

# SCAN

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GS1NZ.ORG

## Zespri – delivering quality to the world

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## Success with authenticity

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Kiwifruit is also a story for our times because its success has bred major challenges which are, themselves, very much part globalisation in food production and supply. Counterfeiting is one such major challenge – the corrupt practice of non-New Zealand kiwifruit producers and traders who apply our branding to their produce to grab the same premiums.

Zespri International, our biggest kiwifruit exporter, knows all about counterfeiting especially in China. There, large quantities of locally-grown fruit are falsely marketed under the Zespri brand or passed off as New Zealand produce in packaging which mimics Zespri. China is the world's biggest grower of kiwifruit. New counterfeit scams are being uncovered all the time (many of them subject to prosecution).

In this SCAN, we are delighted to talk with Zespri Chief Executive Lain Jager about the growth and development of his New Zealand success story – and about new approaches to giving consumers in China (and 55-plus other countries) complete assurance on the authenticity of those precious green or gold berries in their shopping basket.

Ensuring food safety is another major challenge – one that requires product traceability and recall capabilities to fit the increasing complexity of supply chains. Delivered quality of kiwifruit is a near-obsession at Zespri and Lain Jager's team is constantly looking at new technologies that will enhance traceability in their long,

time-sensitive supply chains. GS1 Standards obviously have a big part to play.

I can't mention the combination of New Zealand food, global markets and traceability without applauding Fonterra's recent milestone. The first cans of Anmum-branded infant formula with traceability QR codes are now on New Zealand supermarket shelves, enabling shoppers to scan with a mobile phone app and access information that authenticates the product, gives the batch number and lists the ingredients.

The QR codes are the latest evidence of a huge programme within Fonterra to track and trace ingredients and products electronically throughout the company, from the raw milk source on farm right through to retailers who sell the product to consumers. By the end of this year, Fonterra wants 90% of its plants globally to have traceability data electronically connected, with the remaining 10% to be completed in 2018/19. Ultimately Fonterra aims for full traceability on every drop of milk through each stage of processing – this to encompass every ingredient and every product – and out to the company's point of sale to customers in more than 100 countries. Looks like another New Zealand success story!

Of course traceability is becoming an imperative for every food business in New Zealand as well, with food safety the principle driver. This SCAN reports on current legislative and regulatory

processes with regard to traceability and recall capability within this country. It looks like every business producing and/or handling food will need to record and share data as required by the "one-up/one-down" principle of traceability.

At GS1, we are rearing to help every business achieve that, whether its Zespri, Fonterra or a small firm producing great foods for local consumption. Greenroots Juicery is just one good example of such a business! See page 14. Happy reading (and eating).



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SCAN reaches decision-makers in a wide range of industry sectors including grocery, FMCG, healthcare, logistics, manufacturing, retailing, wholesaling, transport and government. Our readership includes chief executives, sales and marketing managers, account managers, brand and product managers, IT personnel, operations managers, production managers, logistics and supply chain personnel, (barcoding) staff and packaging coordinators.

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# NZBN ‘eco-system’ – are you working there yet?

**NZBN**  
NEW ZEALAND BUSINESS NUMBER

The great New Zealand Business Number (NZBN) roll-out continues. In recent months, some 290,000 sole traders, trading trusts, charitable trusts, partnerships and incorporated societies have each been allocated an NZBN.

Many will hear about their individual identifier first from a corporate customer or supplier who has undertaken to help the Ministry of Business, Innovation and Employment (MBIE) with the roll-out through their specific business communications.

“We are working with some businesses who have large supply chains and/or extensive customer bases, and who can communicate the value of the NZBN to their customers and suppliers,” says Ross van der Schyff, MBIE’s General Manager, Business Integrity Services “These organisations will encourage others they do business with to adopt the NZBN and help them complete the necessary steps for its activation and for the loading of their Primary Business Data into the NZBN registry.”

Primary Business Data – also referred to as “PBD” – is information such as location, phone numbers, address and trading name. Every entity with an NZBN should keep their PBD up-to-date by logging into the NZBN website, [www.nzbn.govt.nz](http://www.nzbn.govt.nz). Indeed, any business can activate their NZBN at any time on this website.

## More users

MBIE is working to create an “NZBN ecosystem” where the identifiers – each is based on a GS1 New Zealand-issued Global Location Number or GLN – are picked up and used increasingly as businesses find them of more and more value. “For the NZBN to be successful, small businesses need to activate their own numbers and all

businesses need to actively use them in context of established and new business relationships, and in their dealings with Public Sector organisations,” Mr van der Schyff says.

MBIE has been working on the roll-out since December 2013 when the first NZBNs were allocated to 575,000 companies on the New Zealand Companies Register. The more recent allocations have included 115,000 sole traders, 55,000 trading trusts and 70,000 partnerships.

In addition, NZBNs have been allocated to 50,000 other active business entities, including charitable trusts and incorporated societies. Next steps include the allocation of NZBNs to more than 3000 Public Sector entities such as ministries and departments, local councils, schools and universities.

## Efficiencies predicted

Mr van der Schyff says high quality, standardised Primary Business Data attached to NZBNs will enable better business decisions, faster transactions, and ultimately an improved product and service offering. “We believe businesses will see real value in the efficiencies generated, which will further drive take-up of the NZBN.

“We plan to work closely with trusted business advisors, such as bookkeepers and accountants, as we see this sector being pivotal in the adoption programme through the help they can offer clients in completing the necessary implementation steps.”

Meantime, Government agencies are working through their systems to include provision for NZBNs where appropriate. Some changes will occur relatively quickly, with Inland Revenue and ACC now embedding the NZBN into large-scale systems transformations, on which they are now engaged.

## First big users

Air New Zealand is the first large company to use NZBNs in its interactions with customers. Other companies such as Callaghan Innovation and Xero are also using them for similar purposes or as key identifiers of customers and/or suppliers.

Start-up business 2Shakes is using the NZBN in its new digital sign-up and authorisation system. The system makes it much faster for accountants and other professionals to gain authority to act on behalf of their clients. 2Shakes estimate this could save New Zealand businesses as much as \$23 million a year and many thousands of hours of paperwork.

In fact, GS1 New Zealand has been the first non-government organisation to implement the NZBN. All public data from the NZBN Registry has been mirrored in our system and syndicated throughout the global GS1 system for worldwide reference.



# Saving the planet one hive at a time



Business is humming for Bruce Clow. He and his family own and run beekeeping products supplier Ceracell – and sales have doubled over the past two years, reflecting the current rapid growth of apiculture in New Zealand and internationally.

Ceracell has this country's biggest range of hive components, bee feeders, honey extractors, varroa mite treatments and related items. "We supply everything that a beekeeper of any size needs," Bruce says.



Moreover, most of the products are manufactured by Ceracell in New Zealand and a large share of its sales are exports to Canada, Australia and elsewhere. This is definitely a vertically-integrated business with a global mission: Bruce and his team see themselves as "helping beekeepers save the planet one hive at a time".

A hobby beekeeper before he purchased Ceracell in late 2014, Bruce has strong views on the importance of building up bee populations here, not just for honey production but for crop pollination and for exporting to other countries in desperate need of the insects to support their own food production. "New Zealand is very fortunate to be still free of many of the pests that the rest of the world is struggling with. There's huge demand for our bees overseas, especially in Canada and the US."

The Ceracell business has been going 35 years. In the past two, Bruce has taken it to the next level with his skill in marketing and direct sales, and in developing the range and quality of products (more than 1000 now). With the launch of a new Ceracell website, online sales are 10% of the total and growing. The business sells from its warehouse and store in East Tamaki, Auckland, and will soon also be supplying DIY/Hardware retailers, which is another good reason for Ceracell to join GS1.

Bruce's team makes most of the hive components in their factory at Ohinewai, north of Huntly in the Waikato. This includes precision carpentry and the processing of raw bees wax into comb

foundation, as well as coating plastic bee frames with bees wax. Occasionally the Ceracell business hums a little too much with thousands of bees attracted into the factory from the surrounding countryside by the tonnes of wax that must be kept on hand!

The building housed Bruce's previous business turning the by-product of sawmills into wood fuel pellets for very efficient domestic wood burners. The former chemical engineer, who hails originally from Ontario, Canada, ran that operation successfully for 10 years before turning to bees full-time.

His customer base today includes much of New Zealand's fast growing population of backyard beekeepers. The number of hobbyists with five hives or fewer has doubled over the past five years and they make up the majority of the approximately 6000 registered beekeepers in this country. Of course, the biggest operators have 10's of thousands of hives each (including those that produced manuka honey exports worth \$285 million last year). To Bruce Clow, every beehive matters!



For more information,  
NZBN 9429038561122  
[www.ceracell.co.nz](http://www.ceracell.co.nz)



Bruce Clow (right) and helpers.



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# Food traceability and recall rules to be updated

New rules on food traceability and recall are being developed for every food business in New Zealand.

These businesses will, most likely, be required to have in place procedures for tracing food ingredients and products, and for recalling any that are found to be unsafe or unsuitable. They will also need to be able to test their traceability and recall procedures regularly.

The new rules will exist in new regulations that are enabled by legislation currently before Parliament (the Food Safety Law Reform Bill). Subject to the reform bill being passed, the new regulations will apply to businesses operating under the Food Act 2014, the Wine Act 2003 and the Animal Products Act 1999. The Ministry for Primary Industries (MPI) says there will be consultation on proposals for the new regulations, with relevant dates for this process yet to be determined.

The reform bill – reported back from the Primary Production Select Committee last December – will add to the Food Act new sections 133A, 133B and 133C that require business to have the traceability and recall procedures, along with simulations or tests.

## New regulations

The proposed new regulations will deal with specific aspects, notably record keeping and batch numbering by food



businesses, and their obligations to share information and report recalls to MPI.

MPI Food Policy Manager Russell Bates told SCAN that the regulations will be finalised only after consultation with all interested businesses. This consultation will be based on a discussion paper currently being prepared by MPI. He said the proposed new regulations will introduce a comprehensive and explicit set of rules for traceability and recall that strengthen New Zealand's food safety system.

The discussion paper is expected to confirm the critical place of the one-up/one-down principle in product tracing and tracking. Each business must be able to trace all ingredients and products back to their suppliers, and to be able to track its own ingredients/products to recipients in the next step of the supply chain (excluding final consumers).

In fact, this principle is already established in s26 of the current Food Regulations 2015 (these to be updated by regulations under new section 133C of the soon-to-be amended Food Act).

## WPC incident

The proposed new regulations have their origin in the recommendations of the Dairy Traceability Working Group, following three

years of review and policy development since the 2013 food safety scare when a batch of Fonterra's Whey Protein Concentrate (WPC) was suspected of possible contamination. WPC is used in the production of infant formula for export to China. The incident proved a false alarm but did reveal shortcomings in dairy industry capabilities to recall batches of food ingredients.

The Food Safety Law Reform Bill is based largely on recommendations of the Government-appointed WPC Inquiry that examined and reported on the dairy food safety regulatory system. The bill makes amendment to three Acts which cover food safety in New Zealand – the Animal Products Act, the Food Act and the Wine Act.

Mr Bates said this country's approximately 45,500 food businesses are responding positively to requirements of them under the Food Act 2014, which took effect from 1 March 2016. Businesses are held responsible for ensuring the food they produce and trade is safe and suitable for human consumption. Each must manage the specific safety risks in its operation.



For information on the Food Act and Food Regulations, see [www.mpi.govt.nz/food-safety](http://www.mpi.govt.nz/food-safety)



# Kiwifruit to the world

*Zespri's focus on optimising delivered quality to the consumer*



Lain Jager is leading Zespri International into its next strong growth phase as the world's largest marketer of kiwifruit. He has ambitious plans for expanding in export markets, building the brand among consumers and introducing new varieties. This year will see Zespri fruit – grown in New Zealand or offshore under licence – sold in 59 countries.

Lain has been Chief Executive since 2008, having joined the grower-owned company nine years earlier as Human Resources Manager. He talks with GS1 about the 2017 season, Zespri's 20-year milestone in business and the critical importance of information in its supply chains.

## **🕒 The 2017 New Zealand export season opened in late March. How is it looking?**

This year will be the second biggest crop we've ever exported. In fact our Green crop is down a little ... just under 70 million trays after 80 million in 2016, mainly a matter of seasonal variation. This year is still looking like 9000 trays of kiwifruit per hectare which is a good Green yield in historical terms but not the massive 12,000 we did last year. Gold kiwifruit continues to grow. Last year's crop was 45 million trays and this year it's looking like 55 million. There's extraordinary demand for Gold around the world and even with this year's growth, we're struggling to supply all of our markets with what they want.

From the quality perspective, it has been a better year for growing kiwifruit and that's just about sunshine hours. We're seeing physically large fruit in both Green and Gold varieties with higher sugar levels than 2016. We always like selling a vintage crop! As our second biggest year, that's about 130 million trays of fruit we'll be exporting this year when 5 million or so trays of organic kiwifruit are also included.

When I started in the business, in 1999, we had 300,000 trays of Gold. Looking forward to 2018, that figure will be 65 or 70 million ... neck and neck with Green and in the following year, we'll probably see more Gold than Green in our total crop. Every year Zespri is licensing another 400

hectares of Gold in New Zealand. Some of that is cut over from Green and some is new planting, so we are seeing a big rebalancing. Gold is a higher returning crop than Green ... we get premium prices for it on world markets and Gold is also a higher yielding variety than the traditional Green.

So we're licencing more Gold hectares, growers are taking up that licence and Green is plateauing although there's still quite strong yield growth happening with this variety as well. In fact, for the past three years the average return on Green has been over \$50,000 per hectare and we expect that again in 2017 ... growers consider that a pretty good return. With Gold, it's difficult to get a comparable





figure because yields are less stable and of course, we've been recovering from the impact of PSA<sup>1</sup>. On a per-tray basis, we have achieved returns of between \$8 and \$9 – and we certainly expect that again this year.

**📍 Zespri is celebrating 20 years in 2017. Looking back, what have been the big milestones?**

I guess the first thing is the Zespri brand. Back in 1997-98, we went through a process of research and created this brand called "Zespri". No-one knew what it meant back then ... now, we have a brand that is one of the top five fruit brands in our top 10 markets. Zespri is a strongly recognised consumer brand. The continued growth of the brand is one of the things that characterises our business ... and as part of that, we spent over \$150 million on marketing last year. That's about 7.5% of net sales.

The commercialisation of Zespri Gold, and new SunGold (Gold3), have obviously been critical milestones for us. Just bringing a new product to life and having that product be so successful has been wonderful.

Then, there's been the successful development of our 12-month supply ... sourcing fruit not just from New Zealand but from other growers to supply our markets year-round. We're looking to provide continuity of supply with both Gold and Green, and in order to meet that objective we need to bring on a lot more supply each year. At the moment, we're licensing 600 hectares a year in Italy for the next two years and another 600 still be allocated in Europe.

For Zespri, it means we have gone from being a New Zealand-only exporter – and a monopsony<sup>2</sup> exporter at that – to being a global supplier in a fully commercial environment who can source all its own varieties for sale in the New Zealand off-season. That's been a major watershed for our business and for our future! We did the first offshore licensing of growers in 2001, so we have been on that journey now for 17 years.

It takes a long time to get competent at operating such a business but we are now licensing as much Gold kiwifruit production in the northern hemisphere as we are in New Zealand. That will drive tremendous



*We have gone from being a New Zealand-only exporter – and a monopsony exporter at that – to being a global supplier in a fully commercial environment.*

growth for this business. The global supply part of our business is growing strongly to match the increases in NZ production and provide a consistent year-round supply.

**📍 There have been big challenges as well?**

Certainly PSA was a shock that undermined grower confidence in the industry to a huge extent because you had a situation where everything is going well but suddenly there is PSA ... you see vines dying and so much of the risk is unknown. How badly is it going to damage Gold kiwifruit? Is it going to impact Green as well? In fact, can we farm commercially in the presence of PSA?

Of course we all saw the collapse in land values and even if you were conservatively geared at 30-50%, you were under water from an equity perspective. And you faced the question: "Can I graft my vines to Zespri SunGold and will that work, bearing in mind also that I then have two years waiting for cashflow to resume and I'm

already under water from an equity perspective?" It was a tremendously challenging time, particularly for individual growers on their orchards.

**📍 But you did hold the industry together. How difficult was that?**

I think our industry structure was important. We have a monopsony and we have effective industry governance mechanisms in place, with the industry advisory council being an example. When PSA hit, we already had a culture of working cooperatively together and we had the governance mechanisms to be able to make decisions very quickly. Those things came together with the sheer bloody-minded determination of New Zealand kiwifruit growers and with the operational things that we needed. We had a product to go to (Gold3), a path to market and a corporate balance sheet at Zespri that could be leveraged. In fact we put up \$25 million

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<sup>1</sup>PSA, *pseudomonas syringae actinidiae*, is a kiwifruit vine-killing bacteria that was discovered in New Zealand in November 2010 and heavily cut production of Gold kiwifruit over the following four years. Growers have recovered largely by grafting the Gold3 cultivar onto effected vines.

<sup>2</sup>One buyer interacting with many sellers.



very quickly along with the Government which also put up \$25 million. The growers actually funded that \$25 million, not Zespri, but we had the balance sheet to make the cash available "on the day" for funding the technical and innovation focus that was needed, and to cover grower welfare aspects. None of this was luck. The way we managed it was a reflection of the industry structure and culture, and of resources we had available.

Looking back, we've had other shocks. In 2011, one of our importers in China didn't pay their tax. The person involved was subsequently imprisoned for 13 years ... one of our own staff was in prison for four years and Zespri was convicted as an accessory. It was a compliance issue that was hugely shocking to us, with a lot of media attention. And it reflected a need for us to lift our game on compliance requirements given some of the challenging environments that we're working in.

**Q Zespri is clearly on a growth trajectory but how are you going to sustain that in a world full of challenges?**

Two parts to my answer on this. First, we are very focused on opportunities for continued development of markets geographically. Of our 500 staff, half are offshore. What we're looking to do is grow consumer penetration as well as geographical penetration in markets like China, Indonesia, India and the United States. We see a lot of growth potential ahead of us, most obviously with the commercialisation of Gold but also with other products coming through the breeding programme. In fact, we have a new Green product which looks tremendously exciting too. If this fruit can jump our multiple hurdles, we could be commercialising it in the next year or two. It represents tremendous potential because it is simply a better product than the current Hayward Green variety from the consumer perspective. We also have Red kiwifruit in the breeding programme

and further back, some novel products with edible skin.

So lots of growth opportunity from the new product perspective and also with the brand development work we're doing. That's why we have a marketing group of 45 people. Health is a great area of opportunity for us to connect with consumers ... kiwifruit are very high in vitamin C and they're wonderful for digestion. Given some macro trends in the world, it's clear that consumers want more health benefits in their food.

**Q On that, your relatively low percentage of organic kiwifruit seems a bit out of step?**

I don't think so. Organics are growing strongly but off a relatively low base. Our organic kiwifruit business includes around 3.5 million trays of Green in 2017 and with Gold growth, we expect our organics business to reach 6 million in the course of this current five-year plan, and to keep growing thereafter. Demand for organics is

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relatively more developed in Europe and the US, whereas the organic category is relatively less developed in the high-growth Asian markets. We have growers wanting to grow more organics and we're keen to support that. For many consumers Organics represents a clear choice, I don't see any differentiation challenge between organic and conventionally-grown fruit. The fact is that all kiwifruit are a healthy and safe food choice, and there are low residue programmes for all our products.

### 📍 How are you dealing with other growth challenges?

Managing risk is the other significant area for us. Biosecurity represents an on-going challenge. We had PSA which was devastating but there are plenty of other pests out there ... Brown Marmorated Stink Bug and the Queensland Fruit Fly are two. We think the Government is doing a very good job on biosecurity and we are committed to partnering proactively with it in this space. We are not critical of the Government but the pest pressure is relentless. We have a biosecurity body called Kiwifruit Vine Health which leads our industry biosecurity function including the biosecurity interface with the Government.

Market access risk is always present too. New Zealand has pests and diseases that are not wanted on other markets around the world, so we need to be continually working on our inspection systems together with MPI.

More broadly, we're very supportive of the work the Government is doing in the trade area ... their new trade agenda is to try and achieve 90% tariff-free access to markets

round the world. That is hugely exciting for us. For example, Zespri has benefited significantly from the Korean Free Trade Agreement ... we were paying over \$30 million a year in tariffs to Korea and this will be reduced to zero over a six-year period.

### 📍 To what extent is product counterfeiting a challenge?

Like other premium brands, Zespri is a very counterfeited brand in China. That simply reflects the high premium we command relative to locally-grown kiwifruit ... there's a strong commercial incentive. China is the world's biggest producer of kiwifruit, almost all of which is consumed domestically. Obviously we are uncomfortable with any counterfeit for two main reasons. When consumers are paying a strong premium for your fruit, the risk that they might be buying a counterfeit version can become a barrier to their purchasing at all ... that's a big concern for us. The other one is food safety, and the risk that counterfeit products are unsafe and people associate the problem with Zespri. By the time we can react, the brand damage is already done in the media.

### 📍 What's the solution? The New Zealand Government initiated a move to support exporters on product authentication and then backed off.

First of all, I think there is probably a technology solution which empowers consumers to do the authentication themselves. They are the people with the most vested interest in not buying counterfeit products. In contrast, us trying to manage the issue through legal channels is like "whack-a-mole" where every time you nail one problem, another pops up somewhere else. Trade solutions are not fully effective. Of course we can work with the trade and with traceability technology to create authentication processes. But as long as there are commercial incentives to counterfeit, it will occur.

We also work with government officials and have enjoyed considerable support from Chinese agencies. The recent interception of 1480 trays of counterfeit Zespri Kiwifruit by Beijing AIC law enforcement is a great example of this partnership in action.

Addressing the issues at consumer level through technology is very attractive to us. We are working quietly in the background



*Zespri is a very counterfeited brand in China. That simply reflects the high premium we command relative to locally-grown kiwifruit.*

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*There are some platforms that use smartphone apps and sensing technology to pick up a special dye either on a fruit's skin or on a label.*



with new technologies and we are aware that other brand owners are doing the same thing. Think of this as work in progress! We will get there. In the meantime, this is an area of risk for our business that we will manage as best we can. That definitely includes taking legal action. For example, we found Zespri labels for sale on Taobao<sup>3</sup> and we took action on that.

We're on a journey to find solutions. If there was a broader platform and a New Zealand Inc approach, then we would be keen to be part of that. For me, it's about what works. Our interest is in managing the risks inherent on the one hand and on the other, being able to assure our consumers that they are getting the real thing.

**© Can you be more specific about consumer-driven authentication?**

There are some platforms that use smartphone apps and sensing technology to pick up a special dye on either a fruit's skin or on a label. There is always a concern that whatever we do, the counterfeiters will replicate. But on this I am confident the technology will get there ... it is only a matter of time.

One of the things about food is that consumption is highly habitual. People tend to have a repertoire of their favourite fruits. With kiwifruit, we know that, in round figures, 80% of our fruit is eaten by 30% of our consumers. If you're eating kiwifruit regularly as part of your diet, you'll end up knowing a lot about it and you'll have a preferred brand. You will want to buy Zespri especially if we're saying, "hey here's a way to authenticate the product you really want".

**© Within the business, where are the information technology challenges?**

For Zespri, there's one big organising principle ... "how do you optimise delivered quality to the consumer?" Kiwifruit changes through the course of its storage life and our challenge is to present the consumer with a consistent offering that is safe, ready to eat and tastes good. There's a whole world of complexity in doing that. First, growers have to grow a piece of fruit which has good sugars levels in it. They need to manage their yields, canopies and nutritional aspects, and then harvest at the appropriate time. The grower can do all of that but the post-harvest operators and Zespri are fully capable of stuffing it up. The fruit needs to go over the grader at a sensible speed, its temperature needs come down at a sensible rate and be maintained at the appropriate level in storage. Then it must be carried offshore in an appropriate format, kept cool, and readied for inspection and presentation to the market.

A kiwifruit can be 8 kg and as hard as a cricket ball so we need to soften it down, primarily by using temperature and some ethylene ... but not to a point where it goes soft on the retailer. When the consumer takes that fruit home, it must be ready to eat within a day or two. There's huge complexity in all this – and that is one of the reasons why identification codes from GS1 are so important to us. Our business really does need precise inventory management.

**© Have you achieved that?**

It's a journey with an almost infinite array of challenges even in a supply chain as

specialised as our's. We have very sharp payment systems inside the business now so that growers are properly incentivised, and suppliers are exposed to the out-turn quality of their fruit. The commercial drivers we need around fruit storage are in place.

Zespri measures delivery quality and that information goes into our feedback loop in the constant effort to present the market with ready-to-eat products. We're not 100% there yet. Anyone who is handling a variable quality product would be extraordinarily brave to say they get it right 100% of the time. But we are making really good progress in delivering on that big organising principle.

We're about to spend over \$20 million on an inventory management and grower payment system ... a re-implementation of SAP. It's all about being able to pass information up and down the supply chain and have access to it in the format we want. We're working with other partners in the RFID (radio frequency identification) space and the information we're focused on is really important from a supply chain integrity perspective. Knowing, for instance, what is happening with the temperature of a particular batch of kiwifruit as it goes down the supply chain is very valuable. It's all about data and having the technology to be able to access it in real time, in the right format.

**© EastPack has made strides with RFID in its cool stores. Do you see others adopting the similar technologies?**

We're seeing massive investment by the post-harvest sector in New Zealand

<sup>3</sup>Taobao.com is a Chinese online shopping website similar to eBay.





generally. That is to keep up with the volume growth, and also to drive efficiency and consistency in delivery of high quality fruit. Overall, technologies have two objectives. First, efficient processing which is about dealing with volumes and taking labour out of the supply chain. The second objective is to improve inventory management when asking questions like: Is this fruit suitable for long storage? Which fruit is of lower quality from a taste perspective so needs to be taken out of the line as it is being packed?

In relation to both objectives, GS1 Standards are being used right across the industry. Every pack has a GS1 identifier and label on it, and that gives us access to all the data related to that particular batch of kiwifruit. I expect to see a continued use of GS1 and it will be fascinating to see how this evolves. The future is going to involve more and more information about kiwifruit we are producing and supplying to markets round the world. One really good question is: Are we going to take information back to a vine level? Precision horticulture will certainly enable that to occur ... we are starting to collect information at the level of each kiwifruit vine for scientific purposes. At what stage do we find applications for such precision information at a commercial level? Certainly the importance of data in the supply chain just grows all the time, and so do automation and precision technologies.

### What about consumers' demands for product information on the kiwifruit they're buying, beyond the authentication issue you have already discussed?

This is a very complex area, perhaps starting with peoples' broad interest in sustainability. What that means in practical and commercial terms is evolving all the time, and retailers are actually leading that on behalf of consumers. We're seeing GRASP<sup>4</sup> as an example, the audited standard about social sustainability which is part of the GlobalGAP system. We're seeing quite a rapid evolution in that space on things like modern slavery, minimum pay levels, tax compliance and so on.

For us the traceability back to the grower absolutely exists. Do we represent that grower to the consumer and tell the grower's story? The answer is that some channels see value in that, but other channels are not so interested. Zespri needs to offer that functionality if it is required.

I think it is just as important for a consumer to be able to

scan a code, have an app pop up allowing them to give feedback to the grower about their fruit – and also to the post-harvest operator and to Zespri. There's a big opportunity for us to have feedback passed up and down the supply chain, including from the consumer back to the grower. Examples of this are beginning to emerge in the fruit trade. We see it as opportunity to improve our market presence.

Actually our growers really want to hear, "I ate some of your fruit and it was fantastic or it was rubbish". Our growers really care, they are very interested in where their fruit has ended up and want to know it has been treated well.



<sup>4</sup>Global Risk Assessment on Social Practice operated by the GLOBALG.A.P (Good Agricultural Practice) standards body.



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## Raw, nutritious and fresh ... really fresh

People can be drinking Greenroots Juicery products just 24 hours after their ingredients have been harvested from field, garden or orchard. In that time, the vegetables and fruit have been cold-pressed and bottled in a Christchurch plant, then delivered cool to a café, food store or customer's home. Does any other (lightly) processed food product reach the end consumer so fresh?

Greenroots Juicery is based on a commitment to providing health conscious people with the freshest, purest and most nutritious juices possible. "From the first sip, people say they can notice the difference," says Katie Heenan, business co-owner and full-time manager.

Katie and partner Will Ross source their ingredients from organically-certified growers, mostly in Canterbury. The main exception is turmeric and ginger roots grown spray-free and imported from Fiji. Three times a week, just-arrived raw vegetables and fruit go into a large press at the Greenroots Juicery commercial kitchen in Wigram. By 6pm that evening, new batches of carefully-bottled and labelled juices, smoothies and digestive system cleansers are ready for courier dispatch to cafes and stores, or to customers who have direct ordered online.

So far, Greenroots Juicery has six products on sale through retail outlets in Christchurch, and a handful of other shops in Auckland, Nelson and Central Otago. The business now adds GS1 numbers and barcodes to each sparkling bottle of product, to facilitate this

growing wholesale trade.

Katie says biggest seller of the six is currently "Garden City" – her recipe of blended kale, spinach, silverbeet, apple and lemon juices (and nothing more than what is extracted from the produce).

She is first to admit that the logistics are demanding. The 250 ml bottles of product are kept cool with ice packs during overnight courier delivery and each has a shelf life of no more than seven days. That used to be five before Greenroots Juicery started using filtered and ionised water to wash the fresh produce in preparation for pressing (the highly acidity in the water deals with any pathogens lingering on them post-harvest). With this business cycle, the raw ingredients can arrive at Wigram one morning and be bottled in the consumers' hand the next!

Katie and Will began the business in 2014, initially using a smaller, hand-operated press and selling through a stall at the Opawa farmers' market. They have since moved to the bigger Christchurch market (in Riccarton) each Saturday. They invested in their current American-built hydraulic

press in late 2015 and they now have growth, in production and sales channels, firmly in mind.

"We're passionate about plant-based organic foods, having experienced the huge health and wellness benefits ourselves," says Katie who changed her own diet radically after suffering from food related auto-immune diseases. Katie, a marketing graduate, studied at Auckland's Wellpark College of Natural Therapies before co-founding the business. Will is a chartered accountant, who still works three days a week outside Greenroots Juicery.

And who are their customers? "It's a very broad range of people who are turning to more conscious eating," says Katie. "Young people and students for whom this has become an important trend, as well as middle-aged and older people who want wellness or are looking for new ways to manage or reverse ill-health."



For more information,  
NZBN 9429036536030  
[www.greenrootsjuicery.co.nz](http://www.greenrootsjuicery.co.nz)



# Looking forward to GS1 DataBar

Some New Zealand retailers are keenly watching global usage of the GS1 DataBar, with new applications of this type of barcode expected in our part of the world before too long.

GS1 DataBar is designed for the barcode labelling of food items where freshness and quality are especially important and/or where a high degree of traceability is sought. It is also used for barcoding products that are particularly small in size and/or hard-to-mark – individual pieces of fresh produce are the main example at this stage.

The GS1 DataBar Expanded form of the barcode can carry use-by dates and batch numbers or any other data as well as GTINs (Global Trade Item Numbers). This provides powerful track-and-trace capability, right back from the checkout.

Since its global launch in 2014, GS1 DataBar has been used by many innovative retailers in Europe, North America and Asia to achieve huge operational cost savings, to grow sales and to meet regulatory requirements. An example of the latter in Europe has enabled compliance with an EU law requiring fresh fish to be sold with information available to the customer on when and where the fish was caught, the name of the fishing vessel and the type of equipment used. All this information is carried by a GS1 DataBar Expanded

barcode which shoppers can scan using a smartphone app.

Retailers using a simpler form of GS1 DataBar Omnidirectional barcode can offer customers attractive price discounts. An example might be: Buy an item of produce that is within three days of its best-before date and pay 15% or 25% less.



Shoppers become less inclined to always go for products with longer-dated expiry and, instead they look for older ones on produce they know will be eaten soon after purchase anyway. Shoppers spend less while retailers have less wastage and spend less time rotating date-sensitive stock on their shelves.

GS1 DataBar has the further advantage of enabling recalled products to be identified at the supermarket checkout more easily, and this prevents accidental sales of anything that has actually been recalled or withdrawn. A warning will automatically come up at point-of-sale scanning and the shopper will know not to proceed with the purchase.

The photo (left) shows a GS1 DataBar Omnidirectional barcode on an apple in the United States. This small barcode carries only a GTIN for the apple but with big benefits for retailer and shopper. Correct identification of the apple and its variety will be assured at the checkout, while the retailer will have higher quality data on which to re-order and to manage their stock.

GS1 DataBar is being implemented now in Australia. New Zealand retailers will inevitably follow. GS1 is ready to support this positive developing so that businesses here can secure the advantages already being grabbed by retailers and shoppers elsewhere.

## Meet our staff...

### Marcus Coomer

Marcus is Senior Business and Operations Support Analyst with responsibility for the operational management of our ProductFlow services, which include Product Photography and Barcode Verification.

Marcus previously worked for BioGro New Zealand, the country's leading organic certification agency, as the Certification Programme Manager. In this role he developed deep knowledge of customer focused services in a standards- and regulations-based environment. He is a qualified horticulturalist and in 2015, Marcus completed a Post Graduate Diploma in Business Administration at Victoria University of Wellington.



### Anish Deogaonkar

Anish is a Customer Support Analyst who provides training and advice on GS1 standards, systems and solutions. He helps members with issues across a wide range of areas including the National Product Catalogue, ProductRecallNZ, Product Photography and Barcoding. Anish also does technical troubleshooting, root-cause analysis and process improvement when needed.

He has a diverse background in the information technology, telecommunications, healthcare and pharmaceuticals sectors. His work experience prior to joining GS1 includes customer service, technical support, training, sales and market research. Anish holds a formal qualification in Information Technology gained in Auckland and has also successfully achieved the PRINCE2 Practitioner certification in Project Management.



## New members/rights to use holders **May – October, Welcome!**

### New Members

45 Degrees South Limited  
A Plus Pet Foods Limited  
Agribusiness New Zealand Limited  
Aise & Chael Limited  
Allied Faxi New Zealand Food Co., Limited  
AMP Annealing Limited  
Aquamotiva NZ Limited  
Artisan Vinegar Limited  
At Therapy Limited  
Auribee Honey Limited  
Awaken Kombucha Limited  
B-O-P Brewery Limited  
Bee Bio Limited  
Bellaberry Chocolate Works Limited  
Binxi Foods NZ Limited  
Body Armour Technology Limited  
Boneface Brewing Company Limited  
Bookprint Limited  
Boyd Visuals Limited  
Brett McGregor Limited  
Bruns Services & Agri Expedition  
Caffe Prima Limited  
Canterbury Nut Company Limited  
Cassels & Sons Brewery (Woolston) Limited  
Cedar Park Farms Limited

Ceracell Beekeeping Supplies (NZ) Limited  
CFO In The Cloud Limited  
Clear Facilities Limited  
Connell Phelps Limited  
Cowdroy Products Limited  
Cribb Farming Limited  
Dairy Nutraceuticals Limited  
David And Claire Jones Trading As Get Cultured  
Di Antonio Limited  
Dominion Wire And Cables Limited  
Drift Tide Limited  
Duncan's Brewing Company Limited  
EBSR Group Limited  
Ecrotek Limited  
Edward Giles  
Eightysix Trading Limited  
Elanza Fresh Limited  
Embassy Rum Limited  
Enjoyse Natural & Beauty Limited  
Envirosafe Technologies N.Z. Limited  
ENZO Limited  
Epsilon Futures Limited  
Fastmount Limited  
Fine Foods Ltd  
Fliway Transport Limited  
Flooring Wholesale Limited  
Fresh Food Exports Limited

Fruitdale Orchards Limited  
Giant Brewing Company Limited  
Global By Nature NZ Limited  
Gluten Free Holdings Limited  
Goodness Foods Limited  
Green Roots Organics Limited  
Green Touch Limited  
Griffiths Equipment Limited  
GS1 Hong Kong Ltd  
Hana Sake Limited  
Happy Little Poppets New Zealand Limited  
Havoc Enterprises Limited  
Health Products NZ Limited  
Healthy Breath Limited  
Hedy Limited  
Home Gourmet Limited  
Hostate NZ Limited  
HZIP+Co NZ Limited  
Image Vault 2015 Limited  
Inglishill Distillery Limited  
Jacaranda Imports NZ Limited  
Jill Bainger  
K & F McLean  
Kaimai Skincare Limited  
Kind Heart Organic Limited  
Kirima Cosmetic New Zealand Limited

Kiwi General Store Limited  
Kohkoz Limited  
Kopu Road Orchards Limited  
Kya International Group Limited  
La Donna Moderna Limited  
Lakeview Publishing Limited  
Leader (N.Z.) Private Limited  
Lifestream International Limited  
Lockjaw Limited  
Maori Point Wines Limited  
Matakana Bacon Company Limited  
Mayan Man Limited  
Milkio Foods Limited  
Miraka Limited  
Moa Organics Limited  
Mot The Catering Company Limited  
MVET Management Limited  
Natrual & Health Life New Zealand Limited  
NB1 (New Zealand) Limited  
New Future International Co Limited  
New Zealand Brands Corporation Limited  
New Zealand Specialty  
Kiwifruit Products Limited

Nomad Ubersee Handel Limited  
Nutrient Rescue NZ Limited  
Nutrient Specialists Limited  
Nutritech International Limited  
NZ Brews Limited  
NZ Iris Nursery Limited  
Olbies Limited  
Orange Clinic Of Natural Medicine  
Organic Farm Holdings Limited  
Osmond New Zealand Limited  
Outlaw Yarn Limited  
Overprinter 2017 Limited  
Pacific Cartons New Zealand Limited  
Pacific Catch Limited  
Perpetual Natural NZ Company Limited  
Peru Cafe Limited  
Phoenix Brands Limited  
Pipi's Bakery Limited  
Premium Tools (NZ) Limited  
Prodotti D'italia Limited  
Pure Manuka Honey Limited  
R.S.N Limited  
Rapanui Bees Limited  
Rawhiti Manuka Honi Limited  
Renewable Wood Fuels Limited

RMR Foods Limited  
Rockit Global Limited  
Seabreeze Apparel Limited  
SO2GO NZ Limited  
Solimara NZ Limited  
Soulfresh NZ Limited  
Southern Smoke Limited  
Specialised Chemical Products Limited  
Still Fruit Limited  
Tavo New Zealand Limited  
Thankyou New Zealand Limited  
The Dairy Culture Company Limited  
The Good Vitamin Co Limited  
The Hairy Mussel Company Limited  
Topsy Turvey Trust  
TSA New Zealand Limited  
Unipharm Healthy Manufacturing Co. Limited  
Viavio Limited  
Watson & Son Limited Partnership  
Xyten Limited

### Rights to Use Holders

IBIC Group Limited  
Sheffield NZ Limited  
Solar Produce Limited



### Vijay Todkar

Business Development Manager

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Vijay is based in Auckland and is responsible for assisting members to implement traceability, AIDC (auto scanning) and RFID into their supply chains.



### Craig Russell

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Craig is based in Christchurch with responsibility for GS1 relations with members throughout the South Island.



### Georgina Randall

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Georgina is based in Auckland and is responsible for assisting members to implement Digital Asset Management, ProductFlow and Product Photography.



### Bev Gough

Membership Services Administrator  
(aka 'Director of First Impressions')

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Bev is the 'meet and greet' point of contact for members either calling, emailing or visiting our Wellington office.