

# NZGROWER<sup>®</sup>

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HORTICULTURE NEW ZEALAND

## PUKEKOHE FOCUS

PAGES 30-35



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FOR AGRITECH

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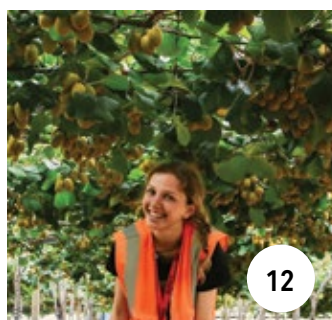
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Planting (drilling) onion seeds in Pukekohe, see page 32. Photo by Trefor Ward.

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# WHAT'S GOING TO BE INVOLVED IN GROWING NEW ZEALAND?



Words by Barry O'Neil, President : Horticulture New Zealand

**If anyone had told me at Christmas that within a few months a tiny silent virus would bring the world to its knees and that six months later 15 million people would be infected and 600,000 dead, I would have thought they were doomsayers.**

While large numbers roll off our tongues very easily, when you stop to think about the magnitude of these numbers it is truly staggering!

New Zealand did a fantastic job getting on top of the virus and absolutely squashing that curve, but then Kiwis started to realise the challenges that lay ahead, starting with a million of our residents and citizens visiting or living overseas, many of whom are wanting to come home. Our success beating Covid-19 was in no small part due to us working together as a team of five million, and we should be very proud of that, but we were also helped by being a tiny isolated nation at the bottom of the world. But being isolated is also potentially going to be one of our greatest challenges – how can we stay connected to the rest of the world when many other countries we trade and communicate with have not been so lucky in controlling Covid-19?

New Zealand must stay connected to the rest of the world to maintain its social and economic advantages – we export 80% of the food we

produce, we are reliant on overseas skills and labour, overseas advanced technologies, vehicles and machinery, fuel, and so on. We are part of this world, and we can no longer survive for long periods disconnected from our global context.

Resulting from a huge spend from the Covid stimulus and recovery package, every single Kiwi whether one year old or 100, will have a \$40,000 debt that will have to be paid back. It's not fair for the country to burden our future generations with the \$200 billion of public debt that has now been created.

We must use the Covid recovery investment and opportunity to drive an economic recovery that is focused on the food and fibre sector that will be more environmentally sustainable, and that is more connected to our communities with employment and support.

The United Kingdom has more or less the same land area as New Zealand but produces twice the amount of food that we do – nearly 60 million tonnes compared to us at just under 30 million tonnes. But in an environment where we are trying to increase value not volume, and where we are also taking bold steps to address our polluted waterways as well as climate change, how can we also increase our productivity?

Our twelve highest farmgate values created per hectare are actually from horticulture – different types of fruit and vegetable production are

at the top, with dairy only coming in at thirteen, and beef and lamb the lowest value per hectare of all farming activity. But when we consider export values, dairy is still miles ahead with over \$18 billion, sheep and beef at \$10 billion, and horticulture comes in at just over \$6 billion if we include wine. That is because pastoral farming utilises over 10 million hectares, whereas horticulture including viticulture only utilises around 150,000 hectares – think about the potential that exists here to convert over 1 million hectares of land suitable to horticulture that is currently being farmed pastorally.

Horticulture not only creates the highest land use economy and employment, but is also very much more environmentally sustainable compared to other sectors – and yes we are fortunate that we don't have issues like methane gasses, urine leaching, pasture pugging, or animal welfare challenges to deal with. Of the challenges we did or do have, significant progress has been and will continue to be made so that horticulture will be one of the earliest sectors to meet the government's carbon neutral conditions along with freshwater management outcomes.

But while horticulture has a major and leading part to play in our economic, social, and environmental recovery, that's not saying it's going to be easy, and the next few years are going to be a very challenging time for many of us.



Many sectors are currently struggling or will soon struggle to get products to market, especially if airfreight is involved, and consumers internationally with reduced incomes will be more pragmatic about what food is put into their supermarket trolley (but will hopefully still be prepared to pay premiums for natural, safe, great tasting fruit and veggies grown sustainably). Significant labour shortages will occur, even in a situation with record Kiwi unemployment, which will hit the sector hard. Tourism and hospitality with the associated food and beverage spend will for some time be just a fraction of pre-Covid levels, both in New Zealand and internationally. And on and on the reality of Covid recovery goes...!

“  
**Horticulture not only creates the highest land use economy and employment, but is also very much more environmentally sustainable compared to other sectors**

We must face the hard questions of what we need to do to get through this – not avoiding what is right to do. It's great that our chief executives have started this by aligning their

efforts to produce a recovery strategy for the horticulture sector, and it's very good to see the Ministry for Primary Industries and the government also supporting horticulture in the Fit for a Better World initiative.

We of course do not have all the solutions yet, but aligning our efforts, resources, and skills will be key as we face these big challenges. We would be doing our growers a huge disservice if the horticulture leadership groups did not work closely together to align their efforts. In so doing we need to rethink our current fragmented arrangements. Also, at times, there is a perception that Horticulture New Zealand is on one side and 21 product groups on the other – surely we can do better than this...!

In acknowledging there will be harder times ahead, the HortNZ board has cut back the budget and any new expenditure has been put on hold until we can get a better feel for where we are heading. A small part of this cut-back is directors of HortNZ taking a 20% reduction of their fees for six months, and our chief executive Mike Chapman has also reduced his salary, and my thanks to them for the leadership shown here.

Horticulture will grow through this, but only if we challenge ourselves hard as to what future success involves and then work together to achieve it. ●

# NZGROWER

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# COVID-19 HAS CHANGED THE WORLD



Words by Mike Chapman, Chief Executive : Horticulture New Zealand

## The world has changed and probably forever.

Before Covid-19 we lived in a global world where there were few restrictions on travel. There was labour mobility across the world and our integrated global supply chains operated without the restrictions we now face. Covid-19 has created two very significant challenges (among many others) for the horticulture industry: a lack of airfreight capacity and massive restrictions on seasonal worker mobility. The way forward, the solutions, are not easy to work out. These are new problems and they are subject to the ever changing Covid situation.

As we went into Covid lockdown, the New Zealand horticulture chief executives and business managers met daily with the Ministry for Primary Industries (MPI) to solve the multitude of problems and to work out the best way forward for horticulture. This worked well and heralded a new era of working with MPI. We worked as a team and not as separate organisations, one being the government and the other being our collective horticulture industry.

It was our MPI representative who recommended that we have a joint government and horticulture workshop to work out a Covid Recovery Strategy for Horticulture. In fast order this was developed and the Minister launched it on 16 July 2020. It has eleven workstreams that cover everything that makes horticulture a success - and everything that we need to keep making horticulture a success.

The founding principle is that for horticulture to lead in our country's Covid recovery there needs to be a new partnership developed with the government: **industry led, government enabled.**

“

**How we did business pre-Covid will not be enough. We cannot operate as separate entities.**

We need to operate together as one to develop the support and programmes needed for sustained growth, and most importantly for feeding New Zealand and the world fresh and healthy food. It is **how** we work together that will make the necessary difference.

Our workshop identified the following principles to achieve this:

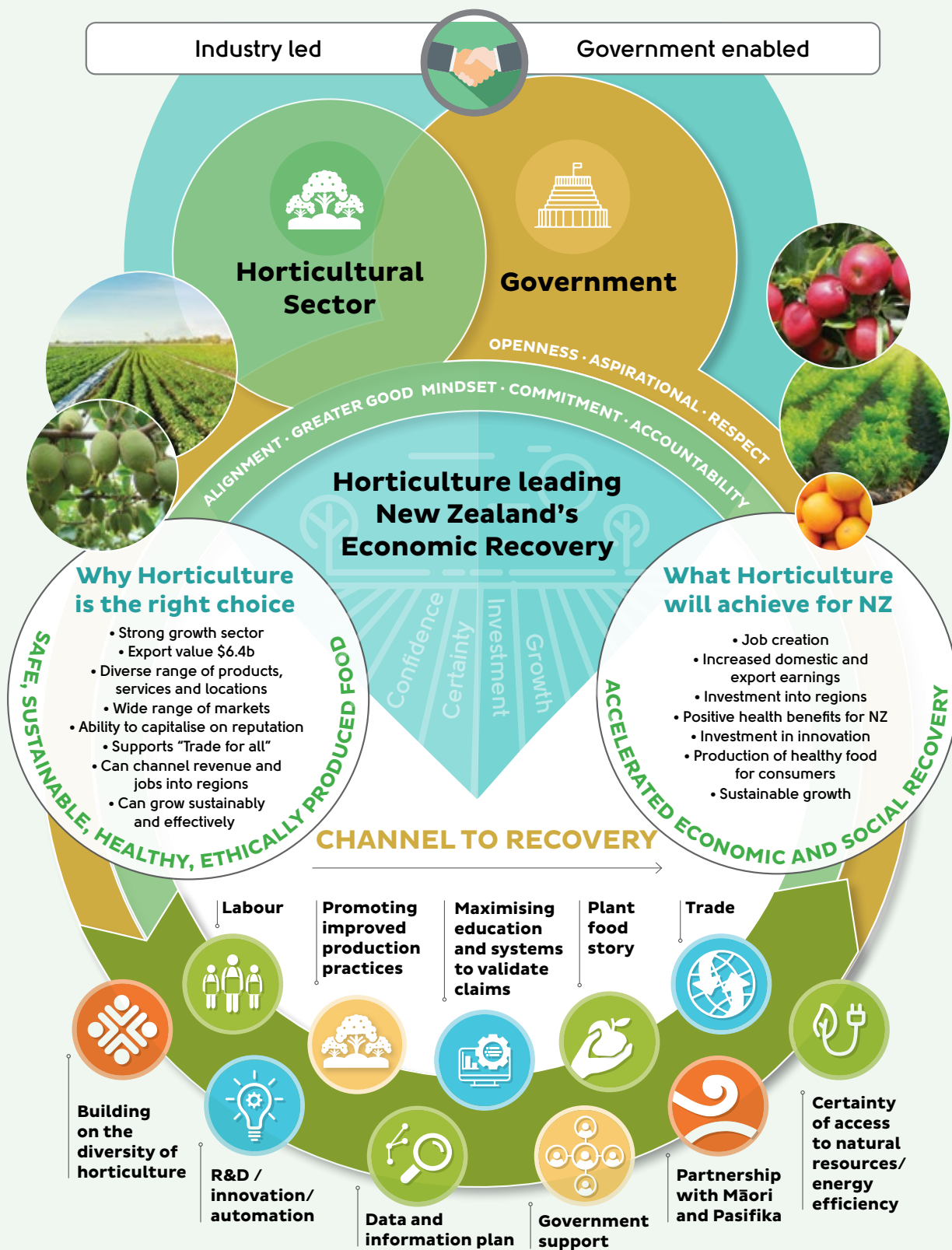
- Respect
- Focus
- Openness
- Aspirational
- Cohesive
- “Greater Good” Mindset
- Honest and Transparent.

Workstream One is focused on labour. We have put together a team from industry, iwi and government with representatives from the Ministry of Business, Innovation and Employment (MBIE), Ministry of Social Development (MSD) and MPI. It has dual focus on both seasonal and permanent labour, and career development and attraction of New Zealanders to meet our labour needs. It links into our career progression manager network. See page 13 for a one-page explanation of those involved in this network and what they do. Through this workstream we are looking to expand and further resource this network. A further key part of this workstream, which is now fully underway, is how to meet the coming season's labour challenge for harvest and pruning.

Workstream Six is focused on trade, and Workstream Seven on government support. These workstreams have MPI, New Zealand Trade and Enterprise (NZTE) and the Ministry of Foreign Affairs and Trade (MFAT) as members. The focus is on the most valuable Free Trade Agreements, removal of market access barriers and new trade and enterprise partnerships.



# Horticulture Post-Covid Recovery strategy





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**We have collectively set ourselves the challenge to make a real contribution to New Zealand’s Covid recovery and put in place the plan to do this.**

The trade workstream leads into the government workstream that brings together all the other workstreams, that goes to the core of what inhibits the growth of horticulture: removing unnecessary regulatory and policy barriers. This will not be easy but is a critical requirement as we go forward. It is only appropriate that we work to lessen the compliance workload.

**Horticulture New Zealand**  
**Notice of the 15<sup>th</sup> Annual General Meeting**  
**Friday 25 September 2020 at 12.30pm (Zoom available)**  
**Pukekohe Indian Centre, Pukekohe**

**Business**

- 1 Welcome and Apologies
- 2 Voting and Proxies
- 3 Obituaries
- 4 Approve Minutes of the 14th AGM
- 5 President’s and Chief Executive’s Report on HortNZ’s Activities
- 6 Approve Audited Financial Statements for year ended 31 March 2020
- 7 Levy Rate
- 8 Director Remuneration
- 9 Approve 2020/21 Budget
- 10 Approve Auditors for 2020/21
- 11 Results of 2020 Director Elections and announcement of Appointed Director
- 12 Notices of Motion
- 13 General Business

**Call for Notices of Motion**

Any Board Member, Affiliated Organisation or Active Grower Member wishing to have a matter considered at the AGM must give notice in writing to the Chief Executive of Horticulture New Zealand of the notice of motion no later than Friday, 7 August 2020 at 5.00pm. Notices should include the wording of the motion to be voted on and up to one A4 page of explanatory notes. Notices of motions will be listed on HortNZ’s website [www.hortnz.co.nz](http://www.hortnz.co.nz) on 14 August 2020 and will feature in the HortNZ magazines (September issue).

The eleven workstreams are:

- 1 **Labour** (explained above).
- 2 **Production systems** covering economically and environmentally sustainable production, tools for growers, farm environment plans.
- 3 **Data to support and validate industry claims.**
- 4 **The plant food story** validating claims, consumer insight, provenance, role of healthy food post-Covid and a consistently supporting narrative.
- 5 **Access to natural resources.**
- 6 **Trade** (explained above).
- 7 **Government support** which also includes removing bottlenecks to access modern and alternative crop protection tools, funding and investment, prioritisation of market access, and better government - industry coordination.
- 8 **Partnership with Māori and Pasifika**, integrating Māori and Pasifika economies.
- 9 **Data and information** including data plans, scorecards and dashboards, economic modelling, apps and technology platforms, leverage of knowledge and information.
- 10 **R&D and innovation** aligning with and fast-tracking research entities, opportunities for innovation and technology, fitting with the Horticulture Automation Plan and Agri-Tech Transformation Plan, genetics and breeding, biosecurity, protecting IP.
- 11 **Diversity**, covering small vs large holdings, lifestyle vs business, culture and background, women in horticulture, succession.

We have collectively set ourselves the challenge to make a real contribution to New Zealand’s Covid recovery and put in place the plan to do this.

The full Workshop Report is at [www.hortnz.co.nz](http://www.hortnz.co.nz) and on the previous page is the infographic for the strategy. ●



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# YOUR LEVY AT WORK

INDUSTRY WIDE ISSUES FOR INDUSTRY GOOD

## NATURAL RESOURCES AND ENVIRONMENT



### AIR

#### NESAQ

Horticulture New Zealand is currently reviewing and preparing a submission on proposed changes to the National Environmental Standards for Air Quality (NESAQ). The NESAQ has been in place since 2004 and contains standards for the purpose of setting a minimum level of health protection. The NESAQ:

- includes ambient air quality standards for PM<sub>10</sub> (particulate matter 10 micrometres or less in diameter), carbon monoxide, nitrogen dioxide, sulphur dioxide and ozone
- prohibits activities that discharge significant quantities of dioxins and other toxins into the air
- specifies standards for domestic wood burners.

It mostly affects the management of activities involving burning. It is being updated to include management of PM<sub>2.5</sub> (to reflect better science about health impacts of fine particulates) and meet New Zealand's commitments under the Minamata Convention on Mercury (which entered into force in August 2017).

#### Bay of Plenty Plan Change 13 (PC13)

Agrichemical rules in PC13 in the Bay of Plenty have recently become operative. HortNZ attended mediation late last year and the resolutions reached have now been signed off by the Court. HortNZ, in conjunction with New Zealand Kiwifruit Growers Incorporated (NZKGI), is preparing a summary of the rules for growers.



### WATER

In May, HortNZ welcomed the government's decisions around freshwater, saying they had recognised the importance of horticulture.

"We applaud the government for the pragmatic approach it is taking to meeting the long-term freshwater quality improvements that we all want," said HortNZ chief executive, Mike Chapman.

"For many years, growers have been investing heavily in improving freshwater quality and reducing environmental impact by retiring land, putting in sediment ponds, and using precision irrigation and modern cultivation techniques.

"We feel that today's decisions acknowledge that when it comes to land, water and the environment, growers know how to achieve the outcomes that the government and consumers want, in New Zealand and across the world."

In July, amendments to the Resource Management Act (RMA) saw Freshwater Farm Plans, also known as Farm Environment Plans (FEPs) added to the RMA to achieve freshwater outcomes. **However, it is important to note that these changes do not yet apply.**

Freshwater Farm Plans will become mandatory once detail on how they will be administered is finalised via yet to be developed regulations. These regulations will include timeframes for certification and audit, criteria for the appointment of certifiers and auditors, any fees payable, and content requirements.

HortNZ will engage with Product Groups, Good Agricultural Practice (GAP) schemes and growers, and provide feedback into the development of the regulations.

Growers can create a Farm Environment Plan (FEP) as an extension to their existing GAP system. This option will be further developed to meet the new requirements in a similar way to how GLOBALG.A.P. and NZGAP were developed to meet Food Act requirements. The NZGAP Environment Management System (EMS) add-on already meets the requirements for audited FEPs in several regions, including official recognition in Canterbury.





## LAND

### Proposed exemptions for vegetable production in Pukekohe and Levin

Proposed exemptions in national freshwater policy for vegetable production in Pukekohe and Levin are being consulted on with iwi and hapu. We are expecting the new National Policy Statement for Freshwater Management (NPSFM) and National Environmental Statement for Freshwater Management (NESFM) to be have been gazetted in late July.

### Regional updates

#### Waikato Regional Council Plan Change 1 (PC1)

HortNZ lodged an appeal on PC1 in early July, working closely with the Pukekohe Vegetable Growers Association and a grower sub-committee established 2016. In summary, the appeal is to ensure that commercial vegetable production can continue to operate, with some expansion, while still meeting requirements to improve and enhance water quality. And for the wider horticultural industry, the appeal ensures operation can continue through FEPs audited by GAP schemes.

The deadline for appeals is 14 August but you can only appeal if you submitted directly on the plan change, not through HortNZ. However, the RMA Section 274 / interested parties process is a chance to support or oppose appeals. Anyone who submitted can take part, or anyone who has a greater interest than the general public. The deadline for appeals by interested parties is 20 September.

#### Waikato District Plan Review

HortNZ submitted on the review in October 2019. Hearings have been scheduled to take place across 2020 and into 2021. HortNZ has so far submitted evidence for eight hearings. Hearings on rural topics are scheduled for September 2020 and hearings on zoning are scheduled for early 2021. HortNZ will be submitting evidence in both instances, and is beginning to prepare for rural topic hearings.

#### Hawke's Bay

Submissions on the Tūtaekurī, Ahuriri, Ngaruroro and Karamū (TANK) catchments plan change close on 14 August and HortNZ will be making a submission on behalf of local growers.

HortNZ is developing evidence for the Ngaruroro Water Conservation Order appeal hearing, which is planned for August/September.

#### Horizons Plan Change 2 (PC2)

HortNZ made a submission on PC2 in October 2019. In preparation for the hearing in October 2020, HortNZ has been meeting with growers and attending pre-hearing meetings, and starting to pull together expert evidence to support our position that vegetable growing needs to be recognised and provided for by a fit-for-purpose consent pathway.

#### Marlborough Environment Plan appeal

HortNZ has submitted an appeal on the Proposed Marlborough Environment Plan (PMEP) decision. Our appeal covers the management of sensitive activities, water allocation as well as water quality. The next step for this process will be mediations - these are yet to be scheduled. A summary of the PMEP rules has been prepared and is available on our website.

#### Environment Canterbury Plan Change 7 (PC7)

HortNZ has been working with experts to prepare evidence ahead of the hearing later this year.

#### Otago Regional Council Plan Change 7 (PC7)

HortNZ has made a submission on the Otago Regional Council Water Permit Plan Change - PC7. This process been "called in" by the Minister for the Environment, meaning they are referred to the Environment Court for a decision, and as a result are currently being notified again. HortNZ will continue to be involved and represent grower interests.

#### Central Otago District Council Plan Change 13 appeal withdrawn

In late May, the developer appealing Central Otago District Council's PC13 decided to withdraw their appeal (on the Council's decision to decline the plan change).

In June 2018, HortNZ filed a submission to protect the more than 200ha of summerfruit orchards and packhouses in the area, including 85% of New Zealand's cherry orchards.

PC13 was the developer's proposal to rezone 50ha of rural land outside Cromwell, to create a new urban area that could accommodate up to 900 dwellings. This new area would have bordered existing orchards as well as the Highlands Motorsport Park and Central Motor Speedway.

In total, 417 submissions were received on the plan change, and almost all were in opposition to the proposal. The hearing was held in Cromwell in June 2019, in front of a panel of independent hearing commissioners. HortNZ presented the case on behalf of growers. However, in February 2020, the developer appealed the Council's decision to decline the proposal. ●



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# FARM ENVIRONMENT PLAN UPDATE

Words by Ailsa Robertson

**Freshwater Farm Plans, more commonly known as Farm Environment Plans, were passed as law in July, meaning that they are mandatory and enforceable. However, the details are yet to be worked out, and this will be done through the development of regulations.**

Some key details to be developed through the regulations include: which region, district, or part of New Zealand these requirements apply to; timeframes for implementation, certification, and audit; criteria for the appointment of certifiers and auditors; any fees payable; and further information and content requirements.

In our submission on behalf of growers, Horticulture New Zealand supported the government's intent to maintain and improve freshwater quality. We also stressed how achieving these outcomes will affect growers and what trade-offs will be required, and that the timeframes set for achieving outcomes must be realistic. New Zealand needs to ensure that it can grow enough fresh food to feed itself, and that food prices are reasonable, particularly as climate change begins to bite.

The focus needs to be on planned progressive improvement so we achieve outcomes that reflect values we have for freshwater and wider social, economic, environmental and cultural values.

The new regulation is expected to be developed over the next six to twelve months. HortNZ will engage with Product Groups, Good Agricultural Practice (GAP) schemes and growers, to provide input into the development of the regulations. The process and timing of industry inputs is not yet known.

## **What does this mean for growers?**

The legislation is clear. All horticultural land uses greater than or equal to 5ha will require a Farm Environment Plan (FEP). A 20ha threshold applies for other sectors or a combination of land uses.

If you grow in a region that has a requirement for a Farm Environment Plan through the regional plan, operative or proposed, these regional requirements still apply. It is unknown if or how the new regulations will impact on existing rules and requirements.

If in doubt, start your Farm Environment Plan now. The NZGAP Environmental Management System (EMS) add-on provides a horticulture specific Farm Environment Plan template benchmarked to regional council requirements. The EMS is available as an add-on for all NZGAP, NZGAP-GLOBALG.A.P. Equivalent, and GLOBALG.A.P. certified growers.

## **What support is available?**

Engage with your Product Groups, grower associations, and HortNZ and ask how you can get support to develop your Farm Environment Plan.

Sign up to an FEP workshop and encourage your neighbours to attend.

Workshops are being planned for 2020-21 across the regions. The workshops will step growers through the process to build a Farm Environment Plan using the NZGAP EMS system, from registration to audit. In the workshops we showcase real life examples of growers who have already developed an audited FEP and adopted good and best management practices. It is also an opportunity to meet consultants and advisors who can help you develop your plan.

The first workshops will be held in Auckland and Waikato in August. Details of workshops and locations will be notified through the HortNZ and Product Group newsletters and websites. Future regions include Canterbury, Gisborne and Hawke's Bay. Other regions will be announced in time.

## **What else is coming?**

Climate change emissions are also on the farm planning horizon. By 2025, all farms must have a written plan in place to measure and manage their emissions. For horticulture growers this means reporting your annual nitrogen fertiliser use, and methane emissions if you have animals.

Guidance and tools for growers to meet these requirements are still being developed through He Waka Eke Noa, the primary sector commitment on climate action. HortNZ and Product Groups will be involved in shaping this guidance, and we will continue to communicate with growers as guidance becomes live. ●





# BROWN MARMORATED STINK BUG INTERCEPTIONS DOWN



Words by Anna Rathé

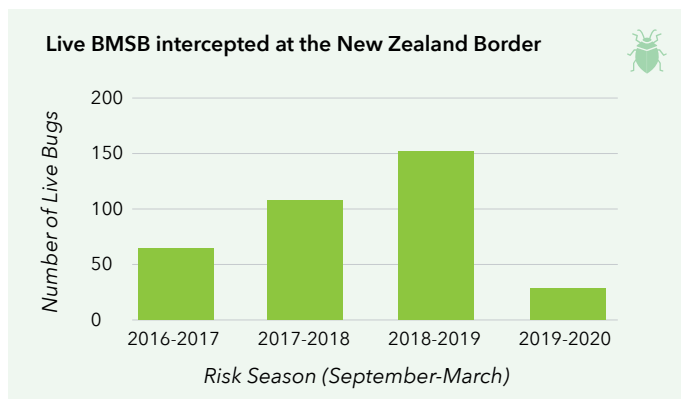
## The exotic brown marmorated stink bug (BMSB) is a hitchhiker pest that poses a serious threat to a many horticultural crops in New Zealand.

BMSB likes to overwinter in confined, dark spaces such as under tree bark, in buildings, vehicles, stacks of cardboard – almost anywhere! This means it can inadvertently be transported to new countries with a wide variety of imported goods and makes risk profiling very difficult. There have been significant efforts to keep BMSB out of New Zealand, which have proven successful to date.

The last stink bug season (September 2019 to April 2020) saw a marked decrease in interceptions of live BMSB, bucking the trend seen in previous years (see Figure 1). There are a range of factors that are likely to have contributed to the successful season:

### Strict biosecurity requirements for imported cargo

Biosecurity New Zealand have introduced mandatory offshore treatment requirements to ensure high-risk goods from countries with established BMSB populations arrive clean. The import rules target vehicles, machinery, and parts from 33 identified risk countries, and all sea containers from Italy during the stink bug season. Biosecurity New Zealand approved systems for new and used vehicles from Japan have also been successful in reducing BMSB finds via the imported vehicles pathway. Quick and decisive responses to high risk BMSB vessels and cargo have meant that New Zealand shipping, importer and logistics industries take new requirements very seriously.



**Figure 1:** Graph showing risk season interceptions of live BMSB at the New Zealand border over the past four years.

### Partnership with Australia

Biosecurity New Zealand has worked closely with Australian officials to develop the offshore BMSB treatment programme over recent years. The scheme aligns most offshore requirements and treatment protocols between both countries for targeted BMSB commodities. Australia and New Zealand also jointly undertook auditing of offshore treatment providers throughout the season to ensure overseas-based facilities met biosecurity requirements.

### Partnership between Biosecurity New Zealand and industry

In New Zealand, the BMSB awareness campaign (jointly funded by industry and Biosecurity New Zealand through the Government Industry Agreement) has also contributed to a successful season with a record number of calls to the pest hotline, a 29% increase on web visits and significant media reach. Industry and Biosecurity New Zealand have also cost-shared a post-border BMSB surveillance programme which was successfully piloted during the 2018-19 season and implemented again last season.

### Global trends

It is also important to consider what is happening with BMSB populations overseas. Anecdotal feedback indicates lower populations of BMSB in parts of the United States, which could have contributed to the lower numbers. It remains uncertain whether this is a seasonal or temporary change. Conversely reports from Europe indicated increased numbers of overwintering BMSB were likely as the summer heatwave will have provided optimal temperatures for multiple generations across wider areas.

### Looking to next season

Despite the promising results from the 2019-20 risk season, even tougher rules will be introduced next season to keep ahead of the threat. Biosecurity New Zealand is looking at adding three new countries to the list of those requiring special measures to send vehicles, machinery, and parts to New Zealand and they are also consulting with industry on plans to extend the current treatment requirements for sea containers from Italy. The Brown Marmorated Stink Bug Council under the Government Industry Agreement (GIA) also has a programme of work underway to ensure New Zealand is collectively prepared to manage the risk posed by BMSB. ●



# GOHORTICULTURE INTERNSHIP PROGRAMME GROWS NEW INDUSTRY TALENT

Words by Hugh Chesterman, Horticulture New Zealand

**GoHorticulture, a horticulture industry initiative to promote careers in horticulture, is expanding its internship programme to develop the next crop of aspiring industry leaders.**

The successful pilot internship programme in Northland last summer set the bar high for this year's nationwide programme. The network of horticulture industry career progression managers is recruiting employers and students for this year's programme across major growing regions from Northland to Central Otago.

The Northland internship programme proved popular with both employers and students. Todd Jackson, general manager of Orangewood Ltd, says he wouldn't hesitate to recommend the internship programme to other businesses. "If you want to take on someone who is incredibly enthusiastic and smart, then I would highly recommend this," Todd says.

“

**The calibre of students in the programme was phenomenal, we couldn't have wished for better. We were stoked with how it went and we want to take on two interns this year.**

"Before it started, we were a bit nervous about how it would work out. Talking to other businesses who took part, we found the calibre of students to be really top notch; the whole experience to be really great.

"It wasn't just us that enjoyed the experience though, but the students had a great time also. We were able to give Marcia a wide range of tasks. She did a bit of everything from setting up a seasonal logistics plan, calculating crop estimates and working with the lab team, as well as doing some hands-on thinning and packing.



Marcia Adams

Marcia Adams, a second-year Bachelor of Agribusiness Food Marketing student, says the internship with Orangewood was an incredible opportunity. "I enjoyed the internship a lot. It was such a great opportunity to learn about what it's like on an orchard - and to travel too!" she says.

"I would definitely recommend the GoHorticulture internship programme to others as you can learn so much from it. It would have been difficult to intern with a company like Orangewood without the programme.

"Orangewood was really great. I was able to learn and worked on all parts of the orchard and business side of things. As well as learning about the processes, I was able to understand why they were doing things and see the final outcome.

"Coming from a South Island sheep and beef farm, it was a great opportunity to see what the horticulture industry is like and learn what goes on behind the scenes on an orchard." ●

If you or your business are enthusiastic about showcasing your industry and supporting the future of horticulture, there are limited places remaining to register. Register your interest at: <https://gohorticulture.co.nz/gohort-employer-registration/>



# HORTICULTURE CAREER PROGRESSION MANAGERS

## TE ARA MAHI

A dedicated team on the ground across New Zealand connecting workers with employers in the horticulture sector.

### WHO WE ARE

A network of six managers working across New Zealand to increase the number of people pursuing careers in horticulture, so the industry can continue to grow and prosper.

Our locations



### HOW WE WORK

Our chief role is to link work ready people with horticulture employers, by acting as the interface between people, our industry, schools and tertiary education and training providers, and government agencies.

#### We promote horticulture careers

by getting young people at secondary school or people already in the workforce to see potential in our diverse and vibrant industry.

**We help young people decide** on the training that is right for them and work out their training pathway.

**We help young people find** the right employer for them – employers who can offer on-job training and career mentoring.

**We work with employers,** helping them anticipate and meet skill needs, and provide them with work ready people.

**We work with schools and tertiary education and training providers** so that they meet our industry's needs by staying up to date with requirements.



### WHAT WE WILL ACHIEVE

The right people for the right job – a work force with the right training and attitude, advancing their horticulture careers and our industry.

To contact a Career Progression Manager, please email: [GoHorticulture@hortnz.co.nz](mailto:GoHorticulture@hortnz.co.nz)

[www.gohorticulture.co.nz](http://www.gohorticulture.co.nz)

The Career Progression Manager network is supported with funding from the Government's Provincial Growth Fund and the New Zealand Fruitgrowers Charitable Trust.





# ATTRACTING THE NEXT GENERATION

Words by Anne Hardie



Steve Thomas with kiwifruit supervisor Aaron Finlay

## The one thing that can't be taught to employees is attitude, so it's the main criterion for selecting staff for training at Thomas Brothers Orchard near Motueka.

The intergenerational orchard lies at the base of the Takaka Hill where Thomas Brothers runs a diverse operation encompassing 70ha of kiwifruit, 70ha of apples, 2ha of cherries, packhouses and coolstores. Through the apple and kiwifruit harvests they employ up to 330 people and even in winter there's 120 staff including permanent, semi-permanent and RSE (Recognised Seasonal Employer) scheme workers.

To date the orchard has sourced staff, especially for seasonal work, from those who turn up at the gate or have heard through word of mouth that jobs are available. Long-term staff are often picked up from the intakes around thinning each year, fresh to the industry and looking for a basic job in between long-term jobs. Those that stay are the ones that begin taking an interest in the work and asking questions. If they have the right attitude, they will be given permanent roles and get in-house training.

It's generally worked and staff turnover is low, but Steve Thomas has always wanted to work with schools more to attract school leavers into the industry as a career. He has visited the local high school in the past to talk to horticulture classes about the industry, and though there has been interest, more was needed to link their aspirations and needs with a clear career pathway.

Now Horticulture New Zealand has career progression managers in the regions to do just that, and Steve says that provides the missing link between schools and industry.

"It's necessary with the growth in the industry, and without those positions in place there will be issues with the ageing workforce."

In the Nelson-Tasman region, career progression manager Robyn Patterson says schools have been overwhelmingly positive about connecting with the industry now there are designated coordinators, and they want to include external learning in their courses. She says schools and students are starting to realise that the horticulture industry is not just about picking apples and is not just a subject for easy credits at school. It offers a multitude of career opportunities that can revolve around technology, marketing and research as well as trade jobs. Connecting with the schools and students, coordinators can then point them in the direction of the GoHorticulture website which provides information about careers and training as well as profiles of young people working in horticulture and jobs on offer.

On the orchard, Steve hopes it leads to more young people seeking a career, knowing they can join the apprenticeship programme and get in-house training to help them progress up the career ladder.

"Staff are the absolute critical factor and your key staff need to be trained and trustworthy," he says. "It's attitude we look for from the beginning because it's the one thing that can't be taught."

Those with the right attitude are encouraged into the apprenticeship programme and further in-house training into roles in quality control and as orchard supervisors. This year they have five staff enrolled with the Primary ITO horticulture apprenticeship programme. The business pays students for the time they spend at class which is a couple of hours per month, plus half the course fee, with the remainder paid once the student passes the course.

“

**Staff are the absolute critical factor and your key staff need to be trained and trustworthy," Steve says**

Though they have a low staff turnover, Steve says it is critical to do the work now to attract the next generation into the industry with its ageing workforce. For that reason, the business will be staying connected with the school initiative to provide real experiences with horticulture to encourage students to view it as a potential career. ●



# GAP, SAFETY AND TECHNOLOGY



Words by Damien Farrelly, Horticulture New Zealand

**Good Agricultural Practice (GAP) audits were considered an essential service under Covid-19 lockdown to ensure the continued assurance of safe and sustainable production of fruit and vegetables so GAP schemes, auditors and growers had to adapt quickly to the new operating environment.**

So, what did lockdown mean for GAP?

**Temporary rules during lockdown:** Both NZGAP and GLOBALG.A.P. established temporary rules to enable the extension of audits and certificates by up to six months given the safety risks and disruption that Covid-19 presented. GAP schemes had to navigate complicated and sometimes contradictory requirements during lockdown – primarily NZ Food Safety prohibiting on-site Food Act verifications, while the Global Food Safety Initiative (GFSI) did not recognise remote audits. This put growers, GAP schemes, and auditors between a rock and a hard place. However a combination of extensions, off-site audits, and remote auditing delivered the desired outcomes in a safe, acceptable and credible manner.

**Certification processes:** Many NZGAP certification processes and systems were already delivered using technology, but the swift move to Level 4 lockdown meant a complete move online was required and attained within days. This allowed grower registrations and certifications to be processed remotely, so they could continue to supply their solitary supermarket option during Level 4. The result is a lasting streamlined registration and renewal process which is now completely online, electronic delivery of certificates via email, and automation of many bulk administrative processes. Growers now have both electronic and paper options going forward.

**Remote Audits:** Both NZGAP and GLOBALG.A.P. developed and launched temporary rules and processes for off-site audits (record checks) and remote audits (interview and visual evidence of implementation). As GFSI do not yet accept remote audits, the 'GLOBALG.A.P. Remote' option was not available to New Zealand growers, however some NZGAP audits were completed remotely during lockdown where requested by growers. Papakura based tomato grower Anthony Tringham was the first

grower to be remotely audited. He said the process went incredibly smoothly: "The auditor interview was quicker than a regular audit while covering all the necessary checks. What would typically be a three-hour face-to-face meeting took less than an hour virtually." Plus, in the context of Covid-19, there's a massive reduction in risk by not having someone visit.

**Looking to the future:** NZGAP's focus has moved back to pre-Covid-19 priorities including implementation of the Social Practice add-on, Contractor Standard, and Environment Management System (EMS) add-on.

We are continuing to build a modular assurance system that will minimise compliance costs, focus on outcomes, and deliver value for all growers. Covid-19 has fast tracked the development of a credible yet affordable entry level certification for groups of small growers, similar to the existing grower group model. A pilot has been successful so we want to make this option available to more growers over the coming months.

NZGAP and GLOBALG.A.P. are also looking to the future of certification and assurance using technology, including the long-term adoption of off-site and remote audit technologies. However, while there is an on-site audit time saving for growers, the overall time (and therefore cost) of audits is not likely to be impacted significantly. We are also mindful that not everyone has the technology, broadband or inclination for online systems so we will continue to provide paper options.

Technology also has an important role to play in supporting decision making, identifying issues, observing trends, demonstrating progress, and improving trust in grower practices and the GAP system as a whole and GLOBALG.A.P., NZGAP and industry stakeholders will continue to work on the adoption of technology (where sensible). The aim will be to integrate (rather than duplicate) tools and systems, similar to the way GAP schemes integrate multiple market and regulatory requirements into one accessible system for growers. ●

For further details visit the NZGAP website: [www.nzgap.co.nz](http://www.nzgap.co.nz), contact NZGAP on [nzgap@hortnz.co.nz](mailto:nzgap@hortnz.co.nz) or phone 04 470 5867.



# DIFFERENT RULES CREATE CONCERN

Words by Glenys Christian

## Independent fruit and vegetable retailers found regulations confusing during the Level 4 lockdown with some able to remain trading as supermarkets were, and others not.

Auckland greengrocer Jack Lum was forced to close its doors in late March despite making preparations to trade as an essential service and being able to do so for two days.

Mike Lum, the son of the owner, who has worked full-time in the Remuera business for the last 37 years, said they had expected a police visit and believed they had the necessary social distancing and hygiene practices in place. Initially they were told they were doing everything right, but that all changed two days later when on a second visit the store was told to close immediately.

“

**We had to get rid of everything,” he says.**

There was no talk of independent retailers banding together despite Jack Lum’s gaining the support of local Member of Parliament, ACT leader, David Seymour. He said it was a matter of equity with the government failing to give clear directions or rules.

“We don’t have a lot of clout and our margins are very fine,” Mike says.

Stock which was on hand at the store was wholesaled at a substantial discount to another independent fruit and vegetable retailer who was able to remain open and the shop closed its doors. The business received the first

government subsidy and so was able to pay staff over the 12-week period for which it lasted. That was topped up once the eligibility period finished and now after reopening on May 23 some of the ten staff are taking holidays or working minimal hours, while still grateful to be employed.

Business is nowhere near normal with sales volumes still estimated at 30% down.



“We’re not doing the turnover,” Mike says.

“And we don’t know what the outlook is. The Saturday we reopened we expected it would be like a long weekend, but it wasn’t.”

While some customers said they missed the shop being open, he believes a number have switched to online purchasing of fruit and vegetables or delivery of meal kits.

“We can weather just about anything, but we don’t want to be banging our heads against a brick wall,” he adds.

His hope is that with warmer spring weather people will be entertaining at home more, and fruit and vegetable sales volumes will increase substantially.

Fruit World, which has been trading for almost 20 years, has 23 franchised stores from Silverdale, north of Auckland, down to Hamilton. While some specialise in fresh produce, others also stock bread and milk and a number of grocery lines, which

allowed them to stay open during Level 4 lockdown. Financial controller, Lindsay Hotham, says the distinction drawn between supermarkets and independent fruit and vegetable retailers meant the company needed to have “all sorts of discussions” with the Ministry for Primary Industries (MPI) at the beginning of the Level 4 lockdown.

“There was quite a lot of confusion,” he says.

The police had tried to close down some of their franchises, but phone calls to MPI resulted in those which sold milk, bread and grocery items being able to stay open.

“That caused quite a lot of concern.”

Once they were able to operate, some staff didn’t want to work so those stores were unable to open. And some staff wanted to wear masks which in some instances managers were not keen on, fearing this might scare off customers.

“Things came right in the end, but it was a concern at the time.”

One store had its cooler break down whilst it was forced to stay shut because it operates out of a shopping centre which was completely closed, with the carpark padlocked off. While under normal conditions that stock would be able to be sold, the matter had to be settled by way of an insurance claim by the franchise owner.

Lesley Hotham says the result of the lockdown period was that some stores reported higher sales and some lower. But Level 4 restrictions were generally positive as with restaurants closed, customers were buying more fruit and vegetables to prepare meals at home. And while they would usually travel to dine at restaurants in different parts of Auckland, over lockdown they shopped locally.

However, he believes the landscape might have changed when it comes to consumers’ buying habits, as those who had relied on online purchasing might not return to shopping in store as they had previously. ●



# HORT NZ PLEA TO GOVERNMENT

**Horticulture New Zealand requested recognition of independent fruit and vegetable retailers as essential services at the end of the first week of Level 4 lockdown on March 31.**

In its submission to the Ministry of Business, Innovation and Employment (MBIE) it said independent fresh fruit and vegetable retailers make up around 20% of the market nationally, which rises to 60% percent in Auckland. It was critical that they were able to operate in order to maintain an adequate supply of affordable fresh fruit and vegetables to all New Zealanders. It was aware even at that early stage of supermarkets not being able to keep up with consumer demand and some overpricing.

“With restaurants and takeaways closed, which have a 26% share in food consumption, supermarkets will need to increase supply by 1.69 times in order to meet demand.”

Hort NZ also argued that the closure of independent fruit and vegetable retailers was adversely affecting lower income households and ethnic communities as they often sold second or third grade produce that didn't meet supermarket specifications, and so were lower priced. Both major supermarket chains said they weren't intending to relax standards to sell lower grade produce, meaning a higher cost to customers who needed to shop there.

The government response was that the more businesses which opened the harder it would be to contain the spread of Covid-19. Fruit and vegetable stores were deemed as non-essential under Level 4 as the products they sold could be bought from supermarkets. ●



## PROCESS VEGETABLES AGM AND BOARD ELECTIONS

**The 2020 Process Vegetables NZ (PVNZ) Annual General Meeting (AGM) will be held from 4pm on Thursday 3 September, at the Crate & Barrell, Leeston, Canterbury.**

Board election results will be announced at the AGM. As part of the AGM, two presentations have been arranged.

First, **Dr Bruce Searle**, a Crop Physiologist at Plant & Food Research, will present on the variabilities of the process pea crop yield.

After that, **Dr Soonie Chng**, a Plant Pathologist at Plant & Food Research, will present on 'what lurks beneath your crops'.



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# PVGA STALWART FAREWELLED

Words by Glenys Christian

**Former Pukekohe Vegetable Growers Association (PVGA) president and life member, Lex Wilcox, has been remembered as a stalwart of growers and an outspoken champion of country of origin labelling.**

He passed away in mid-June and many local growers gathered for his funeral service at the Pukekohe Indian Hall.

Lex was born in 1933 to proud parents Sid and Bell, who had recently bought a Union Road farm which later became the base for what is now AS Wilcox. He attended Feilding Agricultural High School, coming home to help his father, and was followed by brothers Henry then Ross, the company AS Wilcox being formed in 1954. Lex Wilcox married Mary Harper from Onewhero in 1958 and they had two children, Glen and Jan.

Lex was recognised as the driving force behind AS Wilcox, getting the company involved in the export of onions to Japan with neighbour and friend, Stuart Chapman. He was also quick to recognise the benefit of dealing directly with the supermarkets.

He remained managing director of AS Wilcox until 2003 and retired as chairman of the board in 2007. He was a Justice of Peace, rotarian and loved all aspects of rugby, also playing tennis and golf.

Kylie Faulkner, the president of the PVGA, spoke at his funeral saying he was a very charismatic and passionate man.

“

**It seemed to me that Lex lived and breathed vegetables - in particular onions and spuds,” she said.**

The respect he was held in throughout the industry was shown by the attendance of Horticulture New Zealand president, Barry O’Neil.



*Lex Wilcox - lived and breathed vegetables*

Lex joined the PVGA as a young man and served in a range of positions for 40 years. His national representation began in the 1970s when he was first elected to Vegfed’s Potato Division as the Pukekohe delegate. He became chairman of this group then later chairman of the Potatoes Board, and was made a life member of Vegfed. He chaired the Franklin Sustainability Project from 1997 until 2003, continuing to ensure it was adequately funded.

“We will be forever grateful for this work as it truly changed the way we approached growing and farming in our area,” Kylie said.

He was in his element during last year’s PVGA’s centenary, retelling old stories and offering advice to younger growers.

“He wanted to share his love of vegetables with whoever crossed his path.” ●





# COVID-19 BLUES

Words by Elaine Fisher



**The blue harvest was all but over when New Zealand went into Covid-19 Level 4 lockdown in March, but the industry didn't completely escape the impacts of the restrictions.**

"Because of the reduction in passenger flights, on which export fruit goes as cargo, the cost of airfreight tripled in some cases," says Ben Bell, operations manager of Tauranga based BerryCo.

"Fortunately picking of the last of the fruit was permitted as we were classed as an essential service, which meant we could continue to supply the domestic market. However, a lot of airfreight to Asia, Singapore and Thailand in particular got cancelled."

Ben says in New Zealand, most varieties of blueberries are picked between August and January with only a few of BerryCo's growers of late varieties harvesting after lockdown. BerryCo's licensed growers, who between them have around 80ha in the fruit, are mainly in the Bay of Plenty, Northland, Waikato and Gisborne regions.

Dan Peach, chair of Blueberries New Zealand (which has around 100 members), estimates only about 15% of the national blueberry crop was harvested under lockdown.

"In my own case, we were 80% harvested, while other growers had picked up to 95% of their crops," says Dan, of Oakberry Farms Ltd in the Waikato.

"Finding enough airfreight space for blueberries going to Australia was problematic in the first couple of weeks and it got really expensive to send to Asia."

*Left: Dan Peach, of Oakberry Farms Ltd in the Waikato is the chair of Blueberries New Zealand*

*Right: Blueberries growing under cover*

During the initial days of Level 4 lockdown Dan says many growers reported a drop in the number of staff reporting to work.

“

**Once people could see that safety protocols were in place for hygiene and contact tracing, most felt more comfortable about going to work.**

Dan says many Blueberries New Zealand growers are worried about the future impacts of Covid-19 on their businesses. "While there does appear to be some light at the end of the tunnel now, I think the next two to three years could be challenging, including because of the increase in the number of hectares planted in blueberries and the rising cost of labour."

However, Dan also says the industry has an advantage in producing a 'superfood' packed with nutrients which health conscious consumers are seeking.

"Anyone producing whole food is in a good space right now, but that's not automatically a licence to print money. Growers need to be smart and able to adapt to new challenges." ●



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# SIGNIFICANT GAINS FROM NEW GROWING SYSTEM



**Whenuapai's Anthony Rakich of Danube Orchards is pleased with the efficiency and productivity gains achieved by changing his strawberry production from traditional in-ground growing to a raised, hydroponic growing system.**

Anthony's family has always grown an area of strawberries alongside their pipfruit and plum blocks. Anthony recalls a photo of his father Arthur as a baby with his mother picking berries in the family's original Henderson orchard.

**"Strawberries have formed the majority of our business for a number of years, with just a small area now in apples and plums," Anthony says.**



*Anthony Rakich and Craig Lamb walk the rows of the table-top strawberry growing system that Anthony installed in 2019*

Danube Orchards supplies the fruit direct to Foodstuffs.

A desire to improve overall efficiencies and lower operating costs led to Anthony investing in a table-top growing system which he sourced from Haygrove in the United Kingdom for one hectare of growing area and 100,000 plants. This compares to the three hectares and 150,000 plants he had previously in traditional mounded in-ground rows.

"It's a two-tier system, two rows about waist height and one row around shoulder height. We were extremely busy last March and April, clearing the in-ground plants and levelling the blocks. Installing the growing tables and all associated irrigation lines, pumps, valves and drippers took longer than I anticipated. I started with two workers helping me and ended up with 10 workers to get to the point of setting out the coir-filled grow bags we get from Fruitfed Supplies and finally planting out the berry plants last June."

The installation project involved PGG Wrightson's Advanced Irrigation Systems (AIS). "The team and I spent weekends laying and digging in the irrigation lines. AIS and Craig Lamb from Fruitfed Supplies worked alongside each other seamlessly to ensure I received the support and supplies needed to get operational."



Anthony's first season with the new system delivered several expected efficiency gains, such as the ease of picking. "My workers loved it. It's a little cooler for the berries, being raised, which reduces disease pressure and also makes it cooler for pickers. The coolness meant we started harvesting about a week later than we would normally have with in-ground, but we kept picking longer than usual, through until late February rather than January."

Many raised growing systems are also under polytunnels, but Anthony's are not. "I'm not trying to get an earlier or later crop. I just wanted to make the job easier and save the annual costs and hassle of ground preparation which was often impacted by weather, either being too dry or wet to work the ground. A consideration of not growing undercover is that rain flushes nutrients through the grow bags, but we analyse nutrients in and out every day, year-round, so can adjust for this."

The evenness of plant growth and improved production per plant are two elements which impressed Anthony with his new system. "Previously, you saw some differences in plant size with variations in soil across the block. Now, with the same nutrients and conditions, the plants are even with production per plant, and every plant is producing the same amount. Although we have a third fewer plants than previously, we were a long way away from our overall

production dropping by a third, and we'll know a lot more for our second season when it gets underway later this year."

Getting to grips with daily plant nutrition and testing routines was made easier with good reference material from Haygrove as well as Craig's product information.

Craig also assisted with a new vertical spray boom to fit Anthony's reconfigured sprayer, now towed by a smaller tractor along the 80-metre-long rows.

"Our family has dealt with FruitFed Supplies since back in the days; the branch was in Henderson and Craig became our rep soon after he joined the company. He's always keen to help with advice and technical information whenever needed."

Danube Orchards continues to be a family business with Anthony's sister Yvonne managing the administration and packhouse, and her son Alex also working for the company. Anthony's father Arthur, age 90, is still active around the property, helping with a range of tasks.

While having already considered the possibility of expanding the area in growing tables, Anthony is focused on setting up for the second season to maximise productivity from every plant. ●

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# GROWING MUSHROOMS DURING A GLOBAL PANDEMIC

Words by Heather Woods



## The technical life of a mushroom and how it's surviving a marketplace shift.

Even though they look like a plant, mushrooms are just like people. They eat food and respire carbon dioxide. And like people, they can be fussy. They need special, climate-controlled conditions to grow well and when things go wrong, like a global pandemic, it can be disastrous.

On the outskirts of Christchurch, grower George Gibb of Greendale Farm is one of only two commercial mushroom growers in the South Island. And he's got his work cut out for him every day of the week. Covid-19 added a layer of complexity unknown to the horticulture industry. It impacted the established growing cycles in place, had the potential to wreak havoc on the working conditions, and lives, of the skilled team managing the crops, and turned a largely stable marketplace into a shaky, unpredictable void.

### From shelf to shelf

Greendale Farm produces white button mushrooms, or Champignons, from their purpose-built growing shed. With seven growing rooms stacked five shelves high, every week the team makes a new batch of compost – and it must be done just right. It will replace a freshly picked crop which, over the last seven weeks, became the mushrooms that are probably on your supermarket shelf today. Add a layer of peat, add mushroom spawn and, well, the cycle goes on.

One of the tricky things about mushrooms is that the very people who work so closely with them can contribute to their demise. People breathe extra carbon dioxide

*Above: There's no such thing as down time for Greendale Farm Owner, George Gibb*

into the growing room, and they add extra heat through body temperature, so a delicate balance of time spent growing versus time spent picking is needed to create a perfect crop of mushrooms. Otherwise, George says, you risk a long, heartbreaking wait watching a problem move through each crop without having the ability to fix it. You simply need to start a new compost, start a new crop cycle, and wait until it's ready."

### The impact of Covid-19

Before lockdown even officially started, a team member (on a work visa) was overseas. It was a stressful experience with flight changes, health risks, and so on, but if she'd missed the deadline, she couldn't have come back – because she wasn't citizen. She'd built a life here and couldn't just go home. The visa issue has been demoralising for staff in similar positions – not knowing if their next visa will be approved. They're good people, paying taxes, doing the right thing, and suddenly everything they've built was up in the air.



**At the end of the day, there's still a demand for those tasty mushies, so they'll keep growing and picking.**





Under normal picking circumstances, there's eight people working in a room. But after a site visit by MPI (Ministry for Primary Industries) and implementing physical distancing rules, the most George was allowed was four people. That meant if a full team was working, they had to pick two rooms at the same time. In the mushroom world, that's a big no-no, due to the increased risk of transferring disease between crops - it puts mushroom hygiene at risk. So while the safety and hygiene of workers took priority, keen eyes were also watching for signs of disease. If mushrooms are established, they can outcompete most things. But mould for example, will grow easily and take root; some mould produces enzymes that kill mushrooms.

### The shifting marketplace

As a food producer, George was allowed to operate at 100% capacity during lockdown - and stopping would have been disastrous. Stoppages require precision planning and even then, it's not worth all the lost overheads. But Covid-19 didn't exactly stop and ask politely. There was a reassuring focus from the government to the public that there would be no food shortages - no one was going to starve. The supermarkets ordered up big

to satisfy their flocking consumers and were suddenly left with extra stock as people stopped going to supermarket when lockdown started. Mushrooms have a very short shelf life; they're perishable. So for the first week of lockdown George and the team picked them, then threw them away. By week two and three, supermarkets picked up, and some fruit and vegetable shops had exemptions to operate, so stock slowly started moving again. But because cafés and restaurants were still shut down, there was no one else in the market. George was hearing people saying, "I can't get this, I can't get that." And he was saying, "I can't sell it."

### The road to recovery

Now, as they navigate Level 1 lockdown, most days are relatively normal, but others can be challenging. Without tourism, cafés aren't as busy, and restaurants, which usually buy higher value and fancier product, have lost their core market. George says, "Secondary product can be sold in bulk and at a discount to restaurants because it doesn't need to be picture perfect if it's being chopped up for a stir fry. And people underestimate how much tourists eat. They're carefree with their money, and most eat out when abroad." Kiwis have to eat too, so the market won't disappear completely.

George's mushrooms are a domestic product. Because of the short shelf life, exporting requires a wide-bodied aircraft running regular, direct routes. And with the aviation industry in turmoil, it's simply not a viable option. But he sees horticulture as providing a stable base for the country. He can't see people losing jobs - especially in his team - and for the moment the mushrooms are producing okay. And despite selling almost all they produce, the market is still incredibly fragile with prices going up and down. But at the end of the day, there's still a demand for those tasty mushies, so they'll keep growing and picking. ●

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# KICKSTARTING THE FOOD AND BEVERAGE INDUSTRY

Words by Anne Hardie



**The Food Factory in Nelson is designed for entrepreneurs in the food and beverage industry to kick-start their business venture by hiring the facilities and getting advice from the voice of experience.**

Founder of Pic's Peanut Butter World, Pic Picot, instigated the idea and helped establish the facility, with the Provincial Growth Fund putting \$778,000 into the \$2.1 million project. A charitable trust was set up to run the facility, employing Brian Olorenshaw as a general manager who guides start-up businesses or those expanding to the next stage.

The facility opened post Covid-19 lockdown with its four commercial kitchens, a presentation kitchen, walk-in chiller, warehouse and staff amenities, which can be hired for a period of time. Olorenshaw likens it to a flatting situation, where flatmates have their own rooms, but share facilities and get together in the smoko room where they bounce ideas around, seek advice and learn from the experience of others.

"People around the table have scar tissue and a few war stories and that's beneficial. None of the problems and challenges are brand-new."

Tenants need to have their own food control plans in place, while people like Brian and the four trustees provide help with the regulatory minefield, marketing strategies, business plans, a food compliance consultant and most

*The Food Factory general manager Brian Olorenshaw*

importantly, contacts who can open doors for them. Pic is one of the trustees, along with former Horticulture New Zealand president, Julian Raine, Fresh Choice Nelson owner Mark A'Court and public relations and communications consultant Debbie Hannan.

Brian says tenants are selected for The Food Factory after their business idea, motivation and skills have been assessed. The reality is, not everyone is going to get a business idea off the ground, he says. One of the criteria for selecting tenants is the timing of their journey, and some need to go away and do the necessary due diligence first. They also need to have the confidence in themselves and their product to drive the business forward.

"They need that entrepreneurial bent really. If they lack confidence in themselves or their product they are going to struggle. And unfortunately the statistics show:

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**OF SMALL BUSINESSES  
CEASE TRADING WITHIN  
FIVE YEARS**

**97%** 

**OF BUSINESSES IN NEW  
ZEALAND ARE SMALL  
BUSINESSES WITH LESS  
THAN 20 EMPLOYEES**

“Small businesses are the lifeblood of the economy, but we have this high rate of not progressing. What we’re trying to do is increase the odds of success by giving them the support and confidence so they won’t be in that bottom statistic. We want them to outgrow this space here and go into bigger and better premises. If they haven’t outgrown the space within two years, they haven’t succeeded.”

Most small food businesses start out at home – Pic Picot began making his now famous peanut butter in his garage – and Brian says it can be a lonely, tough time if there’s no-one to bounce ideas off. The step after that is finding premises, and that can mean landlords locking them into two-year lease agreements. If the business fails halfway through, there’s still the rent to pay. The Food Factory is the bridge to get them to the next step when they are more established and ready to expand. While tenants still pay rent to cover the outgoings of the not-for-profit charitable trust, the timeframe is more flexible.

From opening they have had three longer-term tenants including start-up business Mad Melon, plus Little Beauties which is increasing the scale of its dried fruit business, and organic food deliverer Fresh2U which is an established business also in expansion mode. Businesses can also rent space short term for research and development, or use the presentation kitchen to show product to other people including potential buyers.

All the tenants have taken on staff and Brian says it’s a good example of the Provincial Growth Fund working. Potentially, The Food Factory is a model that could work in other regions as well, though he stresses it needs people like Pic with the vision, passion and understanding of entrepreneurs to drive it.

“**When you get a roomful of entrepreneurs, anything can happen. They tend to spark off each other,”**  
**Brian says**

“Entrepreneurs can see and sense an opportunity and can be very dogmatic about how they achieve or crystallise that. They are very focused on the outcome but invariably don’t see the pitfalls or challenges. Which can be a good thing. Ninety percent of us think about the problems and challenges and don’t do it. Quite often entrepreneurs have other people who will deal with the detail.

“You need that person with the utmost confidence and commitment to overcome hurdles. They don’t run away at the first disaster. They have the laser focus to see it through. Quite often it is not the financial thing that is driving them; it is the thrill of the chase to get a desired outcome.”

The Food Factory, he says, creates a mechanism for their ideas and dreams to come to fruition. ●

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# A PROMISING START FOR MAD MELON

Words by Anne Hardie

**Jamin Brown is in the throes of developing a start-up business for his watermelon juice, Mad Melon, and he says he would struggle without support from The Food Factory.**

The Food Factory is the brainchild of Pic Picot of Pic's Peanut Butter World in Nelson who understands the challenges faced by food and beverage entrepreneurs. He initiated the development of the purpose-built factory with four commercial-grade kitchens, chiller and amenities, plus the guidance to get a new business off the ground or expand to the next level.

For Jamin, the mentoring from The Food Factory has been every bit as important as the premises as he wades through the process of building his own processing facility and establishing markets for his bright red fruit juice.

A joiner by trade, Jamin has a background in the transport industry where he ran a company with several trucks delivering large sheets of imported glass throughout the country, before taking a leap into the food and beverage industry. He had sold the glass delivery business to spend less time on the road and more time with his family near Nelson, and was looking for new opportunities. Watermelon juice popped up as a possibility because he discovered he couldn't buy it, despite the popularity of the fruit. When he investigated the possibilities of producing watermelon juice, there wasn't enough fruit in New Zealand, and though he bought some from a local grower in summer, he needed to look elsewhere for more. Initially he bought fruit from Australia, but problems with methyl bromide and delays in December led to the fruit decaying. So he jumped on a plane to Tonga to check out watermelons there.

**"I was astonished because the first watermelon they gave me was 23kg. And there were watermelon bigger than that."**



*Jamin Brown with his Mad Melon product*

Tonga has the ideal climate – apart from cyclones – for the juicy fruit, which needs a brix level of around 11 and also ten days of sun prior harvesting if you don't want them exploding from the pressure within.

Jamin will continue to use local watermelon in season as well as the Tongan fruit, which will provide the continual supply through the year and also the quantity he needs for the business. Plus, it's a way of providing employment and income for numerous Tongans, as it is largely manual labour.

Several Tongan growers are now growing a combined 6ha of watermelon for Mad Melon. The fruit is shipped to New Zealand where Jamin processes it in, of all things, a former emu meat processing facility that he discovered in nearby Upper Moutere and met food facility criteria.

The end product, he says, is literally a handmade juice. Each watermelon has to have the rind manually removed and Jamin worked with researchers from the Cawthron Institute as well as Massey University to get their processing right so they don't lose any of the fruit. All the by-products have a market – the pulp is sold to a company that uses it in dried fruit bars and ice blocks, the rind ends up in dog biscuits, while the black pips are sold for the oil that can be extracted for use in the pharmaceutical industry.

When The Food Factory opened its doors to budding businesses after the Covid-19 lockdown was lifted, Jamin was eager to grab the opportunity to be part of it. It was exactly what he had been looking for when trying to find



facilities and advice to take the first step. It enabled him to begin bottling watermelon juice to test on the market, and provided much-needed expertise in establishing a small business in the food and beverage industry.

"I don't think I would have done it without the support of The Food Factory. It has been so beneficial and I think they so underestimate themselves. I present an idea and they tell me about the market, supply chain, management and food control plans.

"The best thing I like about The Food Factory is that they have done it. They have lived through the experiences and developed the education system they can pass on."

Logistics however, as well as supply chain management, are areas familiar to Jamin after years organising truckloads of imported glass around the country, and his connections have proved invaluable when organising containers of watermelon from Tonga to Nelson.



One aspect of the new business he thought would be challenging was branding, so he handed the job to his children's school to see what the kids could come up with. The result is vibrant red and lime green labels with a mad scientist theme.

Inside the bottles, Jamin wants to keep the juice as pure as possible without destroying the goodies through UHT (ultra-high temperature) pasteurisation.

The alternative at this stage is achieving an eight-week shelf life at four degrees Celsius, though plans are afoot to move to HPP (high pressure processing) which is a form of cold pasteurisation. HPP is a costly process, to be validated by the Ministry for Primary Industries (MPI), which is one of the reasons there are only a couple of food processors using HPP in the country and why it's part of Jamin's five-year plan rather than next year. Once set up, it could be used for contract processing for other products, which would provide another income stream. Likewise, he plans to contract process apple juice next season.

It's very early days for sales of Mad Melon, especially with several weeks of lockdown delaying progress. But the initial response has been promising. At the Nelson Market's first weekend running after Level 1 restrictions were lifted, and on a cold 10-degree day, Mad Melon averaged a bottle sale every six minutes. The next day at the Motueka Market, a bottle was sold every seven and a half minutes.

He now has contracts to review for 30,000 bottles a month and is on the brink of delivering. In June, with a shell of a building just beginning to gather equipment for his new processing facility, seven staff and considerable money spent to get to that stage, Jamin was the archetypal entrepreneur brimming with ideas and prepared to take a risk. It lines up with his childhood touring the country with the Weber Circus and ensuring the 'Globe of Death' stayed intact as three motorcycles raced around each other. Home schooling was worked around the circus and gypsy fairs, so life was never boring.

Neither is Mad Melon, growing watermelons in Tonga and bottling their juice in this new venture. Even once his own facility is up and running, Jamin plans to continue working with The Food Factory for product development, making use of a commercial kitchen to experiment further. ●



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# VITAL WATER GOING OUT TO SEA

Words by Geoff Lewis : Photographs by Trefor Ward



Vikki and Chris Nicholson

## Dealing with the Covid-19 emergency provided challenges for North Waikato and Pukekohe growers, but access to water remains a daunting and ongoing issue.

Chris and Vikki Nicholson run Hinemoa Quality Producers on a gorgeous piece of rolling landscape overlooking the great westward bend in the Waikato River.

Blessed with highly productive Patumahoe clay loam soil, the 200ha property, with 16ha leased adjoining, has been owned by the Nicholson family since 1945 and was diversified from sheep to cropping in the 1970s, initially growing potatoes and squash. Today onions and potatoes are grown about equally for the domestic and export markets.

As Vikki explains, when Covid-19 hit there was a lot of fear and so many unknowns. The Nicholsons' workforce is made up of a small number of local permanent employees and a group of workers from the Auckland Syrian-Christian community. Generally, this arrangement has worked well. But the speed with which the Covid emergency arrived created immediate challenges.

"In the week leading up to the lockdown we tripled our throughput. Our casual staff opted to stay home and we were meeting our full-timers daily to convince them to come to work. Most of them don't speak English and they were scared. We provide a seven-seater van for staff transport but due to the social-distancing requirements we had to create work bubbles, redistribute our ute fleet and arrange the appropriate travel paperwork so they were classified as essential workers. It was a challenge to keep up with the protocols just to work within the law."

The couple were lucky in having their son Thomas return home from university only the weekend before the Covid lockdown. Their daughter Julia also returned. For the first week of lockdown the family found itself flat out doing the harvesting, sorting and packing, with only a skeleton staff in the packhouse.

Suddenly, many of the independent fruit and vege retailers who took Hinemoa's produce were closed. Restaurants, cafés and fast food outlets closed, reducing demand from the wholesale markets which the business had supplied daily. The Nicholsons were faced with the immediate problem of where to sell a portion of their product - and this raised the question of whether or not to plant the usual volumes of onions and potatoes for the coming season, Vikki explains:

"Chris made the decision to plant. He figured people needed to eat. We were lucky with the weather which was kind to us and allowed us to get the ground work done."

On the upside there was a significant increase in the demand for potatoes and onions through the My Food Bag outlet and more people learning to cook for themselves at home - a lot more produce was being delivered to the door.

"It was a big learning curve. We had meetings every morning. We were visited by the Ministry for Primary Industries (MPI) and audited and checked for our protocols. It was the speed with which it all happened. There was no precursor. People just had to use their common sense.

"Getting hold of PPE (personal protection equipment) was difficult. Even the MPI guy hadn't been issued with any. If we'd had one person turn up in the packhouse sick we would have had to have shut the whole operation down."

In the field the problems of social distancing weren't as intense as workers were basically quarantined in their vehicles and tractors.

“Sanitising became a key thing and we had to rearrange our staffrooms to cater for the workplace bubbles, segregating different groups. This added to the tension as the staffroom is normally a social area where staff can relax and chat.”

Hinemoa reduced from a six-day to a five-day-a-week operation during the Level 4 lockdown, and back to six days when Level 3 arrived.

“It’s all back to normal now. We didn’t lose any staff. They all wanted to come back.

**Now the focus has returned to the struggle for water.**

Hinemoa Quality Producers is in the Waikato District and isn’t subject to the water restrictions in force in the Auckland area only a few kilometres away across the river. However, they rely on irrigation.

Due to the drought conditions their winter catchment storage dam emptied, which was the first time this had happened since it was built in 2009. This brought into sharp focus the ongoing “nonsense” they have endured attempting to establish another catchment dam on the other side of the farm, Vikki says.

“**Without irrigation we wouldn’t survive. We wouldn’t get the yields or the quality because plants need water.**”

Part of the answer is creating more water storage. The property includes a 3ha gully, currently used as run-off for cattle, which they want to dam and turn into another water storage area.



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No such luck. Ten years and more than \$100,000 spent struggling through the Resource Management Act requirements imposed by both the Waikato District Council and the Waikato Regional Council, and still no dam.

“Eighty percent of the rainwater in the catchment is running out to sea. There is demand on the water resource and we need to be looking ahead. We need to ask the question “why are we in this situation with water in Auckland?” This problem has been forecast for a long time.

“We have water, but we have to shift it across the farm. This requires pipes, diesel and labour. It’s all cost. In the heat, plants need irrigation and we need to make sure we have adequate supply. I’m passionate about water storage and I’m not giving up. If we’d been able to build the dam five years ago it would have cost half as much as the current estimated construction costs and we would be sustainable and self-sufficient with our water requirements.” ●



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# PUKEKOHE GROWERS FACE DEVIL IN PLAN CHANGE DETAIL

Words by Geoff Lewis : Photographs by Trefor Ward



**Spanning the Waikato and Auckland boundary, Hira Bhana is a family-run cropping operation which provides fresh vegetables for domestic and export purposes. Crops including onions are exported to the United Kingdom, Germany, Indonesia, Asia, Fiji and to other Pacific islands. Carrots and potatoes are mostly exported to Fiji and neighbouring countries.**

With many other horticultural operations, Hira Bhana has had an unsettled year coping with the Covid-19 emergency and facing mounting concerns around legislation which will impact on the ability of growers to run their businesses.

Bharat Bhana is the director of Hira Bhana, and past president and life member of the Pukekohe Vegetable Growers Association. Bharat said Hira Bhana employs labour all year round, with employees travelling from as far as Mangere and Otahuhu.

“When Covid-19 hit, like all essential businesses in New Zealand, we gave our people the option to come to work or not. We are an essential industry, so we needed to be working.

*Bharat Bhana, director of Hira Bhana*

“There were a lot of people working around the clock to keep the country fed and keep our business going. Some growers took a hit when smaller outlets closed meaning a portion of produce went to waste.”

Bharat said how the coming season would go will depend on what people want to spend money on. “I don’t think we’ve heard the last of Covid-19. At the moment people have free money (government support schemes); when that stops 80,000 workers won’t have a job. Even with interest rates low, we’re not going to be back to normal for a while and we have to pay it back sometime.”

However, larger on the horizon for Bharat Bhana are issues arising from the Waikato Regional Council’s PC1 (Plan Change 1), and the effect it will have on their ability to do what they know how to do – reliably produce food. The PC1 gives effect to the 2014 National Policy Statement on Freshwater Management and a ‘vision and strategy for the Waikato and Waipa river catchments’. It introduces a set of rules to regulate farming activities and control the discharge of nutrients to land and into waterways.

“With the new rules under the Resource Management Act, any rules relating to water have immediate legal effect from the date of notification. Waikato Regional Council date of notification was 22 April 2020.

“Growers, along with Product Groups and Horticulture New Zealand have made submissions and attended hearings to put our concerns forward, but Waikato is still moving forward with the PC1 as notified.”

While growers and farmers were deemed essential industries needed to keep New Zealand fed during the Covid-19 lockdown, it seems the idea has not influenced some of the rules being formulated in PC1, Bhana said. “If these rules are not negotiated with a food security element for ‘NZ Inc,’ then future generations of New Zealanders will be importing vegetables from other countries. Vegetables need elite soils, water throughout growing periods, and a balance of nutrients and trace elements along with warmth to ensure optimal growth. “These are all the things that PC1 is looking to limit so that in the end we will be unable to produce healthy, nutritional vegetables for consumers. We need good soils for rotation and expansion. Growers are already aware of the environmental footprint of their operations and have taken many steps over many years to improve practices.

“Fertiliser and water are a cost to growing vegetables, but using too much fertiliser or water can lead to losses and poor quality product which is not fit for human consumption.

“We now must have consent to be able to crop. These consents range from controlled activity (3.11.4.5), restricted discretionary activity for some wetland catchments (3.11.4b) and discretionary activity - commercial vegetable production (CVP) expansion (3.11.4.8).

“These may be granted for up to 10 years or so. To obtain a consent you must also have a farm plan. These farm plans are required every year. Farm plans are required to get a consent to grow. Major growers often have multiple blocks in different areas; each will need its own farm plan and water consents. When a crop must go into the ground, it must go into the ground. We cannot wait 12 months for a consent. It’s all about how much nitrogen is leaching into the catchment.

“At times during the growing season, it is possible to have adverse weather conditions that can damage the crop. We may have to apply extra nutritional elements to keep that crop healthy to maintain the nutritional value that it should have.

Current Pukekohe Vegetable Growers Association president Kylie Faulkner said growers in the region are feeling the pressure (see page 34). “Under PC1, commercial vegetable growing is no longer a permitted activity, we actually have to get consents (permission) to grow. We are concerned about all the unknowns - how long will it take to get a consent, what will it cost, and how long will the consent last?

“Growers often search out new blocks of land and retire used blocks over periods of time. This is essential to retaining production and is aimed at maintaining the fertility of the land. A lengthy consenting process greatly complicates this, and the time and money spent in legal representation and consultants takes growers time and takes them away from what they’re meant to be doing. It adds to the cost of production, to the cost of food, and reduces competitiveness for those exporting into overseas markets.”

Kylie said the association is working closely with Horticulture New Zealand to appeal points it is concerned about in the Environment Court - the last chapter of a drawn-out process that has so far lasted six years. “The appeals are lodged and then mediation happens. It may take up to a year to even get to the Environment Court. This is frustrating for everyone. We can see many unintended consequences from some of the rulings. One concern is how it may affect the willingness of banks to lend when we need to buy new land.

“There is uncertainty around our ability to rotate land under the rules, how the monitoring and auditing would happen, how long it would take for a consent to be processed. The wording in particular of the Plan Change is something we are checking very carefully. It’s the “devil in the detail.”” ●



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# ONE PROUD PUKEKOHE GROWER

Words by Glenys Christian

**Kylie Faulkner jokes that she's "easily tricked" - first into joining the family business, Sutherland Produce, and more recently into getting involved with the Pukekohe Vegetable Growers Association (PVGA) of which she's just become the first woman president.**

Four years ago, Kylie went to a PVGA meeting and was immediately co-opted on to the organisation's executive.

"They are a great bunch of people with growers' interests at heart and that shows in the supportive businesses they work for."

While this focus was always at the heart of the PVGA, Kylie says its role has changed in recent years due to large changes in environmental policy.

Representation is required on many different bodies, ranging from the Waikato Regional Council's (WRC) Plan Change 1 (PC1) Community Stakeholder Group (CSG) to the Waikato Irrigators' Group and the region's Adverse Events Committee.

Also, because members also grow vegetables in Auckland Council's area, PVGA has representatives on Auckland Council's Rural Advisory Group as well as another more recently set up body looking more specifically at water issues.

Kylie said a new association initiative is strengthening engagement with local iwi, with a number of meetings



*Kylie Faulkner with a lettuce crop at Sutherland Produce*

organised detailing how growers fit with the community and some of the improvements they're making.

Another connection that's very important to her is grower involvement with local schools and kindergartens through grower visits and supplying the pupils with vegetable seeds so they can have a shot at raising their very own vegetables. "I encourage all growers to do it," she says.

In December last year, the PVGA was involved in the Franklin Foodbowl Festival, which showcased crops grown in the area while raising money for a local charity. At the back of many minds is the issue of urban sprawl, with historic decisions allowing the spread of Auckland city closer and closer to good growing land.

"There was poor planning in the past and we hope it doesn't happen in the future," Kylie said.

The association spent a lot of time submitting on both the National Policy Statement on Highly Productive Soils and the

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government's freshwater plans, which she says need to be looked at together. It was satisfying that both the Pukekohe and Horowhenua areas were named as having elite soils. "But the devil is in the detail." See also page 32.

Growers are waiting to see the direction behind the statements already made, especially with their difficulties in working across multiple council regulations. But there's a long process ahead with PC1 only expected to get to the Environment Court by the end of 2021, and a four-year turnaround period expected for Auckland Council to include the new national standards in its district plan.

**“**  
**We could end up with more stringent conditions than with PC1 - we don't know,” she says.**

"It all depends on how it's written and how planners interpret it. Environmental outcomes affect our ability to continue in business and some growers are questioning that. I don't want to be seen as a doomsayer but information is key."

Many growers are already recording what they were doing on their properties but time is a big factor when it comes to compiling this information for farm environment plans.

"Food safety is very important and that's part of the compliance jigsaw puzzle," she says. "People want an assurance that their food is being produced safely and employees are being looked after."

A new initiative of the PVGA's to mark its anniversary is one she's excited about - the scholarship announced at last year's centenary dinner to encourage young people into some of the many career options in horticulture.

"We're trying to show young people horticultural opportunities, but I don't know how well we're getting that across," Kylie says.

"People think it's all working on the ground and harvesting but they forget we need salespeople, accountants and technical support. It's a question of how we get that connection by joining the dots."

Applications will be called for in August and the scholarship criteria have been kept loose in order that a wide variety of pathways are covered such as apprenticeships, university study or research projects.

"We want it to be available to everyone - that's an important part of us moving forward."

And what about a fourth generation of growers in her family? "Well, Ruby wants to be a vet and the boys All Blacks or plumbers like their Dad. Who knows, as I never imagined I would be where I am now." ●

## FIRST UP, A CRISIS

**New Pukekohe Vegetable Growers Association (PVGA) president, Kylie Faulkner says her phone "rang and rang and rang" during the first couple of weeks of the Covid-19 lockdown.**

"It was challenging and stressful," she adds.

Growers didn't know how to deal with some of the requirements for personal protective equipment, sanitisers and social distancing. And that was where some Kiwi ingenuity and thinking outside the square came to the fore. In the case of Sutherland Produce they split their business into two teams so if a member of one became ill the other group could take over.

"Our people were just amazing," Kylie says.

"They got on and did what they needed to, although that changed on a daily basis. They had a purpose."

All growers worked as hard as they could to supply the volumes of vegetables that were required, even though it was difficult to pick buying patterns. Demand at both Easter and Anzac Day were very different to those during these holidays in previous years.

"I'm extremely proud of how growers got stuck in and didn't complain."

Differing rules about which independent fruit and veg stores could open had an effect on some of them, and at others staff chose not to come to work. For those supplying food service companies the closure of restaurants and takeaway outlets as well as the absence of cruise ships to supply hit them hard. But there were also increased opportunities with companies delivering meal kits having a sudden increase in demand.

"People had the time and they exposed themselves to new foods," she says.

"They realised they needed to slow down. It reignited their love of cooking, and I hope we can keep that momentum going."

And it was "awesome" to see some association members getting involved in donating vegetables to Auckland charities. ●





# TONNES OF VEGETABLES PUT ON TABLES

Words by Glenys Christian



## Growers from around Auckland and Northland got together to support those in need over the Covid-19 lockdown period. And their gifts in many cases are still keeping on giving.

For Pukekohe-based growers Hira Bhana, the call came from former All Black, Sir Michael Jones, now the chairperson of The Village Community Services Trust.

"He rang up and asked 'Bro, can we buy some vegetables?' says Woodsy Bhana, one of four brothers and five of the younger generation of the family involved in the business.

Their connection was well established through the company's sponsorship of the Auckland Blues rugby team, dating back seven seasons. More recently they've sponsored the Auckland Mystics netball team. Last year alone he estimates they gave away 24 tonnes at the teams' games, often with non-playing team members handing them out to the crowd.

So Woodsy was quick to say that there would be no charge for the top quality produce he would be able to supply to the trust. Its mission is to support marginalised individuals and groups by providing programmes and services which give them hope and a future by maximising their potential. It focuses particularly on Pasifika and Māori communities.

*South Auckland growers a generous bunch - Woodsy Bhana (centre) with Eroni Clarke and Sir Michael Jones*

"They had been giving out 200 food parcels a week but overnight that went up to 1,000," he says.

So the company quickly organised eight pallets of vegetables to be sent north to the trust's Avondale base, including cabbages, cauliflowers, lettuce and potatoes. Then a further four pallets, this time of potatoes and onions. Put together with mince provided by a west Auckland Pak n' Save store, there were filling meals ready and waiting to be prepared by grateful families.

Other growers were involved as well.

"Everyone realises what the world's been through and we need to support each other. We'll carry on and donate what we can. That's the way it's supposed to be. The south Auckland grower base is great - they're a generous bunch."

Michael says the not-for-profit trust has been giving out food parcels for the last 10 years.

"But the Covid-19 lockdown put a lot of pressure on and demand skyrocketed."

A lot of this came from what he termed the "new vulnerable" who had never had to tap into a food bank before, but now couldn't make ends meet.

"I was thinking of great Kiwis who have a real heart for their community and I immediately contacted the Bhanas.

They were amazing, wonderful. These growers are really playing a massive part in helping the vulnerable. We are so appreciative of their kindness and aroha."

The parcels are delivered by the trust around Auckland, often to families referred to them by schools, social workers and sometimes the police.

"Our mantra was to maximise the reach, optimise the gift and minimise the risk," he explains. "We wanted to keep our volunteers safe and we didn't want 200 people standing in line outside the food bank." So discreet and respectful deliveries were made right to people's homes. And he believes they will be needed for some time yet.

"In crises the most vulnerable are hit first and it takes them the longest to get out. This will be with us for some years. It's a marathon, not a sprint."

One pallet a week of kumara was also supplied to the trust by Dargaville's Delta Produce Cooperative. It made a pledge at the start of the Covid-19 crisis to supply one tonne a week of kumara divided between three different charities; The Village Community Services Trust, Auckland City Mission and the Whangarei branch of the Salvation Army.

General manager Lachie Wilson says the co-op has been supporting good causes for long time, including the local food bank, but stepped up donations as the lockdown took effect.

"People were doing it tough," he says.

Supplying fresh produce from all of the co-op's growers was a good way to help out.

"And it seems as though more will be needed in the upcoming months."



**200 → 1,000**

**THEY HAD BEEN GIVING OUT 200 FOOD PARCELS A WEEK, BUT OVERNIGHT THAT WENT UP TO 1,000**

Another Auckland horticultural business that played its part was T&G Fresh, the local arm of T&G Global, which packed produce for Hira Bhana at no charge and helped get kumara from its depot in Auckland to its final destination.

Managing director Andrew Keaney, says that as a leading grower of healthy New Zealand produce, T&G Fresh played a crucial role in helping feed New Zealanders during Covid-19, including donating to community groups, food rescues and charitable trusts. Donated produce included carrots, potatoes, kumara, onions, tomatoes, mandarins and 2,000 boxes of bananas.

"It was great to see our T&G team unite together to navigate the challenge and look after our fellow Kiwis." ●

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# 3,000 BINS OF KUMARA

Words by Wendy Laurenson



**Doug Nilsson grows kumara. Lots of kumara. This season he has harvested about 3,000 bins on the family property just west of Dargaville.**

"Growing kumara is an intense four-month season governed by weather restrictions at both the planting and harvest end, and is very dependent on available good labour. This year the quality is up but the quantity is down considerably industry wide because of the very dry summer."

Doug and his wife, Ann, grow kumara on about half of their 200ha property with the balance in sheep and beef, and when they first started growing kumara with Doug's parents about 25 years ago, they were careful to choose a site that reduced the seasonal risks. "This place is flat and free draining with artesian water sitting under it, so once we got the drainage sorted, it has meant we have water to irrigate. Dad initially bought 70ha here, and Ann and I have gradually added to that by buying small uneconomic neighbouring dairy farms as they came on the market. We've now put roads over the whole place so it works seamlessly as one productive unit."

They've also increased the machinery fleet to five harvesters and over twenty tractors, and built massive storage sheds to house the kumara harvest. "Harvest is usually about eight weeks and we need five harvesters

*Doug Nilsson with this year's kumara crop*

to be sure we get the crop up before the winter rain makes the ground impassable," Doug explains. "The dry season speeds up harvest because the dirt just falls off leaving clean easy-to-handle kumara, compared to the slow process of clearing mud clods off them. We can therefore run the tractors faster and get the job done quicker."

The biggest impacts of the dry growing season have been on yield (especially with the orange kumara) and kumara size.

“

**The quality is well up but our yield is well down and the kumara are smaller.**

"We managed to irrigate our kumara with one travelling irrigator, but our system is inefficient and we can only water about 20% of our crop. We've spent a fortune putting sub-surface drains across the whole place that feed into peripheral big open drains, and this season has pointed up the need to better use that water for irrigation. We're also looking at the viability of building a catchment dam."



## Harvest

Kumara harvest begins in autumn when tubers are mature. Each of the Nilssons' harvesters needs a team of eight to ten people. "The tubers are dug up onto a chain drive from which the team removes the field waste, separates any damaged tubers, and leaves the good kumara to be fed into the bin. We average around 100 bins a day and at the peak of the season we have a team of 50 to 70 in total."

## Managing staff

As with a lot of horticulture crops, labour is a key factor in the kumara industry. "We're a small community and about 95% of the country's kumara is grown here in the Kaipara. The industry has a spike of about 1,000 labour units for the planting and harvest season, with a smaller crew for weeding during the growing season. Growers make different decisions about how to best get workers and we've recently decided to use a combo of locals and Recognised Seasonal Employer (RSE) scheme employees from Vanuatu. RSE is a big upfront commitment in terms of pastoral care, accommodation and administration, but it's really been worth it for us. In our first couple of years there were plenty of locals available because the economy had collapsed and people were keen for work, but then it got harder to get people to come in the summer so we looked into RSE."

"We started with seven RSE workers and we've increased numbers since then with a lot of the same ones choosing to come back. Knowing we have reliable full-time staff for seven months is what has given us the confidence to expand our operations from 40ha of kumara to 100ha, and to employ another five people full-time giving us eight full-time on the farm including Ann and myself."

Ann handles all the staff HR and pastoral care and the whole team has a Toolbox meeting every Monday morning.

"We have accommodation on the property for 20 in single sleep-outs and we've recently bought a motel in town with nine units for couples," Doug explains. Doug and Ann also visit Vanuatu regularly and have seen the results of RSE wages in the local villages, plus they contribute to village projects.

## Early season start

The kumara growing cycle begins in early August when Doug grows thousands of cuttings from tubers in raised beds under covered cloches. "We're always pushing to get things warm enough, and then we hand-plant in early spring. We grow three main varieties - Owairaka (red), Beauregard (orange), Toka Toka (gold), plus a few Purple Dawn which has great looking purple flesh."

The young cuttings are watered until they're established, then weeding is the main summer task. "We use some chemical sprays but hand-weeding is still best. Pests have been light because of the dry summer but crickets and black beetles are our main concern so we monitor regularly to prevent any infestation. We have to be sure there's no trace of any chemicals getting into the roots, so we're trialling a non-toxic spray that makes the foliage taste bitter and unappealing to pests."

Harvest begins early autumn and Doug explains that the only real fungal issue is storage rot from spores from soft or damaged kumara, so these are separated out on the harvesters into different bins. These tubers then go to a processor in Auckland to be made into chips, and Doug feeds any remaining waste to their stock. Once the crop is out of the ground, the land is sown back into pasture and Doug and Ann buy in and fatten lambs over the winter plus run 30 to 40 head of cattle in tougher areas not suitable for sheep.

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### Shed Storage

The harvest is kept in bins in storage sheds. "With 1,100 bins in one shed, we find the field heat generated from the kumara themselves is enough to cure them to prevent shrinkage, then we take the temperature down over a few days to store them at ambient temperature until they are drip fed onto the market through our company Kaipara Kumara."

Doug and Ann have a 20% shareholding in Kaipara Kumara which has a packhouse on the southern side of Dargaville. "Most of the crop goes to Progressive supermarkets and is all traceable back to the grower. I'm not involved in daily operations at Kaipara Kumara but I'm on the board because I'm interested in what happens to the crop once it leaves the farm and I want to keep up with changing trends."

### Small industry, big impact

Doug says that by horticulture standards, kumara is a small industry, but it is vital to the economy of the Kaipara region because most of the revenue generated is spent within the local district. "Kumara grower numbers have dropped from 100 to about 40 in recent years but remaining growers have bigger properties. Fewer than ten kumara growers now produce 80% of the total 1100 to 1200ha crop. As with other horticulture industries, it comes down to economies of scale and you need 40ha now to be viable. Weather and supply and demand fluctuations make it harder to plan, and kumara growing needs a lot of investment in gear because we all harvest at the same time. With increasing labour and compliance costs, I can see more automation coming up on the radar."

On the home front, Doug is making his own moves to automation. He's building a large plastic house with fully retractable walls and roof, and fully automated growing systems. "I'm hoping this will enable us to control the environment for our tuber/cutting propagation, plus give us the option to diversify into a covered crop like strawberries." ●

## UPDATE SINCE COVID-19

**This article and photos were written and compiled in mid-March just prior to lockdown.**

Doug and Ann's operation worked right through the Covid-19 lockdown but made the required adjustments to meet the protocols. "We put some people off who had vulnerabilities or family responsibilities, but we had 17 people who were living on farm so we continued our harvest," Doug explains. "We reduced to a skeleton crew with people working in the bubbles they were living in, and we ran just two of our five harvesting machines. All machinery and facilities were regularly sanitised, and staff in different bubbles used different facilities."

"Fortunately the weather was perfect, the crop was light and the harvest was easy so we weren't under too much pressure and finished harvest in early May. We locked the gates and put signs up and no-one went to town except our daughter who was designated to shop for 17 of us. This was our biggest issue because we couldn't get home deliveries, were limited to just two loaves of bread per trip, couldn't get our usual 20 kilos of rice for our staff, and she had to queue for two hours."

"Seven of the RSE team went home late June and six have been working in Kerikeri pruning kiwifruit because the usual RSE workers haven't been able to get here, but they're really keen to get home as soon as possible."

Kaipara Kumara packhouse also kept working with barriers and distancing protocols, and kumara sales continued. "The biggest long-term impact is that customers will have less disposable income in a year when the price is up because the yield is down, so we'll have to manage sales and price to equalise supply and demand," Doug says.

Doug and Ann are now preparing for this coming season. "All our seed propagation is done in New Zealand and we've planned ahead to be sure we've got any imported materials on hand." ●

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The government has announced significant new financial support for training. This means there will never be a better time for you or team to earn formal qualifications.

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Additionally, the Government has announced an 'Apprenticeship Boost', which promises to pay employers up to \$16,000 per apprentice to either employ or retain apprentices over two years.

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# AUTOMATION AND AGRITECH GET FUNDING BOOST

Words by Wendy Laurenson

**Automation in horticulture has moved a step closer to everyday grower reality with a funding boost announced in the recent budget. Agritech New Zealand Industry Transformation Plan (ITP) was allocated \$11.4 million to support the development of New Zealand's agritech sector.**



Peter Wren-Hilton is executive director of Agritech New Zealand, a membership funded industry organisation with a key role in leading the growth of our country's agritech capability. "It's hugely exciting that the government has prioritised agritech. We've been working closely with the government for 12 months, and as agritech includes technology serving all of the primary industry sector, horticulture

will benefit significantly from the funding. Agritech is a key driver to improving productivity, quality, sustainability and profitability across the entire horticulture value chain. It is providing alternatives to traditional growing methods and revolutionising the sector."

## Global reputation

New Zealand has a global reputation as a premium food producer and our leading edge agritech has grown out of solutions to some of our own production challenges. "Horticulture produced an estimated total of \$9.5 billion (including \$6.2 billion in exports) in 2019, while the agritech sector contributes an additional \$1.5 billion annually to New Zealand's goods exports," Peter says. "Our skills in agritech are now recognised and sought after globally, so the sector has the potential to grow significantly with positive impacts both commercially and environmentally."

## Robotics, automation and sensing academy

With the growing demand for food production, one of the main challenges both here and internationally, is the ever-increasing demand for labour coupled with an ever-decreasing supply. "This has been accentuated by Covid-19, and a likely solution is greater use of automation especially

for pollinating, thinning, picking and weeding," Peter explains. "Therefore, one of our recommended initiatives to government was the establishment of a robotics, automation and sensing academy here, and we're currently talking with industry stakeholders, including Robotics Plus and Zespri, for input on what that academy might look like."

Peter says one of the challenges of our agritech sector has been its lack of cohesion. "We want to encourage the agritech industry to become more collaborative so the sector can make the most of the current growth opportunities. An academy could help by providing a physical premises and creating a 'NZ Inc.' approach rather than organisations operating in their individual silos and catering mainly to our domestic market. We can help connect innovators, investors, regulators, researchers and interested public so we can all benefit."

## Developing skills and talents

Another ITP funding priority is developing skills and talents. "We're heading into a time of a major on farm change to more digital content and context, and with that will come the need to upskill employees to work with automation. The idea of automation in the primary industries initially met with some push-back, but now there is the realisation that it can have some advantages. Automation can complement rather than replace existing jobs, and can lead to jobs that are better suited to our human capabilities and with better pay."

Peter says this will subsequently remind New Zealand that we need to focus on premium production and practices. "Smart use of technology will enable industry and companies to move beyond volume and towards value in their output and exports, helping to move New Zealand up the value chain globally."

## Water

Another focus for the agritech funding will be New Zealand's water resource challenges, spot-lit by this year's dry summer. Agritech New Zealand has already started working with Australian organisations in a Trans-Tasman Water Challenge that is exploring how to best improve irrigation and storage and reduce run-off and leaching.

## Solving global challenges

Our agritech could also contribute to solving some global challenges. In order to meet the nutritional needs of up to ten billion people in the world by 2050, food production will need to increase drastically. "New Zealand clearly cannot feed the world, but we have the ability to develop production-improving technology that could have a global impact. In the process, agritech can help improve sustainability with more efficient land use and better environmental outcomes."

## An industry in its own right

Agritech is an industry in its own right and international eyes are on New Zealand to help lead the way. Peter points out that we have some specific advantages in developing agritech. "We have strong primary industries with a small

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**We want to encourage the agritech industry to become more collaborative so the sector can make the most of the current growth opportunities.**

market size that is ideal for testing technologies. Using ingenuity to find solutions is ingrained in our DNA. And we can respond relatively quickly from a regulatory and policy perspective, which allows for new approaches to be developed and tested. If we can effectively use these advantages, we stand in a good position to increase our share of the global market plus help overcome some of the challenges of our geographic isolation.”

#### **Impact of Covid-19**

Consumers want to know the story of the food they eat, and this has been accentuated since the arrival of Covid-19. “One of the key priorities of the Agritech Industry Transformation Plan (ITP) is to ensure New Zealand’s agritech story reflects the global agritech landscape post Covid-19. We’ve already

established an agritech story resource, and while our borders may be closed, it’s very important people know that our agritech sector is accessible and open for business. Export sales have been lost and market plans put on hold, so we need to support the sector both here and offshore in new ways. To that end, we’ve been part of initiating several significant agritech events and launches that began in July, both online and in person, to keep things moving forward.”

#### **Agritech background**

Peter Wren-Hilton’s background of 20 years in the tech business in London as well as living and working in Bangalore, India and Silicon Valley in California, has furnished him with an extensive global network of agritech contacts. He has therefore been able to introduce representatives from different international agritech agencies to key sector players in New Zealand, including government, so they can get a better understanding of agritech global networks. “Global agritech business is now massive and we can be a significant and respected part of that. This is our time to step up.” ●

For more info see [www.agritechnz.org.nz](http://www.agritechnz.org.nz)



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# JADE GARDEN: ON SURVIVING A YEAR OF CHANGE

Words by Heather Woods



**In November 2019, Jade Garden was thrown a curve ball when a fast-moving hailstorm swept through the Selwyn region and almost wiped them and many others out.**

They recovered from that, and soon found an issue with grass grubs they hadn't accounted for on a new farm which required further technical management. And of course, there was also a very long, dry summer that challenged their water management abilities during a time when there was a lot of talk of 'new innovation' set to be imposed for the greater good.

Then Covid-19 hit, and as the world came to grips with the reality of what a pandemic meant, the crops kept growing and the workers kept harvesting, tending to their vegetables. The enforced restrictions and stoppages that affected so many, didn't have any major impact on Jade Garden at all. In fact, it was essentially business as usual.

Owner Allen Lim, a director of Vegetables New Zealand, has been in the water management space for a long time and shared his perspective as a local grower, and the industry implications at a national level. He highlighted that what's evident now more than ever, is that growers need the industry regulations to work for them – not against them.

## **Concerns over industry regulations**

Growers are facing huge challenges – and not just with growing produce. Unreasonable regulations being

*Allen Lim uses good management practice to look after the land*

imposed on growers by some regional councils are adding huge overhead costs that are difficult to recover, and smaller growers won't have the capital behind them to soak that up. Allen's message: "Listen to the growers. Many aren't happy."

For example, Overseer modelling is promoted as a sustainable way for farmers to predict yield, a way to protect the environment, and helpful for creating future-proof best practices. And for some growers – like growers of onions, squash, peas, and potatoes – it can be a realistic option. But others in the horticulture family don't quite see the same benefits.

When you take a close look at how their crops are grown and harvested, it's not a case of setting a target growing number and committing to it. Sometimes a crop suffers from uneven germination, other times from weather events or disease, and so parts of it aren't of a saleable quality. Others parts grow as planned – it's this produce that is picked at optimum size (and not necessarily at maturity) for the best texture and taste.

It's what's left behind that creates patches of crop residue. That residue forms part of the fertiliser requirement for the next crop and this 'patchiness' means you can't predict how the next crop will fare. So using Overseer modelling to generate an estimate or average of a full crop isn't effective for distinguishing between target yield and marketable yield.



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## Unreasonable regulations being imposed on growers by some regional councils are adding huge overhead costs that are difficult to recover

As a contrast, Allen says Environment Canterbury have met with him numerous times in the past, and they understand the challenge he and other growers are facing; they've been reasonable about managing it within their framework, but Jade Garden was forced to cap the growing area because of the Resource Management Act (RMA) requirement to "maintain or improve" water quality. What's really needed is a separate National Environmental Standard for vegetable growing, Allen says.

### Penalised for good land management

Growers like Allen take the time to look after their land using good management practice. Instead of just rotating crop after crop, they give the land a chance to recover and use cover crops, or mop up crops, to bring the lost nutrients back to the surface and increase organic matter in the soils. It's a key responsibility when it comes to protecting the land, keeping it fertile and at the same time looking after the environment and the people.

Being environmentally conscious like this effectively reduces the total land size they can grow on, and for not using all their available land for growing, they are penalised. The RMA says that the water quality must be "maintained or improved" in the absence of a reliable Overseer number for nitrogen leaching, so the regional authorities choose to limit the growing area without understanding how the land is being worked by each individual grower. They deem land that's currently in recovery mode as part of their total growing land, even though there's not a single vegetable being grown on it.

### Creating opportunity from a pandemic

During the early days of the lockdown, wholesalers weren't ordering because the independent retailers were closed, but Allen's produce was simply redirected into supermarkets who were increasing their orders; products like spring onions, silverbeet, leeks, and bok choy. Without the worry of disaster management, Allen set about some project work he otherwise wouldn't have had time for and took time to consider the bigger picture against the backdrop of regulations.

As far as the progression of horticulture, he understands the need for environmental gains, but it also has to be economically viable. And he agrees that investment in the industry is needed, but the money must be spent in the right places to truly help advance the industry. Growers need to see a clear benefit. ●



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# HOW ONE GROWER INSPIRED A COMMUNITY DURING THE PANDEMIC

Words by Heather Woods

**Covid-19 presented a unique problem for Thymebank. Deemed an essential service, they had no stoppage during lockdown. In fact, their whole business increased. The public were reconnecting with food, making things from scratch and trying new techniques. And so supermarkets ordered up big. But seeing customers, friends and family navigating one of the toughest periods of their lives, the team made it their mission to help.**

## **Making a difference**

An experienced leader, Leanne Roberts updated the team with data from the Ministry for Primary Industries, Horticulture New Zealand, and in the national news. But Leanne says while they were comfortable, “we thought if we’re in the position that we’re still operating, we should help as much as we can.” They chose places to reach out to – St John’s, pharmacies, doctors’ offices – and dropped off boxes of produce. Giving back was important for team morale, and it felt good.

Now a permanent feature in their shop, the sponsor button means anyone can donate a produce box, which is currently going to the women’s refuge. And many people are trying to find their own small way to do something meaningful for someone else. As restrictions eased, businesses were supportive of Thymebank’s efforts. Some encouraged their own customers to sponsor a produce box. A butcher donated meat to create a family meal alongside the produce box. The whole community took responsibility for supporting each other.

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**The whole community took responsibility for supporting each other.**



*Leanne Roberts*

## **Online retailing**

Thymebank had built up a solid business supplying supermarkets, wholesalers and restaurants, and seeing the direct impact on them was hard to swallow. They’ve noticed that as people continue their new, home-based routines, they are appreciating the time in their own space. Being home more isn’t so much an issue, and people are happy to order online. Their own online sales went through the roof, allowing people to put aside the very real fear of leaving their home. The only issue they’ve really had, with other businesses rapidly implementing an online function, is that local courier services have been overwhelmed.

## **Looking ahead**

The emotional rollercoaster has been tough. But despite two members leaving the team because of Covid-19, their focus on innovation – compostable packaging, clean and healthy growing practices, health and wellness – continues to excite the team and opens up new ways to encourage people to explore their food choices.

And they aren’t strangers to hard work. Seasonality is a big challenge, and it only takes one fancy meal on *My Kitchen Rules*, or a magazine spread on summery herbs or fresh salads, and you guarantee that demand will outweigh supply. Leanne’s team are the last to sing their own praises, but they’re pleased that the community sees their inspirational work and wants to do the same. ●



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# VIRUS THREAT FROM IMPORTED ASPARAGUS SEED

Words by Peter Falloon

**Asparagus Virus 2 (AV-2), also known as Asparagus Latent Virus, is the primary cause of asparagus decline resulting in thinner spears, lower yields and shorter bed life (Jaspers & Falloon, 1997). Recent work has shown that 70% of asparagus varieties imported from overseas contain AV-2.**

AV-2 is seed transmitted and can be spread from infected plants to healthy plants on knives used during harvest and machinery used in autumn to mulch the fern.

AV-2 has a major effect on yield and quality of harvested spears. Trials carried out at Lincoln University showed that yields of marketable spears from asparagus plants infected with AV-2 were always lower than healthy plants and declined significantly after the second harvest season (Jaspers and Falloon, 1997, Falloon, 2019). Yields of reject spears were higher from AV-2 infected plants and the yield of reject spears continued to increase relative to the health of plants from the second harvest season onwards.

Cultivars of green asparagus bred in New Zealand are free of AV-2 but seed imported from overseas remains a source of new infections. To see whether imported asparagus seed was still a source of AV-2 seed, seed of Dutch and North American cultivars was tested using ELISA (Enzyme Linked Immunosorbent Assay) atASUREQuality, Lincoln. Seed of 66% of the Dutch cultivars were infected with AV-2 (Table 1) as was that of Jersey Giant (USA) which has, until recently, been the standard cultivar grown in much of the North Island. None of the cultivars bred in New Zealand contained AV-2.

## Control

The disease is relatively easy to control and even eliminate from asparagus fields in New Zealand if plants free of AV-2 (i.e. grown from seed free of AV-2) are used to establish new fields. Once fields of AV-2 free plants reach harvest age, a harvest regime of "clean before dirty" should be followed i.e. virus-free blocks should always be harvested before older blocks, since older blocks may contain the virus. This regime should also be used when mulching the fern in autumn and winter. ●



Peter Falloon

Cultivar	Seed Source	Presence (+ve) or absence (-ve) of Asparagus Virus 2
Herkolim	Netherlands	-ve
Gijnlim	Netherlands	-ve
Avalim	Netherlands	+ve
Grolim	Netherlands	+ve
Backlim	Netherlands	+ve
Thielim	Netherlands	+ve
Pacific Challenger 2	New Zealand	-ve
Pacific 2000	New Zealand	-ve
Pacific Summit	New Zealand	-ve
Pacific Green	New Zealand	-ve
Pacific Endeavour	New Zealand	-ve
Jersey Giant	USA	+ve

**Table 1.** Presence (+ve) or absence (-ve) of Asparagus Virus 2 in asparagus seed from different countries. Seed was tested by ELISA.

## References

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- Jaspers, M.V. and Falloon, P.G. 1997. "Asparagus Virus 2: A contributing factor in asparagus decline." Proc. 9<sup>th</sup> Intl. Asparagus Symp. ACTA Hort 479: 263-270.



# COVID-19 LOCKDOWN AND THE FERTILISER INDUSTRY



opinion



By Robin Boom : CPAg, Member of the Institute of Professional Soil Scientists

**In the week or so leading up to lockdown, I tried to catch up with as many clients that could see me to discuss their fertiliser needs as it is much easier discussing eyeball to eyeball the options that are available to farmers and growers.**

There was however, a kind of uneasiness in that they or I didn't know who we had been in contact with, so there was always a slight risk. Most farmers live quite isolated lives, so the chances of them catching the virus were slimmer than most people, but there are always trips to town and mixing with family and friends as well as business support people like myself that pose risks.

Agriculture and horticulture were rightly deemed essential industries and the supply of fertilisers an essential part of this, so fertiliser companies were allowed to continued to operate. When it came to lime quarries though, there was a bit of confusion since there was no clear directive, and some continued to operate, whereas others shut down. I had a discussion with one lime company owner who provides not just lime, but blends with other fertiliser products mixed in with his lime, and he was able to supply such blends to farmers but not supply straight lime alone. All of the lime reserves he had in stock were being used just for blends, and because his quarry staff were forbidden to work, he could not replenish this stock. Some other lime suppliers however, were still continuing to produce lime, so after four weeks he got the all clear to continue to quarry and mill lime.

For myself, I could still provide clients with advice over the phone and place fertiliser orders via the internet, and although I technically could have gone and taken soil samples from properties around the countryside, I chose not to, although I do know colleagues who did, but obviously there could be no physical interactions between the farmers/growers and themselves.

There was also the issue that no post offices were open to send soil and leaf tissue tests as normal, so they resorted to having to contact courier companies and leave samples to pick up at their door to be couriered to the laboratory.

Laboratories continued operating, but obviously with skeleton staff who would have been social distancing during this period.

As for fertiliser spreaders, they too had to stick to social distancing protocols between the landowner and fertiliser suppliers over lockdown. For hill country farmers, autumn is a traditional time to get their fertiliser on, as access to airstrips is easier with dry tracks for trucks to get fertiliser up to the fertiliser bins. However, it was with the aeroplanes that it was more frustrating, as the pilot and loader driver were not allowed to get in the plane or truck together, so if in the middle of a big job in remote country, both the driver and the pilot had to come and go separately. This meant jobs took longer than they would normally have.

With not as much fertiliser going out, there were adequate supplies of imported products and I did not hear of any products running out. Some imported high analysis fertilisers coming out of China got delayed from getting to the wharf and onto ships over their lockdown period, which occurred before and after the Chinese New Year at the end of January. However, because much of the country was also in the throes of a drought over this period, there was little point in applying any fertiliser on flatter ground for the first half of lockdown until the rains started to come from mid-April.

The general public also realised the importance of food production and food producers over this period, and hopefully will see farmers and growers in a more positive light rather than vilifying them as agents of environmental degradation. Who knows, there may even be a more positive acceptance of establishing more irrigation schemes in the future. With much of the tourism industry out of action for an indefinite period, primary food producers will be playing a leading role in our nation's economic recovery, and the fertiliser industry is an essential part of this, providing nutrients to plants. ●





# METSERVICE UPDATE

## LA NIÑA WATCH



Words by Georgina Griffiths, MetService Meteorologist

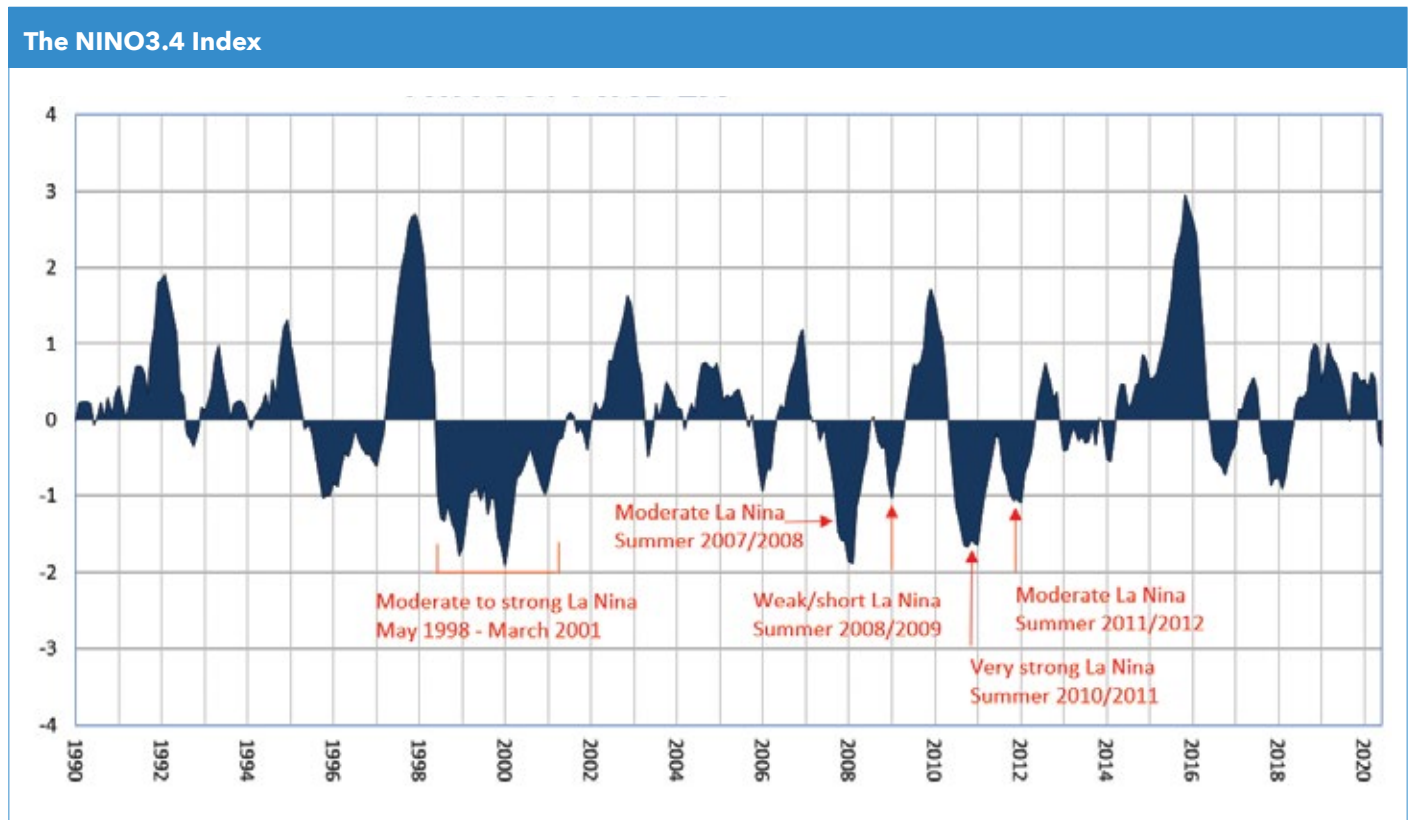
### Eyes on the tropics

The El Niño Southern Oscillation (ENSO) climate system is an important climate driver for many parts of the world. Because New Zealand lies in the mid-latitudes, on the edge of the tropics, ENSO can influence the types and frequency of weather maps we see here; but New Zealand typically only sees large impacts on our wind flows, rainfall and temperature during intense El Niño or La Niña events.

ENSO is a tropical climate system operating along the equator in the Pacific Ocean. For the first half of 2020, the El Niño Southern Oscillation (ENSO) was neutral - neither El Niño nor La Niña.

Sea temperatures at the surface, as well as the sub-surface, running either side of the equator between Australia and South America, are indicators of the ENSO oceanic state. The most commonly used oceanic indicator is the “NINO 3.4” index (**Figure 1**), which captures sea temperature deviations in the central Pacific Ocean (**Figure 2**).

Sea surface temperatures in the equatorial tropical Pacific Ocean cooled during June (trending towards La Niña thresholds), and were below average in the eastern Pacific region by mid-July. In the central Pacific area, sea surface temperatures remained near average (at the time of writing).



**Figure 1:** The NINO3.4 Index. This index tracks sea surface temperature anomalies (deviations from normal) in the equatorial Pacific Ocean between latitudes 5N and 5S, and between longitudes 120W and 170W. When the sea surface temperatures are below normal (cooler) by an average 0.8C across a 5-month period or more, La Niña conditions are in place. When the sea surface temperatures are above normal (warmer) by an average 0.8C across a 5-month period or more, El Niño conditions are in place.

### NINO3 SST Index

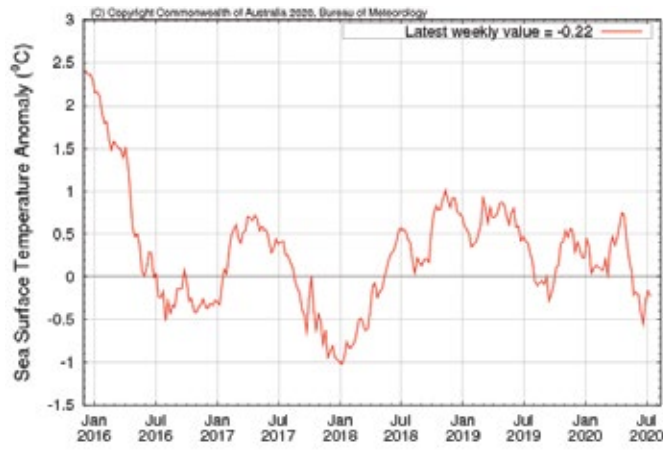


Figure 2

Most global commentators have now issued a “La Niña Watch”, with the chance of La Niña forming in 2020 currently sitting around 50% – roughly double the average likelihood. Over half of the major international climate models predict that this cooling will approach or exceed the La Niña threshold during spring.

#### What might this mean for New Zealand?

Through late winter (August), weather maps in the New Zealand region will still remain strongly influenced by our ‘winter’ climate drivers, namely the Tasman Sea and the Southern Ocean. The Tasman Sea has been the major player during June and July for the increased northern New Zealand rainfall tallies (see **Figure 3**), and this is likely to continue through into August.

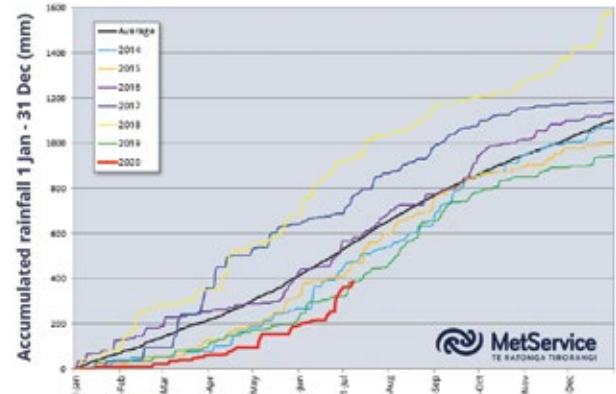
In contrast, the South Island has seen some decent southerly outbreaks with fairly heavy snowfall recently, and this is driven out of the Southern Ocean weather systems.

However, the main effect of La Niña as we head into spring will likely be to encourage High pressure to sit at higher latitudes than normal. The usual response would be to see intermittent Highs blocking (sitting) over the South Island, with an enhanced frequency of easterlies over northern New Zealand. ●

You can always keep up to date with our long-range thinking at <http://metservice.com/rural/monthly-outlook> or get this straight to your inbox by signing up at <http://bit.ly/SubscribeToEmails>

### Rainfall accumulation

#### Auckland



#### Christchurch

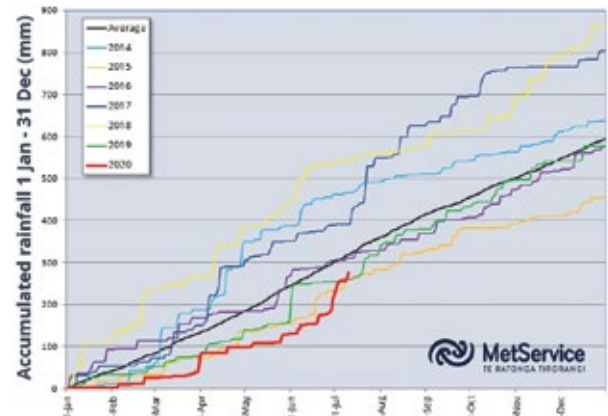


Figure 3: Auckland and Christchurch rainfall accumulation plots, both derived from airport data. The red line is the 2020 rainfall tally so far (as at 10 July 2020).

# Rain or shine,

## stay informed on the MetService Rural Weather App.











# TIME FOR A STRATEGY REFRESH

## NEW DIRECTIONS FOR VEGETABLE RESEARCH & INNOVATION



Words by Sally Anderson, VR&I co-ordinator

**The Vegetable Research & Innovation Board is a collaborative membership of seven organisations; five vegetable Product Groups (Vegetables NZ, Process Vegetables NZ, TomatoesNZ, Onions NZ, the NZ Buttercup Squash Council), the Foundation for Arable Research and Plant & Food Research being represented on the VR&I Board.**

The core purpose of the VR&I Board is to underpin sustainable growth of the vegetable sector. The Board achieves this by developing, resourcing, and managing a cross-sector research portfolio.

### **The power of collaborative research**

The VR&I Board has a unique position within Horticulture New Zealand in that it is a mechanism through which vegetable Product Groups can work collaboratively to invest in a research and development (R&D) programme. The effectiveness of this collective approach is demonstrated by the return on investment that the VR&I research programme currently delivers. In 2019 the VR&I Board invested just over \$250,000 directly into research programmes. This investment is leveraging well over \$15 million of total research value. This equates to an over 40 times return on investment in terms of the real-dollar research value of these projects.

Over five years ago the VR&I strategic plan for research was launched. The four key research themes adopted by the Board were categorised as Agrichemicals, Environment and Nutrient Management, Food Safety/Water Use, and Biosecurity. These themes have been used to frame the research priorities and needs of the contributing vegetable Product Groups over the last five years.

In the intervening period the landscape has changed for growers, particularly with increasing regulatory pressure both regionally and nationally around land use, water availability, water quality and nitrogen leaching. The unavailability of new crop protection tools to control pests and diseases is also challenging the ability of growers to control key production pests and manage resistance due to the lack of new modes of action.

As David Hadfield, the chair of the VR&I Board notes, the themes adopted by the Board at the time were by necessity quite broad and wide-ranging and this has challenged the VR&I Board to focus its R&D activities.

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**In 2019 the VR&I Board invested just over \$250,000 directly into research programmes. This investment is leveraging well over \$15 million of total research value.**

“There have however, been many research successes including the publication in 2019 of a Nutrient Management Guide for vegetable crops,” David says. This guide provides the latest nutrient recommendations and best-practice advice for all vegetable growers. The Board have also published guidance on the use of acephate and methamidophos chemistry, as well as best management practice guides to manage soil movement by farm vehicles, and a web-based app to calculate erosion and sediment loss, all based on research that has been funded by the VR&I Board. The Board has also been instrumental in supporting the initial development phases of the Sustainable Food & Fibre Futures (SFFF): A Lighter Touch agroecology research programme. This \$27 million seven-year programme has

## VR&I strategy for research investment 2020-2025

### VISION

To have a **significant positive impact** on the vegetable sector by delivering research outcomes and contributing to transformational change.

### PURPOSE

That research outcomes shall underpin the **sustainable growth of the vegetable sector** and enable it to achieve goals as set out in the Horticulture Industry and Product Group strategies.

### ACTION

VR&I will achieve this vision and purpose by developing, resourcing and managing an appropriate cross-sector research and innovation portfolio and communicating the results effectively.

### RESEARCH THEMES

Environmental Stewardship

Crop Protection

Common Reporting Framework

\*Other R&D

*\*Other R&D - VR&I managed projects and activities that fall outside of the three themes*

just been signed off by the Ministry for Primary Industries (MPI) and is supported by the majority of fruit and vegetable Product Groups as well as by the Foundation for Arable Research (FAR) and NZ Winegrowers.

### Future Focus - a new strategy for research

Last year the Board recognised that it was time to review its research strategy to refocus and reflect on what has been achieved, but also to identify the research that is needed to address pressing issues that growers will be faced with in the future. The collective Board and Product Group representatives held a brainstorming session in mid-2019, and from this workshop a new strategy for research investment was developed. Central to this strategy are three main themes of Environmental Stewardship, Crop Protection, and Common Reporting Framework.

The framework for the updated strategy is underpinned by a vision, purpose and action that will drive the research programme and future direction of the Board.

This refreshed strategy aims to balance short-term 'business as usual' activities with strategic research and innovation that will drive vegetable sector growth. Each of the research themes will act as the framework for directing research to address sustainability issues, climate change and management of land, water and air through

the Environmental Stewardship theme; improving the availability and use of crop protection approaches through the Crop Protection theme; benchmarking performance and best practice across the vegetable sector through the development of appropriate measures under the Common Reporting Framework theme. The Board will not lose sight of other issues that are important to growers, such as biosecurity and food safety, and will support research in these areas where there is strong cross-sector support. ●

For more information on the VR&I Board and the research that it funds visit [www.vri.org.nz](http://www.vri.org.nz)

The VR&I Board comprises five appointed members nominated by each of the member Vegetable Product Groups, as well as representation on the Board from the Foundation for Arable Research and Plant & Food Research.

The Board members are: David Hadfield (VR&I chair, Process Vegetables NZ), Mike Parker (Vegetables NZ Inc), Anthony Tringham (TomatoesNZ), James Kuperus (Onions NZ), Dereck Ferguson (NZ Buttercup Squash Council), Paul Munro (Independent appointment), Dr Alison Stewart (FAR), and Dr Suvi Viljanen (PFR).



# FARM ENVIRONMENT PLANNING FOR VEGETABLE CROPPING



By Dan Bloomer



Developing Farm Environment Plans (FEPs) can be a challenging task for complex growing operations such as fresh vegetables. Effective FEPs are tailored to each property and individual grower, however, they also need to address regulatory requirements laid out in regional plans, which in contrast can be quite generalised.

Growers in Horowhenua are now progressing with FEPs thanks to a comprehensive framework developed by Horticulture New Zealand and NZGAP (Good Agricultural Practice). The Environmental Management System (EMS) add-on is an optional assessment available to NZGAP or Global GAP certified growers. The EMS supports growers to document management practices that reduce or mitigate the environmental impacts of

*John Young, Horowhenua vegetable grower, takes soil samples for the Nitrate Quick Test with the help of Luke Posthuma, Precision Agronomist for LandWISE*

farming. To become certified, growers must demonstrate they are following good or best practice management of irrigation, waterbodies, soil and nutrients.

LandWISE has been working with vegetable growers to document nutrient management practices - an area where tools and guidance have been lacking. Using the LandWISE Nutrient Budget Templates, growers have been able to detail their fertiliser plans on a crop-by-crop basis, comparing planned nutrient application with recommendations from *Nutrient Management for Vegetable Crops in New Zealand* by Reid and Morton (2019).

Results from nutrient budgeting with four growers in Horowhenua

show that many crops are receiving less than the recommended rates. Growers have proved that splitting applications and timing applications to match plant demand, have led to

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LandWISE has been working with vegetable growers to document nutrient management practices - an area where tools and guidance have been lacking.”





*Bok choy crop growing on John Young's property, a crop whose typical yield values, nitrogen contents, and residue breakdown characteristics are not well known.*

significant efficiency gains for many growing scenarios. However, there are still areas for improvement. For example, good data are not available for many niche vegetable crops such as bok choy (or pak choy), Chinese cabbage, and choy sum. Without good trial data we have no reference for average yields or nitrogen percentages when trying to complete nutrient budgets.

Another area needing better information relates to crop residues and crop residue breakdown. According to Reid and Morton (2019), a broccoli crop can grow as much as 74 tonnes per hectare of leaves and stems which are left behind after heads are removed at harvest. This leaves a large amount of organic nitrogen that will eventually become plant-available in the soil. If not accounted for in a nutrient budget, the following crop could receive an excess of nitrogen supply from the soil, which could lead to leaching or crop quality issues. But will that residue become available in time for the next crop?

We are investigating these issues as part of our final year of Future Proofing Vegetable Production and have a few preliminary guidelines nearing completion. ●

## LANDWISE ONLINE

### Podcasts and Webinars on Sustainable Production

After Covid-19 forced us to cancel our annual conference, LandWISE has been working hard on alternative ways to provide our sustainable production messages. Thanks to our loyal conference sponsors, we are pleased to be running "LandWISE: Promoting Sustainable Production" a podcast series bringing the insights of lead farmers, researchers, and technologists to listeners across agriculture and horticulture.

Each month has discussions with guests sharing their knowledge and experience around a sustainable production theme. These are shared as podcasts via our website, Radio Kidnappers and Spotify. At the end of each month our guests return in a webcast panel to discuss the theme and answer your questions live.

June's podcasts were themed around "Reducing Nitrogen Losses from Intensive Vegetable Production." We were thrilled to have diverse topics covered, from the social licence to farm, to the benefits and challenges of cover cropping.

Jay Clarke, director of Woodhaven Gardens made podcasts with us on "Growers Making Changes". He stressed that achieving community buy-in to growing practices was the key to sustainability and social licence to farm. "The first step was a change in mindset in how we approached the relationship between us as growers and our environment and the local community," Jay explained. "That involved going out and talking to community stakeholders including iwi, local environmental groups, and the regional and district councils to openly and honestly have a dialogue around what changes they wanted to see."

July's podcasts on "Managing Herbicide Resistance" featured researchers working on a project funded by the Ministry of Business, Innovation and Employment (MBIE) and headed by AgResearch. Associate Professor Kerry Harrington explained the foundations of why resistance occurs, and what practices are contributing to its rise on farms. "If a farmer keeps applying the same herbicide to a paddock year after year, a weed that has mutated to become resistant can multiply up. After a while it becomes a higher proportion of weeds in the paddock," Kerry explained.

Chris Buddenhagen of AgResearch explained the work he and the Foundation for Arable Research (FAR) have been doing to survey herbicide resistance on arable farms in Canterbury. They found 20% to 50% of farms had some weeds with resistance to Group A and B herbicides, indicating a much greater incidence than was thought to be the case.

To listen to these podcasts and more, head to our website [www.landwise.org.nz](http://www.landwise.org.nz) or scan the QR code with your phone camera. Our podcasts and LandWISE online content are made possible by BASF, Hawke's Bay Regional Council, Vegetables NZ, and Process Vegetables NZ. ●



QR code for LandWISE podcast, scan with a phone camera to go to the website.

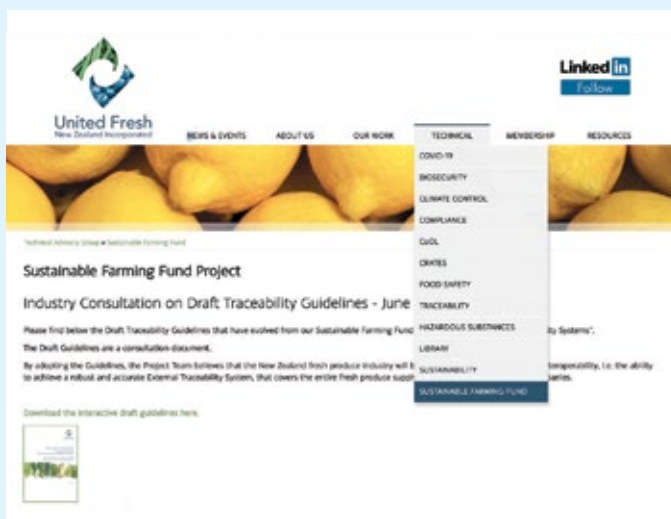


# Fresh Produce Industry Traceability

## Have your say today!

United Fresh is leading a three-year Sustainable Farming Fund project, funded by the Ministry for Primary Industries, looking at Traceability in the domestic fresh produce industry, which is now at the consultation stage.

We have recently developed Draft Produce Industry Traceability Guidelines which are now available on our website [www.unitedfresh.co.nz](http://www.unitedfresh.co.nz) for feedback.



Traceability is increasingly important in ensuring the safety of domestic and international food supply chains. Currently, traceability in the New Zealand domestic fresh produce supply chain is not working to a common standard. Every produce supply chain in New Zealand varies in its management of internal traceability and external traceability, with external traceability working well in some cases, or not at all in extreme situations.

The key audience for this project is the domestic fresh produce supply chain. This encompasses growers, wholesalers, retailers, and other participants including research organisations, consultancy agencies, etc.

We are sharing the Draft Guidelines with all members of United Fresh New Zealand Incorporated and the wider New Zealand fresh produce value-chain (including wine) to gather feedback which will feed into the final Guidelines.



## Ways to provide feedback

We need your feedback on how the Draft Guidelines would be helpful to your organisation. Your feedback will be incorporated in the final guidelines which will be published in early 2021.

### Here are our questions for you:

- How easy is it to follow the Draft Guidelines part of the document (section 2)?
- What improvements do you suggest?
- How will these Draft Guidelines help you review and implement effective interoperable traceability?
- How interested would you be in participating in a **webinar** workshop?
- How interested would you be in participating in a face-to-face **workshop**?
- What other aspects of achieving effective interoperable traceability would you like to see included in the Final Guidelines?

### Here are the ways you can provide your feedback:

- Send an email to [info@unitedfresh.co.nz](mailto:info@unitedfresh.co.nz)
- Call Anne-Marie Arts, United Fresh Technical Advisory Group on **027 279 5550** to discuss
- Complete our **online survey** on the Sustainable Farming Fund page on our website under the Technical dropdown here <https://www.unitedfresh.co.nz/technical-advisory-group/sff>

Find out more  
about United Fresh  
on our website  
[www.unitedfresh.co.nz](http://www.unitedfresh.co.nz)  
and follow us on



**We look forward to receiving your feedback  
on or before 31 AUGUST 2020.**





# PROMISING START FOR BIOLOGICAL CONTROL OF TOMATO POTATO PSYLLID



Words by Sally Anderson, VR&I co-ordinator



## Since the Tomato Potato Psyllid (TPP) was discovered in New Zealand in 2006 this small insect has caused problems for New Zealand's potato, tomato, capsicum and tamarillo growers.

Since then, growers have been waging a battle to control this insect pest. TPP cannot be eradicated and can only be controlled. Early on, industry recognised that solely relying on insecticides to control TPP was not sustainable. Although several existing natural enemies do attack TPP already in New Zealand (e.g. lacewings and hoverflies), these are already widespread in the horticultural environment and do not need to be released.

An additional 'tool in the toolbox' in the form of a biological control agent (BCA) was added to growers' armoury in 2016, when New Zealand's Environmental Protection Agency approved the importation and release of *Tamarixia triozae*, a parasitic wasp of TPP. This approval was the critical first step and marked the beginning of a three-year Sustainable Farming Fund (SFF) programme to improve the control of TPP with *Tamarixia* funded by the Ministry for Primary Industries (MPI) and TomatoesNZ, Vegetables New Zealand, Potatoes New Zealand, the NZ Tamarillo Growers Association and Heinz-Wattie's NZ Ltd.



*Tamarixia triozae* is a tiny wasp (approx. 1mm long), that lays its eggs on the psyllid nymph, which then hatch and eat the psyllid. The photo shows *Tamarixia* about to parasitise a TPP nymph. (Photo supplied by: Plant & Food Research)

The goal of the SFF programme was to establish self-sustaining populations of *Tamarixia* in New Zealand, to contribute to the control of TPP. This project was the first time that *Tamarixia* has been released as a classical BCA anywhere in the world. Classical biological control involves the introduction of a natural enemy of exotic origin to control a pest that is also often exotic.

The goal of the programme has been achieved.

The SFF programme officially started on 1 July 2016 and finished on 30 June 2020. Following the importation of *Tamarixia* into quarantine facilities at Plant & Food Research (PFR) and approval to release progeny of the imported parasitoid by MPI, the first releases were carried out in late 2017 by PFR staff. *Tamarixia* was released onto African boxthorn (a non-crop host of TPP) at sites in the Hawke's Bay and Canterbury. Small numbers of *Tamarixia* (batches of ~500) were released, and over the following two years PFR has re-surveyed these sites to see if *Tamarixia* were still present.

The great news from these surveys was that *Tamarixia* were able to survive two consecutive winters, as the PFR team found evidence of *Tamarixia* parasitising TPP at these locations. This finding confirmed that *Tamarixia* can establish self-sustaining populations in New Zealand where year-round populations of its TPP host can survive and environmental conditions are favourable. Given the relatively small numbers of *Tamarixia* released at these sites in Year 1, this is a remarkable result.

In addition to demonstrating over-wintering survival, follow-up surveys have shown that where conditions are favourable *Tamarixia* can spread quite large distances. This was especially true in the Hawke's Bay where parasitised TPP were detected up to 24km from the nearest release site and were found at 25 of 86 non-release sites surveyed in this region by PFR staff.

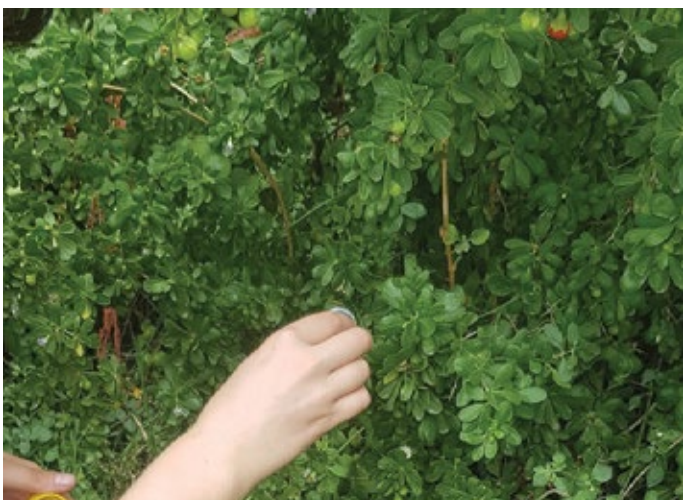
The effectiveness of *Tamarixia* as a BCA of TPP (parasitism rate) was also investigated, but harder to estimate because of the variability in sampling at release sites. The PFR team looked at the rate that *Tamarixia* emerged from TPP infested host plant material that was collected in the field and incubated in the laboratory. From these studies the average parasitism rate was 15%, with a maximum parasitism rate of 40%.

The second part of the programme was led by growers. Grower-led releases of *Tamarixia* occurred primarily over the second and third years of the programme. Over 18,000 *Tamarixia* were released by grower volunteers and over 10,000 *Tamarixia* were released by home gardeners supplied directly by Bioforce Ltd, who mass rear *Tamarixia* and sell it as a commercial product. The uptake by home gardeners was unexpected but extremely pleasing, as many smaller gardeners prefer not to use insecticides and a biological control approach is a benefit to this community.

Anthony and Angela Tringham of Curious Croppers were excited to be one of the first growers to participate in the *Tamarixia* release programme. They produce heirloom tomatoes for very discerning customers who are always interested in how the tomatoes are grown. Their approach is to take a funky and photogenic, agroecological approach to vegetable production. They are always looking for new tools to add to their operation, and *Tamarixia* is a brilliant addition to the mix. Angela notes that “we regularly showcase our farm to customers, and this whole of ecology approach creates a visceral connection with our customers.”



Angela and Anthony Tringham in the kitchen filming with Ben Bayly for his TV programme ‘A New Zealand food story’



**Top:** Release of *Tamarixia* onto organic potatoes in Hawke's Bay (Photos: Scott Lawson)

**Bottom:** Releasing *Tamarixia* onto boxthorn, Hawke's Bay (Photos: Caleb Burbery)

“

The long-term commercial availability of *Tamarixia* has been secured beyond the life of this programme





“We grow flowers inside and outside the greenhouses to feed all our insects. This strategy not only seems to be working, but it makes the whole farm seem much more alive.”

“I think this is a strategy that everyone could adopt, and this is why I am so in favour trying these approaches. And thank you to everyone who has helped with getting *Tamarixia* here. It’s been a long project,” says Anthony.

While the long-term hope is that *Tamarixia* will establish self-sustaining populations in the natural environment, growers can also potentially use *Tamarixia* to help reduce TPP numbers in their crops by carrying out targeted BCA releases into cropping environments. Another aim of the SFF programme is to help growers to understand how best to use *Tamarixia* in seasonal pest management programmes alongside agrichemical controls.

This SFF funded programme has provided the platform through which growers can now gain access to a new BCA for TPP in New Zealand. The long-term commercial availability of *Tamarixia* has been secured and Bioforce Ltd now supply *Tamarixia* commercially (<https://www.bioforce.co.nz/products/tamarixia.html>).

The releases and surveys carried out over three years provide the sector reassurance that *Tamarixia* is a viable option under New Zealand conditions to provide control of TPP, alongside naturally occurring predators and appropriate use of crop protection tools.

The *Tamarixia* release project was managed through the Vegetable Research and Innovation Board and was supported by TomatoesNZ, Vegetables New Zealand, Potatoes New Zealand, the NZ Tamarillo Growers Association and Heinz-Wattie’s NZ Ltd.

We wish to thank all the growers who participated in this project, and the PFR team who carried out the field surveys. We also wish to acknowledge the support of Bioforce and Lincoln University in supplying *Tamarixia* *triozae*. This project was funded through the Ministry for Primary Industries Sustainable Farming Fund (404861). ●



## THE PROGRAMME AT A GLANCE

- The *Tamarixia* SFF programme started on 1 July 2016 and finished on 30 June 2020.
- There were two main aspects to this programme:
  - Grower led-releases to ensure the establishment of *Tamarixia* in New Zealand horticultural environments.
  - Releases by The New Zealand Institute for Plant and Food Research Limited (PFR) to evaluate the establishment of *Tamarixia* as a BCA of TPP through post-release monitoring and for longitudinal study of *Tamarixia* survival, persistence, and parasitism rates.
- *Tamarixia* releases occurred for the last 3 years (from December 2017) over the spring/summer period.



## KEY SUCCESSES

- That *Tamarixia* can establish self-sustaining populations in New Zealand where year-round populations of its TPP host can survive and conditions are favourable.
- *Tamarixia* have the potential to spread large distances (up to 24km) in suitable habitats.
- The parasitism rate of *Tamarixia* averaged 15%, with a maximum parasitism rate of up to 40%.
- Over 18,000 *T. triozae* have been released by grower volunteers in this programme.
- The long-term commercial availability of *Tamarixia* has been secured beyond the life of this programme, providing growers with the opportunity to use the parasitoid as a management tool for TPP in their crops through inundative releases.



# PRODUCT GROUPS



ALL THE LATEST NEWS FROM YOUR PRODUCT GROUPS



**68** TOMATO RED SPIDER  
MITE POPULATIONS  
FOUND







# POTATOES' PANDEMIC RECOVERY



Words by Gemma Carroll : Communication & Engagement Office, Potatoes NZ Inc.

## Our industry's role in New Zealand's economic and social recovery, building on our strengths and playing a critical role.

The 2020 global pandemic crisis saw a rapid change to our on-farm management and to potato processing facilities. Our growers and employees adapted calmly and swiftly with innovative approaches to physical distancing and keeping their teams safe and well. Thankfully our integrated database meant that communicating fast-changing, sometimes daily responses, was very effective.

The greater impact was not so much to the changes in worker health and safety, but to a slowing of production due to the restrictions on-farm, which resulted in a backlog of produce. As soon as the alert levels dropped, the surplus fresh product was mostly moved into the supply chain.

The greater impact was in the food supply chain disruptions. With hospitality closed for two months, both fresh and frozen fries saw a significant drop in volumes moving to market. In addition, fresh produce outlets were closed as well, which hindered fresh potato sales. This meant some dumping of fresh potatoes, but also redistribution to food banks. Thankfully in times of crisis, consumers turn to comfort food and therefore crisps maintained good sales, with shelves often emptying out in store.

Export of fresh potatoes has remained stable in volume but there has been a significant drop in value from \$800 per tonne at the start of 2020 to around \$450 per tonne at present. New Zealand exports of frozen fries remain pretty much where they were in 2019 for volume and there has been a minimal drop in value.

The frozen fries industry has been extremely concerned over the potential dumping of European frozen product, as the industry in Europe has seen a glut of 2.6 million tonnes due to their hospitality closures. Europe has defended itself in response to sturdy New Zealand media coverage of the concerns, however the New Zealand industry has pushed ahead with an application for anti-dumping to the Ministry for Business, Innovation and Employment (MBIE) submitted on the 3 July 2020. Minister Faafoi indicated sympathy in a meeting with Potatoes NZ, and MBIE offered support if needed in evidence gathering and preparing the application.

According to PNZ analysis, dumping margins are currently anywhere

between 95% to 151%. We expect these margins to increase. This will lead to price undercutting for the New Zealand industry of between 18% and 38%. The damage this will cause will destroy the New Zealand industry.

Given that Potatoes NZ has shown in the application to MBIE that dumping exists and huge surplus inventories of frozen potato products exist, it is clear that the threat is real and an investigation into anti-dumping duties is warranted.

A separate Potatoes New Zealand commissioned Economic and Community Impact Report from Business and Economic Interest Limited (BERL) concludes that in the absence of a duty, potato processors would be forced to cut production and demand for potatoes from New Zealand growers would drop. Inevitably, this would lead to a loss of employment and a threat to the viability of some potato growing businesses. The imposition of an anti-dumping duty on dumped imports of frozen potato products would help to maintain demand for New Zealand grown potatoes, and ensure



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## The frozen fries sector of our industry accounts for 55% of our \$1 billion dollar value, and any threat to New Zealand process value will impact on the fresh sector as well.

the continuity of employment and business in the growing sector. A duty would mean that the potato growers would experience the same market conditions, including competition between themselves and fluctuations in market prices, as they did before the dumping occurred.

Dumping of imported frozen potato products into the New Zealand market will have a range of damaging effects. Steps should be taken to avoid these impacts. The BERL report can be read in full upon request and on the PNZ website <https://potatoesnz.co.nz/news-info/resources/>

The frozen fries sector of our industry accounts for 55% of our \$1 billion dollar value, and any threat to New Zealand process value will impact on the fresh sector as well. The New Zealand domestic market for frozen fries is historically about 85% New Zealand product and 15% imported product. We don't want that ratio to change in favour of short-term cheap European imports.

In addition, potato growers also grow other veges and the economic impact of reduction in the process market could be far reaching. Everything is connected, and to ensure food security in a time of uncertainty and the likelihood of half a million New Zealanders being unable to afford to buy certain foods, we are looking for ways to ensure grower and consumer confidence.

This has included calling all growers during the early response weeks at Levels 3 & 4, as well as developing a pandemic recovery and transformation plan. The Recovery and Transformation plan has been informed by surveys of growers, economic reporting and a market research project. You can view the

market research on our website <https://potatoesnz.co.nz/news-info/resources/>

It is the first such report in 10 years and has been a very useful exercise in understanding consumer behaviour. We can see customers buy primarily at supermarkets and prefer fresh potatoes over processed. Consumers want to know more about the nutritional value of potatoes, the carb myths, as well as to celebrate the folklore of potatoes, with many of the qualitative interviews involving a sharing of family traditions, old recipes and favourite varieties.

The latest Plant & Food Research *Fresh Facts* also informed us that Kiwis spent more money in 2019 on potatoes than on any other vegetable. Although our industry has felt the stress of the pandemic crisis, it is reassuring to see evidence that potatoes are a definite, well-loved staple for consumers.

To maintain grower confidence and a secure food supply chain, it is essential that we remain agile during the recession and continue to address the long-term challenges of environmental regulation.

PNZ has come a long way in developing the Sustainable Vegetable Systems (SVS) project (formerly The Emissions Project) and has multiple workstreams underway, including field trials, Overseer evaluation and improvement, and knowledge extension of new tools in the future for growers across the vege sector.

At the same time we have aligned our submissions for Plan Changes and National Policy Statements to reflect the data that will come from the SVS project. It is clear that the council changes are complex and region

specific. This means that conveying the meaning of changes and the process for growers is an ongoing effort and will involve repeat regional visits, following up from those made in late 2019. The first of the visits in 2020 is on 15 July in Canterbury. Other regional visits will be listed on our events webpage.

One of the benefits to come from the SVS project is the input from Plant & Food Research social scientist Toni Whyte, who will inform SVS extension methods. Grower engagement is critical to recovery and knowing what the latest social science research says about farmer/grower engagement will be invaluable.

Opportunities that arose from the challenges of the pandemic crisis were both the connection with all our growers, in our welfare calling rota, and the connection with consumers in our market research.

Our latest values and volumes calculations for 2019 indicate an increase in planted area from 10,344ha to 10,417ha and an increase in the overall industry value to \$1.1 billion dollars. This means we are still on target at the end of the 2019 financial year, to achieve our strategic growth targets. The next 12 to 24 months will be the true test. Our industry though shaken, is resilient, and we aim to support the resilience of the whole vege sector with our research in SVS and by continuing to feed New Zealanders healthy local produce. Our research, our approach to planning and our information systems will be the backbone of grower recovery and will contribute to New Zealand's economic recovery. ●





# NEW BIOSECURITY RESOURCE FOR VEGETABLE SECTOR

Words by James Kuperus, Chief Executive : Onions NZ Inc.

## **New Zealand vegetable growers now have access to grower-oriented, on-farm biosecurity guidance, thanks to a collaborative bid for government investment.**

Vegetables NZ, Process Vegetables NZ, TomatoesNZ, Onions NZ, NZ Asparagus Council and NZ Buttercup Squash Council identified the need for new biosecurity guidance that could be used by all grower members. These groups were successful in securing funding from government via the Sustainable Food and Fibres Futures (SFFF) Fund.

Two vegetable-specific on-farm biosecurity resources have been developed thanks to the funding: one for covered crops and the other for outdoor vegetable production.

All growers understand that on-farm biosecurity is an important everyday practice that is best integrated into all daily on-farm activities. However, on-farm biosecurity guidance can be wide ranging and overly complex, given the many different sources that provide it.

“

**Vegetable product groups have long tried to keep biosecurity guidance up to date for growers, but a siloed approach to preparing this guidance led to information being repeated and growers inundated with different resources to reference.**

The two new biosecurity manuals have utilised biosecurity guidance that already exists by referencing other useful resources where required. Both versions of the manuals have a resource page directing those interested to additional information sources on specific topics such as: building your own on-farm biosecurity plan, and washdown codes of practice for farm machinery.

To ensure these resources are relevant and useful, they were created specifically with vegetable growers in mind, and have incorporated grower feedback throughout the content development process. Each version of the manual also includes important peripheral information such as:

- the importance of good on-farm biosecurity practices
- government's role in biosecurity responses
- case studies of previous horticulture biosecurity incursions and their impact on growers and the industry.

The biosecurity manuals have been distributed in hard copy to all growers affiliated to the product groups listed above. Additional hard copies of these resources can be obtained by getting in touch with your representative product group.

The resources are also available on the Product Groups' websites, and the Horticulture New Zealand and the Vegetable Research and Innovation Board websites. ●





# Harrier (SV1752NH)

Providing onion growers with excellence in flexibility and adaptability



[seminis.com.au](http://seminis.com.au)

  
**Seminis**  
grow forward





# GISBORNE'S TAKE ON VEGETABLE GROWING CHALLENGES

Words by Antony Heywood, General Manager : Vegetables New Zealand Inc.

## The Gisborne Produce Growers Annual General Meeting had a good turnout in response to a season that encompassed drought, poor crop volumes, Covid-19 and a Council that is struggling to hear grower issues.

Gisborne is not alone when it comes to grower issues with councils. The multitude of plan changes in regions across New Zealand are proving difficult for growers to understand and chart a forward path through to continued prosperity.

### My take on the key issues for Gisborne

- 1 How to meet Council requirements.
- 2 How to obtain labour to harvest crops.
- 3 How to provide food security, which is vital for rural communities like Gisborne.

Horticulture New Zealand, in conjunction with Vegetables New Zealand Inc. (VNZI) have developed pathways for the key issues facing Gisborne:

1. The New Zealand Good Agricultural Practice (NZGAP) Environmental Management System (EMS) add-on is available to all NZGAP growers. It provides a step-by-step process to develop and implement a Farm Environment Plan (FEP) to reduce environmental impact and meet regulatory requirements.
2. GoHorticulture is an initiative to encourage people into our industry and support them to embark on great careers. It involves a network of Career Progression Managers stationed around the country, and a dynamic website: <https://gohorticulture.co.nz/>
3. Food security is a topic gaining traction after food shortages developed through the Covid-19 crisis. It is a topic about which HortNZ and VNZI have upped their discussions with the government in readiness for the development of crisis plans and the reform of the Resource Management Act.

Probably the most pressing topic is understanding the pathway to gaining a consent for irrigation. If a grower is unable to renew or gain a consent, they are unable to grow a crop. Economic survival is then in question.



What is obvious is the need to have a clear pathway for all growers to gain a consent, no matter which council they are dealing with. While each region and catchment will have different requirements based on activity, there are some common points to consider:

- All farm systems will be affected economically by any plan change.
- Water takes are likely to be limited to reasonable use. In over-allocated catchments, there may be no new water allocated, unless storage is created.
- Activities need to manage non-point source discharge to reduce the effects from operations, and to prevent increases in catchment discharge limits.
- Farm systems will need to demonstrate they are working to good management practice in many cases, and best management practices in some cases.
- All farm systems will need to have a Farm Environment Plan by 2025.
- Growers will need to provide evidence they are meeting the conditions of consent and implementing their Farm Environment Plan actions.

Farm Environment Plans will become compulsory for all growers with land above 5ha in the coming years. Some councils are developing region specific approaches. HortNZ and the vegetable product groups are advocating for a nationally consistent framework built on the existing GAP assurance schemes, as an alternative approach for growers.

I would recommend the NZGAP - EMS as it has an independent audit as a certifying outcome. This is recognised by councils as a high-level verifying endorsement. ●



“Our customers will have the benefit of both local and international product support for our wide assortment of excellent vegetable varieties,” says Herman van der Gulik, (pictured), Sales Manager, Enza Zaden New Zealand.

**ENZA ZADEN**



Enza Zaden is open for business in New Zealand. Enza Zaden is now supplying direct to growers, after many years of breeding and supplying seed into the market via other parties in New Zealand. Enza Zaden was founded by Jacob Mazereeuw in 1938 and is still owned by the Mazereeuw family today. At 82 years young Enza Zaden knows about long term business and building strong connections via a multi local approach, to embrace regional diversity and global scale.

Enza Zaden breeds for taste, looks, yield, labour friendliness and plant disease resistance. Enza Zaden uses classical breeding techniques, in conjunction with advanced technologies in the breeding process, without genetic modification. Consumer desire and logistics demands are changing market conditions for growers at increasing speed. Growers and breeding companies are responding to this change by adapting faster and by optimising traditional breeding cycles.

For availability and technical advice contact the Enza Zaden New Zealand commercial team direct or Beverley Vahai in customer support, by phone on 09 963 0122 or email sales@enzazaden.co.nz. Or contact our technical specialists; Field Crops: Aniel Hari on 021 367 242 or Jennifer Sinclair on 021 749 471, Glasshouse Crops: Louise Millar on 021 711 709, or if you are not sure, Herman van der Gulik on 021 858 939.

**MEET THE ENZA ZADEN SEED RANGE:**

**PUMPKIN:  
GREY PUMPKIN**

- Minaray
- Nelson
- Sampson
- RED PUMPKIN**
- Orange Summer

**ZUCCHINI:**

- Desert
- Salvador

**CAULIFLOWER:**

- Altair
- Serenity
- Nova

**FENNEL:**

- Preludio

**LEEK:**

- Chinook
- Takrima

**SPINACH:**

- Acadia
- Pacer
- Tundra
- Trailboss
- Crosstrek

**ONION:  
RED ONION**

- Cabernet
- Pinotage
- Malbec

**ONION:  
BROWN ONION**

- Shinto
- Manuka
- Goblin
- Rimu
- Plutonus

**LETTUCE:  
BUTTERHEAD  
LETTUCE**

- Analena
- Barilla
- Tatienne

**ICEBERG LETTUCE**

- Botiola (Icebreaker)
- Diegola
- Glendana
- Pedrola
- Icemaker (Icefall)

**ICEBERG LETTUCE**

- Oriola
- Pelayo
- Ronodinla
- Vicentola
- Waltz

**BATAVIA LETTUCE**

- Aveleda
- Melina

**COS LETTUCE**

- Albara
- Corbana
- Hampole
- Maureen
- Moonred
- Xalbadora
- Xaroma
- Xenalora
- Ximenes
- Xiomara
- Xisca

**LEAF LETTUCE**

- Buckley
- Budgee
- Burgandy
- Dabi
- Ezatrix
- Ezmari
- Ezme
- Ezmina
- Ezra
- Ilema (Verde)
- Lea
- Linux
- Mathix
- Rhone
- Skilton
- Tuska
- Vizir
- Wildebeast
- BABYLEAF  
LETTUCE**
- Friel

**HERBS:**

- BASIL**
- Edwina
- Elidia
- Emily
- Marian
- Piccolino
- Rosie
- Thai
- CHIVES**
- Kobold
- Naomy
- CORIANDER**
- Marino
- DILL**
- Ella
- Goldkrone
- ROCKET**
- Bellezia
- Tricia
- THYME**
- German Winter



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WILL WIN AN AWESOME WEBER FAMILY BBQ!**

WINNERS OF THE WEBER FAMILY Q 3200 PREMIUM GAS BBQS WILL BE DRAWN 15 OCT 2020.





# GLAD TO BE BACK

Words by Helen Barnes : General Manager, TomatoesNZ Inc.

## Hello, we are glad to be back!

The past few months have certainly been challenging, for you as business owners especially.

Thank you for your resilience, and continuing to provide all New Zealanders with your wonderful products. I really appreciated so many of you engaging with us during this time, and thank you to everyone who phoned or emailed Karen and I to tell us how you were getting on, to ask questions, and to explain your challenges so that we could do our best to advocate for you. Please continue to keep in touch, we are always glad to hear from you.

Please see our website news page for our April, May and June updates.

### Tomato Red Spider Mite

At the end of May, Biosecurity New Zealand (the Ministry for Primary Industries) found two small populations of tomato red spider mite (*Tetranychus evansi*) on nightshade weeds at two Auckland locations during routine surveillance. Industries potentially affected by this pest include tomatoes, capsicum, potatoes, and arable beet crops. It has a wide range of non-crop hosts.

The response partners (industry and MPI) have initiated a response. At this stage the response will consist of a delimiting survey to try and understand how far the mite has spread. A technical working group of mite specialists and entomologists has been assembled and they are developing recommendations on the survey design and timing, and will look at control tools.

We have some information available on the TomatoesNZ website about the mite, including a downloadable "Exotic Pest Fact Sheet" with a description and pictures of the mite. We will keep the website updated as the response progresses.

Helen talked about the mite and the response process with Radio NZ in late June.

### Energy and Emissions Trading Scheme

With recent sharp rises in the Emissions Trading Scheme (ETS) unit price, there has been a lot of interest in the impact and options for growers who are currently reliant on fossil fuels for heating their boilers.

TomatoesNZ has met with several government agencies to raise the profile of our industry, explain our challenges, and explore what government support could be provided for growers impacted by the recent price rises.

This includes meeting with NZ Green Investment Finance; the Ministry for Business, Innovation & Employment (MBIE) Energy Transitions team; The Energy Efficiency Conservation Authority (EECA); and MPI Investment Services. We have also had meetings with energy consultants and boiler and biomass suppliers who have offered information and opportunities to work together. We will bring this information together and develop a path forward for the industry.

Helen has also been involved with a couple of media enquiries to help get our story heard and call for support, including an article in *Energy News* on 25 June, on Radio NZ (11 June) and TVNZ (9 July).

### Covered crop grower survey

One thing that has become to very clear as we talk about energy options for growers, is there is not a 'one size that fits all'. The location, heat source, age of equipment and size all play a part, as does a grower's ability to manage change. Given this, we have recently sent out a survey to all covered crop growers to gather some baseline data on growers' current heating requirements and capacity. We are also seeking feedback on growers' interest and capacity to implement alternative options.

This will provide valuable information to support our requests for government support, and help shape a project to support growers to transition to low-emission options.

Projects we are considering include energy audits; investigative and feasibility studies; various case studies on available options; and providing support from technical consultants.

### 2020 AGM

The TomatoesNZ 2020 Annual General Meeting will be held at 3pm on 25 September 2020, along with the Horticulture New Zealand and Vegetables NZ AGMs. It is being held at the Pukekohe Indian Centre. ●



# QTRACA: GIVING YOU CONFIDENCE IN TRAINING AND COMPLIANCE

**When Mike Cook started QTRACA as a food safety application for food producers, he didn't realise the benefit the QTRACA training module would have for growers that employ a seasonal or casual workforce.**

The innovative cloud-based application from QTRACA allows growers to enter the names and emails of potential workers into the system and then invite them to fill in custom application forms.

This information along with supporting evidence such as work visas and driver's licences, can all be reviewed once submitted by an applicant. Results can be filtered so you can easily find people with the required skills, and then once selected, names can be exported with the required detail for import into your payroll or other systems.

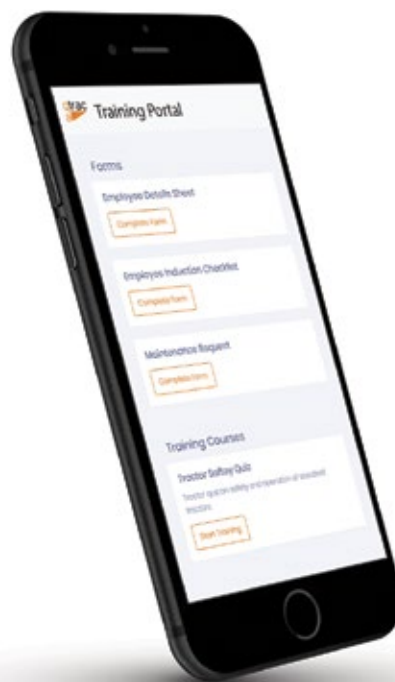
The amount of time this saves employers sorting through paperwork is considerable, and once in the system workers can be switched from active to inactive as the seasons change.

Applicants that are selected can then be trained using the same portal, which allows them to complete induction, training quizzes, or review standard operating procedures all from their mobile devices.

For a lot of workers, English is not their first language. For growers that have a large non-English-speaking workforce, no problem, you can create forms and training in any language you like. Being able to distribute training in the required language means higher comprehension by staff, and so the likelihood of mistakes is reduced dramatically.

Allowing staff access to digital forms, such as maintenance requests, allows you to analyse data immediately, be alerted when data is out of spec, notify users of certain events, and analyse trends in data. Risk is not only reduced by having records stored securely online, unaffected by events such as flooding and fire which can damage or destroy manual records, but by data being received exactly when something happens so it can be rectified immediately.

In addition to staff training and induction, QTRACA is packed full of features to help manage food safety and meet compliance.



Automating recording of temperatures or other environmental monitoring is simple with QTRACA. Temperature readings can be taken in real-time and can alert users when a reading is out of spec, giving you confidence that your product will be the best quality, and not wasted due to environmental issues.

Complaints can be managed and analysed seamlessly within QTRACA. Non-conformances can be created from complaints if required, and then actioned via corrective or preventative responses.

One of the biggest benefits of QTRACA is being able to gain visibility into your business from anywhere, at any time. This enables you to be proactive, discovering issues before they become costly mistakes.

Get in touch now to find out how simple and affordable it can be to switch to a paperless environment today. ●



Contact Mike Cook on **021 502 196** or email **mike.cook@qtraca.com** or visit **www.qtraca.com**





# HEAT AND CONTROL CELEBRATES 70<sup>TH</sup> ANNIVERSARY

**Founded in 1950, Heat and Control Inc.®, a world-leading equipment manufacturer and food processing industry supplier, celebrates its 70<sup>th</sup> anniversary on June 27, 2020. Heat and Control will mark this platinum occasion with a 12-month long celebration.**

With seven decades of modernising equipment solutions, the company continues to advance the food and pharmaceutical industries, as well as servicing several other sectors. The management and staff of Heat and Control take pride in the machinery they manufacture and the customers they serve. Strategic partnerships have offered customers ultimate choice, efficiency and performance and provided a resource that can be relied upon into the future.

A family company, Heat and Control continues to explore opportunities to uplift employees, satisfy customers, and build meaningful partnerships. "Our employees, customers and partners are the heartbeat of Heat and Control," says founder and chairman Andy Caridis.

“

**"I invested my entire adult life into this company with a hope and a dream. We started with few but now we are many. For that, I am grateful."**

Andy's son Tony Caridis, company president, adds, "We have incredible people in our organisation, customers believe in our abilities, and there is respectful collaboration with our global partners. As the president, I would like to say thank you. Here's to celebrating the next chapter of innovation together!"

Heat and Control started in industrial process heating applications, such as heat treatment furnaces and combustion systems, and quickly became food focused as the industry experienced growth in the 1960s. By the 1970s, they supplied complete food processing systems that offered a new level of modernisation and automation. Through the 1980s, they partnered with Ishida Japan, a leader in weighing and packaging technologies, and acquired several factories to serve growing customer demand.



The 1990s introduced huge product line expansions and additional offices to serve the food market. New technology was introduced with FastBack®, bringing horizontal motion conveying to the food processing industry, providing better product handling between processing and packaging equipment, and later revolutionising the snack industry with the development of the now popular On-Machine Seasoning method. The acquisition of Mastermatic, a frying technology company with a significant history and portfolio in coating, frying, and auxiliary systems, strengthened the offering to the food industry.

In the 2000s, Heat and Control opened several factories and offices around the globe, increased development of improved controls and information systems, and partnered with CEIA®, the world's leading metal detection manufacturer. Spray Dynamics® joined the Heat and Control brand family in 2011 and significantly increased seasoning and coating capability. Each of these strategic growth experiences and partnerships over the years has worked to build an end-to-end line solution provider that helps food companies take better control of their production and make better quality products.

With almost 1,600 employees worldwide in more than 30 offices, Heat and Control brings science, imagination, and unmatched commitment to every project. Striving to do more, they help customers bring their products to market. ●

<https://www.heatandcontrol.com/alwaysinnovating>



# ASUREQUALITY'S NEW LOOK

Helping Aotearoa  
shape a better food world



**AsureQuality provides the broadest range of food assurance services in New Zealand, with over 100 years' experience working closely with our food and primary production sectors. It's been 13 years since the two state-owned enterprises ASURE and AgriQuality merged to become AsureQuality, and after a delayed launch due to COVID-19, their team are excited to finally share their new look.**

The new branding is designed to better reflect AsureQuality's business today, their shared role for Aotearoa, and the services they deliver. Along with the new look branding, they have also developed a new Purpose statement – Helping Aotearoa shape a better food world.

A common theme amongst AsureQuality's people is the passion they feel for their role and the personal connection they have to their sector partners and the industries they serve. Discussions throughout the business show high levels of personal alignment with this Purpose – connections to what people do every day and the feeling that AsureQuality is 'of and for' New Zealand, is particularly strong.

AsureQuality's chief executive officer, John McKay, explains "People in New Zealand's primary production and food sectors work hard every day to uphold what Aotearoa stands for in food – a higher standard of quality and safety.

As a company, we are proud to work with them to help build and protect this enduring trust in food. Our new Purpose captures our reason for being as a business, inspires our team and guides us in the decisions we make every day."

"We're very excited to launch our new branding and Purpose which really resonate with our people. Together, we've talked a lot about our New Zealand-ness and our deep sense of responsibility to do the right thing for food. The introduction of Kaitiaki Kai to our brand represents our shared role in the Aotearoa New Zealand food and primary industry sectors," John says. "Kaitiaki Kai literally translates to guardians of food, but it has a much deeper holistic meaning. It captures the guardianship role, but also the outcomes of successfully delivering in that role. Kaitiaki requires collaboration and working with others; sharing knowledge resources and skills so that everyone benefits – not just in the immediate future but for generations to come. Actively demonstrating Kaitiaki Kai demands we bring a personal sense of commitment to our partners – New Zealand's farmers, growers, producers and manufacturers, and the food world."

AsureQuality launched their new look in June, along with a new website which provides a better resource for their customers. As they are such a broad and diverse business, the new branding will progressively roll out and become more visible over the coming months. ●

[asurequality.com](https://asurequality.com)





# BIOSTART: HARNESSING MICROBES TO SUSTAINABLY INCREASE YIELD

**Biostart, a leading New Zealand AgriTech company, began developing their microbe-based products to help farmers with productivity and environmental issues 26 years ago. By backing up their biological approach with extensive trialling and scientific research they now have a range of products that harness naturally occurring microbes to improve plant and animal health and yields and help the environment.**

Like so many Kiwi businesses, BioStart was started by a farmer with an original idea, a 'give it a go' attitude and a spare corner in the shed. In the 26 years since they started, their product range has broadened to include animal health prebiotics, silage preservatives, soil biostimulants, plant protection products and more.

BioStart's plant biostimulant range has long been shown to improve soils and yields in vegetable crops, and recent trials have further reinforced just how useful these products are for bringing the soil back to life for growers. The biostimulant products are based on fermentation extracts that activate the naturally occurring microbes in the soil or on leaves. The products were developed with growers so they can be used in existing programmes, which means growers can easily add a biological edge to their enterprise.

Chief executive and scientist Dr Jerome Demmer explains the link between microbes and plant growth and health: "Plants cannot grow without the help of microbes to absorb nutrients from the soil. There are naturally occurring microbes living in the root zone, inside the plant and on plant surfaces. They are essential to the plant's survival, but getting the right mix of microbes is key to increasing productivity or plant health."

BioStart's key soil biostimulant, **Mycorrcin**, is applied to soil around plants to improve plant health and resilience by stimulating soil microbes, including mycorrhizal fungi. Plantlets establish faster, with greater root growth leading to earlier cropping and higher yields. Additionally, mycorrhizal fungi help aggregate soils to improve structure.



*Same age brassica seedlings where the upper row has been Mycorrcin treated*

Their foliar biostimulant, **Foliacin**, enhances plant growth through stimulating the microbes on plant foliage to help improve recovery from chemical and environmental stress. Further, Foliacin optimises photosynthesis by aiding green leaf retention leading to greater growth, less rejects and higher yields.

**Digester** was developed to speed up the breakdown of crop trash or sprayed out cover crops. It activates naturally occurring saprophytic microbes which break down lignified cell walls. Digester speedily returns soil nutrient and improves cation exchange, soil moisture holding capacity as well as reducing disease transfer between crops, contributing to a better yield in the next crop.

The latest trials on broccoli and lettuce showed that applications of these biostimulants resulted in a yield improvement ranging from 8 to 11% with better crop uniformity and less rejects. In potatoes yields were increased an average of 11% over eight trials, whereas carrot and red onion yields were lifted by 15%.

Twenty-six years of developing products, scientifically testing and trialling them with commercial growers puts BioStart in the position of being able to support horticulture to be more productive while protecting and improving the environment. ●

For more information on BioStart products call **0800 116 229** or visit **www.biostart.co.nz**

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<b>Cameo</b> (W40 x H65mm)	\$145	\$140	\$135	\$125

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