



## Financial rewards within a Sustainable Kiwifruit Business.

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## 1. Executive Summary

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This report was written with the aim of exploring how other successful businesses within the Primary Industry can gain a higher premium on their products to give a competitive advantage and exclusive brand positioning. I wanted to see if there are any lessons that can be learnt and adopted by Zespri and Growers to gain an even higher premium on their produce for being a Sustainable supplier. The research methods included;

1. A literature review
2. An interview with three Primary Industry based operations
3. A case study review of three Primary Industry based operations
4. An online survey of Growers and Post-Harvest Kiwifruit entities

Key findings included;

- Many New Zealand businesses are taking tentative steps into the world of sustainability
- Businesses see competitive benefits from acting sustainably
- Many leaders are aiming to seize sustainability leadership within their sectors over the medium term

This report was compiled with the help of many different people within the Primary Industries within New Zealand.

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### 3. Introduction

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The primary industries in New Zealand have been, from the very beginning of our colonial history, well-attuned to succeeding in the global economy. Generation upon generation of New Zealand farmers, foresters, horticulturists and family fishing operations have learnt how to compete in the global marketplace, how to develop new export markets, how to weather international downturns, and how to quickly seize new opportunities as they arise.

The primary sector is already amongst the best in the world at producing the maximum amount of food with the smallest carbon footprint (Cullen, 2007).

The New Zealand Kiwifruit Industry is a major contributor to the New Zealand economy with around NZ\$2.26b towards a total horticultural export value of NZ\$5.6b in 2016 (Horticulture NZ, 2017).

The total land area currently in Kiwifruit production is around 12,185ha and is steadily growing due to confidence within the Industry. The New Zealand Kiwifruit Industry has recovered well from the bacterial disease *Pseudomonas syringae* pv. *Actinidiae* (Psa) and the Industry has seen substantial growth in volumes, sales revenues and grower payments (Zespri Annual Review, 2017).

With increasing returns to growers and the increased value in orchards, this has mainly been due to the premium pricing that New Zealand Kiwifruit can achieve in the markets around the world. The Zespri brand is well recognised, and this is because of the consistently high standards in quality that have been set by the business. Zespri International Ltd is grower owned and only export and marketer of New Zealand Kiwifruit. Zespri primarily sources kiwifruit from the 2,600 registered growers, but with the markets now requiring a 12-month supply, Zespri has had to look at other Kiwifruit producing countries like Italy, France and Korea to fill these shortfalls in supply.

New Zealand must pursue sustainability in every way and we must be seen internationally to be pursuing sustainability in every way.

Our long-term economic competitiveness will be increasingly grounded in the success of our clean green national branding. We are expecting people to continually buy our products, we want a steady increase in the number of foreign tourists who fly to New Zealand, and if we want to be an acceptable place for foreign investment, sustainability needs to be at the forefront of these conversations.

The New Zealand Kiwifruit Industry is currently in a rapid expansion phase with increased planting and development occurring. Growers and Zespri must continue to stay ahead of all our competitors by maintaining or enhancing the image and use this to tell our story to the market.

## 4. Study Question:

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The future of the New Zealand Kiwifruit Industry is faced with some interesting challenges. As an Industry, production and supply is increasing rapidly and with the release of another 800ha of Zespri Sungold (G3) in 2017/2018 and again 2018/2019, this will put pressure on both the marketing and supply chain. As a grower, we are being challenged with delivering consistently high - quality fruit in an environment that is often challenging. As an Industry however, we are challenged with ensuring that on-orchard practices through to market are sustainable at every step. The question that I have asked is:

*“What can the financial rewards be within the Kiwifruit Industry for being a Sustainable Business?”*

My aim for the project will be to explore how successful New Zealand “Sustainable Businesses” maintain a competitive edge and gain a premium price for their produce in the market. A discussion will then be made on what can be learnt from these businesses and how this maybe transferable to the Kiwifruit Industry.



## 5. Methodology

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Horticulture in New Zealand is a very multifaceted industry with multiple business models, sizes, target markets and products. This project aims to take a snapshot of the Primary Industry, mainly Kiwifruit, and see what can be improved upon to ensure that we are gaining a premium price for our produce if it is grown sustainably. Whilst the survey that has been completed is a useful tool, the survey does not give a true indication of the main concerns or priorities of growers within the Kiwifruit industry.

This report has been compiled using four methods.

Firstly, a literature review was completed.

Secondly, I interviewed three organisations within the Primary Industries in New Zealand, firstly a Sustainable Kiwifruit and Avocado business, an organisation that brings sustainable businesses together and supports them, and finally a project that is currently running within the Primary Sector. Details of the three interviews are outlined in Table 1.

**Table 1: Details of Interviews**

<b><u>Organisation</u></b>	<b><u>Trevelyan's</u></b>	<b><u>Sustainable Business Network</u></b>	<b><u>The NZ Sustainability Dashboard Project</u></b>
<b><u>Person Interviewed</u></b>	Rachael Brodie	Glen Crowther	Jayson Bengé PhD
<b><u>Role</u></b>	Sustainability Coordinator	BOP Regional SBN Coordinator	Industry Leader
<b><u>Date Interviewed</u></b>	13/07/2017	8/08/2017	14/07/2017

The case study process involved background reading into two businesses that are viewed as being leading sustainable businesses and generating premiums for their suppliers. The third case study was considering what Zespri is currently doing in the sustainability space, and what potentially can be improved on.

A grower survey was also completed using Survey Monkey. The survey was circulated to 20 participants within the Kiwifruit Sector. The survey ran for 14 days. There were 17 responses to the survey. The survey questions and summarised responses are shown in the Case Study section of this report.

## 6. Literature Review.

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In New Zealand, there is limited literature available around behaviours, values, motivators and priorities for the Horticulture sector. The most recent work by De Silva and Forbes (2015) looked at sustainability within the horticultural sector and gained the growers views on environmental sustainability and how they adopted sustainable practices, any barriers or achievements that were implemented. The study that was undertaken found that environmental and social sustainability to growers had increased. It was noted that *“the importance of economic sustainability was high but declining with environmental sustainability being incorporated into normal business practices for growers and an increasing emphasis being placed on social sustainability”* De Silva and Forbes (2015).

A study that has been completed by Rankin (2010) looked at behaviours within the Primary Sector and how these are influenced and/or value-added through various channels or policy tools. Another study by Small et al (2015) looked at the implementation of good management practices on farm, the expose to risk and the innovation on farm.

## 7. What is Sustainable Business?

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A sustainable business can be described as managing the triple bottom line. This is a process by which businesses manage their financial, social and environmental risks, obligations and opportunities. These three impacts are simply referred to as profit, people and planet<sup>1</sup>.

According to Esty and Watson (2009), the top environmental issues currently are climate change, water quality, energy availability, declining biodiversity, air pollution, waste management and deforestation. Because of this, companies have invested in many programs that include environmental reporting, technology and organisational stewardship to reduce energy and natural resource use, reduce pollution, increase in recyclable materials.

The social issues of sustainability addresses issues such as respecting ethical and moral rights, poverty and promoting human welfare. Social equity as it applies to business is referred to as “ethics” or “corporate social responsibility” (Willard, 2002). For employees, it refers to improving working conditions, promoting health and safety and developing job skills. In terms of local communities, it refers to embracing the values within society, providing transparency in operations and enforcing standards for suppliers. On a global scale, social goals include working to address human welfare issues such as poverty, hunger and food security. To achieve this, interactions, collaborations and alliances with the supply chain must occur (Perez-Aleman & Sandilands, 2008).

The financial aspect of sustainability involves the creation and distribution of goods to promote the long-term viability of global, local and corporate economies while raising standards of living around the world. To achieve this, it involves the existence of open and competitive markets that foster innovation, efficiency and wealth creation (Bansal, 2005; Willard, 2002). Companies can achieve financial goals through value creation, increased productivity, investment in research and development and be dedicated to long-term rather than short-term profits (Willard, 2002).

A better description of sustainable business is resiliency over time – businesses or Industries that can survive shocks (e.g. Psa in Kiwifruit) because they are intimately connected to ensure healthy economic, social and environmental systems are in place. A business like Zespri International Ltd is helping create economic value and contributing to healthy ecosystems whilst having a strong focus on communities<sup>2</sup>.

To be a successful sustainable business, the company must adhere to the principles of sustainable development. “Sustainable development is meeting the needs of the present without compromising the ability of future generations to meet their own needs”<sup>3</sup>.

There has been very little in the way of Government regulation around the world as to what constitutes a “sustainable business” thus companies have created their own standards around what “sustainability” is to fill the regulatory void. Examples of this are Tesco, Walmart and other major retail chains requiring suppliers to meet a baseline set of behaviours for businesses who strive to win business contracts with these major retail chains<sup>4</sup>.

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<sup>1</sup> <http://lexicon.ft.com/Term?term=business-sustainability>

<sup>2</sup> <https://canopy.zespri.com/EN/industry/aboutzespri/sustainability/Documents/Sustainability-Brochure.pdf>

<sup>3</sup> [www.globalfootprints.org/sustainability](http://www.globalfootprints.org/sustainability)

<sup>4</sup> <https://www.agribusiness.school.nz>

Finally, as the New Zealand Kiwifruit Industry moves forward into the future, we must continue with innovation and productivity which creates economic efficiencies. We must continue with helping communities both nationally and internationally to sell the story of the nutritional health benefits of Zespri Sungold (G3) and Zespri Green (HW) to the end consumer. As an Industry, we must ensure that we are using land wisely and ensure that we are leaving it in a better state for future generations.

## 7.1 The Role of Primary Industries in the Sustainability Debate

Many environmental and social issues like climate change, poverty and social inequality are beyond the normal scope of business. Many companies are now influential in the sustainability debate as they have invested in technology, financial resources and research and development. In 2017, more than half of the world's 100 largest economic entities are corporations (Kauflin, 2017) however, businesses that are tied to the land, resources and people are important in the sustainability debate also.

The Primary Industries face a unique set of challenges and opportunities associated with sustainability that revolve around ensuring a secure food supply. New Zealand produces enough food to feed 40 million people and there is limited scope to increase that volume. Therefore, we need to be targeting the wealthiest 40 million individuals across the globe. By the year 2025, some forecasts predict global food demand may have increased 40 – 45 percent, and this is being driven by a rising global population and the emerging middle classes in Asia (Guy, 2014). The key now for the Zespri going forward is to develop a sound long-term strategy to target the wealthiest customers in Asia and understand the competitive advantages the New Zealand Kiwifruit Industry can leverage off to deliver premium produce to the market. In 2016, Zespri is rapidly building sales in China and India, the China market is expanding very season with large volumes of Zespri Sungold (G3) being consumed, but India as a market grew by 126 per cent to 3.2 million trays in 2016.

Most companies that are committing to sustainability are saying that it is paying off and consumers are moving now to ethical consumption of food. In late 2015, the Nielsen Global Corporate Sustainability Report was released, and it showed that 66 percent of the respondents in the survey were willing to pay more for products that come from Companies and Businesses that have a proven commitment to social, environmental and economic impact.

The report found that Millennials – people born from mid - 1970 to early 1990 were willing to pay more for sustainable products. Generation Z – people born late 1990 onwards, 72 percent of respondents said that they were willing to pay more for sustainable products. At the other end of the spectrum, the “Baby Boomers” where only 50 percent of respondents would pay more for sustainable products (Lin, 2016).

In the Horticulture Sector, we aim to produce as much as we can as it is generally assumed that to create profit, you must produce more, thus putting additional pressure on the same parcel of land for the whole growing season to gain more trays per hectare therefore the Marketer, in the case of New Zealand Kiwifruit – Zespri creates additional sales, therefore more income and more profit.

## 8. Case Studies

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Three companies were case studied; the first two case studies explored are Synlait Milk and Sustainable Winegrowing New Zealand. Two successful New Zealand businesses that are both currently leading their respective sectors within the sustainability space.

In New Zealand the dairy industry accounts for around 28 percent of total goods and services exported (DairyNZ, 2017). The dairy industry has grown significantly, with the national herd increasing in size from 2.3 million cows in 1984 to 4.8 million cows in 2017 (DairyNZ, 2017). Conversion of the New Zealand dairy industry from a small scale, local industry into an industry of significant economic importance.

The New Zealand wine industry has a target of \$2 billion of exports by 2020<sup>5</sup> and accounts for around 10 percent of total goods and services exported (NZ Winegrowers Annual Report 2016). Sustainability is a priority for New Zealand Winegrowers, and a new strategic plan will be released in late 2017.

### 8.1.1 Case Study 1 – Synlait Milk



#### Background:

Synlait Milk is a Canterbury, corporate owned, dairy processing company specialising in providing dairy-based health and nutritional products internationally, with a focus on supplying the Asian markets. Initially a dairy farming company founded in 2001 by New Zealanders Ben Dingle, Juliet Maclean and John Penno, Synlait Milk began processing in 2008 from a supply base of its own farms and independent suppliers (Synlait, 2015). The company started out initially as a processing facility for commodity-based milk powders and milk fat products. In 2010 a further capital investment was sought to allow construction of a second milk processing dryer specifically designed to produce infant and 'growing up' milk formulas in line with market demand for infant formula of NZ origin (particularly in China). China based Bright Dairy and Food Ltd., the third largest dairy company in China, took a majority shareholding of 51% in Synlait Milk (Campbell, 2011). In 2017, this shareholding has lowered to 39.12% for the 6 months ended 31<sup>st</sup> January 2017. (Synlait, 2016).

Synlait comprises a single processing manufacturing site and has focussed on keeping the costs down by sourcing milk from local farms within an 80km radius of the Canterbury factory (Synlait Lead with Pride, 2013).

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<sup>5</sup> New Zealand Winegrowers Annual Report 2016

Synlait Milk has experienced significant growth in annual revenue from \$420 million in 2013 to \$546 million in 2016 (Synlait, 2016). Synlait is still a relatively young company and the focus is on growth, both of their markets and market shares and physical growth of their processing site and supplying farms (Synlait, 2016). The company's vision "It starts with the desire to be the best across the four pillars of dairy farming" (Synlait 'Lead with Pride', 2013). The four pillars are Environment, Animal Health and Welfare, Milk Quality and Social Responsibility. The company places a strong focus on sales of infant formula and currently supply product for four of the world's top five infant formula companies (Synlait, 2014). Formula is produced at Synlait's Canterbury manufacturing facility but not sold under the Synlait brand, rather it is sold under the brands of Synlait's customers.

### 8.1.2 How is Synlait Milk able to generate premiums for their suppliers?

Synlait is based in the heart of the Canterbury Plains in a stretch of prime New Zealand dairy farming land. The Canterbury Plains is highly regarded as the perfect setting for making premium-quality milk as its' ability to grow lush green grass, fertile soil and pure water that runs down from the Southern Alps.

Every link in the Synlait Milk supply chain is critical and has been designed with sustainability and environmental efficiency in mind. Synlait Milk utilises world leading technology to minimise their carbon footprint and in the process become a water-positive operation, which means Synlait Milk returns more water to pasture than they use during processing.

The environment plays a key part in Synlait's ability to consistently deliver premium quality infant formula to the market, but for this to happen, Synlait must ensure that they are combining the best practice farming and continually be innovating with modern manufacturing facilities.

Almost all the Synlait Milk supply farms are located within 80 kilometres of the manufacturing plant. This gives Synlait visibility and control over where they source their milk and how it's produced. Synlait will only work with farmers who they know and trust.

Synlait demands the highest environmental standards from everybody in the supply chain - from the farm to the finished product.

### 8.1.3 'Lead with Pride'

Synlait Milk launched this internationally accredited ISO 65 quality assurance system in 2013. With the only system of its' kind in Australasia, Synlait Milk 'Lead with Pride' recognised and financially rewarded certified milk suppliers for achieving a set standard in dairy farming (Synlait, 2013)

'Lead with Pride' is about demonstrating leadership in food safety and sustainability which guarantees the integrity, safety and quality of pure natural milk produced on certified farms. (Synlait, 2013)

The 'Lead with Pride' quality system enables world leading health and nutrition customers to be able to differentiate between products using Gold, Gold **Plus** or Gold **Elite** certification that has been sustainably produced. 'Lead with Pride' Gold level that is industry standard that is currently being met by all milk suppliers to Synlait. At this level, there is no ISO 65 certification or premium paid on the supply of this milk.

‘Lead with Pride’ Gold **Plus** is the industry standard plus additional standards that must be met. These requirements cover the four pillars of sustainability and suppliers are ISO 65 certified and a premium payment is paid on the milk supplied to the value of \$0.06/kgMS. In 2016, there were 35 suppliers in this category and in 2017 it has grown to 42 suppliers.

‘Lead with Pride’ Gold **Elite** is known as leading practice when Gold *Plus* status has been maintained for a minimum of 12 months. To gain this certification, there are additional requirements of the four pillars of sustainability. Suppliers again are certified with ISO 65 and a higher premium is paid for their milk up to the value of \$0.12/kgMS.

In 2016, the base milk was \$3.91kgMS which reflected the decline in the International dairy commodity prices during the 2015/2016 season. An additional \$0.11kg/MS value added premium was paid taking the total payment to \$4.02kg/MS (Synlait, 2016). The total premium paid to ‘Lead with Pride’ suppliers was \$391,000 (full year), and in 2017, the premium paid was \$493,000 (half year) and will likely increase at end of season (Synlait, 2017).

‘Lead with Pride’ suppliers are audited by AsureQuality, an independent, New Zealand government operated business that specialises in Food Safety. Suppliers must meet or exceed the Industry best practice across four pillars of dairy farming, including Environment, Animal Welfare, Milk Quality and Social Responsibility (Synlait, 2013).

For dairy farming to remain sustainable in New Zealand, the industry’s environmental practices must be sustainable too. To be a certified member of ‘Lead with Pride’, the supplier of milk must achieve excellence in water and irrigation management, effective use of effluent, improving biodiversity on-farm, monitoring soil health, emissions and energy management.

The health and well-being of the herd is also vitally important as this can have a direct effect of milk quality. ‘Lead with Pride’ certified suppliers must exceed New Zealand’s Animal Health and Welfare standards which accurately monitor and record any animal health issues so that better decisions can be made in the future to help improve performance.

Milk quality is monitored daily both on-farm and at plant which focuses on ensuring the absolute integrity of the pure natural milk produced. Suppliers are recognised for dairy farm presentation and infrastructure, hygiene practices, milk cooling, residue management and staff training. Being a socially responsible supplier, it is creating more opportunities for success and will also attract the best employees. Certified suppliers have a systems approach to staff recruitment, management, health and safety and training. Employers create a unique team environment on-farm and become stand-out employers that everyone respects (Synlait, 2013).

#### 8.1.4 Synlait Sure



Synlait’s mission is to produce the safest infant formula in the world. Synlait has designed a system that helps the customer confirm that they have purchased the safest infant formula on



the market (SynlaitSure, 2017). Synlait firmly believe that if you can control the process, you can also control the outcome. Infant formula that is produced by Synlait is part of an unbroken chain that begins in the Canterbury Plains, and continues through the farming, manufacturing, packaging and shipping processes. Synlait Sure system is an end to end process with a focus on uncompromised quality at every step.

The Synlait Sure system allows the customer to see the strength of the supply chain for themselves, so anyone who purchases infant formula made by Synlait quality milk can quickly confirm with their tablet, PC or smartphone that the product is genuine.

Having this capability provides an easy way for the customer to trace the product back to the source, and explore how it was made. All Synlait's products are manufactured, tested, packaged and sealed on site, insuring the highest level of quality control and security.

All products once finished are required to go through product testing and auditing which is completed by ASureQuality, an independent, New Zealand government operated business that specialises in Food Safety.

The Synlait Sure mark helps the customer to easily identify premium-quality infant milk formula. All products certified with the Synlait Sure mark have been produced in accordance with Synlait's 'Lead with Pride' certified best practice.



## 8.2 Case Study 2 – Sustainable Winegrowing New Zealand

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### Background:

New Zealand's wine producing history extends back to the founding of the nation in the 1800's. Samuel Marsden, an Anglican missionary made the first recorded planting of grapevines in the Bay of Islands in 1819.

In the early 1920's and 1930's there was a gradual increase in production but nothing spectacular. During the Second World War however, the wine industry boomed, and expansion continued at a steady pace. In the 1950's and 1960's the industry had legislative concessions placed on it which included the amounts of wine that could be sold.

In the early 1970's, there was an improvement in the quality of wine and there was a heavy emphasis on production of slightly sweeter white wines from the heavy cropping variety muller-thurgau (Cooper, 2017)

It was the introduction to Marlborough's Sauvignon Blanc in the 1980's that saw New Zealand wine explode onto the international scene, courtesy of world beating performances in international competitions and rapturous critical reviews. Marlborough retains its status as the one of the world's foremost wine producing regions, the quality of wines from elsewhere in the country has also received international acclaim. By world standards New Zealand's wine production capacity is tiny, accounting for less than 1% of total volume (Wine Institute, 2015). The average price tag for a New Zealand wine reflects its desirability, and few would question its ability to deliver excellent value for money. The total value of New Zealand's wine exports has skyrocketed from \$NZ 18 million in 1990, to \$NZ 1.57 billion in 2016 (NZ Wine Annual Report, 2016) and is forecasted to rise to \$NZ 2 billion by 2020. It's commitment to quality over quantity that has won New Zealand its reputation as a premium producer. This commitment is evident from the vineyard to the winery; along with sustainability leadership, New Zealand continues to pioneer advances such as canopy management, stainless steel fermentation techniques and screwcaps.

### 8.2.1 Are New Zealand Winegrowers able to generate premiums from promoting Sustainable practices?

Sustainable winegrowing in New Zealand is widely renowned as being a world leading programme. It was one of the first sustainability programmes founded in the International wine sector. In 2016, 98% of New Zealand's producing vineyards and wineries<sup>6</sup> took up the voluntary scheme and became Sustainable Winegrowing New Zealand certified (NZWG Sustainability Report, 2016). The vineyard total area equates to 35,558ha which is now certified as sustainable, and of this 7% is certified organic.

Sustainable Winegrowing New Zealand members in the 2016 season had some key achievements in what was deemed to be a difficult season, growers continued to produce premium wine whilst engaging in environmental and economically viable processes on vineyard and winery.

Daniel Honan, aka The Wine Idealist, is an Australian Food and Wine writer is quoted to have said *"New Zealand winegrowers are committed to the future of their land and country"* and *"Those winegrowers are first-class pioneers of environment, economic and social sustainability and should be the envy of the wine world"*.

For New Zealand wine, the word sustainability means providing exceptional wine to consumers in a way that allows the natural resources, the businesses and the communities thrive.

The key areas that Sustainable Winegrowing New Zealand focuses on are;

- Biodiversity
- By-Products
- Water
- Energy
- People
- Pest and disease management
- Soil

The value of enhancing biodiversity within the viticulture industry is not just about the social and environmental outcomes that can be achieved. There are clear monetary advantages that can be achieved through biological control of pests and diseases, control of weeds whilst improving the quality of the soil resulting in better crops. In 2016, 2,500ha of land was set aside for enhancement or restoration by vineyards and wineries for Biodiversity (SWNZ Sustainability Report, 2016). Some examples of Biodiversity Protection in action are wineries in the Waipara Valley focusing on planting and maintaining native tree species which in turn improves the habitat for beneficial insects. The Wairau Plains in Marlborough have been assisting with increasing the size of the native Tui's habitat on both public and private land.

Many by-products of the viticulture industry now days are turned into something beneficial rather than being dumped. All Primary producers generate waste and viticulture is no different. What is different is the volume of the waste produced by viticulture from the vine prunings, stalks and marc (skins and seeds) that is most valued as it is seen by the vineyard and winery as an asset. In 2016, 92,033m<sup>3</sup> of by-product was diverted from landfill by vineyards and wineries

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<sup>6</sup> The data in the SWNZ Sustainability Report 2016 was collected from 1,918 vineyards and 254 wineries (SWNZ Membership Oct 2016)

(SWNZ, 2016). Peter Yealands, Founder of Yealands Wines and other Marlborough vineyard suppliers have collaborated to create their own compost from composted bark, shells, kelp, lime, paunch grass as well as the grape marc. Each year they create around 50,000 tonnes of compost which is used on their vineyards and the greater Marlborough region. This compost helps improve soil fertility and water retention as well as reducing the amount of waste going to landfill (Yealands, 2016).

In the Primary sector, water is one of the most critical elements required for life and protection. New Zealand has over 50 major rivers, 770 lakes and at times, never short of rainfall. The Viticulture Industry optimises their water applications through monitoring technologies to which 98% of vineyards and 96% of wineries are compliant (SWNZ, 2016).

Due to New Zealand's geographical location, we are fortunate to be drawing most of our electricity from renewable sources, largely hydro-electric although wind, solar and geo-thermal generation are increasing. Yealands Wines use three forms of power generation in their winery, firstly, vine pruning's are baled up into 200kg bales and burnt in two specially designed burners that can produce up to 500kW of energy, enough to power an average New Zealand home for three weeks (Yealands, 2016). Secondly, the roof of the Yealands Winery has a large solar panel installation. This installation provides more than half a million kW hours per year, which is enough to power 86 average New Zealand households (Yealands, 2016). Thirdly, Yealands Wines ultimately wanted to generate enough power to become completely self-sufficient, as a result, they installed two traditional wind turbines and a horizontal axis turbine. These turbines generate around 48,000kWh each year (Yealands, 2016).

Due to the viticulture industry being so labour intensive at certain times of the year, people are vitally important. Joanna Brain wrote *"it is about people – it is about understanding people's needs and desires, considering the effects of our actions on the wider community and anticipating and embracing social change to allow people to provide for their social well-being in the future"*. Employers and employees are discovering that education and training can reduce costs and increase efficiency within the business. The enthusiasm of these people helps expand the boundaries of sustainable thinking and behaviour (SWNZ, 2016).

In the Primary sector, *'we are what we eat and what we eat comes from the soil'*. A healthy soil is one that can breathe freely and to achieve this we must ensure that the mineral balance is correct, microbial support and human intervention (Graeme Sait, 2012). Over 83% of vineyards in New Zealand retain permanent inter-row vegetation throughout the year. This inter-row is mown or in some cases, baby-doll sheep and kunekune pigs graze within the confines of the vineyard. Using animals to graze in the vineyard means that tractors and mowers are not required, which reduces the use of fossil fuels and carbon emissions (Yealands, 2016).

In Marlborough, Yealands Wine Group are ISO14001:2004 accredited, this certification is an internationally recognised environmental management standard. The Yealands Wine Group achieved certification of ISO14001:2004 to help provide assurance to Company management and employees as well as customers that the environmental impact is being measured and improved<sup>7</sup>. There are proven benefits from being ISO14001:2004 accredited are;

- 75% of businesses have found it valuable for meeting legal requirements and improving the businesses environmental performance.
- Helps with improving public image

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<sup>7</sup> <http://intlcert.com/environmental-management>

- Gave the business a competitive advantage and gave a financial benefit.
- Help achieve employee and management engagement.

In 2008, a financial analysis was completed and (Gilkison, 2008) projected the value of carboNZero certification of New Zealand Wine as very profitable. The wineries and vineyards that have achieved a carboNZero certification are finding;

1. An increase in sales especially in the United Kingdom
2. A 30% increase in profit with 12 months following the certification process
3. Increased market impact
4. Positive exposure within the media focusing on '*world first*'
5. Differentiation within market and being able to 'cut through' in negotiating with trading partners (Petersen, 2017)
6. Cost reductions through energy savings and other efficiencies
7. Inspiring the supply chain towards carbon neutrality
8. 'Future Proofing' potentially against the negative effects of 'food miles' and a brand image of environmentally responsibility

New Zealand is still the leading country by average bottle price in the United Kingdom, with New Zealand Sauvignon Blanc and Pinot Noir the most popular wine varieties in the market demanding a premium. The price per bottle is £7.37 (NZ\$16.94) and the United Kingdom average price per bottle is £5.46 (NZ\$12.55) (Hutching, 2015).

### 8.3 Case Study 3 - Zespri International Limited

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#### Background:

The New Zealand Kiwifruit Industry was created by Isobel Fraser who, in 1904, returned from a trip to China with some kiwifruit seeds. These seeds were given to Alexander Allison, a horticulturist who germinated the seeds and started the tradition of growing kiwifruit in New Zealand.

The person responsible for the start of Zespri Kiwifruit was Hayward Wright who was a pioneering horticulturist. In 1928, in the Bay of Plenty, Hayward Wright developed a new variety of kiwifruit and ever since, the “Hayward” variety has been grown and exported all over the world.

In 1952, the first export shipment of kiwifruit was sent to England. The original name for the fruit was “Yang Tao” or the “Chinese Gooseberry,” but proud growers named the fruit in recognition of New Zealand’s national symbol – the special brown-feathered Kiwi; hence the origin of the name ‘Kiwifruit’.

In the years that followed, the Kiwifruit Industry expanded rapidly with entrepreneurial kiwifruit growers establishing orchards across the Bay of Plenty and in other growing regions of New Zealand. Growers banded together to pack and export their fruit overseas and competed against each other for markets. In the 1970's, the Kiwifruit Marketing Licensing Authority was formed to provide growers with control over their industry structure and regulate the activities of exporters. This structure enabled grade standards to be established and a coordinated approach to marketing undertaken.

In the mid to late 1980's the New Zealand kiwifruit industry faced a crisis. The rapid expansion of orchards in New Zealand led to large crop volumes, above and beyond that of global demand. The New Zealand dollar was rising, and interest rates were high. In the markets, the price of kiwifruit dipped to an all-time low. Growers faced financial hardship and the multiple exporters were competing against each other, driving prices and grower returns down further.

It was at that point that New Zealand growers took the first step toward establishing an industry structure which would put growers at its heart and ensure they retained control of their destiny. It took steps to establish this goal, with a complete review of the industry undertaken in 1993. With visionary leadership and strategic partnerships, the New Zealand kiwifruit industry set a platform on which to build its future. A market driven strategy was at the forefront of change – building on the reputation of delivering the world’s best kiwifruit.

Zespri International Limited was formed in 1997 as a global marketing organisation, providing a united grower-owned platform to deliver quality New Zealand-grown kiwifruit to the world. This commitment to grow and sell the best kiwifruit remains unchanged today.

In 2015, a referendum was conducted, and 98 percent of Growers voted to keep the Zespri Single Point of Entry (SPE). This Single Point of Entry (SPE) structure is the use of one exporter to market and distribute New Zealand Kiwifruit to the world. This type of structure provides the ability to deliver scale to the market and choose motivated distributors to serve these markets. Additional benefits include investment through shares, branded premium products, new varieties, consistent quality, customer service, sustainability and competitive returns to their Growers<sup>8</sup>.

### 8.3.1 What are the current Sustainable practices being used by Zespri to be able to generate premiums for New Zealand Kiwifruit?

During the 2016/2017 season, Zespri managed to sell more fruit in the market faster than ever before. The total volume sold from New Zealand was 137.7 million trays, which was 18 percent higher than the previous season and 45 percent greater than two seasons earlier (Zespri, 2016). The 2016/2017 season was very challenging in many respects. Due to the increased volume of Green and a late start to the harvest owing to delayed maturity, it placed pressure on the entire Industry, but average yields of 12,281 trays per hectare. The Green return was \$4.36 per tray Orchard Gate Return (OGR). The extraordinary increase in Green volume to over 93 million trays in gross submit trays led to a programme of crop management onshore as this was identified as being the best way to handle fruit in sizes surplus to demand.

In the 2016/2017 season, SunGold (G3) delivered an exceptional result for the Industry, with an average per-tray return of \$8.64 OGR. There was an increase in supply from 32.6 million trays in 2015/2016 to 48.5 million trays in 2016/2017. With the increased volume, the average return increased 39 percent to \$98,838 per hectare.

In 2016, Zespri allocated an additional 400 hectares of licence to be released to the Industry. This release attracted very strong participation from the Industry. A second 400-hectare allocation was completed in early 2017 as the outlook for growing the SunGold (G3) market demand continues. Zespri's primary focus currently is being able to grow demand ahead of supply, fulfilling demand and innovating to develop better ways to deliver value.

In June 2016, Zespri released their Sustainability Report – “Growing a better, Healthier Future”. Lain Jager (CEO Zespri) is quoted, “Zespri is committed to delivering healthy and nutritious kiwifruit of the highest quality to consumers around the world”. Zespri is focused on sustainability as they believe the quality of the natural environment, the efficiency of the supply chain, the skills and commitment from growers, businesses and employees are all vital ingredients in how the Industry can continue growing and supplying premium kiwifruit worldwide.

The key areas of Sustainability that Zespri is focusing on currently are;

- Soil and Water
- Waste Management and Reduction
- Managing Carbon and Greenhouse Gas Emissions
- Supporting Employment and backing Worker welfare
- Investing in Communities and building capability

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<sup>8</sup> <http://nzkgi.org.nz/industry/#section>



One of the major issues currently confronting the Primary sector is the availability and use of water. As Kiwifruit vines have deep roots, they are very good at finding water, so there is very little need for irrigation on a mature orchard operation. However, the Kiwifruit Industry in New Zealand is currently expanding with new plantings and additional releases of licence for G3, irrigation is required on a large scale. Zespri is currently funding two projects around the loss of nitrogen from the soil, and the other regarding how a kiwifruit vine can optimise nutrients efficiently. Both projects are looking at identifying ways of mitigating the impacts on the environment with increasing world demands for food.

According to the UN Food and Agriculture Organisation report, fruit and vegetables have the highest waste rates of any food products, around 45 percent<sup>9</sup>. Zespri is trying to reduce fruit waste both on-shore and off-shore for cost and environmental reasons. The Kiwifruit Industry has invested heavily into information systems to help improve inventory management, the use of LEAN manufacturing concepts and improved supply-chain and cool-chain systems that have all helped in reducing the volume of waste.

Zespri is focused on “telling the story” by using 100 percent recyclable packaging that is produced from renewable materials from plantation forests in New Zealand and Europe. In 2016, Scion a Crown Research Institute (CRI) based in Rotorua developed the Bio-spife, a spoon / knife promotional item that is made from biopolymers<sup>10</sup>. The spife was originally made from plastic and were not recyclable and due to customer pressure, the Bio-spife was created which is fully compostable.

It is widely known that carbon is stored in three places, the soil, living things, and the atmosphere (as CO<sub>2</sub>). The soil is responsible for sequestering carbon from the atmosphere, a study was completed by the Ministry of Agriculture

Zespri has been involved in numerous studies over the past few years to understand their absolute carbon footprint figure on Zespri fruit exported to market. One study that has been completed in 2010 measured the entire carbon footprint across the lifecycle of the kiwifruit. This study was completed by New Zealand Ministry of Agriculture & Forestry (MAF), Landcare Research, Massey University, Plant & Food Research and AgriLINK<sup>11</sup>. The study found that kiwifruit shipped to Europe contributes 1.74kg of carbon equivalents per 1.0kg of kiwifruit across its lifecycle from orchard to consumer. It is very important to note that there is no current, globally acceptable standard for measuring a carbon footprint, however Zespri wants to be pro-active using the PAS 2050 standard<sup>12</sup> which enables you to measure the environmental impact.

Zespri relies heavily on the use of ships to transport kiwifruit from New Zealand to the market. The supply chain uses direct shipping to the market on specialised reefer vessels. These vessels are 27 percent more energy efficient than container shipping. Chartered reefer vessels are instructed by Zespri to travel at the most efficient speed to market, and Zespri’s container shipping programme is shipped slowly to the market. In the future, Zespri is in collaboration with SeaTrade to use the latest generation of vessels, bio-fuels and engines to achieve even greater reductions in emissions.

Currently the New Zealand Kiwifruit Industry employs over 10,000 people permanently with another 8 – 10,000 seasonal employees assisting during the harvest period. The Horticulture sector

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<sup>9</sup> <http://www.fao.org/save-food/resources/keyfindings/infographics/fruit/en/>

<sup>10</sup> <https://www.scionresearch.com/science/bioproductions-for-sustainable-industries>

<sup>11</sup> [https://www.landcareresearch.co.nz/publications/researchpubs/Kiwifruit\\_Methodology\\_Report\\_2010.pdf](https://www.landcareresearch.co.nz/publications/researchpubs/Kiwifruit_Methodology_Report_2010.pdf)

<sup>12</sup> <http://www.sgs.com/en/sustainability/facilities-and-production/product-and-packaging/carbon-footprint/pas-2050-carbon-footprint>

employs over 1,000 Recognised Seasonal Employees (RSE) typically from the Pacific Islands (Tonga, Samoa, Vanuatu, Fiji). This scheme was set up by the New Zealand Government in 2011 and since then, the New Zealand Government has funded technical assistance for the partner countries in the scheme. The skills learnt in New Zealand can be taken back to their own countries so that they can make a brighter future for their families and friends. New Zealand Kiwifruit Growers Incorporated (NZKGI) is committed to ensuring that their members have the highest standards of compliance for employment, staff welfare, have safe working conditions and keep proper records on file.

One of the aims Zespri has is to support a sustainable Kiwifruit Industry through its work in the community. In New Zealand, Zespri invests in strong and healthy communities, develop a skilled and innovative industry and promote sustainable practices.

In 2016, Zespri announced a new partnership with Surf Lifesaving New Zealand in the Bay of Plenty, Coromandel, East Coast and Gisborne regions. Through the financial support of Zespri essential training to the life guards can be provided to ensure they have the skills and knowledge to create a safe environment on the beaches and respond to emergencies. Zespri offers scholarships to outstanding secondary school students to support their three-year Bachelor studies in Science, Management and Marketing.

The Sustainability journey for Zespri is continuing with trying to understand the impacts of growing kiwifruit on the environment and what new tools can be introduced to help enhance the Zespri brand. Zespri is currently involved in the New Zealand Sustainability Dashboard Project which aims to help the Kiwifruit Industry prioritise its efforts and undertake effective sustainability assessments to help improve performance.

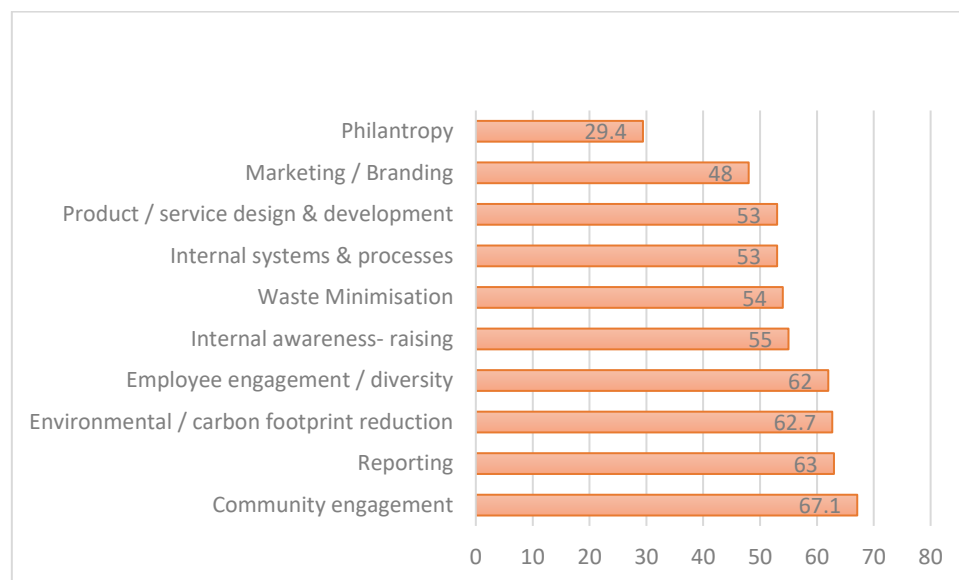
Sustainability needs to be the key driver for the Industry going forward into the future, it is how the Industry will continue to grow and deliver premium fruit to the consumers around the world.

Since the very start of the Kiwifruit Industry there is a long and proud history of innovation and continuous improvement, Zespri will continue to market the highest quality kiwifruit whilst protecting the natural environment for future generations.



## 9. Grower Survey

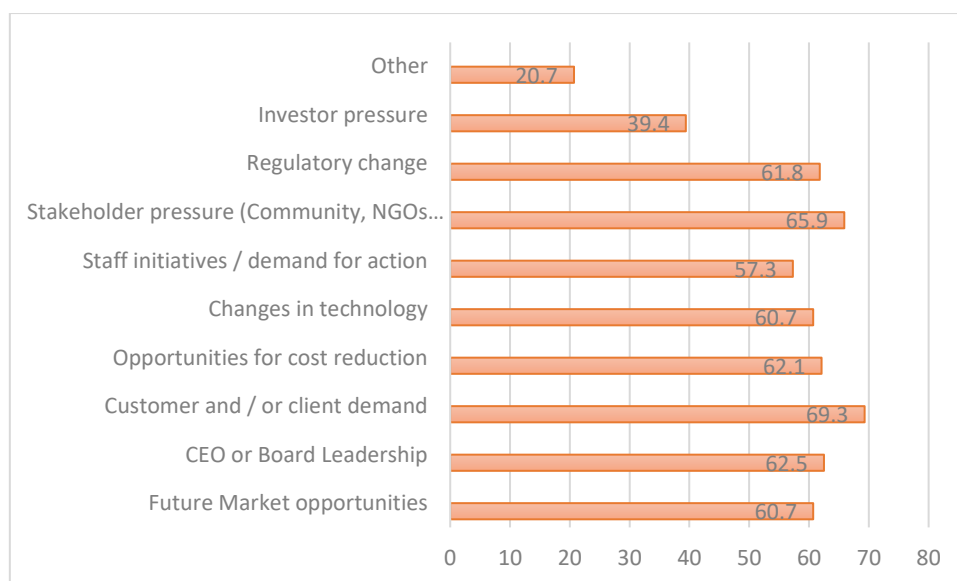
A survey was carried out on contacts within the Kiwifruit Industry using Survey Monkey. Survey Monkey is a cloud-based software service that provides free, customised surveys as well as back-end programs that include data analysis, sample selection and bias elimination. Whilst it was sent to 20 representatives, there were 17 responses (85%) which was very pleasing. The results are as follows;



**Figure 3. Major areas of focus for organisations on sustainability currently.**

### Highlights:

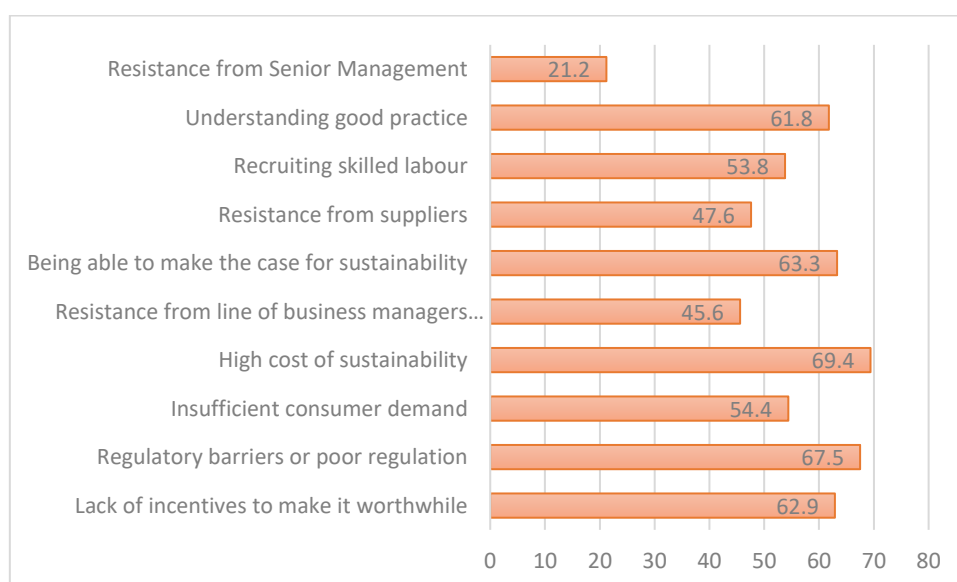
- 55% of Growers and Post-Harvest facilities have focused on improving internal systems and processes and trying to reduce waste.
- 67.1% of respondents said Community Engagement is the major focus for their businesses going forward.
- Leaders within the Kiwifruit Industry expect a shift to sustainable designs and development.
- Philanthropy is a low priority as a sustainable business strategy.
- Additional responses in the comments box, “water stewardship and bio-diversity”, “Sustainability development and how to implement into business strategy”, “Affordability of water”, “Rural Urban divide and the building out of prime Horticultural land”.
- Sustainable reporting (63%) is best described by Bill Baue, a Corporate Sustainability Architect who says “The purpose of sustainability reporting couldn’t be simpler to define. It answers the question whether present practices can persist – that is, continue to build more value than it destroys”.



**Figure 4. What is driving your Business initiatives.**

**Highlights:**

- In the Primary sector, there is a large demand (69.3%) from customer and client for sustainable products and services within New Zealand. This is sending a clear message to business and Industry leaders that the consumer is watching and monitoring where and how their food is being produced.
- Future Markets opportunities (60.7%) need to be seized upon, especially with the current emerging markets for Zespri.

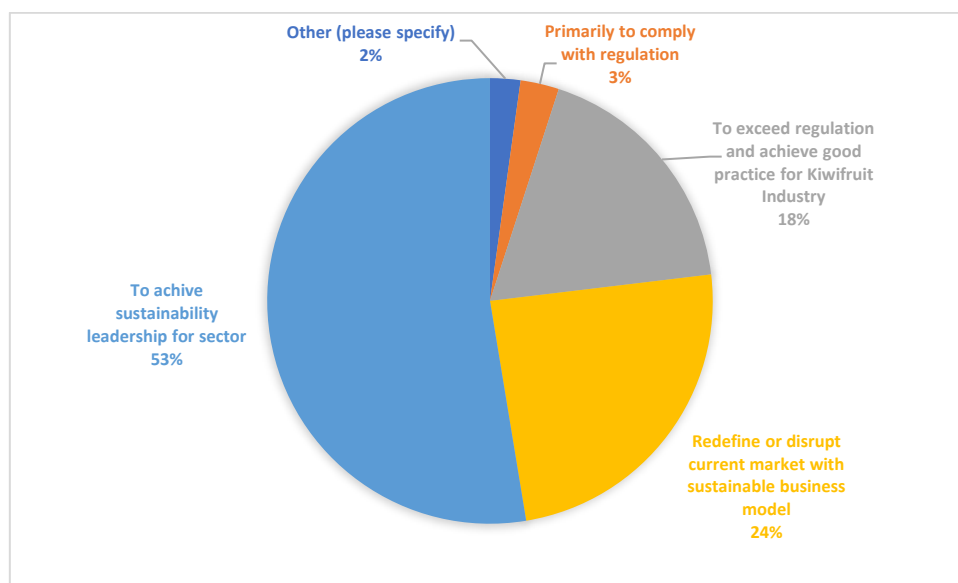


**Figure 5. What are the major sustainability challenges that your organisation faces.**

**Highlights:**

- Growers and Post-Harvest operators found the Lack of incentives and regulatory barriers a large obstacle (62.9%).

- Insufficient customer demand results between Question 3 and Question 2. Clearly demand needs to grow as it is viewed as challenge in Question 3 (54.4%) compared to what is driving the business sustainability strategy (69.3%).
- The cost of sustainability is viewed as a major challenge for some growers and post-harvest facilities.
- Additional responses within the comments box, “Resistance comes mostly from lack of education on sustainability”, “Understanding global sustainability issues and how do they fit in NZ market”, “Conflicting priorities”, “Landfill vs. recycling?”, “Understanding best focus of business effort i.e.: selecting what you can do, profit vs. social good”.



**Figure 6. What is your businesses agreed plan for the next 3 – 5 years for sustainability.**

#### **Highlights:**

- Despite the challenges the Kiwifruit Industry faces, Growers and Post-Harvest facilities are pursuing very ambitious goals for their businesses.
- Additional responses within the comments box, “to understand the meaning of sustainability and steadily work toward that meaning”, “Ensure that NZ Horticulturalists are recognised as world leaders in food production”, “To Grow the Future with sustainable management of large scale orchard developments and producing orchards through attention to detail and continual development of people, equipment and industry leading best practice. To be acknowledged as an employer of choice through values based organisational culture and proven career development and ownership pathways”.

#### **Question 5.**

##### **How important do you think being a sustainable business is for the New Zealand economy?**

Respondents to this question used the words ‘Critical’ and ‘Important’ in their answers. “As New Zealand is heavily reliant on natural resources and social capital. We have a unique culture of being adaptable and resilient and solving problems in creative ways – this will drive opportunities to add value and transition towards low carbon economy and net restorative future”, “NZ trades on its image and we need to have the substance behind that image”, “With increased demand for

sustainable practices by offshore customers and retailers and Zespri's brand values, it is vitally important NZ Post-Harvest operators invest in sustainability on an ongoing basis".

#### **Question 6.**

**How do you think the New Zealand Primary sector compares with overseas Primary sectors regarding Sustainability?**

The respondents' answers were varied but there were themes throughout their answers. "We do some things well, other things not so well", "We need to capitalise on the New Zealand brand", "We miss some value-add due to exporting raw or untreated products straight to market", "Need to get better at measuring, reporting and communicating around sustainability", "We have unique opportunities through compliance and environmental programmes to fully embrace sustainability".

#### **Question 7.**

**What opportunities are there out there currently for the New Zealand Kiwifruit industry to be more sustainable?**

The respondents' answers were varied but again had reoccurring themes throughout their answers. "We need to be able to collect accurate data on our inputs and translate that into some sustainable progress", "We need to identify what our 'Top 5' or similar challenges are so that the entire industry is working towards the most critical aspects i.e. water quality and use", "The opportunities identified need to fit the business values", "Sustainability is an iterative improvement process", "Embrace rather than resist", "Put egos aside and collaborate", "Our environmental footprint is very small, but there needs to be balance between opportunities/initiatives vs. cost imposed/incurred and the ability to recoup those costs in market".

#### **Question 8.**

**How do you think Government policy / funding models could help the New Zealand Kiwifruit industry to be more sustainable?**

The respondents' answers were varied with reoccurring themes throughout their answers. "Central Government should give more emphasis on R&D and tax breaks to those businesses that adopt sustainable practices", "Government should help fund investment or create tax incentives to lower the pay-back risks of large scale sustainability investments", "Government must have greater clarity around environmental limits backed by sound research and a central result not regional", "Reward good behaviour, tax bad behaviour", "Drive incentives towards businesses that are driving sustainable practice", "The Government needs to keep the Primary sector competitive in the face of increased regulation and compliance costs that result in the instigation of new sustainability requirements. However, once a marketplace is legislated for compliance the marginal benefit for being in that space is reduced or eliminated. It is better to be a fast-mover and adopt your own sustainability plans/practices, get these certified and then trade on these for a premium. This is assuming that the cost is lower than the return generated this is a good outcome".

#### **Question 9.**

**What role does sustainability play in your businesses overall strategic plan?**

The respondents' answers were varied with reoccurring themes throughout their answers. "Sustainability plays a significant role within our business, we continue to implement changes to our

land use practice that will produce sustainable outcomes’, “Privately owned company that is determined to do values-based business and do greater good in the community for its’ people and customers. A company that respects that we are guardians of resources for the future generations and take responsibility seriously”, “Forefront of future planning”, “Sustainability is a core value within the business, it is driven at all levels within the organisation”, “Sustainability will become a key pillar within the business in the next few years”, “Our business was the Ballance Farm Environment Awards 2016 Supreme Award Winner for Bay of Plenty and this was our first foray into the sustainability arena. Since that time, the profile of sustainability has lifted at Baygold and decision making now includes broad sustainability aspects, this will become more important as the company moves forward and adopts a new strategic plan”.

#### **Question 10.**

##### ***Does your business use alternative energy sources like wind or solar?***

The use of alternative energy sources within the Kiwifruit Industry is gaining momentum, but 94% of respondents said that they are not using alternative energy sources currently. The use of solar energy seems to be part of most respondents’ future strategy planning when income allows that investment. Two businesses are interested in replacing their fossil fuel transport to electrics (largely renewable in New Zealand) is a high priority.

## **10. Interviews**

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The final part of my research involved interviewing three representatives from Primary Industry businesses that are at the forefront of sustainable change within the sector. Below is a summary of these meetings. A brief overview of their background is followed by a summary of key findings with regards to any areas of opportunity for Zespri to improve and generate higher premiums.

### **10.1 Rachael Brodie – Sustainability Coordinator, Trevelyan’s**

Rachel joined Trevelyan’s in 2010 after almost 10 years in customer services at Carter Holt Harvey Packaging in Mt Maunganui. Rachel has a personal passion for sustainability and coordinates Trevelyan’s initiatives including corporate social responsibility. She also supports management with administration and clerical tasks. She has a Diploma in Business Administration and Certificates in Environment and Sustainability as well as a Certificate in Sustainable Practice.

Since 1965, Trevelyan’s have been providing world-class packing and fruit storage facilities for Kiwifruit and avocado growers across the Bay of Plenty. Their reputation as a family-run business grew, and are now the Bay of Plenty regions’ most innovative Post-Harvest facility.

The sustainability framework at Trevelyan’s focuses attention on areas of improvement across the entire business. The success of Trevelyan’s as a business is that it is profitable, they practice continuous improvement, efficiently use all resources and they are not afraid to invest in new technologies. There is a large amount of collaboration with growers, staff, suppliers and the wider supply chain.

Trevelyan’s believe the main benefits of being a sustainable business are;

- Trying to make the world a better place

- Improving efficiencies throughout the business to try and reduce operating costs
- Ensuring the long-term feasibility of the Kiwifruit Industry and taking care of the growing environment
- Positive relationships with growers, staff, supplier and community
- Encouraging staff engagement, leadership and productivity from creating a healthy workplace
- Leading by example by meeting consumer demand and increasing the value of the Zespri brand.

## 10.2 Glen Crowther – BOP Regional Coordinator, Sustainable Business Network

Glen is the Regional Coordinator for the Bay of Plenty. His career has spanned education, environment and health sectors. Glen said that he has learnt the best to apply sustainable principles is in the context of local communities and their needs. His belief is that innovation within the Primary Sector will lead a transition towards a new economic model.

The Sustainable Business Network (SBN) is about energising business success and changing the way we work to put people and nature first. The SBN vision is to make New Zealand the model sustainable nation for the world. The Sustainable Business Network is made up of hundreds of organisations from all around New Zealand and the network includes; small businesses, International Corporations, NGO's, local authorities, Public health boards and individuals.

The aim of the Sustainable Business Network (SBN) is to;

- To connect business people or companies with other like-minded people to help grow their business
- Inspiring others by sharing stories and experiences
- Collaborations focused on renewable, efficient solutions that assist in helping restore the environment and empower the community.

The SBN has four areas that they believe are critical for building a better business future for New Zealand. These areas are;

1. Renewable – shifting energy to fully renewable sources require collaboration, clever design and innovation. Examples include; biofuels, electric vehicles.
2. Community – Building thriving communities requires strategic investment, good working conditions and products and services that build communities rather than erode. Examples include; employment, site location
3. Efficiency – Optimise the resource use, move away from traditional means of operation towards new models of production. Examples include; zero waste, closed-loop design
4. Restorative – giving back to rather than taking from the environment, how can businesses add value by neutralising impacts to the environment. Examples include; Organic practices, enhancing water quality, new business models.

### 10.3 Jayson Bengé PhD – Industry Leader, The NZ Sustainability Dashboard Project

Jayson has been a member of the Agricultural Research Group on Sustainability (ARGOS) since 2003. Jayson has been based at Zespri since 2011 when he was seconded to help with research into the bacterial disease *Pseudomonas syringae* pv *Actinidiae* (Psa).

The NZ Sustainability Dashboard Project goal is to develop a sustainable assessment and reporting tool that helps or assists in response to increasing market, business improvements / resource use and regulatory drivers and requirements. The programme that commenced in 2012, is a 6-year project funded by the New Zealand Government, The Ministry for Business, Innovation and Employment (MBIE) as well as Industry partners.

Zespri International Ltd is one of the Industry partners as well as 5 other Kiwifruit Industry businesses.

The main objectives for the NZ Sustainability Dashboard Project is to help the Primary sector develop tools that are user friendly to help facilitate assessment and reporting on sustainability. The tools will assist in the uploading of information from the field through regular monitoring and instantly summarise results and report back any trends to the producers, Industry representatives and policy makers at both regional and central Government. The tools could provide information also to help enhance decision making at Board level, and assist in improving the overall sustainability performance of the business.

It is anticipated that The NZ Sustainability Dashboard Project assessment tools will help with the flow of information to assist producers elevate their orchard / business performance including productivity, profitability whilst protecting their environmental and social values. The project is also expected to reduce monitoring and regulatory costs, help build consumer trust and help with securing market access.

## 11. Discussion

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The purpose of this report was to investigate what the financial rewards could be within the Kiwifruit Industry for being a Sustainable business. There were some common themes that came across from all the fields of research including;

- Sustainability is a core value within each of the businesses.
- Collaboration within the Primary sector is essential.
- Understanding Global sustainability issues and how does that affect New Zealand.

Some of the limitations in applying these recommendations include;

- Consumer resistance
- Keeping ahead of the competition in-regards to new technologies and strategies
- Complex business models – profit, people and planet
- The economics of sustainability and how to put an economic value to sustainability issues

Based on the reading and interviews conducted it is evident that sustainability is considered vitally important at the country, industry and individual business level. In New Zealand, having

basic sustainable business knowledge is useful, but sustainability needs to be driven within the business, and can only be successful through collaborating with others at times. To be a sustainable business, education around sustainability needs to permeate through all departments, functions and topics to be effective.

Consumers worldwide have adopted more sustainable behaviours, and they expect the same from large businesses. When the consumer is purchasing a product, they are doing their homework, checking labels before buying and checking websites for information on the business and manufacturing techniques. A good example of this is Synlait Sure which allows the customer to see the strength of the supply chain for themselves, so anyone who purchases infant formula made by Synlait quality milk can quickly confirm with their tablet, PC or smartphone that the product is genuine.

Worldwide, consumers are divided in the way that they perceive a brand, like Zespri, Synlait and Yealands Wine commitment to sustainability. For some consumers, words like “organic” are important, another is “reducing carbon footprint” and for some it maybe the association of giving back to the communities.

In 2015, Nielsen Global Corporate Sustainability Report surveyed 30,000 consumers in 60 countries to evaluate how sustainability impacts their decisions around purchasing. Results showed that the market for sustainable goods is continuing to expand at a rapid rate and there is significant brand growth for those willing to listen and respond to a new kind of consumer.

The Nielsen Global Corporate Sustainability Report 2015 found that brands like Zespri, Synlait and others that demonstrate a commitment to sustainability will outperform those businesses that do not. There are five ways to win with sustainability are:

1. Focus on Millennials and Generation Z – these consumers are willing to pay more for brands that are committed to positive social and environmental impact. Nearly three out of four consumers aged 34 and under were willing to pay more.
2. Highlight the brand and reinforce the commitment towards social and environmental impact to drive premiums – Zespri is amongst the most recognised fruit brands in the world currently and it has come about from significant R&D by the Industry and growers. This brand strength allows the price of kiwifruit in international markets to earn a significant premium over other kiwifruit producing nations. New Zealand’s offshore clients and consumers benefit from the Zespri brand due to the strict quality controls governing the growing of licenced varieties, harvesting, packing, cool-storage and delivery to market, the consumer can be guaranteed that they are receiving a premium, nutritious safe product.
3. Having a discerning sustainability strategy – Consumers in developed markets are very hard to influence and some of these consumers consider sustainability as a basic cost of entry. The Zespri brand is credible, with relevant social purpose and delivers greater value on a premium product.
4. Support your “positive news” efforts with marketing – Globally, 65 per cent of total sales come from brands that use marketing only to communicate sustainability efforts with their consumers. Marketing the “positive” outcomes is key to attracting and retaining customers.



5. Keep regional, category and demographics in mind – To be the best, your business must rise above the competition and you must define the social purpose of the Zespri brand and fully understand what the customer wants. With the different regions, categories and demographics there is different rates of effectiveness in the marketing techniques.

### 11.1 What additional incentives could be introduced into the Kiwifruit Industry to generate premiums for Zespri Growers?

If Zespri International were to adopt a system like that of Synlait “Lead with Pride” that rewards growers for their sustainable practices. Currently all growers are GAP certified, which gives the consumers the assurance that the fruit is being produced using Good Agricultural Practice (GAP). This initial certification could be the base level for the Industry, that way no grower is disadvantaged. The additional tiers of the programme could be named Zespri *Plus* and Zespri *Elite*. If a grower achieves the minimum standard and wishes to move up a level to Zespri *Plus*, they will be required to cover the three pillars of sustainability, (Environmental, Economic and Social) and a premium payment could be paid on the supply of these trays. The top tier, Zespri *Elite*, could be known as the leading practice once Zespri *Plus* status was maintained for a minimum of 12 months. Zespri along with a Grower representative team would need to come up with additional requirements for this tier, but it would still cover the pillars of sustainability, then an even higher premium could be paid on the supply of these trays. The creation of a system like ‘Lead with Pride’ within the Kiwifruit Industry potentially would not need to be a separate payment pool, potentially include this fruit in the Organic category to achieve an additional tray premium.

### 11.2 Organics and their role creating a premium

As Zespri is a sustainable business in the Primary sector, there are key differences between organic fruit payments and sustainable conventional fruit payments. The average tray price in 2016/2017 season was \$6.56 for Organic Green and \$8.68 per tray Sungold and an Orchard Gate Return (OGR) of \$54,427 per hectare (Green) and \$99,547 per hectare (Sungold)<sup>13</sup>. The total volumes of trays sold within the Organic category for the 2016/2017 season was 3.9 million trays of Green and 743,000 trays Organic Sungold. In the October Zespri Kiwiflier<sup>14</sup>, the Zespri Board has approved the release of an additional 50 hectares per year over the next 5 years of licence for Organic Sungold. The reasons for this is to increase the volume to ensure a balanced product portfolio and it means that Zespri can offer even further value to more consumers. Alice Moore, Zespri Global Marketing Manager for Organics, comments “*Organics has moved well beyond historical norms, to a position where demand now significantly exceeds supply and the trend is due to continue*”. Organic farming practices do tend to polarise thinking within the Primary sector. There is a lot of market volatility with organic produce due to the peaks and troughs due to demand and supply.

As a producer, we need to be able to separate organic food facts and sustainable food facts for the end consumer so that the produce can be marketed honestly (Chait, 2016).

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<sup>13</sup> Organic Zespri Sungold is combined in the conventional Grower Pool

<sup>14</sup> <https://canopy.zespri.com/EN/industry/pubs/kiwiflier/Documents/Issue384.pdf>.

It is estimated that in 2016, the global demand for organic produce is around US\$80 billion, compared to US\$17.9 billion in 2000. The organic farming method has grown at a staggering rate 11 percent per annum<sup>15</sup>.

Organics is not necessarily sustainable however the consumer can have the best of both worlds as they can purchase seasonal produce that has been grown in optimal conditions, or purchase local ingredients which are much more sustainable than produce that has been shipped.

### 11.3 Taste

For Zespri, the marketing strategy aimed at launching Zespri Sungold (G3) at the beginning of the season needs to run well to rapidly build sales and drive consumer demand. To be able to drive this consumer demand, optimising taste is one of the biggest drivers as far as maintaining price positioning in Zespri Green within the market, and sets Zespri grown fruit apart from our competitors. In Zespri Sungold (G3), taste is the most critical element as poor dry matter fruit does not deliver the promise to the end consumer. In 2015 and 2016, Zespri growers voted to improve the financial incentives for growing a premium tasting fruit.

### 11.4 GLOBALG.A.P Risk Assessment on Social Practices (GRASP)

GRASP was added into the Zespri GAP Audit Checklist in September 2016 as an add-on module that addresses the social compliance aspects of worker health, safety and welfare. Global food supply chains and consumers are now requiring businesses to demonstrate compliance in corporate social responsibility.

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<sup>15</sup> <http://www.oanz.org/publications/reports.html>

## 12. Recommendations

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Where to from here? Whilst all businesses and people I spoke too had some degree of sustainability in place within their business, it is in my opinion that better sustainability model/s need to be more formally discussed and implemented in the Kiwifruit Industry.

My research provides evidence of businesses that are changing to more sustainable practices and being rewarded for their efforts through premium payments, and the literature reviewed provided some relevant tips and concepts for the Kiwifruit Industry to embrace.

It was very clear that businesses within the Kiwifruit Industry need to actively head towards a more sustainable path into the future, however, the reality is that there are some real or perceived barriers that businesses need to overcome.

Currently, the New Zealand Kiwifruit Industry is in an upward growth cycle, the fact that we produce a healthy, safe and sustainable product in the most beautiful part of the world. The New Zealand Kiwifruit Industry needs to continue with the current sustainability model and continually improve going forward into the future.

### 12.1 Next steps?

1. As Zespri continues to grow and markets expand, we as an Industry need to set some **measurable and tangible goals for New Zealand growers** to achieve. These goals could include addressing challenges like carbon neutrality, emissions, zero waste and creating social net worth.
2. To be able to achieve these goals, we require **committed leadership** and strategic thinking from Zespri to be able to drive sustainability within the Industry.
3. Consumers are demanding **traceability** throughout the supply chain. Does traceability need to be legislated in New Zealand.
4. The **implementation** of a Senior Leadership Team within the Kiwifruit Industry for sustainability to ensure that the Industry is well-resourced, supported, co-ordinated and capable of delivering premiums.
5. The development and **collaboration** within the Kiwifruit Industry to help solve difficult problems or issues around sustainability.
6. The Kiwifruit Industry needs to **measure, review** and **report** as this is important for credibility and accountability. The Industry is always reviewing past performance and looking at future progress as this is a tremendous way of building trust with key customers and consumers.

New Zealand is already a world leader in developing a sustainable and profitable primary sector that sets a strong example to the rest of the world.

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## 14. Appendix

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### 14.1 Interview Questions

1. What are the major areas of focus for your organisation's work on sustainability currently?

*Internal systems and processes, Waste minimisation, Environmental / carbon foot print reduction, Community engagement, Internal awareness-raising, Product / service design and development, Employee engagement / diversity, Marketing / Branding, Reporting, Philanthropy.*

*Get the representative from the company to rate these 1 – 10 (1 top priority, 10 being not a priority)*

2. What is driving your sustainable business initiatives?

*Future market opportunities, CEO or Board Leadership, Customer and / or client demand, Opportunities for cost reduction, Changes in Technology, Staff initiatives / demand for action, Stakeholder pressure (Community, NGOs etc), Regulatory change, Investor pressure, Other*

*Get the representative from the company to rate these 1 – 10 (1 powerful driver, 10 being not a driver)*

3. What are the major sustainability challenges that your organisation faces?

*Lack of incentives to make it worthwhile, Regulatory barriers or poor regulation, Insufficient consumer demand, High costs of sustainability, Resistance from line of business managers or staff, Being able to make the case for sustainability, Resistance from suppliers, Development of skills, Recruiting skilled staff, Understanding good practice, Resistance from Senior Management*

*Get the representative from the company to rate these 1 – 10 (1 huge challenge, 10 being not a challenge)*

4. What is your organisation's agreed business aim over the next 3 to 5 years for sustainability?  
Explain reasoning?

5. How important do you think being a sustainable business is for New Zealand's economy?

6. How do you think the New Zealand Primary sector compares with overseas Primary sectors towards sustainability?
7. What opportunities are there currently out there for New Zealand to be more sustainable?
8. How do you think that Government policy / funding models can help encourage businesses to be sustainable in New Zealand?
9. What role does sustainability play in your company's overall strategic plan?
10. Does your company use alternative energy sources such as wind and solar?
11. How do you engage your supply chain in your sustainability efforts?
12. Where does your business stand on sustainability relative to your competitors?
13. With which groups are you partnering with regarding key sustainability initiatives?
14. How does your company measure their carbon footprint?