currently being installed.

Inside the tunnel houses rows of flood tables grow coriander, parsley, thyme, rosemary, China rose radishes, pea tenders, rocket, spring onion, watercress, red mizuna and the mild peppery sango. Each hydroponic table is covered by black polythene sheeting to keep in the warmth during winter. These can be reversed in summer with a white layer on top to keep the microgreens cooler - otherwise they would cook, Hank says.

"We also put the shade cloth up during the summer to reduce the heat inside and outside. We try to reduce the temperature inside to about 26 degrees - otherwise they'd (microgreens) cook."

In the warmer times of year, a crop is taken off the tables every week, and about every 12 to 14 days during winter.

Up to nine varieties of edible flowers are grown in summer including dianthus, viola, marigolds and calendula. The flowers of summer vegetables can also be used before they go to seed. A small pink rose, about the size of a two-dollar coin, is edible and very popular around Valentine's Day.

There are also stock, snapdragon and polyanthus - edible flowers which can be used for decoration and for their scent.

"Lots of people use them in desserts and cocktails," says Hank. "Quantities and mixes depend on the requirements

of the buyers. We can get orders of up to 60 punnets each of between 50 and 100 grams, but the usual is 20 to 30 punnets. Christmas is a very busy time with orders of 200 punnets largely due to the restaurant trade."

The product goes out via wholesalers, including Bidvest, to serve a market from Auckland to Wellington.

During the height of the Covid-19 pandemic Hank was working by himself filling small orders. But at this point market demand is bouncing back and Blinkgreen is struggling to fill orders.

"There's more demand than we can supply," he says.

The operation has a workforce of six who pack Blinkgreen product in punnets and bags made from environmentally friendly recycled paper with clear plastic tops and view-windows.

The future for Blinkgreen is expanding its operation.

"I'd like to cover the whole area with hydroponic microgreens and edible flowers," Hank says. ●



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WONKY PRODUCE FINDS A HOME



A produce delivery business selling imperfect and surplus fruit and vegetables of all shapes, sizes and colours, is helping make use of produce at risk of going to waste. ANNE HARDIE reports.

Angus Simms and Katie Jackson started their fruit and vegetable delivery box business, Wonky Box, during Covid-19 with a goal of reducing the amount of produce wasted. Often produce with imperfections such as being misshapen or varying from the standard size, means it does not meet main market requirements but is still perfectly fresh and good to eat.

“Why get bogged down with cosmetics when it’s all the same on the inside?” Angus says. “It’s fresh but might have an ugly look or different size. Produce tends to be graded on size, colour and shape. We will always have the freshest produce, but it may be ugly.”

Angus says, because of market requirements, a fair amount of produce grown by a grower doesn’t end up leaving their property and is subsequently wasted. In market gardens, some of it is not even pulled from the ground or cut. Before Covid-19, it was estimated that up to 30 percent wasn’t harvested and that has risen to 40 percent due to the post-Covid



climate, lack of labour, poor prices or no market for the imperfect or surplus produce.

Turning this waste into a business became an obsession for the couple after they realised just how much food wasn’t even getting to market.

The number of growers involved in the scheme has expanded since its inception. Approximately 25 growers in the Kapiti and Horowhenua region now supply produce to Wonky Box, which is then packed and delivered weekly to some 1200 customers around Wellington.

“

Customer reviews show they love the surprise of weird and wacky fruit and vegetables in their delivery box each week and say it is fresher than in the supermarkets

With the business off to such a successful start, Katie and Angus are looking to establish a packing and distribution centre in Auckland to deliver as far as Hamilton and Tauranga, with plans to expand the business around the country and reduce even more waste.

The number of growers involved in the scheme has expanded since its inception.



Approximately **25 growers in the Kapiti and Horowhenua region** now supply produce to Wonky Box



This is then packed and delivered weekly to some **1200 customers** around Wellington

Angus, Wellington born and bred, spent a “hell of a lot of time” in the United Kingdom and returned to New Zealand in the middle of Covid-19 with his partner, Katie, to show her his home country during a working holiday. The couple worked in horticulture last summer and realised growers were facing enormous challenges with labour, Covid and moving produce.

“It hit home – how costly things are in the supermarket, especially returning from the UK where grocery products are cheaper,” Angus says. “Here, produce wasn’t leaving the farm and we were spending fortunes in the supermarket.”

“

We’re trying to reduce waste at the source of the food chain. It’s a very interesting part of the supply chain to be focused on

They returned to Wellington and went door knocking at farms in the Horowhenua to ask growers if they had surplus or cosmetically-challenged produce they could not sell. An important value was to pay growers a fair price for their produce, and they were able to buy a range of vegetables and fruit that they boxed and sold online through their website. Since then, the business has grown naturally and they only began actively marketing their Wonky boxes recently.

“Fortunately for the business, we had a second lockdown which made a massive difference for us and the company,”



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Catherine Lewis, Lewis Farms with Angus Simms, one of the Wonky Box founders

Angus says. “We learnt as we were growing the business that there was an appetite for it.”

Customer reviews show they love the surprise of weird and wacky fruit and vegetables in their delivery box each week and say it is fresher than in the supermarkets. Angus says that is because they buy direct from growers and get it to customers quickly without it going through intermediaries. Their website gives customers a heads up on some of the fruit and vegetables they can expect in the boxes each week, to help with meal planning.

“Mostly we approach growers and build that relationship, although a couple have come to us

Coverage of the supermarket duopoly in the media, and the cost of living, has prompted customers to look for alternatives, and Angus says those customers don’t care if their vegetables and fruit are weird shapes or different sizes that wouldn’t be accepted by the supermarkets. Often, the produce is the same as growers sell to the main supermarkets but due to the season, they have an excess they can’t sell.

“Some growers were reluctant to be open about the waste on their farm – no-one wants to scream and shout about their waste,” he says. “We’re trying to reduce waste at the source of the food chain. It’s a very interesting part of the supply chain to be focused on.”

“It’s fresh but might have an ugly look or different size. Produce tends to be graded on size, colour and shape. We will always have the freshest produce, but it may be ugly

Angus says their business model is driven by growers and what they haven’t been able to move before. The grower-led approach benefits the grower because it gives them a different revenue stream, he says.

“A lot of the big commercial growers in New Zealand are price takers. They’ve got one or two major buyers dictating what the price will be and are sometimes losing money. They’re not making a lot of money, especially when you think about the cost pressures they face, including the increase in fertiliser, fuel and labour costs.

“If we can influence New Zealanders to consume what growers have available, not only will they be doing local growers a lot of good, they will be saving themselves money in the long run

“If we can come along and offer the similar pricing as the supermarket for their excess, I think we can help them become more sustainable.”

Whatever growers have available each week is what’s delivered to customers. Wonky Box now has a healthy network of growers beyond the Wellington region too – including kumara from Dargaville and citrus from Gisborne, as well as a mix of large commercial growers and small organic orchards with as little as 50 trees.

“Mostly we approach growers and build that relationship, although a couple have come to us,” Angus says. “Ideally, we would love to do more for more growers.”

Sometimes, growers haven’t been able to supply them with produce even when it was financially worthwhile because they didn’t have the labour to harvest it.

"We had a grower who was going to supply us with mini leeks but literally wasn't able to because they didn't have the labour to pull [them] from the ground," says Angus. "Then a storm came and those leeks were ruined. They spent six months growing those leeks and didn't have the workers on the farm to pull them out. We've seen that happen with a number of growers recently because of nasty weather which has some severe repercussions."

Several growers have told them they have been scaling back operations due to labour shortages, and Angus says reduced supply will have an effect on consumer's wallets. Even when supply is reduced there will still be wastage because there will still be ugly, smaller produce and excess quantities at certain times.

"If we can influence New Zealanders to consume what growers have available, not only will they be doing local growers a lot of good, they will be saving themselves money in the long run."

According to the Wonky Box's website, a third of the planet's food is wasted, which adds up to 1.3 billion tonnes of "perfectly good grub that is never eaten."

A New Zealand survey revealed 86 percent of Kiwis believe wasting food is wrong. While Wonky Box can't do much about household food waste, Angus and Katie will continue working on reducing food waste at its source.

“
We've been a fairly small player, but that is going to scale up and we want to make a big impact across New Zealand



"We've been a fairly small player, but that is going to scale up and we want to make a big impact across New Zealand."

Angus and Katie hope to have their Auckland site up and running by September. ●

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YOUNG GROWER REGIONAL FINALS WRAP UP



Maninder Singh, Gisborne winner, in action

All the Young Grower of the Year regional finals for 2022 have now been held so the next milestone is the national final, which will be held in Nelson on 21 and 22 September.

Meryn Whitehead, a supervisor at Vailima Orchard, took out the 2022 Nelson Young Grower of the Year title while Maninder Singh, who works for LeaderBrand, won the Gisborne Young Grower competition. A few days later, Laura Schultz from Trevelyan's was named the Bay of Plenty Young Grower for 2022.

Horticulture New Zealand chief executive, Nadine Tunley, said the exceptional calibre of entrants seen year after year highlights the value of the Young Grower competitions.

"As the emerging leaders of our industry, it is invaluable to have an environment where young growers are supported

to realise their full potential," said Nadine. "The Young Grower competitions provide personal and professional development opportunities, confidence building and the tools and networks for our young growers to forge a successful career path for themselves.

“

As the emerging leaders of our industry, it is invaluable to have an environment where young growers are supported to realise their full potential

"It is clear from the talent on display today that the industry has a bright future."

Speaking from the Gisborne competition, NZ Apples & Pears chief executive, Terry Meikle echoed Nadine's sentiments. "The diversity of thought and talent on display has been amazing. It points to an incredibly positive future for growers across New Zealand."

“

In order to continue to produce effectively into the future, we need to ensure we have young people with the right commercial, technical and scientific skills



In the Bay of Plenty, NZ Kiwifruit Growers Incorporated chief executive, Colin Bond said the competitions show appreciation for the need for skilled careers in the horticulture industry.

"As a horticulture industry, we can often focus on knee-jerk reactions required for the current season. But in order to continue to produce effectively into the future, we need to ensure we have young people with the right commercial, technical and scientific skills."

“

The Young Grower competitions provide personal and professional development opportunities, confidence building and the tools and networks for our young growers to forge a successful career path for themselves



The Young Grower of the Year national final takes place in Nelson on 21 and 22 September. ●

Keep an eye on the younggrower.co.nz website for details.



Meryn Whitehead, Nelson winner, applying her expertise



Kiritapu Allan with Bay of Plenty winner, Laura Schultz



INNOVATION AND LEARNING AT THE HEART OF VEGETABLE GROWING BUSINESS



Reupena and Eseta Kovati with kale being grown using a semi-hydroponic system

For Samoan growers, Reupena and Eseta Kovati, community is central to all they do. GLENYS CHRISTIAN speaks to the duo about how they fared during the pandemic and how they have helped both their community and business grow.

Kovati Yam-Tam Gardens owners, Reupena and Eseta, lowered the price of vegetables sold at their Glenbrook gate, south of Auckland, during the first Covid-19 lockdown as well as donating produce to the local school, their church in Waiuku and its food bank.

"I learned from my Chinese father, you do what you can with what you've got," Eseta says.

While some of their many repeat customers say they should charge more, instead the pair look at what it costs to produce their vegetables.

"All you need is a roof over your head and to be able to put food on the table and pay your bills."

The couple met over 30 years ago in Onehunga, although both are from Samoa where their families have a long history of growing. Reupena decided against studying

horticulture at the University of the South Pacific and instead completed an apprenticeship at Alfriston company, Zealandia Horticulture Ltd, at the urging of a teacher at his school, Ron Walden. Reupena later returned to Samoa, working for the agriculture department for three years improving varieties of cacao, a major export crop, before again returning to New Zealand in 1983.

"I wanted to be self-employed," he says.

When Reupena met Eseta, a bookkeeper at the time, she convinced him they could combine their skills and work for themselves. First, they trailed growing chrysanthemums at their rented home in St Johns. Reupena worked at Rainbow Park Nurseries in Bombay at the time while Eseta worked at Harred Distributors in Newton, receiving and distributing clothing stock.

The pair put their horticulture skills to the test in 1985, leasing a 800 square metre of glasshouse at Walmsley Road in Mangere to grow tomatoes under a trial semi-hydroponic system set up by J. Thompson. Their mission became quality first and quantity last – a mantra which continues to serve them well.

Having been successful in their tomato venture, Reupena and Eseta went on to purchase one hectare further south in Karaka, expanding their operation to grow cabbages,

cauliflower and broccoli, selling them through Turners & Growers auctions as well as regularly taking a stall at the Otago markets.

Looking for a better water supply, a move to Glenbrook to the west appealed. They found a 1.4-ha block without a title which had been sub-divided off a dairy farm.

"It was a big step up," Reupena says. "I had to be a man of all trades."

“
I learned from my Chinese father, you do what you can with what you've got

With money loaned from the Pacific Development and Conservation Trust, Reupena was able to build a packhouse and separate accommodation for them and their four children. At first, they grew tomatoes in a plastic house, then chillies, scallopini and courgettes in a tunnel house. Kale was added and they were some of the first to extol its health benefits.

Reupena and Eseta added a new, 1536 square metre glasshouse in 2006, using half of the space to grow acid-free tomatoes and the other half to grow runner beans with batches of 1000 seedlings going in four weeks apart. No heating is used but an automated system regulates nutrients and wastewater which drains outside through soil channels under the flooring and is re-used to water vegetables growing in car tyres.

With the glasshouse well-established, Eseta went in search of other crops that could be grown without heating and found the answer in a Kings Seeds catalogue. She purchased some snow peas, planting them in a plastic house as a trial. The product was eagerly snapped up both by MG Marketing and by customers and proved a good fit with their other crops.

"We can grow them from April to December then concentrate on the tomatoes," Eseta says.

The business is constantly looking for opportunities to innovate as it grows. A transition away from plastic has seen the operation introduce alternative packaging over the past three years.

Eseta sourced some white paper bags she saw at a local fish and chip shop and now uses them to package the operation's snow peas. They started with the white bags for Grade 1 snow peas then added the brown ones for Grade 2, making identification easy. Both are sold through MG Marketing.

"All the things we do we look up ourselves," Eseta says. "We looked at paper bags because they were compostable."



Reupena at the Otago Markets

Eseta designed self-adhesive labels too, printing them off at home and adding flax strips to tie the 500-gram bags at the top. After the strawberry tampering incident in Timaru, she worked out a way of threading the flax back through the holes to lessen the risk of them being opened in the store.

“
The business is constantly looking for opportunities to innovate as it grows. A transition away from plastic has seen the operation introduce alternative packaging

"Flax seemed an obvious and environmentally friendly choice to tie the paper bags up with," she says. "We were already making things with flax and it meant we could burn it after and use the ash in the garden."

Eseta also dries banana leaves in the sun to wrap their beans, finishing off with a flax tie, making them a popular buy at the market.

After 34 years of selling at Otago, the pair now only sell their produce at the Pukekohe market every fortnight. Their retirement plan is to spread their message of the benefits of vegetables further afield. Already, they have encouraged Pacific people to grow more of their own vegetables by running a pumpkin growing competition.

"At funerals there will be a lot of cakes but no vegetables," Eseta says. "It breaks my heart. We want to educate people about the wide variety of fruit and vegetables that are available year-round in New Zealand, as an alternative to popular fast-food options."

Reupena believes taking the GST off fresh vegetables would help boost consumption and that the 5+ A Day campaign can be taken further.

"For each of those five fruit and vegetables there are 25 good things people are putting in their bodies such as antioxidants and vitamins." ●

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IDENTIFYING AND RESEARCHING BIOCONTROL AGENTS FOR GLASSHOUSE GROWERS

Lex Dillon



Psyllid - Adult

'A Lighter Touch' - a collaboration between Horticulture New Zealand, Foundation for Arable Research (FAR), New Zealand Wine and the Ministry for Primary Industries (MPI) - is setting out to provide growers with new ways to sustainably protect crops.

TomatoesNZ is one of the product groups associated with HortNZ that has recognised the benefits that 'A Lighter Touch' can offer.

By the very nature of producing crops in covered environments, growers using glasshouses have been early adopters of technologies that maximise production volumes, utilise solar energy, collect and recycle rainwater, so they can grow large volumes of produce using as little water as possible.

Sustainability is part of who we are and what we do.

Glasshouse growers have also been very successful at identifying and using beneficial insects. Examples include bumble bees for pollination, *Encarsia formosa* for whitefly control, and *Cucumberis* for thrips.



Psyllid - Nymph

But we need to do more.

Most glasshouse production in New Zealand uses beneficial insects as its primary tool to control pests, however, recent incursions, notably Tomato-Potato Psyllid (TPP), have meant that without native biological controls for some pests, there has been no option but to use chemical interventions.

“

This project will have benefits for all covered crop growers as well as growers in general, as it looks to identify and trial predatory insects that are either native or endemic to the New Zealand environment

TomatoesNZ put a proposal to 'A Lighter Touch' to develop a programme titled: Integrated Pest Management (IPM) Programme for Glasshouse Tomatoes, Incorporating Arthropod Bio Control Agents (BCAs).



Engytatus Nicotinae - Adult

This project will have benefits for all covered crop growers as well as growers in general, as it looks to identify and trial predatory insects that are either native or endemic to the New Zealand environment.

By combining with 'A Lighter Touch', growers will be able to get access to skills, resources and funding that would be beyond individual growers or stand-alone organisations.

“
Glasshouse growers have also been very successful at identifying and using beneficial insects

Engytatus nicotianae

Many will be familiar with work that has been done at the Lincoln University Bio-Protection Research Centre, where Emiliano Veronesi successfully trialled the use of *Engytatus nicotianae* as a biocontrol method for TPP.

Further trial work was carried out by T&G Covered Crops and Bioforce during the 2021 growing season. A one-hectare greenhouse was trialled, with a two-hectare greenhouse on the same site being used as a control. There was a reduction in the whitefly population and the need to use chemical interventions was greatly reduced, however, a significant TPP incursion (before a large *Engytatus* population was established) ended the trial.

The trial was re-set for the 2022 crop, however, for a number of reasons insufficient volumes of *Engytatus* were available to build up the population to a level whereby we could measure the effectiveness of *Engytatus* in a commercial growing situation.



Tamaraxia Adult, parasitising Psyllid Nymph

Current biocontrol use

Part of the 'A Lighter Touch' project has been to establish baselines of current practises with beneficial pest control. A survey of loose and large truss tomato producers has taken place to establish how pests and diseases are currently managed.

There is a mix of both biocontrol and chemical intervention methods used. Where there is significant TPP pressure, there tends to be more chemical intervention, as the primary biocontrol *Tamarixia triozae*, is not widely available and does not control all stages of the TPP life cycle. To increase biocontrol, New Zealand growers need to have effective methods of controlling TPP.

“
A survey of loose and large truss tomato producers has taken place to establish how pests and diseases are currently managed

Pest and beneficial scouting

A particularly positive aspect of the survey was the extent to which New Zealand tomato growers have adopted crop scouting. Understanding what pests and diseases are present is key in choosing which pest control method is suited to the individual grower's circumstances.

The 'A Lighter Touch' project team is currently considering developing standardised scouting systems and options for growers. Standardised scouting will help with comparing pest control between sites.

We would like to encourage all growers to review their crop scouting methods and would particularly recommend engaging with glasshouse staff in the pest and beneficial identification. Every extra set of eyes helps.

Sampling methods

The project team has also been working with the Lincoln University statistics department to establish how it can accurately evaluate the sampling within a glasshouse, to effectively and economically scout. We know that to be 100 percent accurate, we need to scout every stem every week, however, this is neither practical nor economic.

A model has been developed that allows us to calculate, with varying levels of certainty, how many plants might need to be scouted to be say, 90 to 95 percent sure. This will vary depending upon the certainty level and row length, but significantly reduces the sample numbers.

We expect this model to be available to growers later in the year.

Work to be done

As with many research projects, every time work is done, there appears to be as many new questions as results.

In addition to *Engytatus*, there are several other beneficial insects to be trialled. Additionally, the intent is to spread trials across a number of sites to reduce the risk of localised issues delaying or derailing a specific trial.

The project has been designed to run over a number of years, and results will be communicated to growers as and when the sub-projects are completed.

Summary

We need to be realistic about what biocontrols can achieve. They don't have instant hits as some chemical interventions may have, but by building and establishing populations of beneficial insects, you can set up a preventative screen that may significantly delay or even completely remove the need for chemical intervention. This is not a pipe dream. There are covered crop growers in New Zealand currently who manage crops using BCAs and soft sprays.

At minimum, growers who use BCAs will better understand the interaction between pests and their crops. Use of BCAs will reduce the need for chemical interventions and improve the health of crops.

Acknowledgements

I would like to thank those currently involved in the project: the team at T&G Covered Crops, Bioforce, Lincoln University's Bioprotection Aotearoa Unit researchers, TomatoesNZ and 'A Lighter Touch'. Plus, special thanks to Bioforce for the images used in this article. ●

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NITROGEN MANAGEMENT AND FARM ENVIRONMENT PLANS



Andrew Barber & Henry Stenning

Nutrient management is a core component of any Farm Environment Plan (FEP). When completing a FEP, growers need to specify their current nutrient management practices and identify any areas where improvements could be made for better environmental outcomes.

The social licence to operate

There are two critical nutrients to consider when thinking about environmental impact. Phosphorus, which is commonly bound to the soil surface and can mostly be mitigated through erosion and sediment control practices; and nitrogen - specifically, in the form of nitrate. Nitrate is water soluble and highly mobile in the soil. The quantity of nitrate in the soil is in a constant state of flux from the numerous processes that add to or deplete the soil nitrate pool. Nitrate leached into ground or surface water can stimulate eutrophication, leading to a deteriorated ecosystem. Elevated nitrate levels in drinking water has also been linked to negative human health outcomes. Nitrate leaching therefore receives a lot of media attention and is at the heart of growers' social licence to operate.

Two pathways - leaching numbers versus practices

There is an overwhelming need to demonstrate the horticulture industry's sustainable management of nitrogen.

There are two pathways. A growing system can be modelled (e.g., in Overseer) to estimate the quantity of nitrogen leached. For numerous reasons, not least of which is the enormous complexity of vegetable production systems, estimating nitrogen leaching is difficult to do. However, having done so, with lots of caveats, the spotlight is then shone on an extremely uncertain leaching number. Furthermore, this pathway does not provide a practice that growers can implement on a day-to-day basis that will achieve better nitrogen use efficiency.

The second pathway, that the Sustainable Vegetable Systems (SVS) grower working groups have strongly advocated for, is to develop a grower focused nitrogen management tool. Consequently, SVS has shifted its focus from improving leaching predictions to developing tools and practices that will support growers' nitrogen management decision making. In turn this must reduce nitrogen leaching.

Where Farm Environment Plans fit in

The SVS tool and practices in growers' FEPs can be presented as evidence to support their sustainable management of nitrogen. The primary evidence of sustainable nitrogen management is monitoring soil nitrogen and applying nitrogen based on predicted crop uptake. The most efficient way of demonstrating this is by using a nitrogen budget. Creating a practical, robust, scientifically defensible nitrogen budget and nitrogen fertiliser guidance is what the SVS project is focused on.

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There is an overwhelming need to demonstrate the horticulture industry's sustainable management of nitrogen

An example of a FEP is the NZGAP (Good Agricultural Practice) EMS (Environment Management System), which provides templates, mapping and support for assisting growers in completing their FEP. Figure 1 shows some examples of Good and Best Nutrient Management Practices within the EMS. Most of these relate to practices around applying fertiliser based on field conditions and plant demand.

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The main objective of the SVS programme is to develop a grower-facing tool that will provide growers with nitrogen fertiliser guidance

The first criterion required for nutrient management in the EMS is to plan fertiliser inputs for the crop. This can be interpreted in several ways, but one practice is to monitor soil mineral nitrogen before applying nitrogen fertiliser, then use that test result as part of a nitrogen budget that includes predicted crop nitrogen demand.

Soil monitoring may involve a laboratory mineral nitrogen test or a grower Nitrate Quick Test (more details on these can be found on the Foundation for Arable Research website). Taking soil samples prior to all nitrogen fertiliser applications is impractical. Therefore, identifying high

NUTRIENTS: Implement measures to improve nutrient uptake and minimise nutrient loss

Ref	Good/Best Management Practices	Currently Implemented? (Yes, Partial, No, n/a)				Date to be completed? (if Partial or No)	Comment/Agreed Action (if 'Partial' or 'No'. Justify if 'n/a')	Evidence provided (e.g. record, photo, observation)	Level
		Y	P	N	n/a				
Pre-planting									
1	Plan fertiliser inputs for the crop	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				GMP
4	Manage applications of nutrients taking into account rainfall, field capacity and soil saturation levels	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				GMP
Planting									
6	Nutrient applications are informed by available information or fertiliser recommendations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				GMP
7	Fertiliser applications are applied relative to the predicted uptake levels of the plant from planting to maturity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				GMP
8	Improved fertiliser technology is used where appropriate (e.g. prills/coatings)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				BMP
10	Crop calculators are used if available and practical for local conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				BMP
15	Nutrient levels are managed (and informed by soil tests) according to rainfall / irrigation, and will match likely yield and quality goals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>				BMP

Figure 1: Examples of nutrient Good and Best Management Practices from the NZGAP EMS

risk blocks, times of the year, or events (e.g., following heavy rainfall) could be the best approach. Over time, the volume of data collected on nitrogen behaviour in the soil will grow and along with it, justified assumptions about nitrogen levels (in a general sense, e.g., low, medium, or high levels) based on preceding crops, time of year, recent rainfall and the numerous other factors that all determine soil nitrogen levels.

Better predicting vegetable nitrogen demand is a significant aspect of the SVS trials and regional monitoring. Combining this with current soil mineral nitrogen levels and the three nitrogen sources – soil mineralisation, crop residue breakdown and nitrogen fertiliser – is the basis of a nitrogen budget. This in turn provides the required FEP evidence for justified nitrogen fertiliser applications.

“
The quantity of nitrate in the soil is in a constant state of flux from the numerous processes that add to or deplete the soil nitrate pool

The SVS Nitrogen Management Tool: N-Sight.

The main objective of the SVS programme is to develop a grower-facing tool that will provide growers with nitrogen fertiliser guidance. This incorporates the anticipated crop nitrogen demand, the preceding crop's residue, soil nitrogen mineralisation, the current soil nitrogen level, and the impact of climate. At the most basic level, this tool will provide guidance on the quantity of nitrogen fertiliser

required and the optimal timings for fertiliser applications based on the modelled plant uptake curve and the user set number of side dressings. There will then be the ability to drill down further and better tune the results to match specific soil and seasonal conditions by overwriting the default values.

In summary, SVS has transitioned away from predicting a leaching number and is now firmly focused on developing a practical grower nitrogen management tool. It is hoped this will lead to reduced nitrogen leaching and will optimise the use of nitrogen fertiliser – a win for growers and the environment.



N-Sight will have multiple benefits, such as:

- Being practical for growers
- Improving nitrogen knowledge and practices
- Providing the evidence required in FEPs to demonstrate Good and Best Management Practices
- Making the invisible visible
- Providing a platform for a conversation with regulators
- Reducing nitrogen leaching.

All of this underpins growers' ability to farm into the future. ●



SUCCESSION IN HORTICULTURE: PASSING THE BATON

Sophie Twigley : Horticultural consultant, Fruition Horticulture (BOP) Ltd

Passing the baton from one generation to the next is a reality the majority of horticultural landowners will be forced to consider at some point in their career.

With increasing land prices, capital outlay and regulation within the industry, these succession plans are escalating in complexity. In early 2021, Fruition Horticulture (BOP) Ltd was funded by the Ministry for Primary Industries (MPI) to undertake research to help determine the main barriers to entering and exiting the horticulture industry, as well as ways to reduce such barriers.

Method

The research project sourced information from several focus groups and an online survey. Participants ranged from those with decades of experience and ownership history to those new to the industry. One focus group was targeted for insights on Māori land ownership and the other group was targeted for insights from rural professionals. A range of industry groups were included, with emphasis on the kiwifruit, avocado, pipfruit and vegetable groups and others (see Figure 1 below).

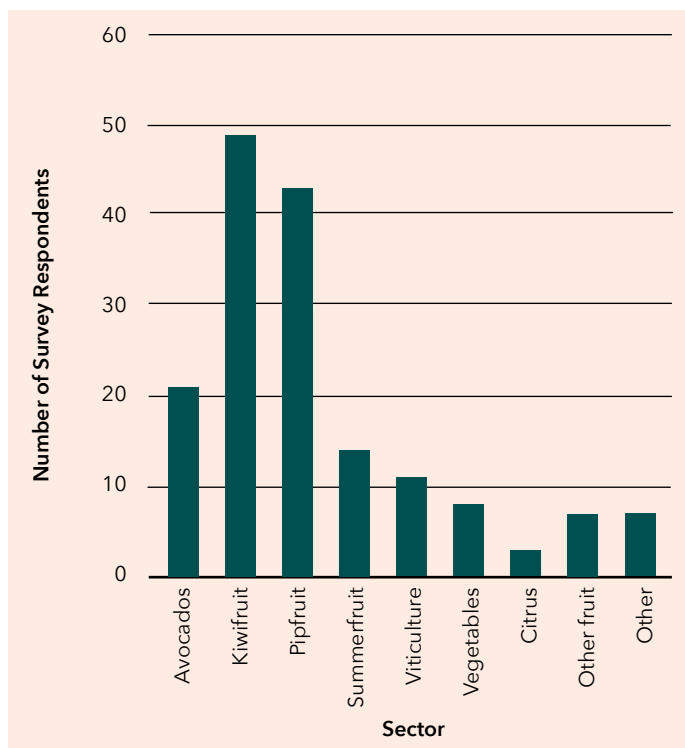


Figure 1: Survey respondents by crop type

Entrance into the industry

One dominant conclusion drawn across every sector was that entrance into ownership is difficult. Growers indicated that the two largest barriers were initial capital costs and the inability to borrow money. Increasing land values, licence prices to lack of access to the more profitable protected plant varieties, costs of development and lack of bank borrowing power all contributed to making ownership a difficult prospect for many young people and for Māori to develop their land holdings.

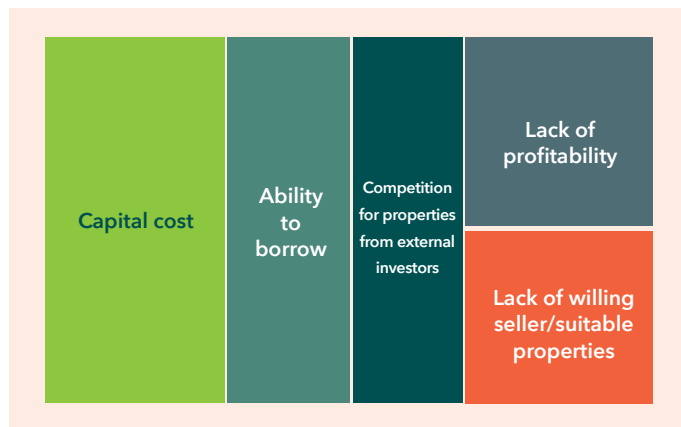


Figure 2: Biggest perceived barriers to entry into horticulture (sample size: 167). Larger sized blocks indicate a more significant barrier

Māori landowners, while often having a significant asset base in terms of land ownership, still found that a key barrier to entrance into horticulture was also the capital cost of land development.

Financial mechanisms for entry varied between groups. Investment vehicles were seen as an enabling structure for those looking to enter kiwifruit ownership, with as little as \$50,000 buying a pathway into passive part ownership. Outright buying of an orchard was a common entry mechanism for avocados, due to the smaller size of many orchards which tend to be on lifestyle blocks, accompanied by a high standard of dwelling which can be an added attraction for buyers. Leasing was a more common system in pipfruit.

The vegetable sector faced the double jeopardy of low profitability and increasing regulation of growing practices, making viable sales of the business difficult. This also makes preserving the land for vegetable production extremely difficult if the business is sold. Focus groups also highlighted the lack of entry due to these reasons, stating

that ownership of vegetable growing operations was almost always being passed down through families. Those exiting the industry were more likely to sell their land for non-productive purposes, for example to developers for residential housing.

Some participants stated that without their parents and the use of intergenerational succession, they would not be in an ownership position in the industry. It was agreed that those without this pathway were on the backfoot, not only in terms of financial viability, but in terms of the ability to obtain opportunities to buy properties. Many of those working within the industry stated that despite their desire for future ownership they don't ever expect to be able to afford it (see Figure 3).

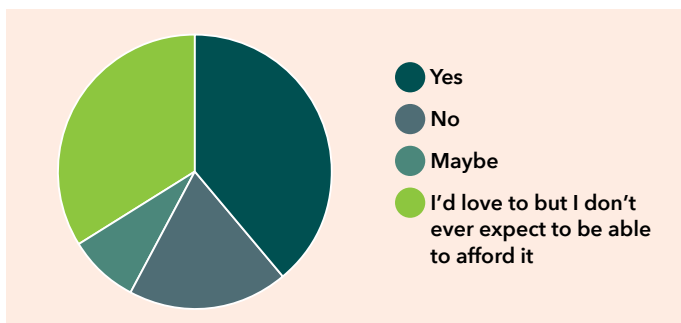


Figure 3: Current non-owners desiring to gain ownership in horticulture (sample size: 140)

The most common forms of exit were identified as selling to a grower already in the industry, or a corporate business or company already in the industry. This once again signified that it becomes more difficult for prospective buyers to make their first move into horticultural land ownership.

Whenua Māori Trusts were further limited by their trustee agreement and limited knowledge about how to effectively enter the horticulture industry. Māori land had a larger incidence of the use of a 'development lease', in which after a period, the then-developed land will revert to the original owners, with the gain of now developed land. This is suited to the 'long game' strategies of many Whenua Māori Trusts.

Another barrier that was highlighted throughout the research was the perception of the profitability and attractiveness of horticulture as a career. Growing food has increased in complexity and cost over time and it can be difficult to attract new talented entrants into the industry. This was especially an entrance barrier within family succession. For example, the experience of seeing hail wipe out apple crops overnight had put off a younger family member from investing into the business. A high level of regulation and compliance has reduced the attractiveness for some among the incoming generations too.

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Exit from the industry

In an industry experiencing its heyday, there is a buoyancy in the sale prospects of those looking to exit. Over 96 percent of all current owners trusted they would be able to find a willing buyer for their horticultural entity if they were not focusing on family succession. Concerns were also raised about the increasing amount of corporate participation in the industry, reducing purchase ability for keen individuals interested in growing.

One barrier to exit by succession was the competition for conversion of land for urban uses. This was an issue for vegetable growers in particular, who centered around major townships, with buyers more likely to purchase the land for housing developments rather than to carry on producing food.

Being of sufficient scale was a large barrier to family succession, due to the need to split the overall ownership of land. One participant rightly stated, "It's not just about succession - it's also about estate planning. You have to look after the present and past generation as much as the future generation. You can't sacrifice one over the other." This was a barrier to those with lack of scale or profitability, common in systems such as avocados and vegetables.

Making sure that those leaving the business were well looked after, without incurring a burden of debt and workload on the incoming generation was often difficult to navigate.

The concept of fairness was a common theme and important for most families considering succession. It was noted that fairness did not necessarily mean equal treatment, but rather equitable treatment. Juggling what is best for the financial state of the business and still being able to sit down and have a family meal at the end of it was a large factor for many family succession decisions too. Many fears within family succession highlighted the need for fairness and the value in an extended timeframe for passing the business over.

The mechanisms for introducing the next generation into ownership of horticultural land were varied, with a mixture of trusts, companies and sometimes leases used to transfer ownership stakes between generations. The most effective use of transfer varied greatly depending on the family dynamics and goals of the business for the future. The most common structures used are shown in Figure 4, indicating that the use of companies and family trust structures are common.

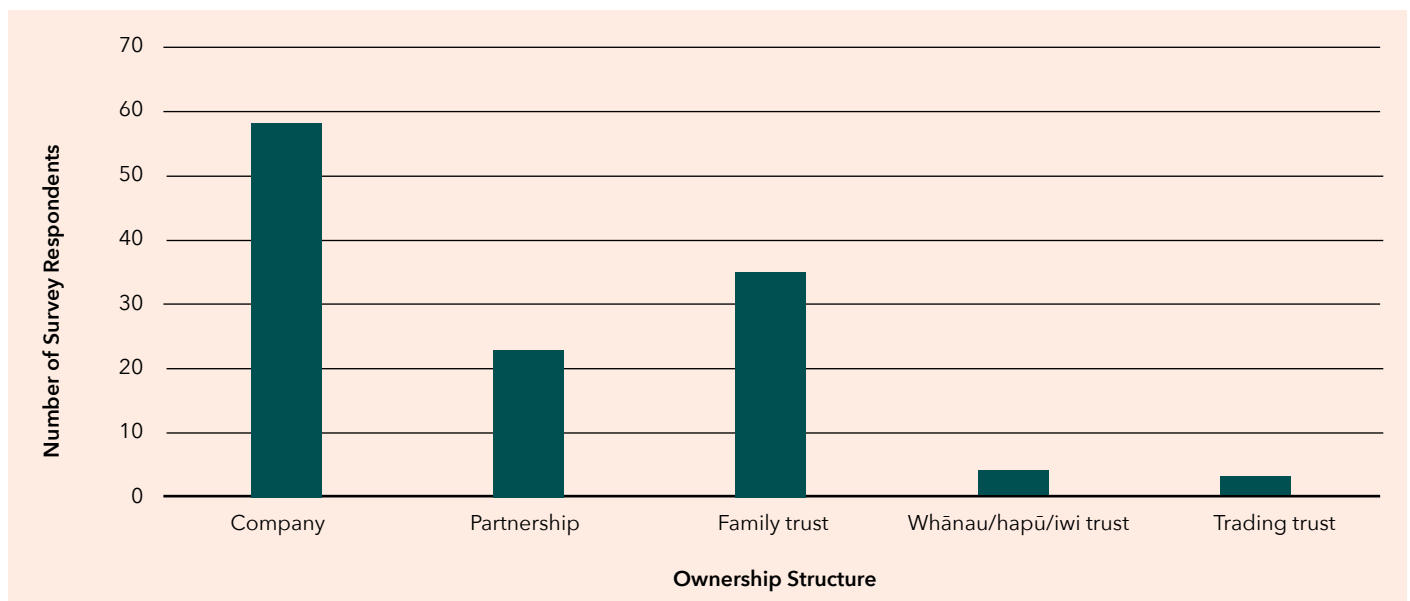


Figure 4: Ownership structures of survey respondents

In some cases, commonly in the kiwifruit industry, small ownership stakes may be offered through employment agreements, allowing young people employed in the industry to gain ownership. This was referred to by one interviewee as "the golden handcuffs," with the small ownership stake commonly tied to the need for that key staff member to remain in the company.

A staggered exit is also now a viable option for the industries able to use high quality management companies to operate the property. This is especially a widely used option in kiwifruit orchards, allowing people to remain in ownership far past the days of running the orchard

themselves. This, however, causes further issues for those looking to enter active ownership of an orchard.

Only 15 percent of participants owning horticultural land listed family as a likely willing buyer for their property. Many stated that in successful family businesses, inheritance is only effective if the incoming generation is interested. Participants agreed that the horticulture industry is hard going, with combating mother nature and increasing regulations meaning both the financials of the business and those in ownership need to be able to withstand difficult seasons.

Future opportunities for succession

It was highlighted that good family succession needs clear, early and effective communication. Getting ideas and thoughts from all generations out on the table early is a critical part of reducing unexpected road bumps. In admitting that it can be a difficult subject to talk about, many highlighted the importance of using an external third party to help navigate this process, with professional advice guiding the conversation. Sitting down and getting out in the open and on paper what the plan is for your family reduces the likelihood of unexpected turbulence.

“
Only 15 percent of participants owning horticultural land listed family as a likely willing buyer for their property

Attracting new entrants into the industry and facilitating their career progression is an important part of entry into the industry. This is where there was a contrast and overlap between succession barriers, the exiting group wanting to

pass land onto other passionate growers and an incoming generation too hindered by the current land prices, having to compete with corporates to have an opportunity to buy in.

Bringing these people together could facilitate a successful transition in and out of the industry for both parties and could also help to aid young, energetic talent into ownership in the industry.

Increasing the awareness of suitable models and benefits from a successful succession transition to growers is also important. Decisions on when to transition, which financial mechanisms to use, and whether to use succession coaches, or other rural professionals, can be difficult.

There is no one-size-fits-all approach that is available for the complex process of succession, therefore a range of models need to be presented to people to enable them to make the best decision early. ●

To read the full report, visit the MPI website: www.mpi.govt.nz/dmsdocument/48640-Horticulture-sector-entry-and-exit-pathways



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A STORMY WINTER AND BIG SHIFTS IN WEATHER PATTERNS



Georgina Griffiths : MetService meteorologist

For the first five months of 2022 (January to May), New Zealand experienced an unusual number of highs sitting to the south of the country, and frequent easterlies over the upper North Island (top of Fig 1).

It was a relatively settled start to the year for South Island areas, and soil moistures in the east of the South Island - as well as in the west of the North Island - remained in significant deficit into May (Fig 2).

Climate driver update

The 2021-2022 La Niña has now weakened to a point that most commentators have ended the event. However, many climate models forecast a return to La Niña conditions for late in the year, for the third year running.

However, a major pattern change to a higher than normal frequency of deep lows across both the Tasman Sea and south of New Zealand occurred in winter (June and July-so-far). This shift produced an extremely wet, windy and wild regime, complete with multiple heavy South Island snowfalls. (See Figures 3 to 7 for selected rainfall accumulation plots.) Saturated soils became the norm for north-facing and west-facing areas of both Islands by mid-July.

For winter and spring, the most important factors for the New Zealand weather maps are likely to be an active winter Tasman Sea jet stream and the likely formation of a negative Indian Ocean Dipole (IOD) event.

Both of these climate drivers produce more 'active' lows over the north Tasman Sea, and in turn, more frequent northerly rain events over New Zealand than usual.

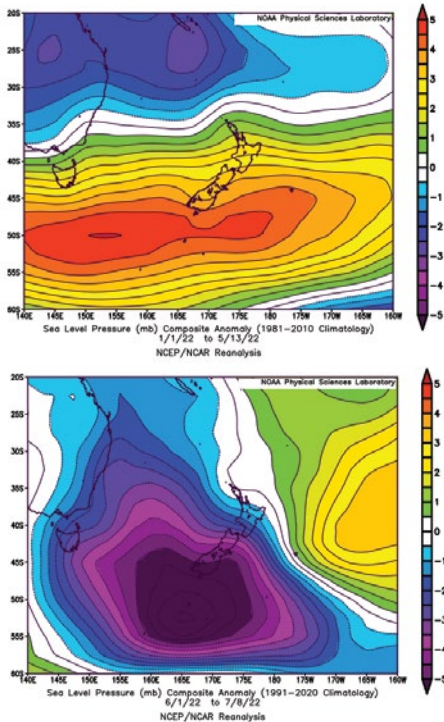


Figure 1: Mean sea level pressure anomaly (deviation from normal) for January to May 2022 (left hand side) and the period 1 June to 8 July 2022 (right hand side). Red/orange colours indicate higher than normal pressures, while purple/blue colours indicate lower than usual pressures (more lows). Map produced courtesy of NOAA/ESRL Physical Sciences Division

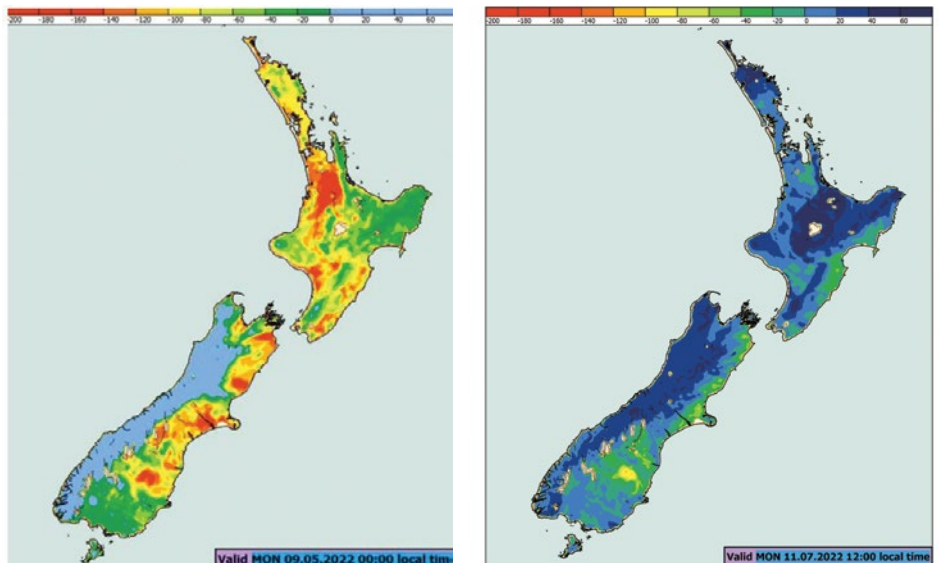


Figure 2: A 'snapshot' of estimated soil moisture deficit at 4km resolution on 9 May 2022 (left hand side), compared to 11 July 2022 (right hand side). Blue colours indicate saturated soils. Orange colours show significant soil moisture deficit, while red colours signal severe soil moisture deficit

The MetService long-range forecast continues the stormy weather patterns of July into August. For the latest long-range predictions, you can sign up for free to the Monthly Outlook at www.metservice.com/emails. ●

Rainfall accumulation plots tell a wet story

Figures 3-7: Regional annual rainfall accumulation (mm) for the last five years (2018 to 2022). The annual average rainfall accumulation is shown in black

Figure 3: Kerikeri

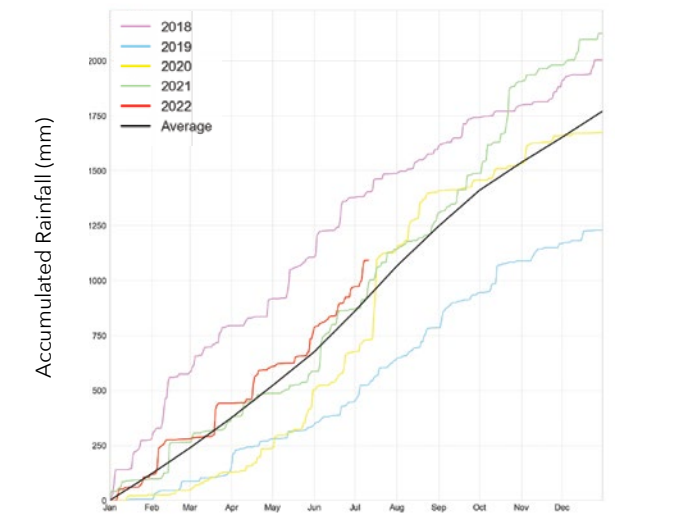


Figure 4: Hamilton

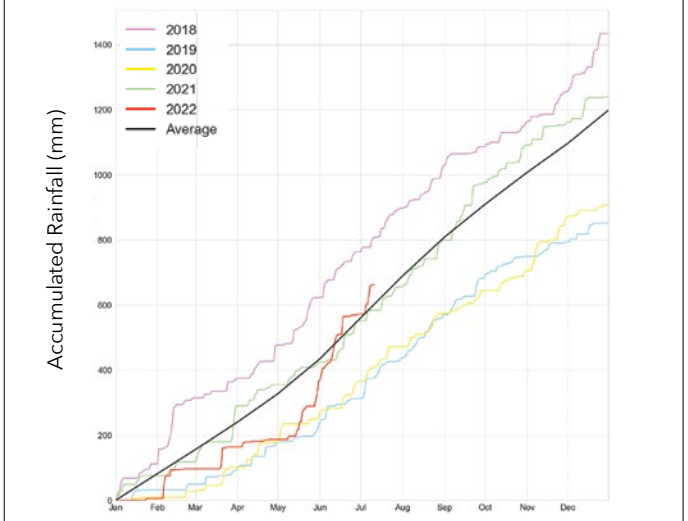


Figure 5: Napier

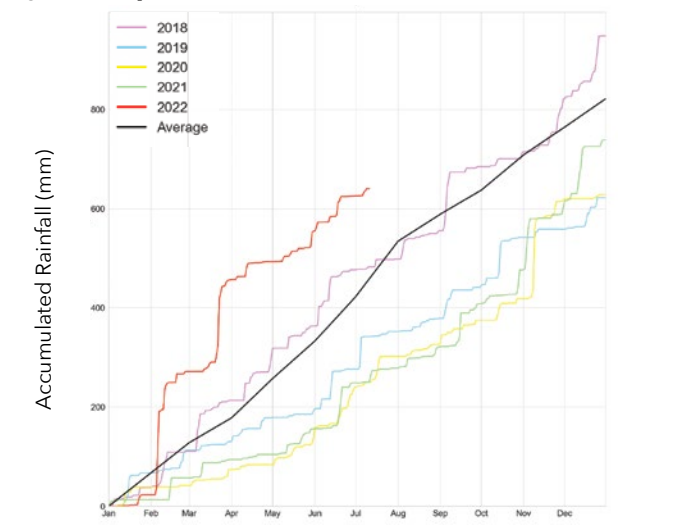


Figure 6: Blenheim

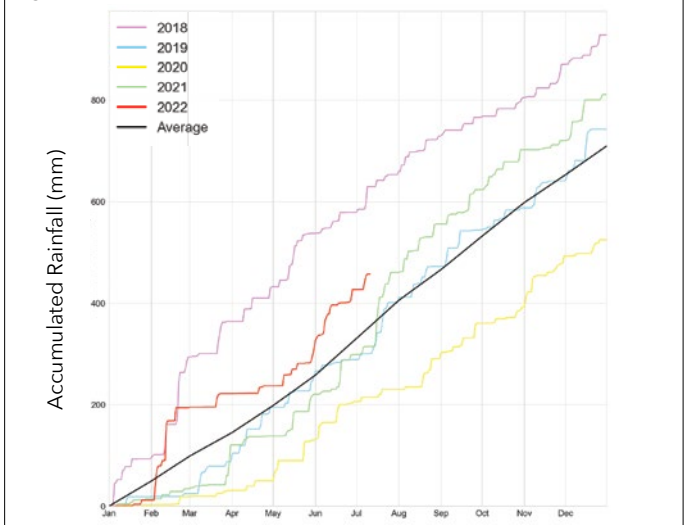
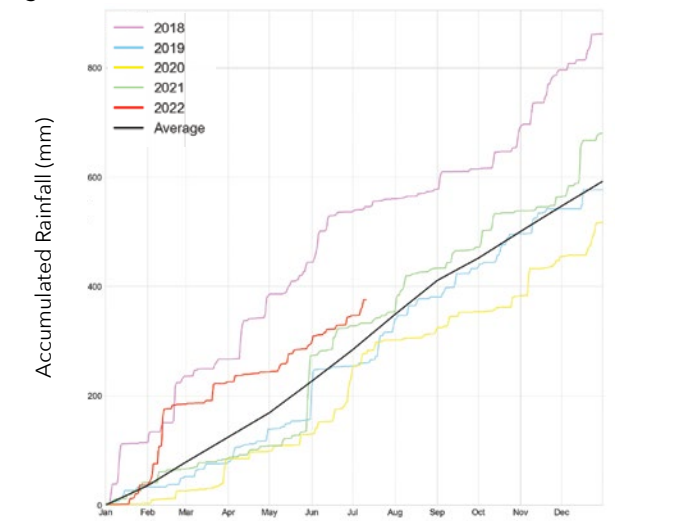


Figure 7: Christchurch



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DECLARING THE WONDERFUL BENEFITS OF FRUITS AND VEGETABLES

Julie North : Vegetables.co.nz

It is a real pleasure to work in an industry intent on bringing nutritious, healthy food to people's plates.

Fruits and vegetables enjoy a halo status amongst food groups. They are the champions of healthy diets in all corners of the world, and here at home, vegetables stand out as the only food group our Ministry of Health does not limit in terms of recommended daily serves. Essentially - the more, the better.

Alongside that, we have a world full of self-proclaimed nutrition experts, Tik Tok 'health' advisors and consumers desperate for the next quick fix on their journey to ultimate wellness. We want to get out there amongst them all and shout the wonders of our fruit and vegetables from the roof tops.



They are the champions of healthy diets in all corners of the world, and here at home, vegetables stand out as the only food group our Ministry of Health does not limit in terms of recommended daily serves. Essentially - the more, the better

But here's the thing. There are regulated food standards for food claims here in Godzone. If you export across the ditch, the good news is they apply in Australia too. So, marketing these wonderful benefits is tightly regulated and rightly so. Food standards on claims are in place to protect consumers from misinformation, share useful information and create a level playing field for food producers.



A quick guide to claims:

Nutrition Content Claims (NCC)

A Nutrition Content Claim is a simple statement that the product provides a meaningful level of an essential nutrient. For example, *"Broccoli is a source of vitamin C."*

Fresh fruit and vegetables do not need to carry a Nutrition Information Panel (NIP). However, if you choose to make a Nutrient Content Claim, it will trigger the need to supply a full NIP at point of purchase or on the pack. A full NIP includes information on energy, total fat, saturated fat, protein, carbohydrates, sugars, sodium, plus any nutrient mentioned in a claim. Levels must be given per 100g and per serve - even if you consider your serving size to be 100g.

To check if a Nutrient Content Claim (NCC) might be applicable, you need to be sure one serve has at least 10 percent of the Recommended Dietary Intake (RDI) for that nutrient. It must have a meaningful benefit to the consumer. If it has 25 percent or more of the RDI you could say "Rich in x," or "Good source of x."

You don't need to rush off and analyse all your produce. Plant & Food Research Limited has most likely done the hard work for you. You can find reliable nutrient composition information on their website, which can also show you if a claim is possible (www.foodcomposition.co.nz). It is really important to use a credible source of information such as this, which is relevant to New Zealand food. Don't be tempted to Google it!



You can find reliable nutrient composition information on the Food Composition website, which can also show you if a claim is possible www.foodcomposition.co.nz

NCC examples:

A compliant Nutrient Content Claim:

"Capsicums are rich in vitamin C."

(One serve has 48 percent of the RDI for vitamin C.)

A **non**-compliant Nutrient Content Claim:

"Cucumbers are a source of calcium."

(Cucumbers have barely any calcium at all – one serve has only two percent of the RDI.)

“
A Nutrition Content Claim is a simple statement that the product provides a meaningful level of an essential nutrient

Health claims

Let's say you have found a nutrient claim or two for your product and perhaps you might be tempted to explain the benefit of that nutrient to people's health. This gets a little more complex. Again – look away from Google!

There are a number of health claims pre-approved by Food Standards Australia New Zealand (FSANZ) for use and you can find them in Schedule 4 of the Food Standards Code (FSC). If you don't see what you are looking for, you could consider making a self-substantiated claim, but you will need to invest in a thorough review of science, or even commission more research, to pull together a decent scientific dossier. There are a lot of requirements to this, but good guidelines are available.

Note: One paper showing a benefit in something is not a scientific dossier. You should not even refer to it in your marketing materials. Sound evidence takes time to build.

Making a general level or high level health claim has a few other checks and requirements, so a thorough understanding of the FSC is necessary. It is important to use claims appropriately and meet all requirements. Seek advice and more information if need be.

There is help at hand from the main government organisations involved. Check out their websites, and don't hesitate to contact them. For advice on nutrition and health claims, the Ministry for Primary Industries (MPI) is especially helpful.

Food Standards Australia New Zealand	FSANZ set the Food Standards Code (i.e., they develop food standards)
Ministry for Primary Industries	MPI enforce the <i>Food Standards Code</i> here in New Zealand
Commerce Commission	They may get involved if marketing, whilst compliant with the <i>Food Standards Code</i> , is still considered to be misleading to consumers

When the neighbour of your great aunt's best friend experiences a miraculous recovery from cancer when indulging in a secret recipe vegetable tonic, it is a lovely story with a happy ending. It is not, however, a claim. ●



There are two types of health claims:

1 General level health claims

These relate a nutrient to a health effect. For example: *"Vitamin C supports your immune system."* Note: There is no mention of an illness or disease.

2 High level health claims

These relate the nutrient to a health condition or illness. For example: *"Calcium reduces the risk of osteoporosis."*

Of the approved health claims, there is only one (in Schedule 4 of the FSC) that relates to fruits and vegetables: *"A high intake of fruits and vegetables reduces the risk of coronary heart disease."*

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NEW ZEALAND FROZEN POTATO EXPORTS AND IMPORTS

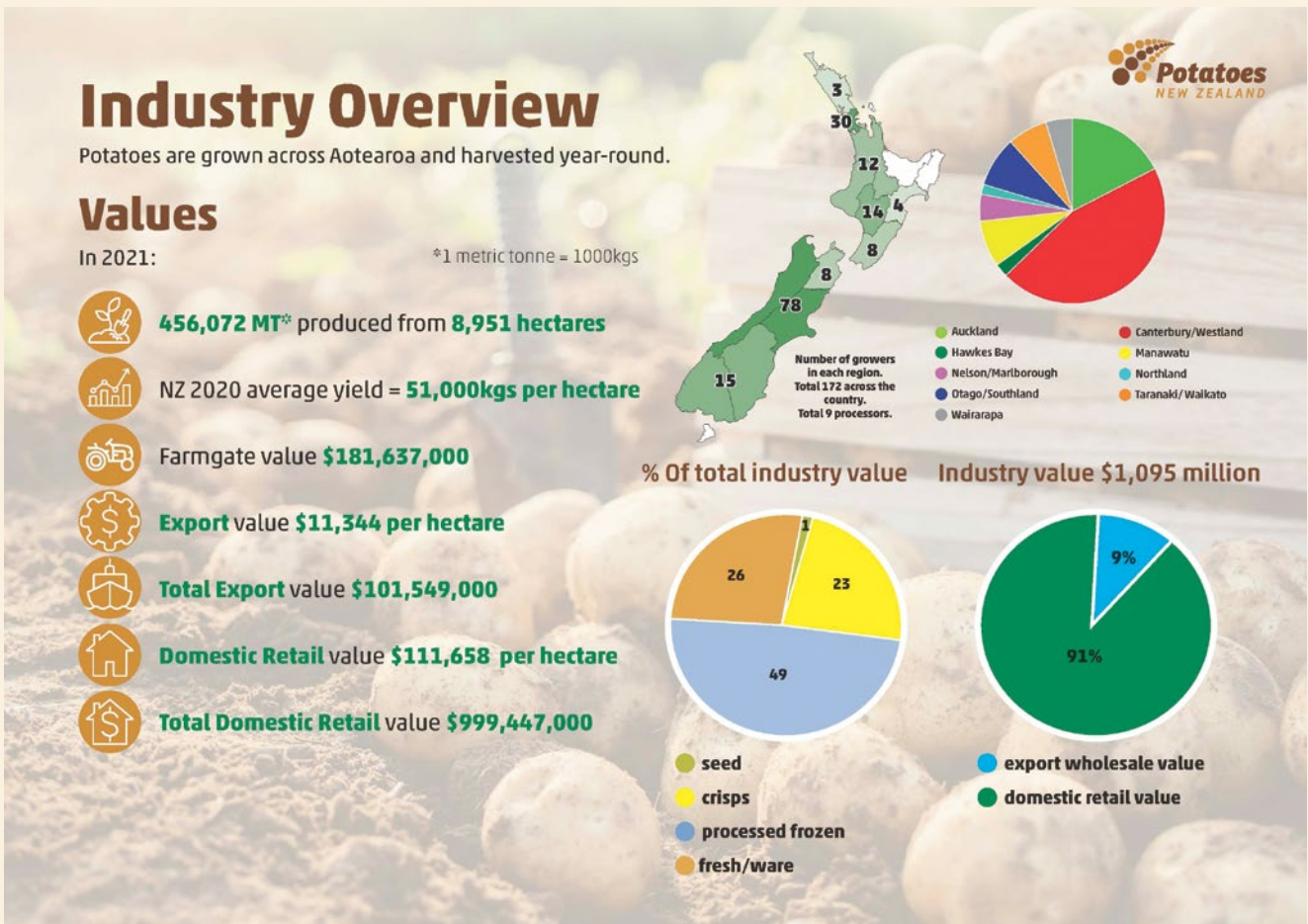
Simon Crampton

The New Zealand Potato industry maintains its economic sustainability due to the processing sector underpinning 72 percent of its overall value. Our growers' ability to provide seed and fresh table potatoes is dependent on stable markets for our processed potato products.

Our 2021 Industry Overview gives an idea of the industry segmentation and values.

As a result of pandemic disruptions and perceived threats from European product dumping into our markets in 2020-2021, PNZ continue to monitor the frozen processed markets.

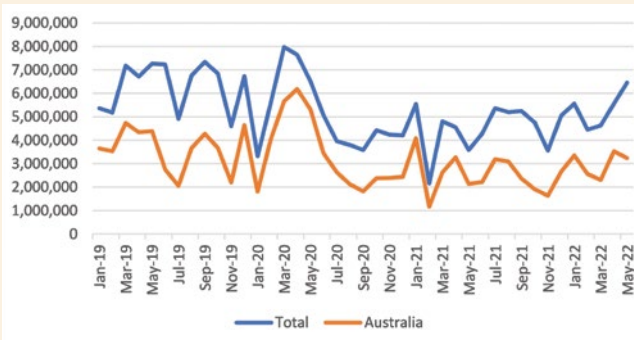
Below is the second of our quarterly reports for growers (also available on our website): potatoesnz.co.nz/news-info/pnz-frozen-potatoes-trade-report-no-2-june-2022/



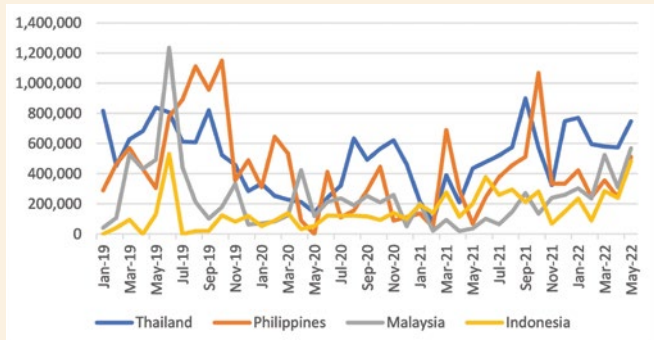
Quarterly key insights for all NZ frozen potato products

- Strong export growth of 29 percent latest quarter and 20 percent annual growth by volume. Value growth behind volume growth at 20 percent on quarter and 17 percent annual indicates NZ frozen potato exports more competitive than year ago.
- Export growth to Australia five percent annual and 13 percent on the quarter. Australia remains by far NZ's largest export market with 32,048 tonnes exported last 12 months from a total of 60,085 tonnes exported. Australia is driving the value decline mentioned with value growth of one percent annual, zero percent on the quarter in contrast to its volume growth.
- Strong export growth in Asian markets with Malaysia is a real highlight ,with growth at 827 percent on quarter. Thailand and the Philippines are also standouts ,with growth of 84 percent and 71 percent respectively.
- Papua New Guinea while a small export market had great growth on the quarter at 282 percent. Hopefully this will continue in the foreseeable future.
- Imports have reversed the trend from the last report with strong growth of 34 percent on the quarter which has also translated into annual growth of 15 percent by volume. Growth primarily driven by Australia.
- However, the Netherlands also doubled their imports versus year ago latest quarter. Some of this growth must be driven by timing of shipments as from European export trade data we have not seen a quarter of exports to NZ of this volume. Something to watch though. Imports from Belgium in decline counters some of this.

NZ Frozen Potato Exports - Australia

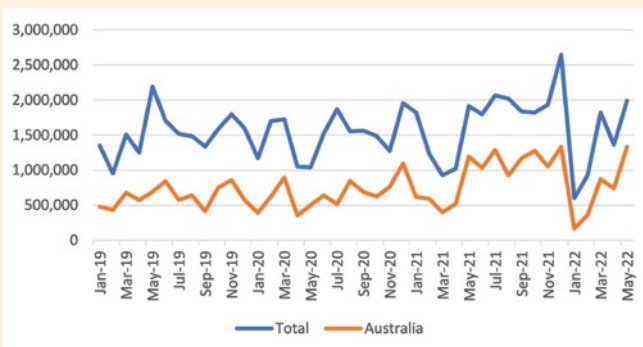


NZ Frozen Potato Exports - rest of the world

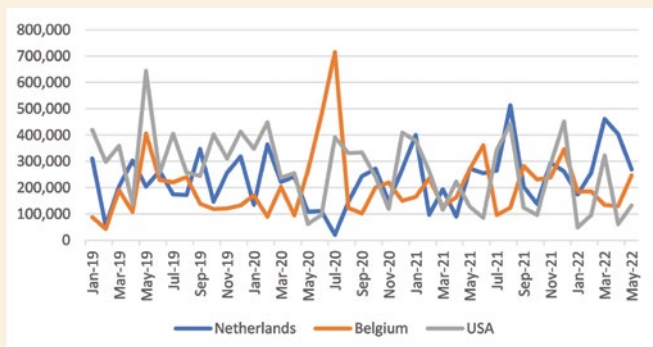


Exports to all markets with annual sales greater than 2,500 tonnes

NZ Frozen Potato Imports - Australia



NZ Frozen Potato Imports - rest of the world



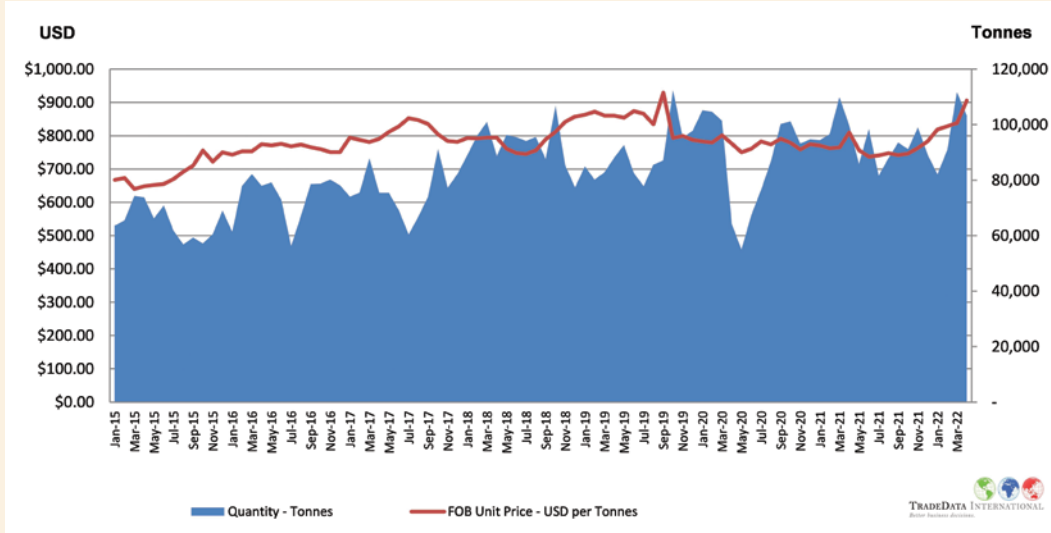
Imports from all markets with annual imports greater than 2,500 tonnes

World Potato Markets Report (WPMR) & World Trade Data

Encouragingly, WPMR are reporting increased export prices in frozen potato exported from Europe to offset the significant increase in input costs.

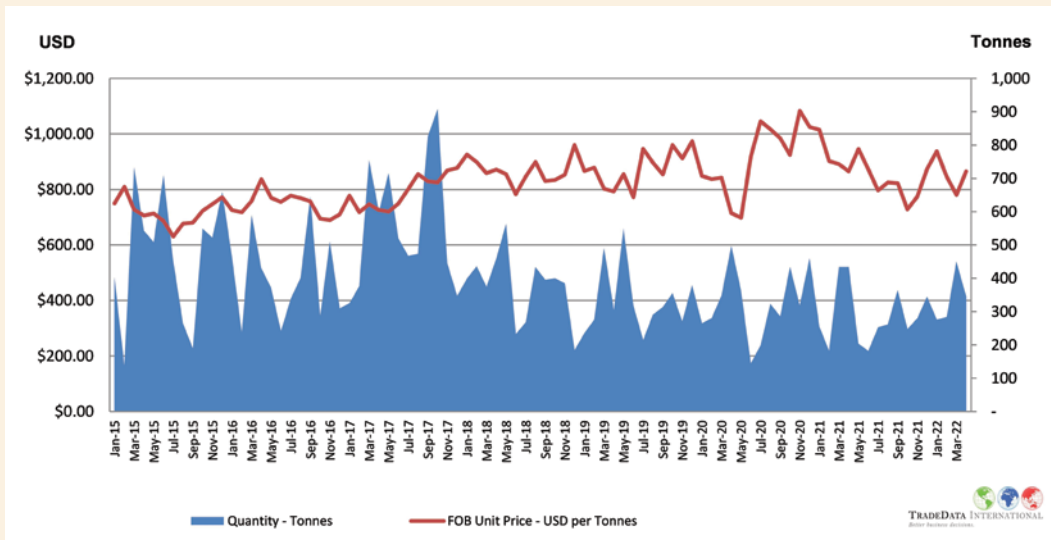
We also see the same trends in export prices from Belgium and the Netherlands for the export trade data PNZ purchase as per graph below for exports to all countries. Latest month export price breaks through USD \$900 per tonne and note that sales volume is also strong returning to pre-pandemic levels if not slightly greater.

Exports of cooked potatoes (frozen) from the Netherlands and Belgium to the top 20 markets outside the European Union



In terms of exports from the Netherlands and Belgium to New Zealand we are yet to see the same increase in export price.

Exports of cooked potatoes (frozen) from the Netherlands and Belgium to New Zealand



Sales to Australia from the Netherlands and Belgium are also very strong latest quarter +33% on year ago at an export price premium latest month.

Insights and inquiries on annual NZ frozen potato imports and exports

- Imports dominated by Australia but with the emergence of Belgium, USA and the Netherlands taking market share since 2012/13.
- Exports again dominated by Australia and have recently suffered in the Covid era with good growth prior from emerging markets
- Note that China exports had a good spike in 2018. What was the opportunity and does it still exist?
- Does the decline in historically stronger export markets that have weakened over the period represent an opportunity today, particularly in light of the challenges faced by other exporters to the Asia Pacific region in terms of supply chain disruption? These markets include:
 - Japan
 - Papua New Guinea
 - French Polynesia ●



2022 Potatoes NZ Conference postponed



It is with disappointment that Potatoes NZ has made the difficult decision to postpone this year's conference.

Several factors indicate that running the event at this time is not in the best interests of our growers or our team.



The next Potatoes NZ Conference will take place in 2023 with the dates to be announced in the new year.

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LISTENING TO WHAT GROWERS WANT

Antony Heywood : Vegetables New Zealand Inc. general manager

Vegetables New Zealand Inc (VNZI), working with Potatoes NZ, Onions NZ and Horticulture New Zealand, is undertaking work to get to the nub of grower issues and concerns.

The project, called Vegetable Sector Policy Strategy, aims to:

- 1 Engage with stakeholders on grower issues and what needs to be done to address these issues
- 2 Develop a strategy to address the issues, linked to a communications plan
- 3 Undertake a stocktake of evidence and research to support the strategy and communications
- 4 Conduct a gap analysis to identify the new research or evidence gathering that needs to be done to support the strategy and communications plan.

James Morrison has been commissioned to develop the strategy and uncover the root causes of the issues facing growers. Once problem definition has been completed, a framework will be required to deliver beneficial grower-based outcomes. Grower interviews have developed four areas of work for the framework to capture:

1. Engagement with internal stakeholder framework
2. Engagement with external stakeholder framework
3. Developing objective policy analysis
4. Managing vegetable sector data.

Under each area will be a body of work to build confidence in the framework, and then for that framework to deliver to the communications plan.

Underpinning the framework will be plausible data or evidence to support policy positions. If there is not a plausible data set, resource will be developed to fill this data gap.



James Morrison is an agriculture consultant with more than 20 years' experience in advising agriculture and horticulture businesses

The desired outcome of the work will be to build a vegetable sector that has a credible and honest reputation in the policy environment.

Progress to date and what's next

James will complete his report by the end of July, with sector groups looking to implement the recommendations by August.

It is hoped the framework will start to deliver on its outcomes by the end of August. The final product will form a communications plan that the industry can use as part of a manifesto leading into next year's General Election.

The Vegetable Sector Policy Strategy framework will be an enduring resource, through which all vegetable stakeholders get benefit from a planned, consistent and resourced approach to policy action. ●

If you would like to give feedback into this body of work, please email me: **antony.heywood@freshvegetables.co.nz**

Vegetable Sector Policy Strategy - action plan



Engage with internal stakeholders

- Agree on policy framework
- Agree on policy priorities
- Inform with objective analysis



Engage with external stakeholders

- Consult with related parties on mutual objectives
- Engage with policy makers to form relationships
- Formal submissions
- Support policy positions with robust evidence



Develop objective policy analysis

- Build reputation as an honest broker for vegetable policy and communication
- Allocate resources appropriately to policy priorities



Manage vegetable sector data

- Develop a common information systems platform
- Manage / curate accurate, reliable data



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BAYER VEGETABLE SEEDS TEAM BRINGING GLOBAL INNOVATION TO NEW ZEALAND CORN INDUSTRY



The Bayer Vegetable Seeds team in New Zealand have been working hard on field trial work to bring our sweet corn growers the key new varieties they need for improved taste and yield that are ready for our growing conditions.

It has been a long journey as most screening trials are in the vegetable seed industry. It started with a single small-scale trial that included five of our new Sweet Corn varieties. The initial trial was undertaken in Hastings where assessments/data collection occurred at the end of the 2017 season. Acceleration and SV1446SD were top performers early on and clearly showed high yield potential, high factory recovery. Furthermore, delivering eating quality suitable for both processing and fresh market.

Prior to that a long-term strategic decision was made to commence parent and commercial seed in New Zealand and Australia for both markets. Ensuring local seed supply became critical for local growers given the changes the USDA made regarding high plains field inspections and laboratory tests. This better enables the team to reduce the lead times and provide greater control over seed supply by providing seed produced, cleaned and packed in New Zealand every year.

Working closely with Kendell Hellewell, Bayer US Vegetables R&D, Seminis Sweet Corn Breeder, we were able to select varieties from the US portfolio that would be dual purpose, fit for processing and fresh market.

In 2018-2019 season, these products were further put to the test in Hawkes Bay in a medium-scale trial on a growers' properties. Proving successful once again, this was then extended to more trials on the properties of additional growers in Gisborne.

To gain more insight into suitability for processing and to refine the planting window, trials were extended in the 2020-2021 season to more growers in the South Island.

2021 saw the launch of SV1446SD and Acceleration following excellent feedback from growers.

Pictured on the left is one of our growers Andrew Kogtenko from Heinz Watties with our Market Development Specialist, Nathan Gorter-Smith.

"It has been fantastic to see the whole process from production, screening, large scale trials and finally going commercial with SV1446SD and Acceleration in New Zealand. The local production of these varieties significantly reduces the risk of not being able to import seed from the USA due to high plains virus. The last thing we want is to leave our growers short on supply and this local production really helps them with continuity of supply," Nathan said.

Nathan also said, "We are looking forward to undertaking screening on four new varieties this year which hopefully will suit New Zealand growing conditions so we can further expand our offering to our growers."

Our recently built cool store at our Pukekohe site helps us with seed storage and better control around supply, giving growers more flexibility of when they want to purchase the seed. ●

If you would like to find out more get in touch with your local reseller or your Bayer Vegetable Seeds Regional Business Manager: Nick Williams on +64 21 961 707, email nick.williams@bayer.com or visit www.vegetables.bayer.com





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Enza Zaden are proud to sponsor the Rural Support Trust BBQ, 4:30 to 6.30pm, 28 September, in Puni, all growers are invited. The Rural Support Trust helps rural people when times are tough. Helpline number 0800 787 254.

**Rural Support**