

Stuart Kilmister runs Kilhaven Orchards with his brother Philip. They hope to see up to 30 RSE workers arrive soon, as they've lost most of their permanent staff to Australia.

Lack of labour,

abundance of growth

It's hard work keeping your chin up after three years of a pandemic when it's still a struggle to recruit staff. The horticulture industry's getting by with a little help from friends, Farmlands and tech that could make for a profitable pipfruit harvest despite the labour shortage.

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In January 2022, after a very good growing season, Aotearoa's apple and pear crop for the year ahead was predicted to reach 601,000 tonnes. A potential 23.2 million 18kg boxes were destined for customers in more than 80 countries – provided fruit was able to be picked and packed.

In an average year, the crop estimate assumes a normal growing season without adverse weather events or labour and supply chain problems. Unfortunately, like the two before it, 2022 proved to be anything but ordinary. By May, New Zealand

Apples & Pears (NZAPI) had released a crop re-forecast predicting a decrease of 12 percent on its pre-season estimate, after weather events in key growing regions and labour shortages during harvest saw growers unable to maximise their crops.

As Omicron continues to make its presence known, the question on the horticulture industry's mind is: how much of the summer 2023 pipfruit crop will get picked and packed? Pre-pandemic, labour requirements were responded to by locals and foreign workers under the Recognised Seasonal Employer scheme (RSE, >>

which allows the horticulture and viticulture industries to recruit overseas workers for seasonal work when locals aren't enough), with backpackers also making up essential numbers. Then along came Covid-19 and border closures saw that international supply all but dry up.

As the upcoming picking period draws closer, Horticulture New Zealand Chief Executive Nadine Tunley advises that, "Even with the borders open, there will not be enough people to meet our industry's seasonal labour needs. At the height of the harvest, we need thousands of extra workers. That's why the cap on the RSE scheme needs to be increased and why the government needs to make it easier for people to come to work in New Zealand."

Flexible hours are also among the tactics being employed to make the sector more appealing to locals, including school working hours for parents.

With the workforce 60,000 strong as we head towards apple-and-pear crunch time, for the umpteenth year in a row, the entire industry is reporting a labour shortage. "That's every grower's chief concern," says Tunley. "Our industry is going all out to attract and retain workers. Previous years' attraction campaigns are in full swing and growers are offering attractive packages, which can include subsidised accommodation, transport and meals, as well as bonuses." Flexible hours are also among the tactics being employed to make the sector more appealing to locals, including school working hours for parents.

Alongside his brother Philip, Stuart Kilmister runs Kilhaven Orchards – 40 hectares of apples and pears planted by their parents in 1983 on a property located between Napier and Hastings that's part of the Mt Erin Group grower co-operative. He hopes to see RSE workers start arriving in about November, in time for thinning.

"We've been using plant growth regulators to chemically thin because the labour's not there and we've got a retiree who's helping us to spray, but other companies are so stretched they're using helicopters to spray, at huge expense," he says. "During harvest, we have up to 30 people and without RSE workers, that'd be it – we just wouldn't be able to run. We've lost our permanent staff, who have either gone to Australia or exited the industry because there's been a lot of pressure, and we haven't been able to replace them because there's just not the permanent people, so we're basically running it with just ourselves."

"We will have a group of about 16 RSEs come in from Vanuatu and Samoa and then I'm hopeful that with the borders opening up to backpackers

as well, we'll be able to recruit some of them to top us up. We've been leaning on people who are basically retired to come out and help us and we'll probably do a little bit of that again, so it's just winging it!"

Also in Hawke's Bay and with Mt Erin Group is Mark Ericksen of Waima Orchards, a fourth-generation family enterprise that produces apples and gold kiwifruit. He says what he likes best about his vocation are "the dynamics and the challenges, but challenges can be determined in two facets. The challenge of growing a crop is the enjoyable part, but the challenge of the labour shortage is stuff you can't control. In growing horticultural crops, you're tracing all weather events, so the adversity there can be quite intense. You've got to be quite a resilient sort of character, but with those sorts of things, you know what you're dealing with, so [to an extent] you can plan around it. I've been in this game 30 years, and the labour shortage is probably the biggest nemesis for the

grower. It's just so difficult to plan.

"The best thing we've got going at the moment in this country is the RSE scheme, but we haven't got anywhere near enough [of these workers]," he continues. "Horticulture is growing at a rapid rate, but when you have the uncertainty of labour shortages, people stop or slow their investing and that's all future profitability."

On his 45 hectares, Ericksen employs seven full-time staff plus "a lot of casuals – we can be up to 80 staff on the peak of the kiwifruit season". That's just on site, excluding the packhouse and coolstore. "We use about 20 staff for the apple harvest, so we're using locals to top up 12 RSE workers, [people from] all walks of life. We take what we can get, and I don't say that lightly! That's effectively how it is at the moment – you've got to be a doctor, a lawyer, an accountant, a counsellor... you're dealing with all sorts of issues. I love working with Kiwis, but we do need people with the right mindset to come to work to make a difference, not just to eat their lunch. It's that green-fingers approach – people need to be able to get their hands dirty and understand how plants grow. If they don't have a bit of passion for it, it doesn't help the end goal; if you haven't got the right labour at the right capacity, you don't get jobs done on time and you don't get the production or the quality you desire."

Kilmister would no doubt agree. He sees recovery as "a two-stage approach. We're a people-dominated industry and we need more people, so initially, we need to let in skilled people to enable the industry, and then a longer-term goal would be to attract people into the industry and upskill them through the training institutes. With the apple industry, everyone thinks they're just going to pick apples with a picking bag, so we need to change the perception of what a career path looks like."

As part of the 2022 Budget, the government announced a further \$230 million for the Apprenticeship Boost programme and its extension until December 2023. The funding made >>



Mark Ericksen of Waima Orchards (left) has been in the game for 30 years and says the labour shortage is probably the biggest nemesis for the grower.

to employers to help them keep and take on new apprentices will support an additional 24,000 apprenticeships. Other interventions currently in place include Horticulture New Zealand's GoHort Career Progression Manager (CPM) network. Designed to strengthen horticulture career pathways, it has improved long-term employment rates and its collaboration with polytechnics and universities has resulted in a steady uptake of horticulture training, with more than 5,000 Kiwis in training or employment as a result.

Farmlands Head of Horticulture Mark Daniels has been with the co-op for nine years. With its finger on the pulse of products, services, advice and industry insights, is Farmlands able to help its shareholders and customers handle the labour issue?

"A lot of that stuff is out of our hands," he laments, "however, our team members have very strong relationships with our growers/ shareholders. A lot of our people have worked in the industry themselves for a long time and been growers or worked for corporate growers; we have people operating in this sphere with a lifetime of experience, so they're really part of that community and aware of what's going on – there's a strong understanding of the issues and a real empathy around them too. Be it labour constraints, adverse weather or poor-quality fruit, that understanding is really important, so we can support our shareholders effectively. It may not be that we can provide them with something to solve the challenges, but it may just be an understanding of what they mean for their business, what they mean for inputs or what they can afford or not afford to lose."

In the lead-up to the pipfruit season, Farmlands' staff are actively assisting on practical and emotional levels. "Our technical advisor is really supportive," says Ericksen. "He's an ex-manager of orcharding himself, so he understands the ins and outs and the nuts and bolts. Having someone like that to talk to and bounce ideas off has been fantastic."



Ericksen checking the orchard with sons James and Archer.

In preparing for the worst while hoping for the best, growers are using technology as a key tool to reduce the people power they require. By and large, robotics remains in the prototype stage worldwide, but growers are adopting the tech that's available for everything from picking and packing to hedging and spraying. Motorised platforms are being used to allow fruit picking at heights usually accessed by ladder, thus opening up a broader labour force by enabling those who might otherwise not be capable or confident enough to climb one. Automated machinery is being integrated into packhouses, mechanical hedging is reducing labour needs and many growers have their eyes on GPS-enabled tractors that can steer and spray unaided.

"We upgraded our [packhouse] line so it does it by AI [artificial intelligence] that picks out all the defects," says Kilmister. "That's helped us over Covid because the packhouse has staffing issues and we're able to run it with fewer people."

He's also directing funds into tech that takes the physicality out of orcharding. "It's quite a physical job with a ladder and a bag, so we've invested in picking platforms and things like that to try to improve efficiency," he says. "Basically our goal is to remove ladders from the orchard."

Being tech-ready also means future-proofing from the get-go. "The innovations are seeing new apple orchards being set up in a 2D design," says Daniels. "Rather than having big, bulky trees, it's much more of a row crop with a view to current and future automation. A large, roundish, three-dimensional tree is hard to spray and pick because you've got to get inside it, and a robotic picker just won't be able to handle that. With a 2D design, those machines are able to operate effectively."

Of course, there's no point planting more trees if you can't get the staff to pick or pack the resulting fruit, so some growers' current strategies include pulling back on planting to invest in tech instead. Named World Fruitgrower of the Year at the inaugural

"I'm optimistic because New Zealand has great product and there's demand for it. You just look for the exciting stuff that's happening." – STUART KILMISTER

World Growers Awards in 2006, Waima Orchards has been wanting to look at expansion, but Ericksen says the labour shortage has put a real damper on their growth potential.

"That's where embracing artificial intelligence and precision farming is key. We've invested outside of orcharding, to speed up, enhance and improve to the nth degree. Effectively everything we use or do needs to have processes and systems to justify the inputs, because we need to have our outputs recognised globally to be as clean as green as possible and farmed in the most sustainable manner. So we've got precision farming tools we're using with our iPads that let us see where we need to put more or less fertiliser, track insects, pests and diseases, and do more monitoring to see where we can improve, so every hectare is at maximum production."

Adoption of technology might help attract both older workers (whose valuable knowledge may outweigh their physical prowess) and the younger generation (seeking contemporary careers) into horticulture. Father-of-three Ericksen can confirm the latter "are not the same creatures as we are. We get out there and toil hard, [whereas] they'll use their technology to do as much as they can [that way]."

Times are tough but they're also changing, so with tech making inroads and more RSE workers able to enter the country, plus backpackers beginning to return, are there reasons to feel hopeful? "Although growers are by nature very resilient, through having to cope with unpredictable weather, fluctuating market prices and the like, for many the current period is the most challenging they've experienced, so I'm cautious about being too optimistic," says Daniels. "But I hope the labour shortage is a shortish-term challenge

and I think we're still in a reasonably good position internationally. There are growing movements around veganism and plant-based diets and so forth; the world still needs a lot of food and New Zealand's producing very high-quality fruit to meet that demand. Our fruit industry has a relatively low environmental footprint, which is a positive around the marketing of our tree crops, and we've got a really good plant-breeding infrastructure, so we can produce high-value horticulture export crops. I believe that the medium- to longer-term prospects for New Zealand horticulture are positive."



Kilmister can say the same. "I'm optimistic because New Zealand has great product and there's demand for it. You just look for the exciting stuff that's happening: we've got new Piqa Boo pears and a new apple variety called Gem for Mt Erin; Asia's growing and India's growing. New Zealand's world-leading, so we just need to get back on track. I think long-term there is a lot of opportunity, [even though] it is hard at the moment."

For his part, Ericksen says, "It hasn't been an easy row to hoe, but on a positive note, we've got new systems and we're developing new varieties; we've got a variety called Gem and varieties that are targeting Asia – not just China but southeast Asia – so the high-coloured Fuji and Pacific Queen and Galaxy."

Does he still eat apples? "Oh heck yeah, I love apples! And kiwifruit!" he says. "A hundred percent I wouldn't change what I do. I just love it, you know, so you take the good with the bad. As I've always said to myself, the harder you work, the luckier you get – you've just got to have that positive mindset, eh?"

With a bit of luck, this time next year, the story will be different. "I'm sure it will be – and I'm hoping it will be because we can't go on like this," Ericksen continues. "We're not off to the best of starts weather-wise, but

it's got to get better, surely! In the horticulture game, the growers are quite close, they work together and understand each other and there's that network there. We've just got to keep embracing technology and advancing with the things that'll help increase profitability, and we've all got to work together for the common goal: to get the government to understand that we need more people to help our industry grow. It's as simple as that."



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