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An analysis of the trends influencing the kiwifruit market prepared by Con Williams - Head of Investment Research.

SUMMARY

SunGold kiwifruit appears to be redefining the kiwifruit category for many consumers. In today's uncertain economic environment, it looks to be maintaining significant price premiums even as increased volumes are delivered into major markets. Its performance has so far defied the normal rules of supply and demand. Over the past six years production has nearly tripled, yet orchard-gate prices have increased by 35-40% over the same period.

The challenge now is assessing future market performance as more SunGold licencing and planting essentially locks in future supply growth that needs to find a profitable home.

This will determine the future direction of orchard land prices. Just four short years ago SunGold kiwifruit orchards could be bought for \$525,000-\$625,000/cha and Green orchards for \$350,000- \$375,000/cha. Today these prices are closer to the \$1.1- \$1.3 million/cha mark for existing mature SunGold orchards and usually well above \$450,000/cha for Green. With orchard productivity and cost structures reasonably well understood a change in prices received at the orchard gate would seem the most obvious catalyst for any change in orchard land value dynamics.

At present we appear to be hitting a plateau in both orchard gate prices and land values. A new record orchard gate price was reached for the 2019 SunGold crop. The new season started with some obvious conservatism from Zespri, but the forecast range has now been lifted three times with the upper end being in line with last year's record. Zespri may have applied some conservatism to starting season forecasts, but even so SunGold has performed exceedingly well delivering returns above the top end of the opening forecast range over the past three seasons.

Zespri's planned 60-70 million tray increase over the next five years is feasible as this equates to an increase of just 0.03 kg/capita/yr in kiwifruit consumption. Put another way this increase equates to just a quarter of an actual kiwifruit per person.

Figure 1: New Zealand SunGold orchard gate returns and starting season forecasts

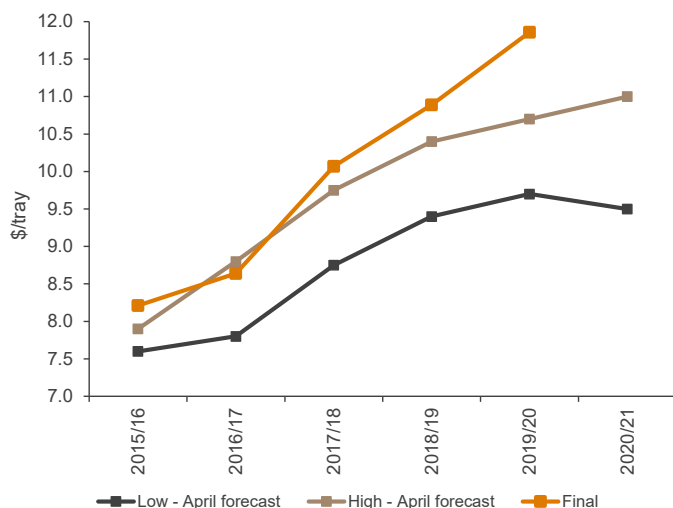
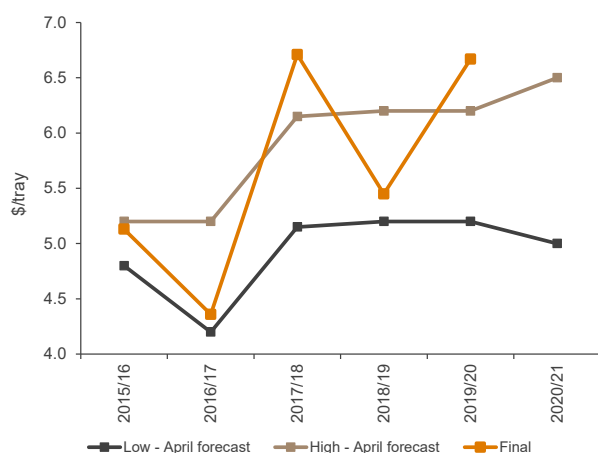


Figure 2: New Zealand Hayward Green orchard gate returns and starting season forecasts



Source: MyFarm, Zespri

The current forecast range of \$10.5-\$12.0/tray for the 2020 crop implies a plateau is being reached, but the bigger question is does this mark an inflection point for prices with increased supply to come?

Zespri of course has the best insight into the market, which should allow superior forecasting. It controls a significant proportion of the global supply in kiwifruit, it has many long-term supply arrangements with major retailers, multi-year currency hedging is undertaken, and it is the only exporter for New Zealand fruit and SunGold.

Its latest five-year outlook is for a range of \$8-\$10/tray. In the context of the past 3-4 years this would be a significant reduction, leading to the question

of whether this is too conservative, or realistic. The current land market appears to be based on the top end of this range or something better. So, to better understand market dynamics, we look at some of the critical market factors that will shape future direction of orchard land values.

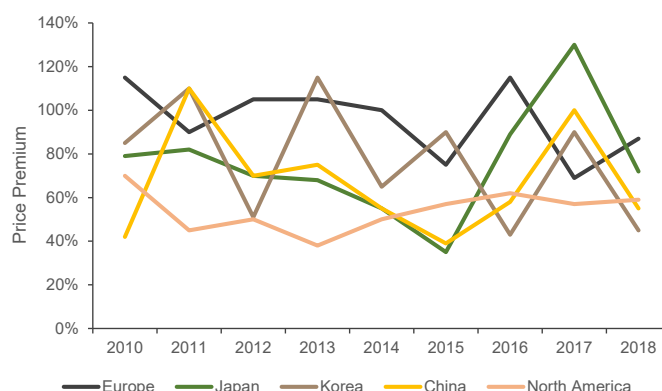
The brand factor

Zespri is now one of the top-five most recognised fruit brands in its key markets. It is seen to represent quality, great taste, sustainability, good nutrition and food safety. Add in new innovative packaging solutions to make kiwifruit a more convenient snack and it ticks all the right boxes for the growthy side of the aisle in many markets.

It's hard to value, but Zespri and growers have established meaningful brand equity through long-term market commitment, continuous investment in innovative and operational excellence across the entire supply chain.

The Zespri brand, and the associated values and promises it delivers, helps underpin attractive price premiums. The best example is Zespri Green kiwifruit which earn a 40% to 100% price premium over and above the next best competitor in its five major markets. This is remarkable given Green kiwifruit is generally viewed as the commodity of the category with no exclusivity because anyone can grow it.

Figure 3: Green kiwifruit in-market price premium comparison of New Zealand vs nearest competitor



Source: MyFarm, New Zealand Kiwifruit Growers

In the case of SunGold, where there is currently limited competition, the premium is even higher. It's not only the sweet taste of SunGold, which is more attractive to a wider range of markets, but also the trademarked intellectual property associated with SunGold that provides exclusivity and the ability to offer global retailers a whole portfolio approach.

The premiums for both Green and SunGold help compensate New Zealand growers for some of the higher costs of production here. Chilean fruit tends to have a cost of production advantage due to lower orchard and postharvest costs. Domestically produced fruit in both Europe and China have a cost advantage for both transportation and onshore production costs.

Other key factors that underpin New Zealand's competitive position in kiwifruit include:

1. Consistency of supply of a high-quality and superior tasting product supported by a world leading supply chain, where growers receive market-based payments reflecting the quality of their fruit. Quality parameters usually account for 40% of total fruit and services payments to growers for Green and 70% for SunGold, driving grower efforts on orchard. Albeit due to Covid-19 disruptions for testing this won't happen to the same extent for the 2020 crop.
2. An innovative portfolio of Zespri-exclusive product offerings (i.e. SunGold, organic), including new and novel products to be rolled out over coming years (i.e. the new red kiwifruit licenced to be grown this year).
3. Significant investment and support of brand marketing and category growth.
4. A comprehensive understanding of the health benefits of kiwifruit.
5. Deep penetration of core markets with an evolving distribution model that has closer linkages through to the end consumer and e-commerce.
6. Focused development of new high-growth markets – the large and higher paying wealthy markets of North America and China are both on the ascent.
7. Year-round supply of Zespri-branded fruit with New Zealand supply augmented with product from the Northern Hemisphere. This enables Zespri to support its branded offering to consumers all year round, as well as offer a category management solution to large retailers. This is particularly important to support Zespri's category leadership position, maintain shelf space, keep marketing costs low and help with the commercialization of new varieties into a fruit that is consumed every day.

Industry structure

The industry is based around Zespri which has been legislatively mandated as the sole exporter/marketer of New Zealand kiwifruit outside the Australasian markets. It also provides supply chain services outside New Zealand and manages the sector's research and development investments. Zespri is owned by past and present New Zealand kiwifruit growers (with shareholding to shift to current growers' over time).

There are a number of post-harvest providers, which are either co-operatives or independent companies, and manage growers' fruit from harvest. This includes harvesting, packaging and storing fruit prior to export. In addition, most of the postharvest operators provide orchard management services. This supports growers by delivering expertise, scale, and improving asset utilisation across the many smaller orchards that exist. Zespri has a close working relationship with these operators and other key industry partners, often playing a coordinating role.

The unique industry structure, with Zespri being the single marketing point of entry, remains a point of debate. With this type of regulatory arrangement becoming increasingly rare, discussion on the innovation, efficiency and diversification limitations will be on-going. Because Zespri continues to perform strongly there isn't much debate, but any slip-up in performance could drive future fragmentation.

The confidence and support for the industry's current structure and performance has been highlighted by strong grower support when voting on industry and Zespri matters. Turnout has been in the 80% range, with support for the main proposals on sector structure and Zespri shareholding matters usually over 90%. This level of support, engagement and unity is almost unheard of in other primary sectors where the average voter turn-out usually languishes at only around 40%.

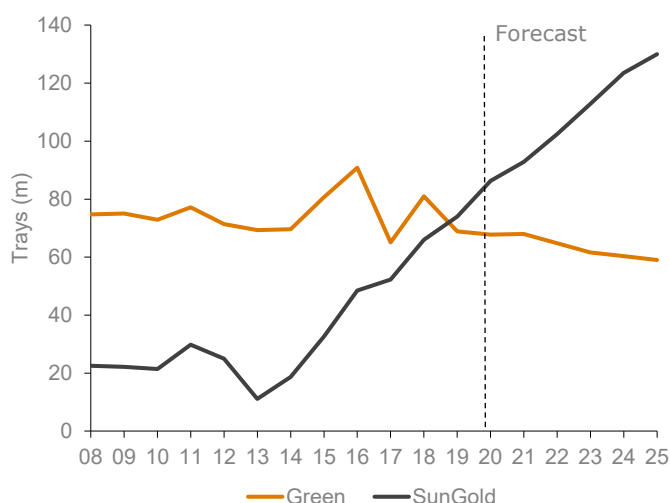
Industry supply - New Zealand

The main industry challenge in the next five years will be finding a high returning home for what is essentially 'locked in' production increases. Zespri has effectively locked in this growth through issuing 2,250 canopy hectares of new SunGold grower licences over the past three years, with at least a further 1,500 canopy hectares to still be issued into 2022. No grower is going to pay recent year licence prices for SunGold and not grow it, meaning there is still plenty of supply growth to come.

Overall, Zespri has ambitious plans to increase its global supply to around the mid-200 million tray mark by 2025/26. Current production is around 175-180 million trays so this represents growth of 35%, or on average growth of just over 10 million trays per annum of mainly SunGold fruit.

In New Zealand Zespri plans to release new licenses to grow SunGold (including organic) at 750 hectares per year until 2022. Combined with increased yields from growers who are switching from Green to SunGold and recently established immature orchards yet to hit full production, this will support growth of New Zealand supply into the low-200 million tray range. All of this growth is expected to come in SunGold volumes, with Green production actually facing a reduction from re-grafting activities.

Figure 4: New Zealand kiwifruit production forecasts

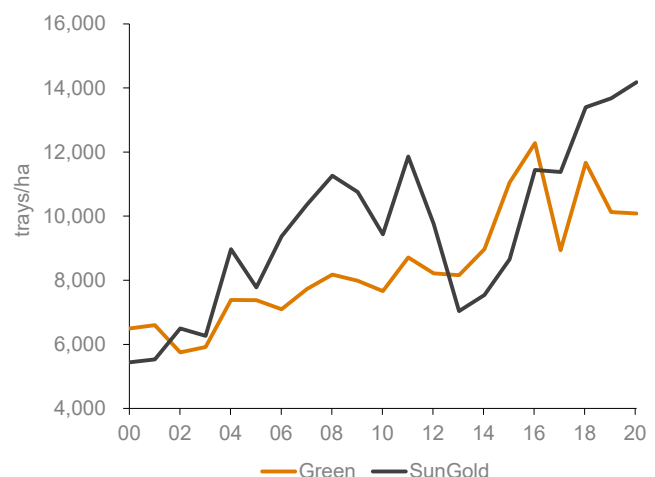


Source: MyFarm, Zespri

Mapping forward production of the different age classes of SunGold orchards we get a very similar result to the Zespri forecast of incremental growth of 8-10 million trays per annum through to 2025/26.

The major risk is average yields perform better than expected, or there is a large one-off crop that resets the market in a particular year. Average industry yields of 13,500 t/cha are expected for all SunGold orchards, yet the sector has exceeded this level in recent years. The addition of a larger proportion of new area will keep average industry yields suppressed in the short-term, but long-term there could be a steep increase.

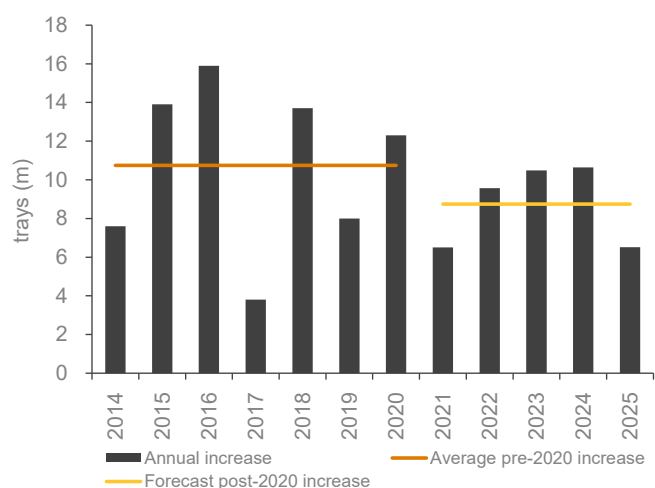
Figure 5: New Zealand average yields for major kiwifruit varieties



Source: MyFarm, Zespri

While the highest growth period appears to be behind the sector it would only take a small increase in average sector yields for total supply to grow meaningfully higher. The pre-2020 average volume growth was 10.7 million trays per annum and our forecasts suggest growth of 8.7 million trays per annum over the next five years (in-line with the Zespri guidance of 8-10 million trays p.a.). But with a larger growing area it would take less than a 2% lift in average yields to match the growth rate achieved pre-2020. That means the sector needs to be certain it can find a profitable home for all the extra fruit still to come.

Figure 6: Annual SunGold supply growth in New Zealand



Source: MyFarm

There is expected to be strong growth in the supply of Zespri-branded non-New Zealand produced fruit in other countries too. This is expected to fill the shoulders of the season, maintaining retail shelf space and providing the retail channel with product all year round. Current offshore production is around the low 20 million tray mark with just under half of this green kiwifruit. But with additional SunGold licences being released this will boost production toward 40 million trays by 2025/26 fulfilling Zespri's global growth plans.

Global supply

The global supply of kiwifruit is very concentrated and Zespri dominates exports with most other product consumed in the local market where it's produced, or by neighbouring countries.

The top six producers account for some 90% of total supply. China dominates at around 45-50% of total production, followed by Italy, New Zealand and Greece. As many countries are struggling with pest and disease issues, such as Brown Marmorated Stink Bug or PSA, New Zealand's influence will continue to grow strongly. Export supply is concentrated between New Zealand, Chile and largely internal trade within Europe or Zespri branded product exported during the Southern Hemisphere off season.

Industry supply - Chile

In terms of direct competition, Chile remains one to watch as it continues its recovery from PSA and severe frosts in 2014. The Chilean Kiwifruit Committee has recently implemented new taste standards to try to compete on quality with New Zealand product, but it will take sometime to catch the sophistication of New Zealand's approach.

Long-term, an expansion in its growing area will be influenced by the relative profit signals for various land uses. The growing area rose by about one-third between 2008 and 2013, but subsequently slowed as Chile coped with PSA outbreaks, adverse weather, water challenges and the effects of a strong peso.

While Chile has not so far been able to breed its own premium kiwifruit varieties, it has been, and will continue to be, a leading choice as a partner for any new cultivars developed by Northern Hemisphere breeding programmes. This is due to its ability to exploit off-season markets in the Northern Hemisphere, and to compete with New Zealand product in growing Asian markets. At the moment Hayward Green still accounts for the majority of exports (greater than 95%), but new golden varieties like Dori could expand overtime.

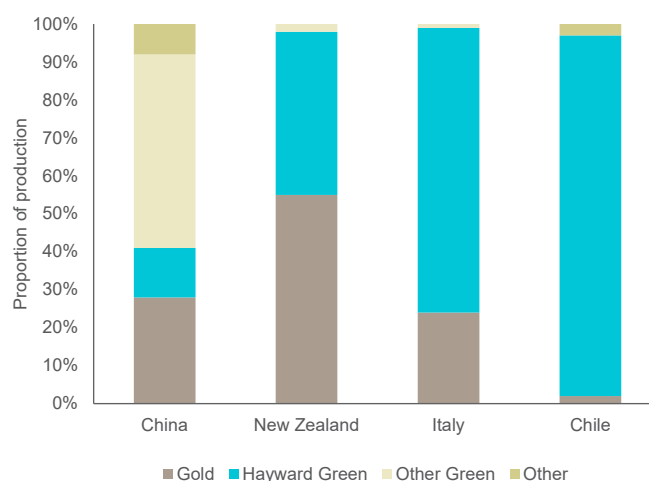
Industry supply - China

China is the world's largest kiwifruit producer, but most of its product is destined for local supply. For New Zealand it is now the largest (in dollar terms) and highest paying major market, recently surpassing Japan for the first time. This means the internal supply/demand dynamics will be a critical driver of future market returns.

Zespri has had its fair share of challenges in China, meaning nothing should be taken as a sure bet. The largest challenges would appear to be local competition, counterfeit product, regulatory issues, competing with Chinese kiwifruit cultivars (including different Gold and other cultivars) and getting the distribution/ marketing model right. In this regard Zespri have changed its marketing/distribution model to what has been used in other markets.

So far it appears to be working. While local Chinese supply cannot compete with the quality of New Zealand produce in the short term, it will need to be watched in the future as better orchard management practices and grading standards are more widely adopted.

Figure 7: Estimated share of kiwifruit volumes by variety in major producing countries



Source: MyFarm, Belrose, Zespri

Generally, there are larger volumes of red and golden kiwifruit (i.e. Jingold, ENZAGold, Soreli Bio Kiwi Gold, Gold KiwiKiss, Dori, Sweeki Gold, etc.) beginning to emerge from both China and multinationals, such as Turners and Growers, working to establish their proprietary varieties in certain countries. These are increasingly being proprietary branded too, providing some competitive pressure in certain areas.

China is home to the largest range of other varieties of kiwifruit. These are largely sold domestically with none of them yet having shown the potential to become a major commercial variety that performs consistently under normal seasonal and packaging/transportation conditions.

Outside SunGold most of the other golden cultivars appear to be the more susceptible to damage from PSA than green varieties thus substantially reducing productivity.

Meanwhile most other competing countries are still trying to find suitable commercial cultivars that tick all the boxes. PSA and other pest/disease challenges are persisting in most countries and this, coupled with the need to address other production/quality issues, has limited the competitive pressure on the overall kiwifruit market to-date.

China is the most likely source of major competitive pressure with increased investment in new cultivars and formalising grading standards. Particular cultivars showing promise are the likes of Jinyan and Jintao, with a significant proportion that were planted in recent years beginning to bear fruit and the former being touted by some to possibly account for a significant proportion of the planted area in China in the not so distant future. Watch this space.

Industry supply - Europe

Total European production accounts for around 20-25% of global supply. This is mainly concentrated in Italy and Greece. Overall Italian production has struggled in recent years due to root asphyxia, PSA and Brown Marmorated stink bug. Hayward Green kiwifruit still accounts for around 75% of total production, but there has been a significant decrease over recent years due to these effects. In contrast there are now rapidly increasing golden varieties in the form of SunGold (Zespri controlled), Jinto, Soreli and Dori.

Italy is by far the largest European exporter, but some 70-75% of its exports are sold within Europe. A larger proportion (nearly 45%) is sent to the higher returning western markets of Germany, Spain and France. Italian exports to North America and Asia have gained market share in recent years too, probably driven by Zespri's marketing efforts during the Southern Hemisphere off season.

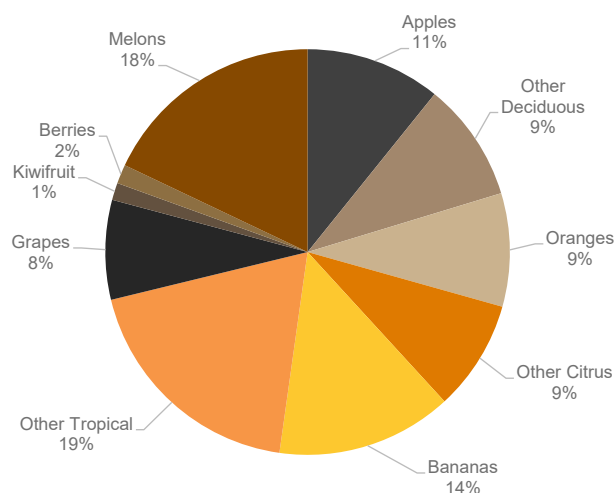
While a smaller player, Greek production is one of the fastest growing. As the quality of fruit that is produced improves even Zespri is starting to source more product from this market to serve the off season. Traditionally Greek exports have been focused on lower returning markets in Europe and the Middle East, but this will no doubt change as the quality of fruit improves.

Key markets

The recent high prices for SunGold is largely due to it redefining kiwifruit's place in the fruit bowl. At a global level kiwifruit consumption only averages around 1-2 kg/capita/yr, or 1-2% of total fruit consumption which averages around 110 kg/capita/yr. This provides plenty of opportunity for growth, with kiwifruit consumption a fraction of the 'majors' in the fruit bowl. The 'major's being bananas, apples, oranges and grapes where consumption averages between 8.5-15 kg/capita/yr.

This means in a global context Zespri's planned 60-70 million tray increase over the next five years is feasible as this equates to an increase of just 0.03 kg/capita/yr in kiwifruit consumption. Put another way this increase equates to just a quarter of an actual kiwifruit per person. With Zespri tending to be the lead global exporter by a long way (controlling perhaps 40-50% of global exports), the competition is not as intense as some of the other fruit categories either.

Figure 8: Total global fruit production by fruit type/group (weight basis)



Source: MyFarm, Belrose, Zespri

Fortunately, more premium fruits, including kiwifruit are being incorporated into fruit bowls.

This increase in premium fruit consumption has been driven by the trend toward healthier diets across many different parts of society. Nutritionists, medical practitioners alongside other influencers (i.e. celebrity chefs) have encouraged dietary and regulatory change, highlighting the important role fruit consumption can play in meeting personal and societal health goals.

The globalisation of many different types of cuisines has brought new cooking styles and different types of fruits to a greater number of countries. Upper income consumers have taken the lead in incorporating more exotic fruits into their diets with higher prices not being an impediment to increased consumption. However, for many lower income consumers, the perception remains widespread that many premium type fruit (i.e. SunGold kiwifruit) are expensive relative to other processed/packaged food products.

Pre Covid-19 in all regions, data from Euromonitor (an independent provider of strategic market research), predicted that the premium fruit group will grow at a greater rate than the non-premium fruit group. Kiwifruit volumes were predicted to outpace both groups, with an expected year-on-year growth rate across all markets of approximately 5% between 2018 and 2023, compared with the combined average of 2% for all other fruits over the same period. For context New Zealand sourced SunGold volumes are forecast to grow at 7% p.a., but with Hayward Green production set to decline overall growth is forecast at 3.5% p.a.

The disruption of Covid-19 could have well speed up change with the global restrictions on eating out shifting market share through retail and e-commerce channels. This not only increases the consumption of fruit at expense of other food types (i.e. fresh fruit isn't the main menu item at most eating out establishments), but results in wealthier and more discerning consumers, who usually can afford to eat out, purchasing more premium fruit and other food products to snack on at home. How permanent such a shift could be is difficult to judge, but for now it looks to be reinforcing trends, as well as introducing more wealthy consumers to the premium fruit aisles.

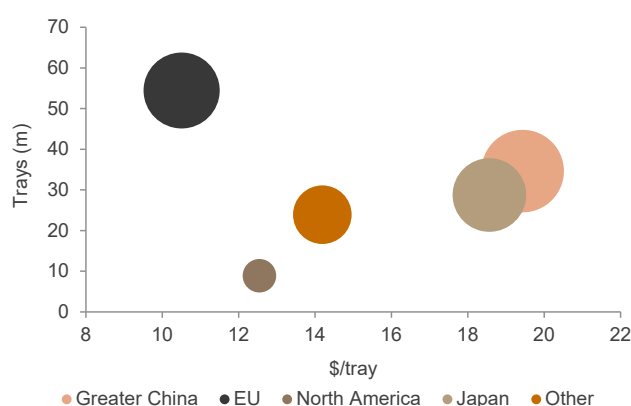
What markets need to be watched?

In-market there are many demand and supply influences that can impact on kiwifruit returns, but to mitigate this, Zespri has established meaningful brand reputation and equity through long-term market commitment and investment. In more mature Green kiwifruit markets this has tended to mean the largest fluctuation in returns has been driven by local supply dynamics – a small crop leads to higher prices and vice versa smoothing revenue. With SunGold this dynamic hasn't yet arrived, but any inflection point and readjustment would be important for orchard land values.

Traditionally Europe has been the key export market. But expanding SunGold volumes with a sweeter taste profile aligned to Asian consumer preferences has seen a more diversified export profile emerge. Indeed, Asian markets now account for more than 60% of total returns.

More specifically for Hayward Green supplying the off-season into European markets remains a key driver of returns. Europe has accounted for 40% of total revenue in recent years but achieves the lowest average price at \$9.8/t. Japan (25% of total revenue) and Greater China (17% of total revenue) are at the other of the spectrum collectively accounting for a similar share of total revenue, but achieving average prices of \$15.9/t and \$13.6/t respectively.

Figure 9: Major market returns for Hayward Green & other (average last two years)

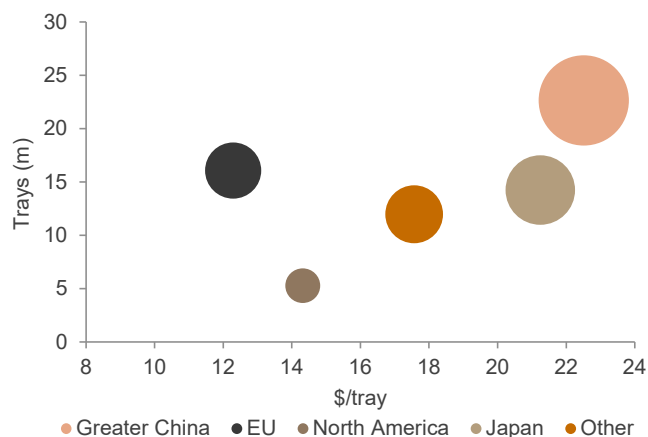


Note: Size of bubble indicates total market revenue in NZD.

Source: MyFarm, Statistics New Zealand

The major SunGold markets look quite different. In terms of volumes, while there is a more even spread of market exposure, there is a larger spread in average returns across these major markets. The Greater China area is now the major powerhouse market recently surpassing Japan. The Greater China area accounts for nearly 40% of total SunGold revenue and a third of total volumes. Japan achieves similar returns to Greater China but takes 20% of total volumes. Combined both these markets account for nearly half the volume of exports and 63% of total revenue. The average price premium is at least 25% higher than other markets. It's critical they can both continue to expand to maintain the current high price premiums being enjoyed by SunGold growers.

Figure 10: Major market returns for SunGold (average last two years)



Note: Size of bubble indicates total market revenue in NZD.

Source: MyFarm, Statistics New Zealand

Looking ahead, Zespri expects increased consumption in North America, China, Korea, Taiwan, and South East Asia (currently at a low base) to be an important driver of marginal demand growth. The market potential of China (even with growing domestic volumes) and North America is significant given their sheer size and kiwifruit's ability to gain market share from other types of fruit.

Furthermore, to increase market penetration in these new and more traditional markets Zespri is evolving its distribution model. This involves moving from selling product to distributors who have the main contact with end customers to using a range of different selling models that are generally underpinned by closer relationships with customers. This enables strong account management to build integrated sales and marketing programmes.

In a launch market, for example, it might focus on investment to build distribution and penetration in order to grow sales rapidly from a low base. For example, in 2018 the US market moved to an Importer of Record model – a first step designed to create a new scale market for Zespri. This is the first step before moving on to an in market inventory model and looking to move closer to direct retail sales.

Globally Zespri estimates marketing investment in stimulating demand could support the production of over 350 million trays in ten years' time. While this paints a positive backdrop, the combination of strong demand growth (particularly from Asia), Zespri's ambitions for growth, and intensifying international competition make the sustainability of current SunGold orchard gate returns difficult to assess.

A small shift in the fruit bowl could easily soak up incremental supply growth, but this will not happen without investment and the sector needing to:

1. Continue to establish SunGold credentials as a 'super health food' with substantial health benefits.
2. Overcome strong cultural and cuisine preferences in certain markets.
3. Adapt product offerings for convenience, busy lifestyles, changing retail formats and other new channels to market (i.e. e-commerce).
4. Continue to deliver fruit that consistently exceeds consumers taste and quality requirements. This reinforcing the distinctive intrinsic and extrinsic attributes of Zespri branded fruit.

While the exclusivity of SunGold remains in place prices will stay favourable, but any short-fall in demand growth in China or Japan as New Zealand supply continues to grow and with competitors nipping at Zespri's heels would lower the currently lucrative price premiums growers are enjoying.

Longer-term it's about all parts of the New Zealand industry working to maintain a competitive edge. A key part of this will be the commercialisation of other new kiwifruit varieties. In partnership with Plant & Food Research Zespri runs the world's largest kiwifruit breeding programme and spends half of its innovation budget on new cultivar development. Currently there are more than 240 promising varieties in stage 2 trials around the country with one new red variety released this season. This suggests there is more in the pipeline to keep ahead of the other countries that are marketing red and yellow varieties too.

Investment opportunities

While there is a lot to like about the kiwifruit sector the price of existing orchards and the cash returns that can be generated mean any new investment requires careful judgment.

Just four short years ago SunGold kiwifruit orchards could be bought for \$525,000-\$625,000/cha and Green orchards for \$350,000- \$375,000/cha. Today these prices are closer to the \$1.1- \$1.3 million/cha mark for existing mature SunGold orchards and usually well above \$450,000/cha for Green (mostly due to buyers looking to regraft/convert to SunGold).

Value investing has been overtaken by momentum investing in recent times. Greater confidence in the growing ability of SunGold kiwifruit and its marketability has resulted in both the assumed yields that can be produced, and orchard gate prices that are used in budgets being lifted – a potent mix for returns. This in turn has been capitalised into the price of SunGold licences and existing orchard prices.

The challenge now is finding appropriate value with orchard land values at record highs, cash returns into the single digit territory and key budgeting parameters ratcheted up. This requires a bigger focus on quality orchards and management that can consistently deliver high volumes of quality fruit with above average taste Zespri grade scores. With current gross margins standing at 70% or more, even some moderation in orchard gate prices would not be the end of the world. That said existing asset prices are somewhere near the 'peak' with a moderation in orchard gate pricing one of the most likely catalysts to take the wind out of the market's sails.

