

CHAPTER FIVE
BUSINESS



CHAPTER FIVE BUSINESS

This chapter covers a range of topics that come underneath the commercial umbrella. Firstly, chapter 5.1 examines Zespri's brand and marketing and includes information on the supply and demand of kiwifruit. Chapter 5.2 and 5.3 provides detail around Zespri's unique standards and practices and chapter 5.4 gives readers a lesson on orchard accounting 101.

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5.1 ZESPRI'S ROLE IN THE INDUSTRY: MARKETING AND INNOVATION

Purpose
WHAT WE STRIVE TO BE KNOWN FOR...

Mission
WHY WE'RE IN BUSINESS...

Strategic Priorities
WHAT WE MUST FOCUS ON IN ORDER TO ACHIEVE OUR GOALS...

Values
WHAT WE BELIEVE IN...

ZESPRI HELPS PEOPLE, COMMUNITIES, AND THE ENVIRONMENT AROUND THE WORLD THRIVE THROUGH THE GOODNESS OF KIWIFRUIT

WE CREATE SUSTAINABLE LONG-TERM VALUE FOR KIWIFRUIT GROWERS, BY OFFERING CONSUMERS THE WORLD'S LEADING PORTFOLIO OF BRANDED KIWIFRUIT 12 MONTHS OF THE YEAR

DELIGHT CUSTOMERS

We will grow demand for our premium brand by building trust with our consumers and customers and placing them at the heart of everything we do.

OPTIMISE PERFORMANCE

We will optimise productivity and performance right across our business to deliver the world's best kiwifruit every day in the most efficient way we can.

BETTER TOMORROW

We will develop new sources of value, improve our business for the long-term, and lead sustainability in our industry.

THRIVE TOGETHER

We will invest in our people, protect their safety and wellbeing, and leverage our diversity to unleash Zespri's full potential.

GUARDIANSHIP

It's about kaitiakitanga. Each one of us are custodians for future generations. We nurture our lands, enable our industry, and nourish people across the world.

RESULTS DRIVEN

We love personal and business challenges that help us grow and develop - measured by engagement, value creation and marked by global impact.

PERSONAL CONNECTIONS

We are inclusive and caring – listening and talking to each other with compassion, acting with empathy and humility, and treating each other better for it.



Zespri is acknowledged as a category leader in kiwifruit, managing around 30 percent of globally traded volume. Zespri has built a strong reputation through:

- Delivering high-quality, healthy kiwifruit to consumers around the world.
- A focus on innovation to develop new varieties, increase productivity and introduce new, more sustainable growing techniques.

- Developing advanced supply chain systems to distribute premium quality kiwifruit around the world.
- Researching the health benefits of kiwifruit with credible research partners to better inform consumers and drive sales.
- Establishing strong brand awareness and in-market service.
- Working to understand what consumers want to allow us to make data-driven decisions to meet their needs.
- A commitment to helping people, communities, and the environment to thrive through the goodness of kiwifruit.

Zespri's long-term strategy sits under four pillars that set out the company's enduring strategic priorities. The four priorities are described below:

1. Delight Customers

Zespri aims to grow demand for their premium brand by building trust with their consumers and customers and placing them at the heart of everything they do.

2. Optimise Performance

Zespri aims to optimise productivity and performance right across their business to deliver the world's best kiwifruit every day in the most efficient way they can.

3. Better Tomorrow

Zespri will develop new sources of value, improve their business for the long-term, and lead sustainability in their industry.

4. Thrive Together

Zespri will invest in their people, protect their safety and wellbeing, and leverage their diversity to unleash Zespri's full potential.

5.1.1 Brand

2020 saw Zespri's first brand refresh in more than 20 years, launched at the international fresh produce exhibition Berlin Fruit Logistica. The major and visible part of the rebrand is the new logo. Customers and consumers see a refreshed Zespri logo featuring the use of a green fan, inspired by the vibrant cross-section of a kiwifruit with different shades of green bursts, and a red wordmark reflecting the energy and dynamism of the Zespri brand. It is said to capture the burst of flavour consumers get when biting into a Zespri Kiwifruit.



Zespri Chief Growth Officer Jiunn Shih says the refresh was designed to position the company for its next phase of growth. "We're confident that our new brand will resonate not only with our loyal fans but pique the interest of new ones, helping differentiate Zespri in the fresh produce market so that we can continue to grow our share of the global fruit bowl," In launching the new brand identity, Zespri were clear that they were fruit on a mission, in a bid to help consumers *make their healthy irresistible*. The investment in the brand was \$15 million.

Watch: <https://www.youtube.com/watch?v=7LOQp7wV6qo>

Zespri's Brand Power scores were at a historic high in 2022 in terms of the predisposition to choose Zespri over other brands. Driving consistency across markets has led to faster and stronger brand recognition with unaided awareness in the 15 key markets increasing by 2.7% from 2020 when the refreshed brand identity was launched. This great performance in terms of brand power saw Zespri among the top-three brands in 10 out of 15 of the key markets.

The refreshed brand, alongside Zespri's commitment to sustainable production, has helped create a stronger emotional connection among consumers who are increasingly concerned about the values of the people behind the product, as well as the quality and provenance of the product itself.

"We're instantly recognisable by consumers, and over time, we become top of mind meaning consumers are more likely to build a connection with Zespri, leading to repeat purchases and a recognition of the value inherent in our product," says Zespri Head of Global Brand Development, Nikos Patiniotakis.

"This is why it's so critical to ensure we are consistently providing high quality, great-tasting fruit which consumers know is good for them and grown in a way which is good for communities and the environment, ultimately maximising the value we can return to growers and the wider industry."

5.1.2 Marketing

Based in Singapore, the Zespri Global Brand Development team works with in-market teams to ensure marketing campaigns resonate with local consumers. Campaigns are tailored based on how much awareness there is of the Zespri brand, and the cultural context of the markets Zespri operates in. In new markets, such as the United States, the purpose of the campaign is to make the Zespri brand understood and easy for the consumer to access and buy. In more established markets, they aim for the brand to be a rewarding choice for the consumer, drawing on the emotional connection the consumer already has with Zespri Kiwifruit.

"In the US for example, we need to promote the fact that our fruit tastes great first and foremost, as the consumer does not know us as well there yet," says Nikos.

"However, in mainland China where we are well known, we talk about 'possibilities' and how your mindset is key to embracing the possibilities Zespri Kiwifruit offers — we can go one step further in this market, because our brand is more established here."

COVID-19 has heightened consumer awareness globally about the importance of a healthy diet and the role of nutrition in boosting immunity. On top of health messaging, one of the key shifts that marketers are working on is the transition from functional benefits to emotional benefits for consumers. Zespri's global campaign — **Make Your Healthy Irresistible** — has been well-received across the markets in this respect. The campaign encourages customers to perceive that they are not just buying a piece of fruit, they're also choosing a healthy lifestyle where they can live life to the fullest, make positive choices, and feel good.



"Today, a simple, functional message around kiwifruit helping boost 'physical' health isn't enough to convince consumers to choose our brand over other brands — we need to take a 360-degree approach to health and how kiwifruit fits into it; we need to continue to show that we're good for both the individual and the world." Nikos Patiniotakis

Watch: <https://www.youtube.com/watch?v=RiogWDYi7Vc>
<https://www.youtube.com/watch?v=Jatp9bcBAWs>

The Zespri marketing teams globally continued to drive efficiency and effectiveness with fewer campaigns (from 17 in 2018 to 5 in 2021), delivering a bigger impact and better results. Zespri brand excellence was recognised with 14 international awards, including the Zespri Bodyshape TV commercial – featuring the beloved Kiwi Brothers – being named the Top Performer Advertisements in Belgium and the Netherlands at the Kantar Creative Effectiveness Awards for its humour, consistency and message relevance.



Understanding Consumers and Health Communications



Zespri has researched the health benefits of kiwifruit for many years, and recently, these findings were overlaid with what consumers felt is important. This determined Zespri's health marketing strategy. The diagram below summarises the health benefits of kiwifruit into three pillars. Each pillar represents a proposition that has scientific evidence of a health benefit, as well as being important in the minds of consumers, which in turn is a reason why they'd purchase kiwifruit. For more on the health benefits of Kiwifruit see Chapter 4 Science and Sustainability.

Below:
The three health communications pillars within the Zespri healthy strategy

Product Attributes and Health Benefits of Kiwifruit								
- The Three Health Communications Pillars within the Zespri® Health Strategy -								
Proposition:	Digestive Health		Vitamin C Health	Nutrient Rich				
Product Attributes of Kiwifruit:	Actinidin	Fibre	Vitamin C	Low GI	Anti-ox, vit C, E	Folate	Potassium	Phyto-Nutrients
Associated Health Benefits:	Digestive health benefits		Vitality / Wellbeing	blood sugar mngmt / diabetes	contains	natural source pregnancy	contains muscle function	contains
	upper digestion comfort	bowel comfort laxation	Immunity Beauty					

5.1.3 Market Development Strategy

To maximise the results and efficiency of investments across the markets, Zespri created the Market Development Framework. The framework segregates its key markets by their stage of development. The four stages of development are:

Explore, Launch, Establish and Enhance. This helps the business to determine the appropriate level of investment based on the market's stage of development.

At the **Explore** stage, every market is unique and has different requirements but is generally in the early stages of development. The primary focus is on building distribution and penetration (bringing new users into the category). Zespri selects the most promising markets to promote into the **Launch** stage and these markets become a priority for the business in terms of supply volume, portfolio split and marketing investment. Currently USA is the only market in the launch stage, with Vietnam set to move up in the future. As markets continue to grow and develop, the focus shifts to increasing penetration and usage (**Establish**) and emphasising consumer benefits to enable a greater premium and increase consumption frequency (**Enhance**).

5.1.4 Supply and Demand of Kiwifruit

Zespri's sales and marketing investment works to create demand ahead of forecast supply. Keeping demand ahead of supply enables Zespri to sustain value at all stages of their value chain. Zespri builds strong 'win-win' relationships with its customers to ensure Zespri product is available in market, with great instore visibility for their consumers to buy. In addition, strong and sustained market returns are essential for growers, post-harvest operators, and Zespri in order to support and encourage the collective supply investment required.

Kiwifruit is still an underdeveloped category within the fruit bowl, making up around 0.7 per cent of total fruit sold, but with huge growth potential. This means there are opportunities for growth and advantage to be gained through scale. However, with growth and success also comes competitor risk. Below are some other factors that may affect or impact the supply and demand of kiwifruit:

Supply

- Production of kiwifruit in New Zealand is seasonal, so to maintain market share in an increasingly competitive market Zespri works to ensure 12-month supply by growing fruit in offshore regions such as Italy, Greece, France, Japan and South Korea (Zespri Global Supply or ZGS).
- Adverse weather such as frost, cyclone, drought, etc which affect crops and can impact the yield of Class 1 product and the size profile of each season's crop.
- Biosecurity incursions.
- Regulatory changes which restrict the industry's ability to grow.
- Food safety/contamination risks.
- Labour constraints.

Demand

- There are varying levels of economic recession (stemming from COVID-19).
- Markets cannot develop at the expected rates, lowering return on investment and potentially delivering lower profitability than planned.
- Market access is lost to a significant market.
- A significant new competitive gold variety emerges to compete with Zespri.
- A new competitive fruit takes market share from all other fruits.
- Organic supply cannot be increased, leaving a gap in Zespri's product offering.
- There is a crop increase in excess of market capability.
- Supply is unable to meet the quality and delivery requirements of markets, particularly in taste standards and larger size profile that provide points of differentiation.
- Consumers move away from whole fresh kiwifruit as the need for convenience increases.



Looking Ahead - Opportunities to Increase Demand

Market development - Identifying and developing new markets, in a way that allows Zespri to activate them strongly, while continuing to grow existing markets.

Strengthening relationships within existing markets - Strengthening relationships with key customers and focusing on performance in prioritised markets. For example, from a position of strong overall demand creation and strong consumer acceptance of SunGold, Zespri is looking to continue to develop its position in China – a vitally important market. Further, Zespri is investing to build its position in the USA as another major market.

Strong go to market strategies - To ensure all appropriate channels and opportunities can be reached and serviced. This is supported by win-win-win relationships with the distribution partners as well as effective joint business planning.

An increase of organic production - Organics are an opportunity for all varieties, with potential to grow in many markets as consumers demonstrate a need and a willingness to pay more.

Strong marketing campaigns - Zespri's sales and marketing strategy is focused on ensuring consumers are at the heart of their campaigns and through using a "think global, act local" approach, Zespri ensures that all communication and activities are relevant for local consumers.

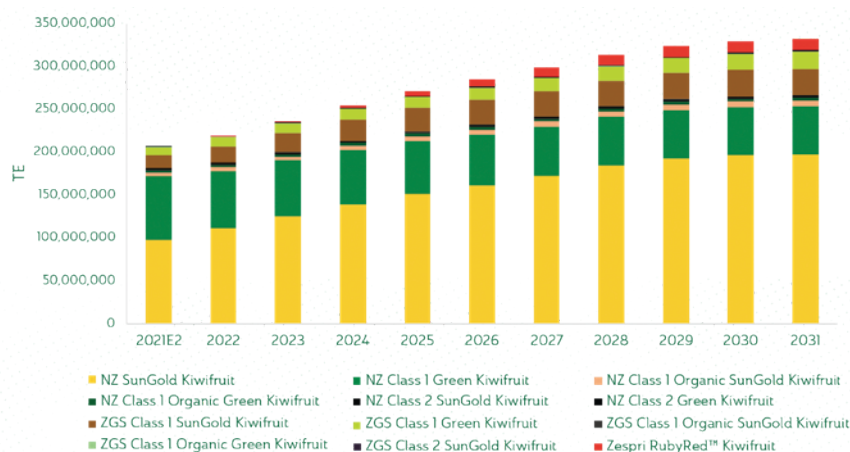
Innovation - Through developing new cultivars, protecting fruit from pest and diseases, sustainable orchard productivity and optimising how to deliver customers with high-quality fruit.

Zespri's 10-year Overview of Supply and Demand

Zespri has been developing a 10-year view of supply and demand. The purpose is to set out an optimal view of sustainable growth over the very long term, with an aim of balancing volume growth with preserving value.

Below is a graph demonstrating the level of volume Zespri believes it may achieve over the next 10 years. The graph shows that growth over the next 10 years is likely to be driven by SunGold, with an increase in supply from New Zealand sustainable at around 10 million trays per year. It is important to note that this graph is not a forecast, and the volume growth is subject to change, and the ranges are wide, recognising a number of factors. For example, returns for SunGold in the short term are expected to remain strong as demand outstrips supply but expected to moderate in the longer term as volumes come on. Further, Green in the short term is still potentially subject to swings in volume which will impact returns.

12-MONTH, 10-YEAR TARGET DEMAND VOLUME GROWTH



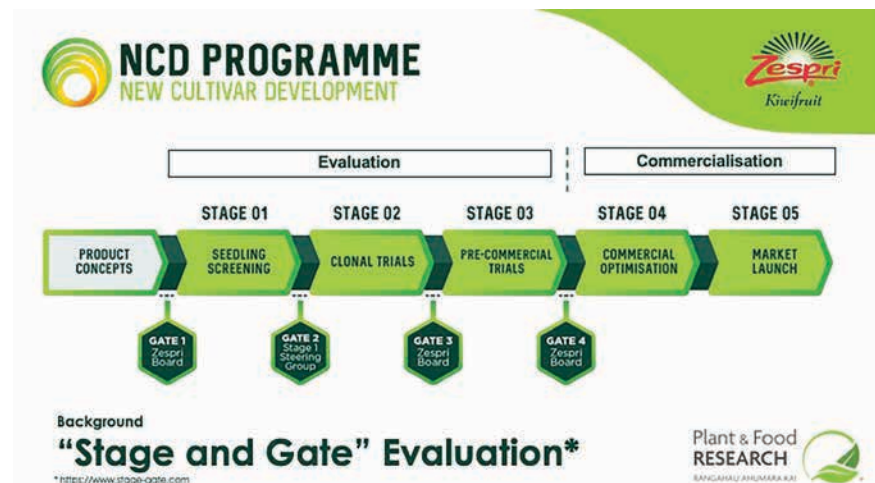
5.1.5 Innovation

Zespri is committed to creating healthier, better tasting and more sustainable varieties, and extending Zespri's position as the world's most innovative and successful kiwifruit exporter.

Zespri's innovation investment covers five platforms:

- Develop new cultivars – with the intention of developing better kiwifruit cultivars faster
- Protect supply – to deliver sustainable pest and disease control and fruit safe to eat
- Improve sustainable orchard productivity – to produce a premium crop on every orchard
- Optimise sustainable supply chain delivery – to deliver the optimal eating experience
- Create knowledge for value add – increase users and usage in markets through tailored communications e.g., health and nutrition

Right:
Zespri and Plant & Food
Research 'Breeding Pipeline'



Following years of extensive research by Zespri and Plant & Food Research (PFR), along with rigorous trials through orchard, supply chain, and market phases, 2022 saw the launch of Zespri RubyRed kiwifruit in China, Singapore and Japan as well as New Zealand. This was the first new variety to be commercialised and exported since SunGold in 2010.

Interest in the RubyRed variety among growers, customers and consumers is strong with its unique colour profile and berry-like taste. Indications are that it is bringing new and younger consumers into the category. RubyRed has been selling at a premium over Zespri SunGold Kiwifruit in all trial markets. The variety has a shorter shelf life than SunGold or Green, so for now Zespri have prioritised their Asian markets given the shorter shipping times. There is ongoing research to improve RubyRed fruit size, quality, and storage.

There have been increased research efforts into the immunity benefits of SunGold Kiwifruit with two projects underway assessing the beneficial impacts SunGold Kiwifruit have on immune endpoints. They are both human clinical studies that will measure how inclusion of two Vitamin C-rich SunGold Kiwifruit to our diet per day impacts our immune system.

Zespri have made significant investment in a pan-industry, government funded Primary Growth Partnership programme called 'A Lighter Touch'. The objective of this programme is to support agroecological crop protection for the New Zealand horticultural sector which will be a step change in pest management, balancing improved productivity with a lighter touch on the environment. This is well aligned with Zespri's sustainability goals for climate resilience and guardianship of the land for future generations.

Further progress has also been made in the Digital Crop Estimation (DCE) programme with Innovation support to add a fruit sizing component to the crop counting model.





5.2 ZESPRI'S ROLE IN THE INDUSTRY - STANDARDS

Zespri focusses on being able to supply consistently high quality, great tasting fruit throughout the season, in a safe and sustainable way. The size, appearance, and taste of the fruit is driven by what the consumer wants and then what growers are realistically able to achieve through modifying their orchard management practices, underpinned by research. Size and Taste are the key drivers of value for Growers OGR. Zespri sets the standard for each of the quality requirements described in this section:

- Fruit Size (Section 5.2.1)
- Taste (Section 5.2.2)
- Internal Colour (Section 5.2.3)
- Appearance (Section 5.2.4)
- Traceability (Section 5.2.5)
- Chemical Residues (Section 5.2.6)

5.2.1 Fruit Size

Fruit sizes range from size 16 to size 42. "Size" of fruit is relative to weight range which translates into how many fruit fit into a 3.6kg tray e.g. size 18 means that 18 fruit can fit into a tray. Gold3 fruit that is smaller than size 36 and Green fruit that is smaller than size 42 is considered to be non-standard supply (NSS). Zespri sources limited volumes of NSS fruit with the remainder of small fruit being sold on the local market, processed or used as animal feed.

It is important that fruit size matches consumer demand. Fruit is sized by weight. The size profile of each cultivar is quite different. Gold3 tends to

grow quite large while Zespri Red is much smaller. Different markets and different customers have different size preferences. It is important that growers produce a range of sizes to meet this demand. Market demand for very large and very small fruit is limited. The table to the left of the page shows the average size of fruit the market prefers for each cultivar.

Zespri continues to stress that for all varieties, especially Gold3, focus must be on taste over yield. In this variety larger fruit from an orchard usually have higher dry matter which means it tastes better. Growers need to be aware that some fruit sizing tools, such as biostimulants, can increase fruit size but tend to lower dry matter and may in fact be counter-productive in improving taste. Market signals are received by growers by the income they receive for their fruit. Growers will modify their orchard management practices to maximise the amount of fruit they produce of the preferred size profile and taste which in turn increases their fruit payments.

Right:
Market size preference for
fruit by cultivar in 2022

Cultivar	Preferred average size
Green	30.5
Organic Green	33.2
SunGold	27.6
Organic SunGold	28.3
Red	39.0

Below:
Sample progress payment to growers based on trays submitted of different sizes

CLASS 1 - APPROVED PROGRESS PAYMENT 15 FEBRUARY 2021	AVERAGE ON NET SUBMIT	16/18/22	25/27	30/33	36	39	42
Zespri Green	\$0.37	\$0.45	\$0.45	\$0.45	\$0.30	\$0.30	\$0.20
Zespri Organic Green	\$0.60	\$0.50	\$0.70	\$0.75	\$0.60	\$0.60	\$0.45
Zespri Gold3	\$0.55	\$0.65	\$0.60	\$0.55	\$0.45	\$0.40	No supply
Zespri Organic Gold3	\$0.66	\$0.65	\$0.70	\$0.65	\$0.70	\$0.55	No supply

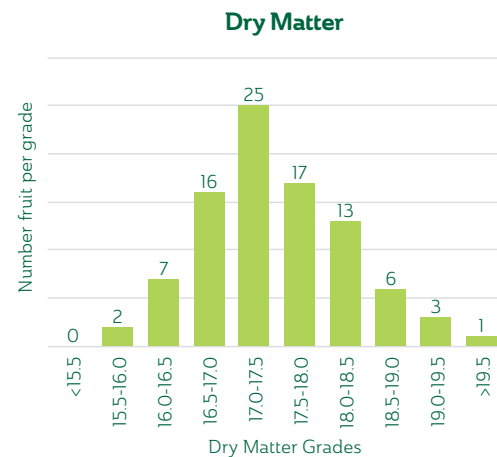
5.2.2 Taste

Taste is primarily driven by the balance of sugars and acids in the fruit. Both are detected by our tongues with sugars providing the 'sweetness' and acids giving the tangy, zesty taste associated with kiwifruit. Volatiles given off by the fruit contribute to the flavour and aroma when they are carried from the mouth onto the sensory receptor in the nose as we chew and swallow food. The volatiles are only present in minute amounts, at parts per million, but have a huge impact on the flavour of kiwifruit.

A significant part of the payment growers receive for their fruit depends on the level of dry matter (DM). This is called the Taste Zespri Programme. This programme was launched in 2001 in an effort to enhance the overall quality of Zespri Kiwifruit, by improving taste consistency. The level of sugar in ripe fruit is determined by the level of starch, or DM in the fruit at harvest. The DM is also a measure of maturity, so Zespri set a minimum level as part of the harvest criteria to ensure fruit will ripen after harvest and reduce the risk of a poor taste experience for consumers. A 90-fruit sample is collected from each orchard before harvest and the percentage dry matter measured (see Chapter 6 for more on this).

Taste Zespri Grade (TZG) was originally based on the premise that Japanese consumers preferred a sweeter tasting kiwifruit and were prepared to pay for it. TZG is a value between 0.0 and 1.0 (or 0.86 for SunGold). TZG is calculated based on a 90-fruit orchard sample for all varieties, and an additional 60 fruit small size targeted sample for Gold3 and Organic Gold3. TZG for Gold3 and Organic Gold3 is calculated and reported by maturity area and fruit size, whereas other varieties are reported on maturity area level only. If multiple samples are completed prior to harvest, the highest TZG calculated from them is used. TZG forms the basis of grower taste payments.

Example: TZG calculation for a conventional green (Hayward) orchard:



- After testing of dry matter, each fruit in the 90-fruit sample is allocated to a dry matter grade (see graph above)
- The number of fruit in a single grade is converted to a percentage of the 90 fruit sample
- Each dry matter grade has a grade value (set by Zespri, differs for each cultivar)
- For each dry matter grade, the %Fruit is multiplied by the grade value.
- Each of these results are then added to give the TZG. In the table below, the values in the first column add to 68% or a TZG of 0.68.

Taste Zespri Grade (TZG) - Green

%Fruit x Grade Value	Fruit Per Grade (% of the 90-fruit sample)	Fruit Per Grade (from graph above)	Grade Value ¹	Dry Matter Grade
0.0	0.0	0	0	<15.5
0.2	2.2	2	0.1	15.5-16.0
1.9	7.8	7	0.25	16.0-16.5
8.0	17.8	16	0.45	16.5-17.0
18.1	27.8	25	0.65	17.0-17.5
16.1	18.9	17	0.85	17.5-18.0
13.0	14.4	13	0.9	18.0-18.5
6.3	6.7	6	0.95	18.5-19.0
3.2	3.3	3	0.97	19.0-19.5
1.1	1.1	1	1	>19.5
		90		Fruit Count
0.68				TZG

Minimum Taste Standard (MTS)

More recent research has demonstrated that consumers liking for fruit decreases significantly if the taste drops below a certain level. This "Minimum Taste Standard" (MTS) has been determined for each variety by Zespri. Fruit that does not meet the MTS, and is therefore not acceptable for export, is either processed or used as stock food.

Example: In 2021, clearance to harvest a green orchard was granted when 70% of the fruit in the 90-fruit sample had DM \geq 15.5%. The fruit are also allocated into Taste bands when packed to further ensure consistency of taste. There are three taste bands (Y, T, M), Y representing the highest Taste and M representing the lower or more variable Taste. This ensures that Zespri is able to target high taste fruit to Japan and potentially other markets where there is a strong consumer taste preference for sweeter fruit.

Right:
Taste bands and MTS for
green (Hayward), 2021

Taste band	Hayward
Y	≥ 16.6
T	$\geq 16.3 < 16.6$
M	$\geq \text{MTS} < 16.3$
MTS (Minimum Taste Standard)	15.5% dry matter threshold ⁽¹⁾
Percentage of fruit value to taste	60%
Minimum size for standard supply	42 ($\geq 74\text{g}$)

⁽¹⁾ 70% of fruit greater than or equal to the threshold.

Zespri also determines a Maximum Taste Payment (MTP) which is reflective of higher value that consumers place on a superior taste experience. The higher the TZG the grower achieves, the greater proportion of the MTP they will receive. The grower's TZG is multiplied by the MTP to calculate their taste payment. In the 2021/22 season the MTP for Green was \$4.63 per tray whilst SunGold had a MTP of \$7.89 per tray.

As outlined in chapter 3, there are many practices growers can consider throughout the year to increase their dry matter. Including:

- Increasing the temperature of the orchard (by artificial shelter)
- Monitoring crop loads to ensure they are not excessive (thinning)
- Opening up any dark areas of the canopy or areas that may become dark (vine management)
- Summer trunk girdling
- A close root prune on both sides of the vines. This has given, in both scientific and grower trials, a one percent increase in dry matter, on top of a trunk girdle effect
- Monitoring leaf health
- Harvesting later

Right:
Growing Kiwifruit with
Superior Dry Matter (Zespri,
OPC)

Growing Kiwifruit WITH SUPERIOR DRY MATTER

- Recurrent lateral pruning**
IMPACT IN: WINTER
Up to **1.3%** increase after 3 years
- Good canopy development**
IMPACT IN: EARLY SPRING
- Crop load**
IMPACT IN: OCTOBER
0.3% increase for 10 fruit/m² decrease
- Summer trunk girdle**
IMPACT IN: JAN - FEB
1% per girdle
- Pollination**
IMPACT IN: SPRING
Up to 0.5% increase/extra 100 seeds
- Shade**
IMPACT IN: SUMMER
Up to **-1.5%** decrease
- Root prune**
IMPACT IN: 60 DAYS AFTER MID-BLOOM
0.9% increase
- Foliar potassium**
IMPACT IN: NOV - DEC
Up to **2.9%** increase (KNO₃ and K₂SO₄)
- Foliar fertilisers**
IMPACT IN: SPRING
Variable

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KIWIFRUIT



5.2.3 Internal Colour

Internal colour must be fully developed and typical of the cultivar (Gold and Red cultivars only – Red criteria are still being developed). Flesh colour is measured using a chronometer. The clearance criteria requires at least 87/90 fruit to meet the minimum colour standard or colour threshold.

Right:
Fruit sample cultivar in 2020

Cultivar in a 90 fruit sample	Colour Threshold
Gold3 KiwiStart	$\leq 110.7^\circ$
Gold3 Advanced Mainpack	$\leq 108.7^\circ$
Gold3 Mainpack	$\leq 106.4^\circ$

5.2.4 Appearance

Consumers buy with their eyes so appearance is very important. Zespri sets high standards that must be met for fruit to be sold. Fruit that is regular in shape and free from blemish, stain, physical damage, pitting or dehydration will stand out. Consumers keep coming back for more quality Zespri Kiwifruit because they have to meet such high standards.

The following is an example of a Zespri standard:

Cosmetic blemishes such as marks or scars on the skin of the fruit may be caused by:

- Skin rub
- Healed physical damage
- Healed hail damage
- Healed insect damage/cosmetic pests
- Fungal damage
- Skin burn
- Chimera mark

There are allowances for some blemishes in the Zespri Grade Standards Manual as follows:

In all classes blemishes which merge with the colour of the skin are acceptable.

CLASS I - Acceptable blemishes are:

- Superficial
- Light in colour provided they do not affect the general appearance of the fruit.
- Total one square centimetre or less in area.

CLASS Family Kiwi™ - Acceptable blemishes are:

- Blemishes which contrast with the colour of the skin and total two cm squared or less in area are acceptable.

Unacceptable in all classes are:

- Black marks
- Significantly deep or raised blemishes.
- Cosmetic pests which are less than one mm in diameter but total one cm squared or greater in area.

“Consumers buy with their eyes so appearance is very important. Zespri sets high standards that must be met for fruit to be sold.”

5.2.5 Traceability

Our customers expect Zespri to be able to track the journey of kiwifruit from an orchard to the consumer. This includes what sprays have been applied, when fruit was picked, where and when it was packed, where it has been stored, when it is shipped and where it is stored in market. MPI also expect that fruit in each export consignment can be tracked back to a phytosanitary inspection record during packing. Traceability is maintained at both a consolidated level of a pallet and at the individual pack level and tracked through the supply chain by the use of a European Article Number (EAN) barcode. Each pack has an EAN barcode applied which, when scanned, links to a system where details of the fruits journey can be viewed. This allows Zespri to determine market suitability of any piece of fruit. This is used to prevent fruit being shipped to markets where it doesn't meet their access requirements e.g. a pest has been identified on an orchard so its fruit is banned from a certain country. Electronic capture also allows for rapid response, location and

segregation should it be required at any point. This is particularly critical should a food safety issue ever arise where accurate tracking is vital to minimise the volume of fruit that may need to be recalled and disposed of. Customer food safety programmes all require high levels of traceability: it is fundamental market requirement.

5.2.6 Chemical Residues

Growers need to use agrichemicals to manage pest and disease levels in their crops. However, markets and individual customers set very specific requirements for the level of agrichemical residues they will accept in fruit. The Zespri Crop Protection Standard (CPS) is actively managed to ensure only approved sprays are used and to minimise the presence of any residues. All lines of fruit are residue tested to ensure adherence to the crop protection standard and ensure that individual market access requirements are met. Most Zespri fruit has no detectable residues present at harvest.

“Markets and individual customers set very specific requirements for the level of agrichemical residues they will accept in fruit.”





5.3 ZESPRI'S ROLE IN THE INDUSTRY - PRACTICES

5.3.1 Consistency of Supply

Customers require a regular supply of consistent product to be able to provide consumers with a reliable source of high quality and high taste kiwifruit 12 months of the year. Capturing and keeping shelf space full is key to the customer relationship and maximises the value to all parties while reducing the New Zealand grower's risk of a competitor's fruit replacing Zespri fruit on the retail shelf. Market planning and shipping programmes all attempt to keep supply available for as long as possible. During the early part of the season when supply is limited, markets are only started when there is sufficient fruit to allow for continued supply.

Having a product with a long, reliable storage life greatly assists being able to provide consumers with a good eating experience over a long selling season. Sales to customers may continue 6-7 months from harvest and final retail sales can extend for another month after that. For both New Zealand growers and for in-market customers having practically all the volume consolidated through one seller in Zespri provides a mechanism to give a high level of assurance of consistent supply.

Zespri uses fruit sourced in the Northern Hemisphere to supply customers when New Zealand fruit is no longer available.

5.3.2 In-Market Distribution

Zespri sell into more than 50 different countries worldwide and work with distribution customers and partners, who buy fruit from Zespri and get the product into wholesale markets and onto the supermarket shelves. From the wharf, the fruit goes into dedicated coolstore distribution centres and on to thousands of wholesale and retail outlets. Zespri serve distribution and retail customers with the optimal balance of Green, Gold and Organic products.

Zespri is dedicated to its customers and is focused on consistently providing excellent product and excellent service. The Zespri System, the integrated production and distribution system used to deliver the world's best kiwifruit to consumers worldwide, is one of the foundation blocks of the Zespri brand. It is the culmination of many years of scientific, technical and practical developments and an uncompromised commitment to continual improvement.

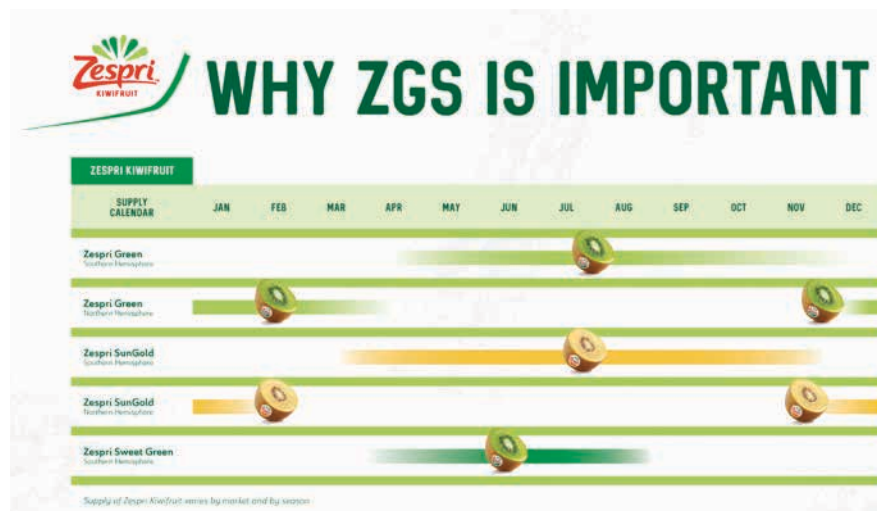
The Zespri System recognises that quality has many components, but they all rely on a combination of best practice, excellent product and documented assurance to provide customer confidence. It has been developed in recognition of customers' needs for a comprehensive assurance that fruit has been grown and handled safely with:

- A strong focus on good agricultural practice.

- Environmental and economic sustainability including the efficient use of natural resources.
- Integrated pest management.
- Orchard to retail traceability.
- A socially responsible approach to workers and the communities it supports, practices that maximise fruit quality, taste and storage potential of the fruit.
- Leading edge good manufacturing practice throughout the postharvest and distribution sectors of the industry.
- An understanding of current and future market and customer needs.
- World class quality management systems.
- Certified food safety and Good Agricultural Practice (GAP) systems.
- Quality specification and measurement throughout the supply chain.
- Comprehensive feedback systems to ensure that customer feedback drives continual improvement.

Watch: <https://www.youtube.com/watch?v=Utlwp6DsfXg>

Visit: <https://www.freshfacts.co.nz/>
<https://www.zespri.com/en-NZ/annualreports>



5.3.3 Integrated Supply System

The development of Zespri's supply chain and service offering is a key focus. Supply chain efficiency is expected to unlock significant value for the industry in future years; many opportunities exist in the supply chain design space with the application of new supply chain management processes and technologies for improving product quality attributes.

The Zespri System is an Integrated System Underpinned by Continuous Improvement



Above:
The Zespri System

Zespri Global Supply (ZGS) business is a source of Zespri's competitive advantage and a key part of Zespri's "category management" work stream. Non-New Zealand supply is poised for strong growth in the five year planning horizon, driven predominately by Gold3 development in Italy, and ability to procure Zespri Green from Italy to meet rising global demand.

The strategic focus of ZGS is to consolidate non-New Zealand supply as a fundamental pillar of Zespri's competitive strength, underpinning its position as a leader in the global fruit industry. Zespri's aim is to unlock value in the business by leveraging the brand, intellectual property and supply chain expertise.

12 Month Supply

12 month supply refers to the procurement and marketing of Northern Hemisphere kiwifruit (when New Zealand fruit is not available in market) to complement the sale of New Zealand kiwifruit. 12 month supply is an important part of Zespri's business strategy and a key source of Zespri's competitive advantage. Specifically it strengthens Zespri's New Zealand kiwifruit business by continually building the brand and strengthening global relationships.

Zespri has partnered with Northern Hemisphere growers in Italy, France, Japan and South Korea for nearly two decades to provide its customers with premium Zespri Kiwifruit in the three-to-four months a year where New Zealand kiwifruit is not available.

The Benefits of Zespri Offering 12 Month Supply in a Market are:

1. To partner with our distributors in kiwifruit 12 months of the year and demonstrate consistent quality and standards, irrespective of origin, to support their strategic objectives and add value to their businesses.
2. To maintain shelf space 12 months of the year – ideally to be the kiwifruit category manager, by offering confirmed volumes and quality for the full year, as opposed to seasonal competitors from other countries who cannot provide such reliability. This allows more flexibility for volumes of New Zealand kiwifruit to be placed in the best position to maximise returns.
3. To maintain brand presence 12 months of the year such that when New Zealand kiwifruit comes into markets, it is not fighting for shelf space with earlier seasonal produce or seeking to displace other produce that is available 12 months of the year.
4. To grow branded products over 12 months rather than just in the New Zealand supply window. This is critical from a category growth perspective, i.e. apples, tomatoes, and bananas are all available 12 months of the year.
5. In growing regions, having a local presence enables Zespri to better manage the pressures placed on distributors and retailers to support local product, by supporting the domestic kiwifruit community, which in most cases are not competitive to Zespri's New Zealand supply windows; further this enables Zespri to maintain the quality standards for the category as a whole in that market.

In Addition, There are Other Benefits to the New Zealand Grower as well Outside of the Market Benefits, such as:

1. Growing in both the Southern and Northern Hemisphere locations allows the New Zealand industry to learn and innovate at twice the pace. This benefit was very evident during the height of PsA where time was against the industry and the learning's needed to be adopted as quickly as possible.
2. ZGS is a "stand alone" business unit that is allocated a portion of overhead costs from other business units, thus allowing for better utilisation of corporate overhead spend.
3. By having activity across 12 months of the year creates a platform to retain core staff; seasonal roles can create staff turnover and an associated loss of experience within the organisation.
4. Developing strong relationships with kiwifruit growers in a range of other countries.

As other kiwifruit brands begin to build momentum and aim for 12 month supply, Zespri needs to maintain a continuous supply strategy and build brand awareness or risk losing future market share to emerging brands. With the plethora of new cultivars grown globally by competitors, it is imperative Zespri retains a strong presence in the market place 12 months of the year to position New Zealand kiwifruit strongly and retain strong customer and distribution relationships. Zespri 12 month supply enhances consumer loyalty and strengthens the position of key distribution partners, when increasingly competitive alternatives are emerging. Therefore, as Zespri Northern Hemisphere supply volumes grow the benefit to New Zealand growers is also increasing.

5.3.4 Variety Licences

Zespri owns the plant variety rights (PVR) for SunGold Kiwifruit, as well as RubyRed. This means growers must purchase a license to be able to grow Zespri's proprietary varieties and are bound by a Zespri Kiwifruit Variety Licence which gives growers the right to acquire plant material for growing a variety within the licensed area.

Since 2018, Zespri has licenced around 750 hectares of SunGold in New Zealand each year (including 50ha of Organic SunGold License). Growers bid for license in a Closed Tender Bid process (this may change in 2023), and the prices accepted have risen year on year. In 2022, Zespri's revenue from the sale of PVR licenses was \$436 million, up from \$306 million in 2021. Zespri review the license release annually before making an announcement for the following year, so forecasts are subject to change.

The quantity of SunGold Kiwifruit licence to be released in 2023 will remain at 350 hectares. 150 hectares of Zespri RubyRed Kiwifruit licence will also be released. Both of these volumes are at the lower end of the range indicated previously, mostly in response to the challenges the industry is facing with supply capacity constraints and the need to focus on fruit quality. Additionally, as in 2022, there will be no release of Zespri Organic SunGold Kiwifruit licence in 2023, as current supply predictions will satisfy target market demand.

The Zespri Board's confirmation of future license release has been extended out to 2027, to give growers the ability to better plan for future years. They have also committed a portion of the SunGold license release for the next few years be available solely for the cutover of producing Hayward and Green 14, designed to help strengthen Hayward profitability.





5.4 ORCHARD ACCOUNTING 101

Monitoring of Kiwifruit Orchard Profitability

The monitoring of profitability is an important review of the financial performance of an orchard.

There are numerous orcharding activities that give rise to both income and costs on an orchard and growers give much time and thought into delivering the successful production of their crops.

Monitoring and review of the financial performance of an orchard should be viewed as the financial result of that time. It is this result that demonstrates financial success and the meeting of grower expectation or not.

Please see diagram 1 (Hayward) & diagram 2 (SunGold) for an example of a simple orchard profit and cash-flow report.

There are four key areas that will be covered:

1. Seasonal Timing of Orchard Income and Costs
2. The Concept of Orchard Gate Return
3. Orchard Financial Reporting
4. Collection of Financial Data

Seasonal Timing of Orchard Income and Costs

The orcharding cash cycle of setting up an orchard in preparation for harvest and receiving the final income for that same harvest is spread over twenty-four months.

The kiwifruit orcharding year begins with winter pruning around July and continues through to harvest. Harvest is typically conducted during the months of April and May. Throughout this growing period numerous orcharding costs are incurred as the new crop is setup and tendered (such as pruning, pollination, fertiliser etc.).

Following harvest and the successful submit of fruit into Zespri inventory; net income is returned to the grower. Final net income is not received by the grower until June of the year following harvest.

The Concept of Orchard Gate Return

Net Income received by a grower is referred to as *Orchard Gate Return* or OGR.

In simple terms, Zespri receive money (gross income) from export customers. This is then distributed through to Registered Suppliers, and onto growers. The reason Orchard Gate Return is referred to as a Net Income is because the gross income received by Zespri is offset by various costs and incentives including postharvest costs such as packaging and logistics.

These costs and incentives are outlined in the contractual arrangement a grower has with their post-harvest partner and in the Supply Agreement signed by Registered Suppliers and Zespri.

A grower's preferred format for illustrating Orchard Gate Return for a full year is as follows:

	2020 Harvest (\$ are for example only)	2020 Harvest (\$ are for example only)
Income from Zespri		
Zespri Fruit Return	55,075	111,296
Plus Taste Income	38,028	88,945
Plus Early Start Income	5,841	13,778
Plus Loyalty Income	3,576	4,593
Total Income from Zespri	102,521	218,613
Cost of Postharvest		
Time Incentive Income	15,855	22,964
Less Fruit Loss Costs	-1,907	-4,899
Less Time Costs	-6,080	-6,736
Plus/Less Intercheck	954	919
Net Time Incentive	8,822	12,247
Less Packing & Harvest Costs	-24,676	-48,376
Less Coolstore Costs	-11,325	-14,544
Less Logistics Costs	-1,669	-2,296
Less Other	2,027	1,684
Total Cost of Postharvest	-35,644	-63,532
Total Net Income (Orchard Gate Return)	75,698	167,327

Above:

Table showing Orchard Gate Return for a full year

It is noteworthy to mention that Orchard Gate Return is not the complete measurement of orchard performance as it does not take into consideration orcharding costs such as pruning, pollination, fertiliser etc. Therefore, Orchard Gate Return is not the final formulation of orchard profitability.

Orchard Financial Reporting

The preparation of a financial report of the performance of an orchard is a tool a grower will use to measure the profitability of an orchard. It also forms part of the analysis in which to measure the financial viability of that orchard along with a grower's financial expectation and objective.

Table 1 (Hayward) & Table 2 (SunGold) provide examples of a simple orchard net profit and cash-flow report. The format works through:

Net Income (OGR)
less Orcharding costs
Net Profit from Orcharding
less Capital expenditure
Net Cash Inflow/Outflow

Net Profit from Orcharding shows the profitability of all income derived from each harvest less all direct costs that are incurred in delivering that same harvest.

Net Cash Inflow/Outflow provides useful analysis of the net cash proceeds received from the orchard by considering capital expenditure such as setting up a new overhead artificial canopy.

It is noted that repairs and maintenance and capital expenditure have been left blank in these tables, as this is a discretionary spend that will vary between orchards. Nevertheless, there would be some repairs and maintenance each year that would need to be budgeted for along with any capital expenditure required.

Typically, such a report would be reviewed on a monthly basis and annually.

These tables include columns for each month that Net Income (OGR) is received. This example is based on 1 canopy hectare. Generally, an orchard would not be exactly one canopy hectare so an additional column would be included to show the income or cost into a Per Canopy Hectare basis.

This Per Canopy Hectare calculation is the most common and important metric used by a grower to benchmark the financial performance of their orchard against industry averages and prior historical information.

As the orcharding year progresses a grower will find it necessary to understand the costs they incur on a 'per hectare basis'. Often piecemeal rates charged by suppliers and contractors are also based on a 'per hectare basis', such as winter pruning and girdling.

Collection of Financial Data

Collating this data into a user-friendly format such as in Table 1 & 2, must be simple and readily available.

There are a variety of means available to a grower to prepare such a report and often it is prepared with support from the grower's Chartered Accountant.

Financial reporting has come a long way in recent years and apart from simple spreadsheets, there are a number of web-based financial software tools available to growers to draw financial information from, such as Xero.

KIWIBOP ORCHARD

KIWIFRUIT ORCHARD PROFITABILITY

KPIN:

LOCATION:

HARVEST YEAR: 2020

VARIETY: HAYWARD Conventional

Key inputs	
CAN/HA	FV/VINES
M/V/VINES	
1.00	

[NUMBERS ARE FOR EXAMPLE ONLY]

Trays: 11,921

Diagram 1

	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total Per CAN/HA
Net Income																
Net fruit payments (Orchard Gate Return)		3,785	757	6,056	5,299	3,785	10,598	12,869	15,897	2,271	3,028	6,813	757		3,785	75,698
ORCHARD COSTS																
Harvesting costs																7749
Orchard Production																
Winter pruning				7,300												9,300
Male pruning									3,000							3,000
Summer pruning								1,000		1,750	2,750					5,500
Thinning										470		4,230				4,700
Girdling									250		250					500
Spraying (materials & application)			650		350	1,000		500		1,000	250	1,250				5,000
Fertiliser (materials & application)					1,000			1,000								2,000
Weed control (materials & application)								400		400						800
Pest monitoring										250						250
Soil tests/leaf samples			625					625								1,250
Pollination									3,500							3,500
Mowing & Mulching	150			150			150			150						600
Shelter trimming					500											500
Global gap/compliance										450						450
Repairs & maintenance																-
Management	750			750			750			750						3,000
Total orchard production	900	-	1,275	8,200	1,850	1,000	900	7,025	3,250	5,220	3,250	5,480	-	-	-	40,350
Net Profit from Orcharding	-900	3,785	-8,267	-2,144	3,449	2,785	9,698	5,844	12,647	-2,949	-222	1,333	757	0	3,785	27,599
Capital expenditure																-
NET CASH INFLOW/(OUTFLOW)	-\$900	\$3,785	-\$8,267	-\$2,144	\$3,449	\$2,785	\$9,698	\$5,844	\$12,647	-\$2,949	-\$222	\$1,333	\$757	\$0	\$3,785	\$29,599
YTD NET CASH INFLOW/(OUTFLOW)	-\$900	\$2,885	-\$5,382	-\$7,526	-\$4,077	-\$1,292	\$8,406	\$14,249	\$26,896	\$23,947	\$23,725	\$25,057	\$25,814	\$25,814	\$29,599	\$29,599

KIWIBOP ORCHARD
KIWIFRUIT ORCHARD PROFITABILITY

KPIN:
LOCATION:
HARVEST YEAR: 2020
VARIETY: SunGold Conventional

Key inputs			
CAN/HA	FV/VINES	M/V/VINES	
1.00			

[NUMBERS ARE FOR EXAMPLE ONLY]																Diagram 2
VARIETY: SunGold Conventional	Trays: 15,309															
	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Total Per CAN/HA

Net Income				15,059	31,792	28,446	21,753	23,426	15,059	1,673	8,366	8,366	1,673		1,673	167,327
Net fruit payments (Orchard Gate Return)		10,040														
ORCHARD COSTS																
Harvesting costs																9,951
Orchard Production				10,000												10,000
Winter pruning								2,500								3,000
Male pruning								2,000		3,500	3,500					9,000
Summer pruning																
Thinning							2,325		7,750		5,425					15,500
Girdling									375		375					750
Spraying (materials & application)			780		420	1,200		600		1,200	300	1,500				6,000
Fertiliser (materials & application)					1,800			1,800								3,600
Weed control (materials & application)								400		400						800
Pest monitoring										250						250
Soil tests/leaf samples			625					625								1,250
Pollination								3,500								3,500
Mowing & Mulching	150			150			150			150						600
Shelter trimming					500											500
Global gap/compliance										450						450
Repairs & maintenance																-
Management	750			750			750									3,000
Total orchard production	900	-	1,405	10,900	2,720	1,200	3,225	11,425	8,125	6,700	9,600	1,500	-	-	-	58,200
Net Profit from Orcharding	-900	10,040	-11,356	4,159	29,072	27,246	18,528	12,001	6,934	-5,027	-1,234	6,866	1,673	0	1,673	99,176
Capital expenditure																-
NET CASH INFLOW/(OUTFLOW)	-\$900	\$10,040	-\$11,356	\$4,159	\$29,072	\$27,246	\$18,528	\$12,001	\$6,934	-\$5,027	-\$1,234	\$6,866	\$1,673	\$0	\$1,673	\$99,676
YTD NET CASH INFLOW/(OUTFLOW)	-\$900	\$9,140	-\$2,216	\$1,943	\$31,015	\$58,261	\$76,788	\$88,789	\$95,724	\$90,697	\$89,463	\$96,330	\$98,003	\$98,003	\$99,676	\$99,676

[illegible]