

Driving growth in the **Fresh Fruit** sector

Food & Beverage Information Project 2012/13 - Depth Sector Stream

Final Report v0.99k – April 2013

www.foodandbeverage.govt.nz

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Ministry for Primary Industries
Manatū Ahu Matua



New Zealand
TRADE & ENTERPRISE 

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Coriolis is a strategic management consulting and market research firm

We work with organisations to help them grow. For corporations, that often means developing strategies for revenue growth. For governments, it means working on national economic development. For non-profits, it means helping to grow their social impact.

We address all the problems that are involved in growth: strategy, marketing, pricing, innovation, new product development, new markets, organisation, leadership, economic competitiveness.

We bring to our clients specialised industry and functional expertise. We invest significant resources in building knowledge. We see it as our mission to bring this knowledge to our clients and we publish much of it for the benefit of others.

A hallmark of our work is rigorous, fact-based analysis, grounded in proven methodologies. We rely on data because it provides clarity and aligns people.

However, we deliver results, not reports. To that end, we work side by side with our clients to create and implement practical solutions.

The Coriolis name

The coriolis force, named for French physicist Gaspard Coriolis (1792-1843), may be seen on a large scale in the movement of winds and ocean currents on the rotating earth. It dominates weather patterns, producing the counterclockwise flow observed around low-pressure zones in the Northern Hemisphere and the clockwise flow around such zones in the Southern Hemisphere. *To us it means understanding the big picture before you get into the details.*

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The objective of this report is to provide a **factual** source of high quality **information** on the current situation in the New Zealand **fruit** sector for four audiences:

- **Industry** participants (firms & individuals)
- **Investors** (domestic or international)
- **Government** (across all roles and responsibilities)
- **Scientific researchers** (academic, government & firm)

It creates a common set of **facts** and **figures** on the current situation in the industry.

It draws conclusions on potential industry **strategic directions** and highlights **opportunities** for further **investment**.

As part of the project, a wide range of Managing Directors, CEOs and key stakeholders were interviewed. All interviewees spoke anonymously and we thank them for their time and valuable insights.

It forms a part of the wider Food & Beverage Information Project found at www.foodandbeverage.govt.nz

The opinions expressed in this report represent those of the industry participants interviewed and the authors. These do not necessarily represent those of Coriolis Limited or the New Zealand Government.

Note: Sectors are analysed in more depth on a rotating schedule, in 2012/13 this included Processed Foods and Fruit (part of Produce)



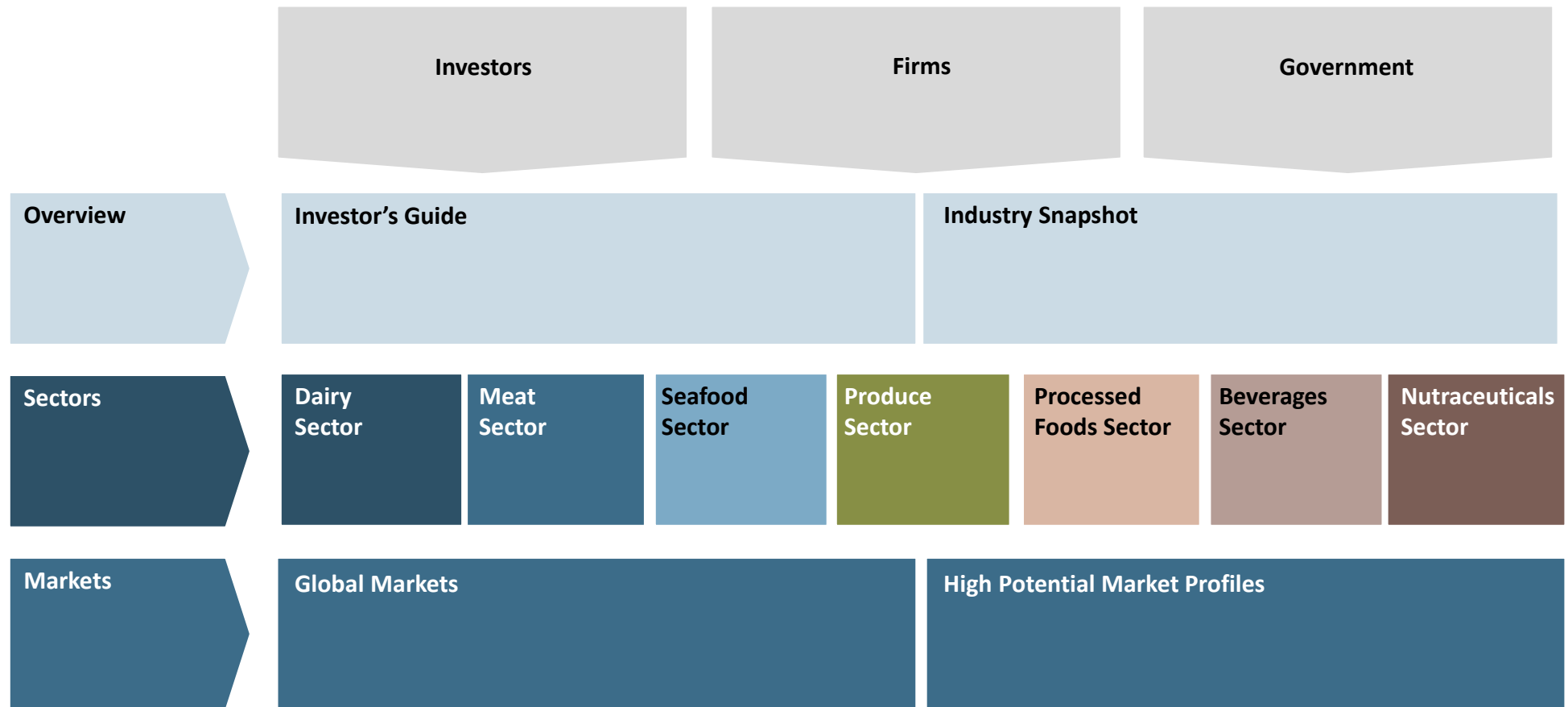
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F&B INFORMATION PROJECT

The New Zealand Food & Beverage Information Project is designed to be the foundation of facts and figures on which a range of audiences can build

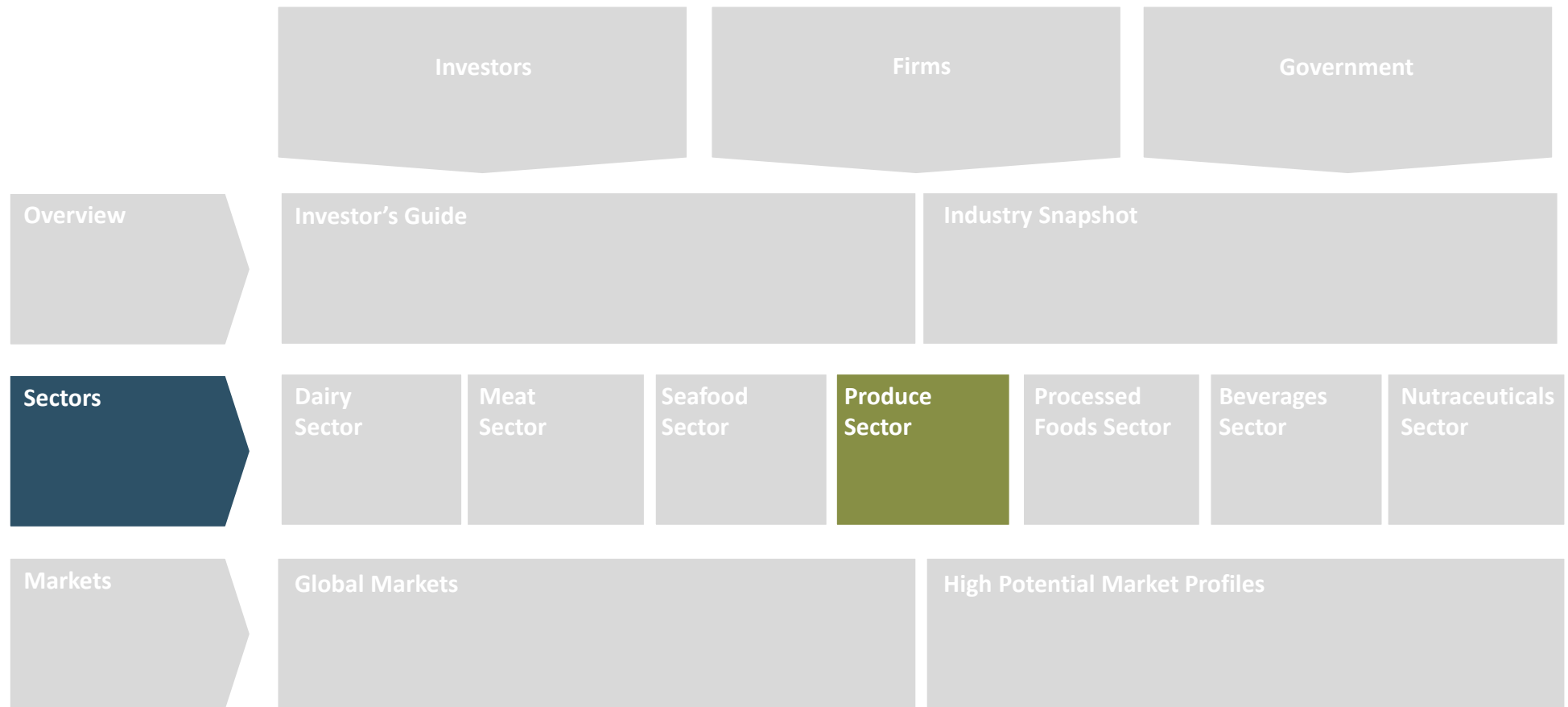
Structure of the New Zealand Food & Beverage Information Project
2013



PRODUCE SECTOR ANALYSIS

This analysis of the New Zealand produce sector focuses on the fruit industry¹ and forms a part of the wider Food & Beverage Information Project

Structure of the New Zealand Food & Beverage Information Project
2013



GLOSSARY OF TERMS

This report uses the following acronyms and abbreviations

| | | | |
|--------------------|--|------------------|--|
| A\$/AUD | Australian dollar | NZ | New Zealand |
| ABS | Absolute change | NZ\$/NZD | New Zealand dollar |
| ANZSIC | AU/NZ Standard Industry Classification | Oceania | Australia, New Zealand & Pacific Islands |
| AU | Australia | R&D | Research and Development |
| Australasia | Australia and New Zealand | S Asia | South Asia (Indian Subcontinent) |
| b | Billion | SE Asia | South East Asia |
| CAGR | Compound Annual Growth Rate | S.H | Southern Hemisphere |
| C/S America | Central & South America (Latin America) | SS Africa | Sub-Saharan Africa |
| CRI | Crown Research Institute | T/O | Turnover |
| CY | Calendar year (ending Dec 21) | US/USA | United States of America |
| E Asia | East Asia | US\$/USD | United States dollar |
| EBITDA | Earnings before interest, tax, depreciation and amortization | UK | United Kingdom |
| FY | Financial year (of firm in question) | YE | Year ending |
| FOB | Free on Board | YTD | Year to date |
| £/GBP | British pounds | | |
| JV | Joint venture | | |
| m | Million | | |
| n/a | Not available/not applicable | | |
| NA/ME/CA | North Africa / Middle East / Central Asia | | |
| nec/nes | Not elsewhere classified/not elsewhere specified | | |
| N.H | Northern Hemisphere | | |

Sources

| | |
|-----------|--------------------|
| AR | Annual report |
| Ce | Coriolis estimate |
| Ci | Coriolis interview |
| K | Kompass |
| Ke | Kompass estimate |
| ws | website or article |

METHODOLOGY, DATA SOURCES & LIMITATIONS

Data was from a variety of sources, and has a number of identified limitations

- This report uses a range of information sources, both qualitative and quantitative.
- The numbers in this report come from multiple sources. While we believe the data are directionally correct, we recognise the limitations in what information is available.
 - In many cases different data sources disagree (e.g. Statistics New Zealand vs. FAO vs. UN Comtrade).
 - Many data sources incorporate estimates of industry experts.
 - As one example, in many cases, the value and/or volume recorded as exported by one country does not match the amount recorded as being received as imports by the counterparty [for understood reasons].
- In addition, in some places, we have made our own clearly noted estimates.
- Coriolis has not been asked to independently verify or audit the information or material provided to it by or on behalf of the Client or any of the data sources used in the project.
 - The information contained in the report and any commentary has been compiled from information and material supplied by third party sources and publicly available information which may (in part) be inaccurate or incomplete.
 - Coriolis makes no representation, warranty or guarantee, whether express or implied, as to the quality, accuracy, reliability, currency or completeness of the information provided in the report.
- All trade data analysed in all sections of the F&B Information project are calculated and displayed in US\$. This is done for a range of reasons:
 1. It is the currency most used in international trade
 2. It allows for cross country comparisons (e.g. vs. Denmark)
 3. It removes the impact of NZD exchange rate variability
 4. It is more comprehensible to non-NZ audiences (e.g. foreign investors)
 5. It is the currency in which the United Nations collects and tabulates global trade data
- As part of our brief from our sponsoring agencies, we have been specifically instructed not to make recommendations on government policy or to recommend specific industry strategies
- Export data is 2011. At the time of analysis not all countries had reported and 2010 data is used (e.g. Netherlands, Austria, Spain, United Arab Emirates, Saudi Arabia, Iran, Oman, Viet Nam, Kenya, etc.); data for these countries is 2010
- The opinions expressed in this report represent those of the industry participants interviewed and the authors. These do not necessarily represent those of Coriolis Limited or the New Zealand Government.
- If you have any questions about the methodology, sources or accuracy of any part of this report, please contact Tim Morris, the report's lead author at Coriolis, on +64 9 623 1848



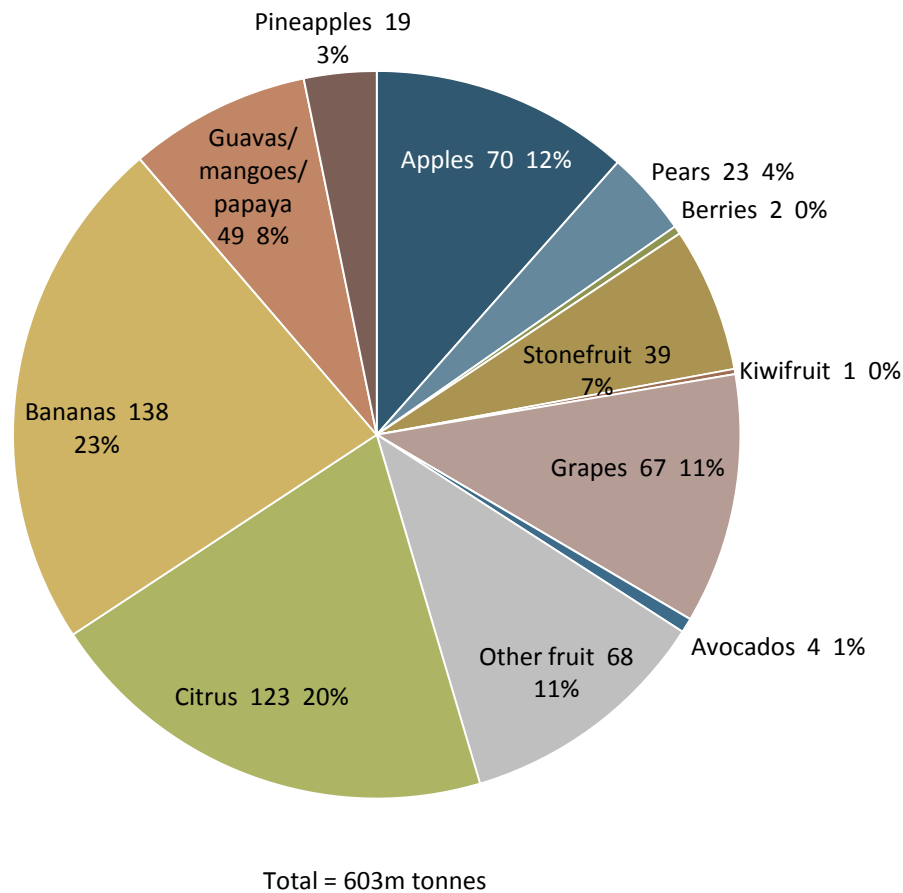
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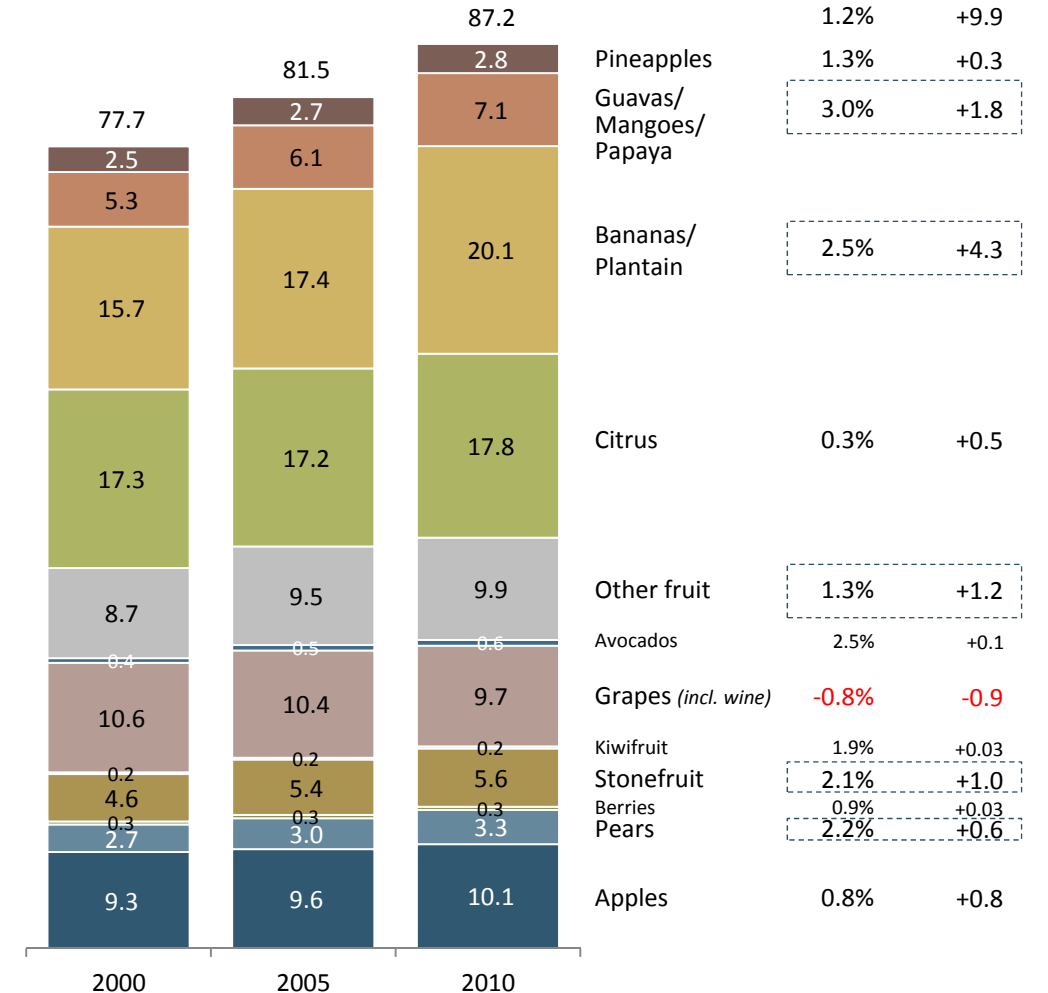
SITUATION – GLOBAL FRUIT BOWL DOMINATED BY A HANDFUL OF FRUIT

The global fruit bowl is **dominated** by a **handful of major fruit**; global per capita fruit consumption is **growing** at just over 1% per year, **driven** primarily by **key tropical fruit, pears, stonefruit & “other” fruit**

Total global fruit production by fruit type/group
tonnes; m; 2010



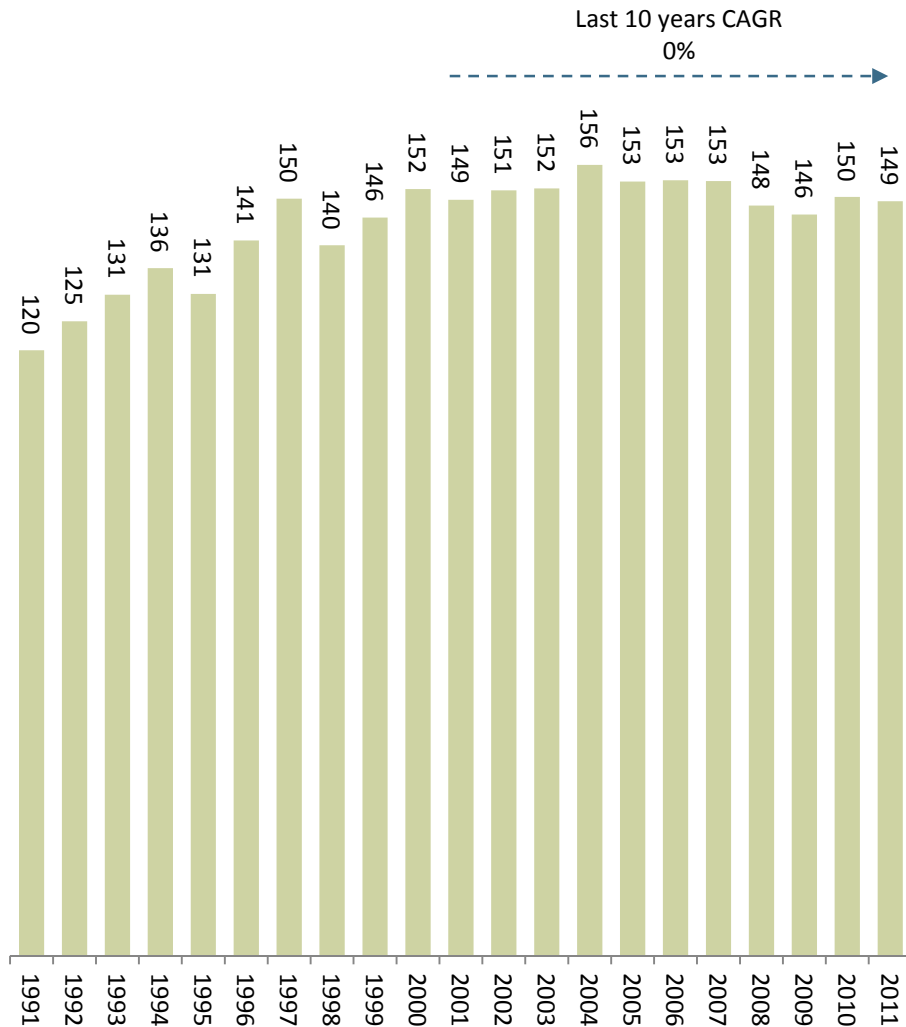
Global fruit consumption per capita by type/group
kg/person; 2000-2010



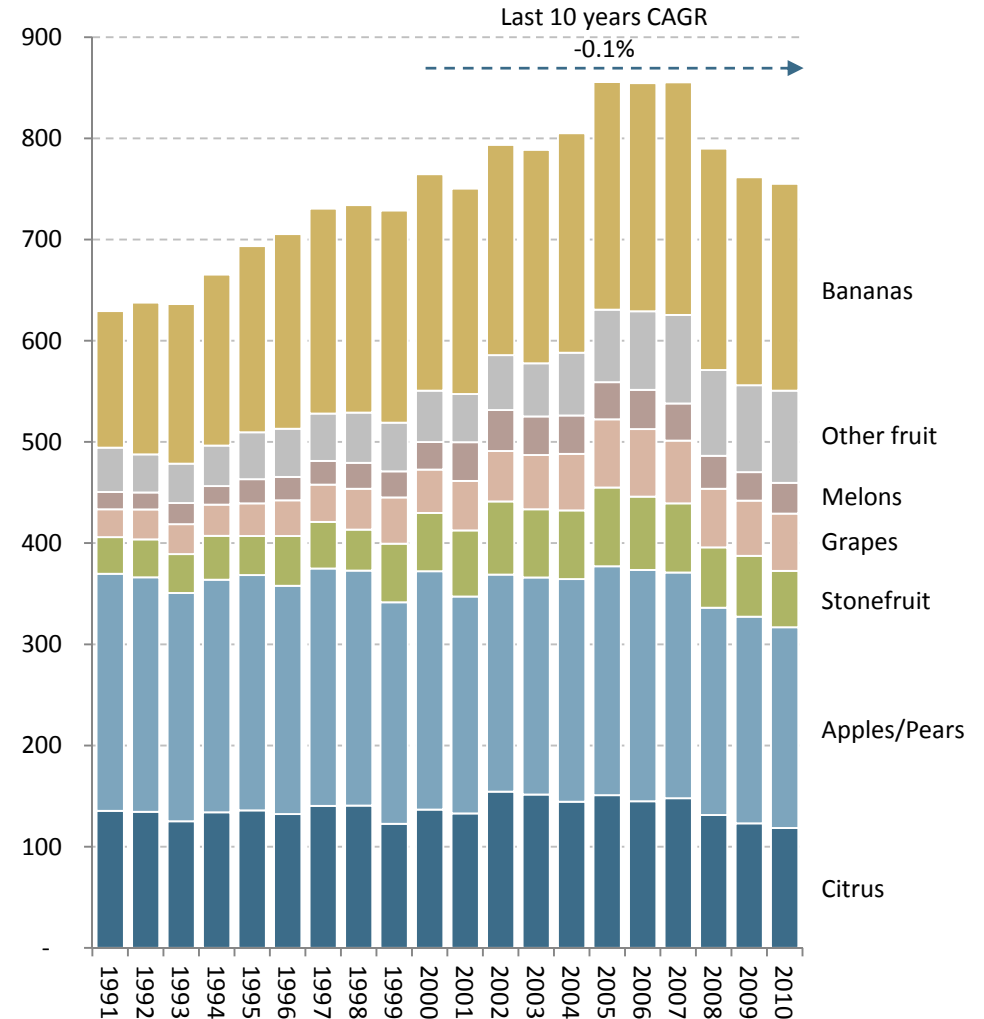
SITUATION – CONSUMPTION FLAT IN KEY HISTORICAL MARKETS

Fresh **fruit consumption** is **flat** across most key **developed markets**, as these examples show

EXAMPLE: United States per capita fresh fruit consumption
pounds/person/year; 1991-2011



EXAMPLE: United Kingdom purchased fresh fruit by type
grams/person/week; 1991-2010

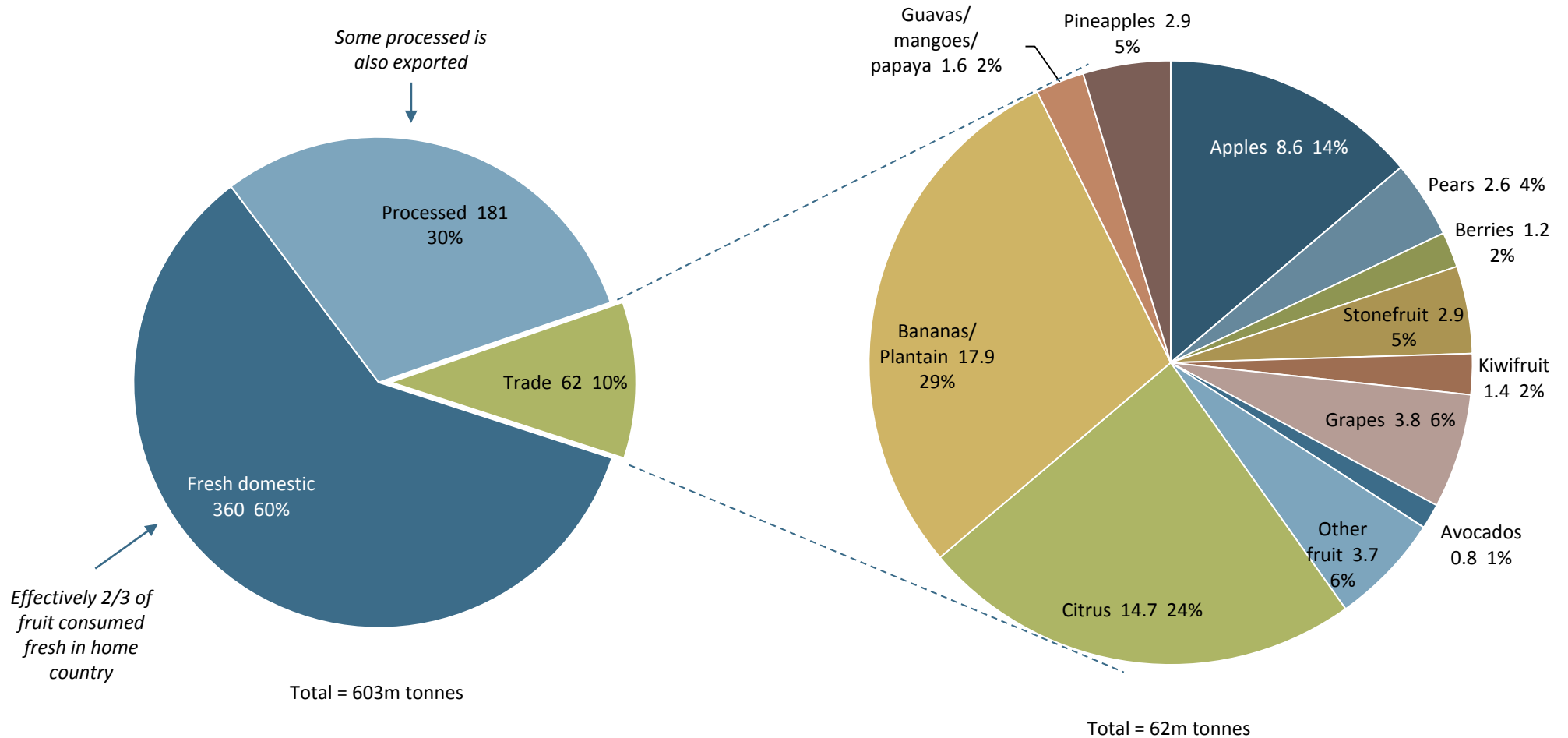


SITUATION – MOST CONSUMED AT HOME OR PROCESSED

Most fruit is consumed fresh in the producing country or processed; only 10% of volume is traded globally as fresh fruit

Disposition of total global fruit production volume
tonnes; m; 2010

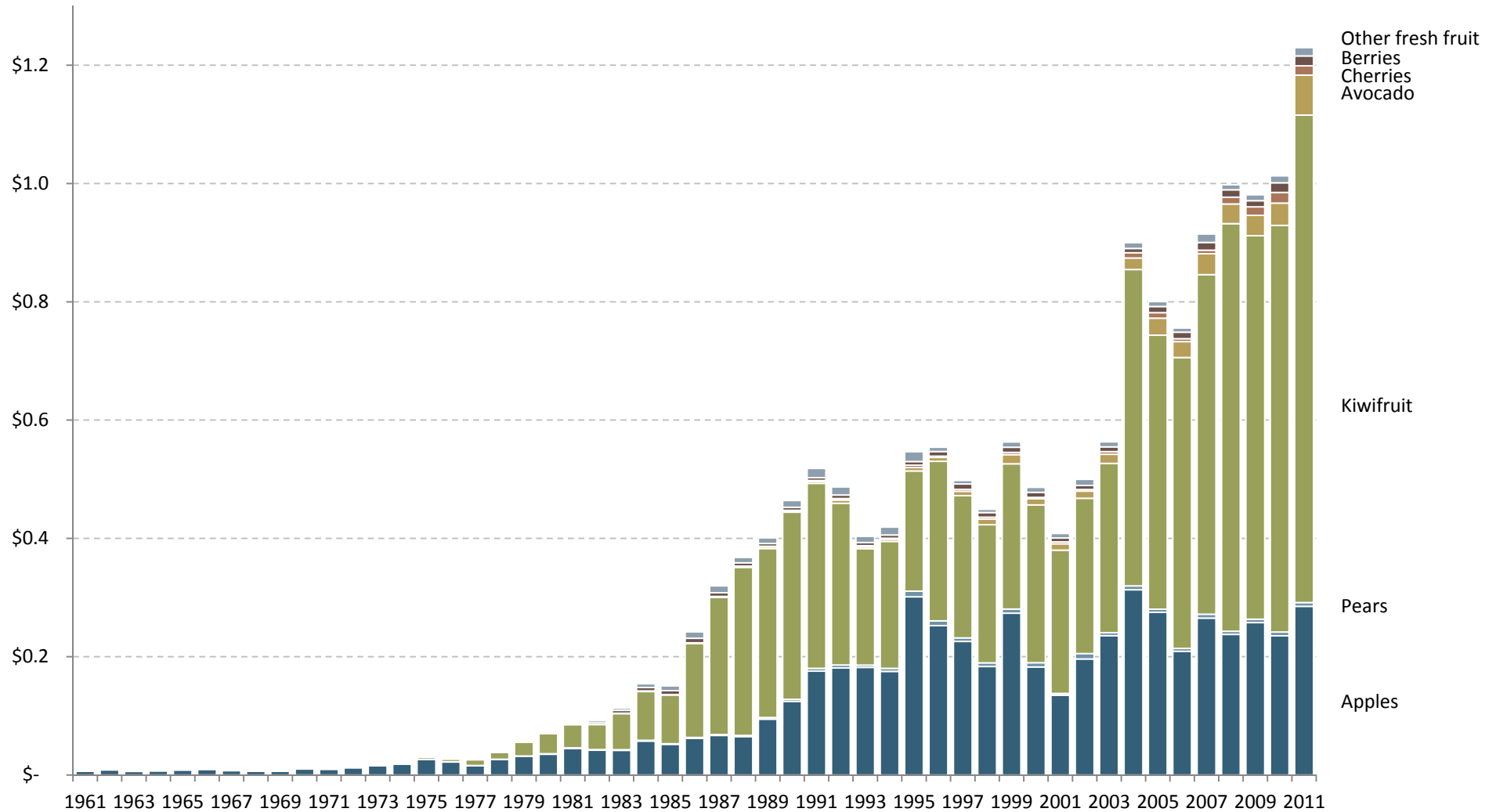
Share of global fresh fruit (excluding dried & processed) trade volume
tonnes; m; 2010



SITUATION – NEW ZEALAND EXPORT VALUE

New Zealand fruit export value is made up largely of apples and kiwifruit; kiwifruit are a significant contributor to the recent growth

Total export value of fresh/dried/processed fruit from New Zealand
US\$, m; non-inflation adjusted; 1961-2011



SITUATION – NEW ZEALAND EXPORT VALUE

Most – but not all – interviewees felt **Kiwifruit** appears to be able to **continue growing** - once the impact of PSA passes

- “Historically the **export growth and volume** has been **driven by kiwifruit**. This growth will change and has changed with PSA.”
Manager, Postharvest, Jan 2013
- “Yes, we are looking OK in 2011, but you wait for our 2013 figures. It will look very different. There **will need to be a strong recovery** with the resistant varieties to **overcome the reductions in volume** due to the **PSA disease**.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “**After PSA** we will have a **bigger, stronger, more vibrant industry**.” *Manager, Postharvest, Jan 2013*
- “I don’t think that we will see the same growth out of kiwifruit over the next 10 years, so we need to look at other opportunities.” *CEO, Grower/Shipper, Feb 2013*

SITUATION – EFFICIENT SUPPLY CHAIN (?)

Both apples and kiwifruit have different supply chains, apples stand out for grower efficiency while kiwifruit stands out for exporter efficiency

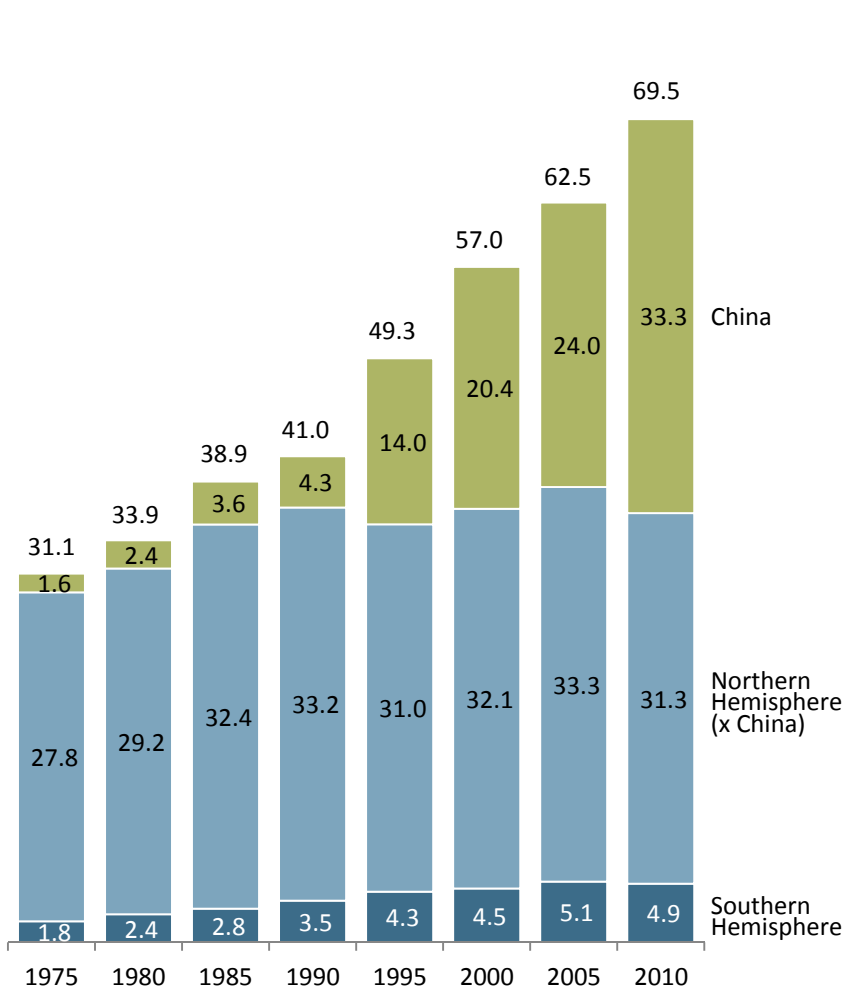
Comparison of key New Zealand industry metrics: apples vs. kiwifruit
2011

| | Apples | Kiwifruit |
|-----------------------------------|------------------------|-----------------------------------|
| # of growers | 406 | (land owners) 2,706 |
| # of orchards | 976 | (kpins) 3,134 |
| # of hectare | 8,470 | 12,825 |
| Hectare/grower | 21 | 5 |
| Export quantity (tonnes) | 328,096 | 443,435 |
| Tonnes per hectare | 39 | 35 |
| Tonnes per grower | 808 | 164 |
| # of packhouses | 62 | 67 |
| Export tonnes per packhouse | 5,292 | 6,618 |
| # of exporters | 99 | World 1/ Australia 15 |
| # of markets | 70 | 54 |
| Export value (US\$; m) | \$285 | \$824 |
| Profit before tax per ha (NZ\$) | \$2,948 ^{1,2} | \$13,320 ^{2,4} |
| Export \$ per grower (US\$; m) | \$0.7m | \$0.3m |
| Export \$ per packhouse (US\$; m) | \$4.6m | \$12.3m |
| Export \$ per exporter (US\$; m) | \$2.9m | Rest-of-world ³ \$788m |
| | | Australia \$2.4m |

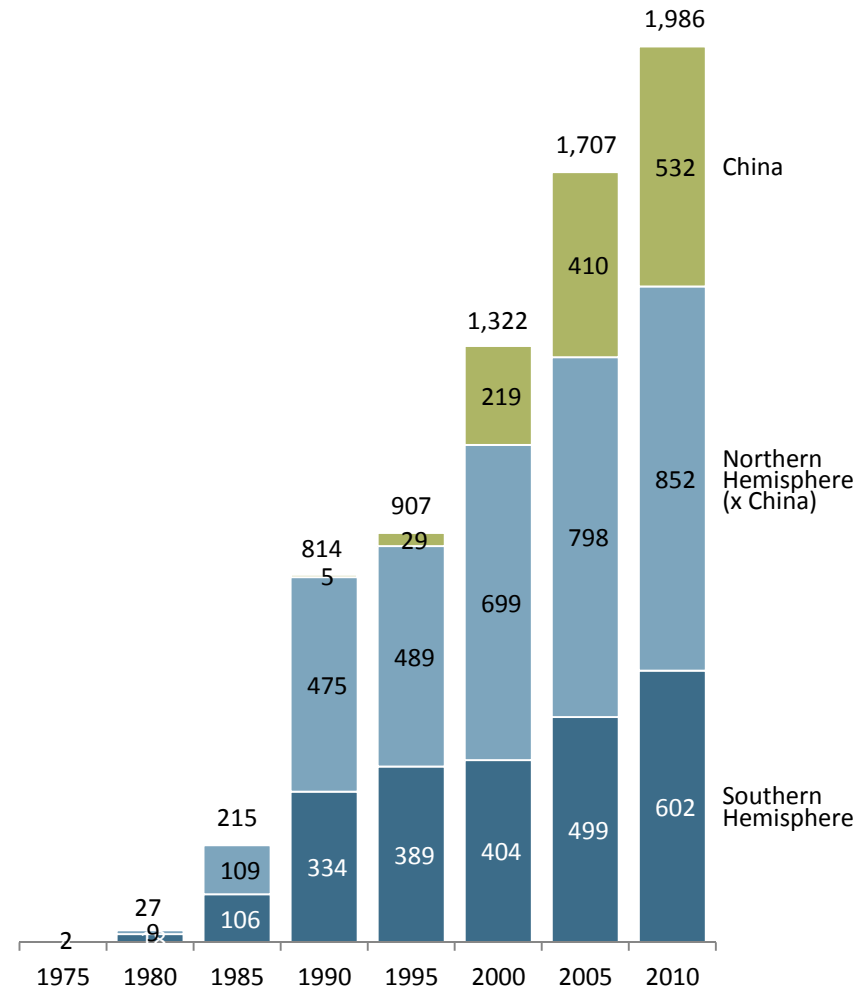
SITUATION – CHINA DRIVING PRODUCTION GROWTH

Global production of apples and kiwifruit is increasing, driven by China

Global apple production by super-region
tonnes; millions; 1975-2010



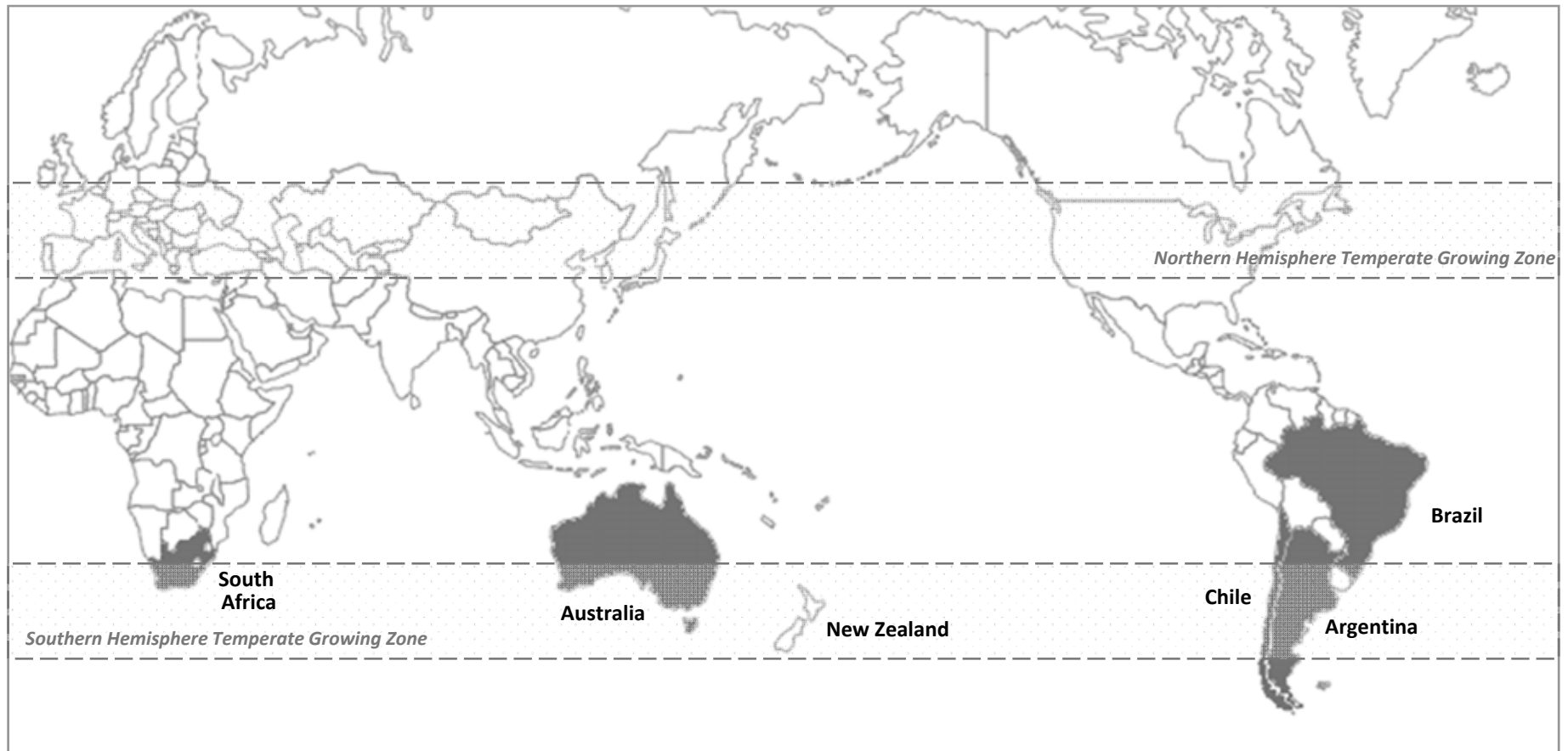
Global kiwifruit production by super-region
tonnes; thousands; 1975-2010



SITUATION – LIMITED COMPETITIVE SET IN FRESH FOR NEW ZEALAND

New Zealand's primary competition in fresh fruit comes from other Southern Hemisphere countries in the temperate growing zone

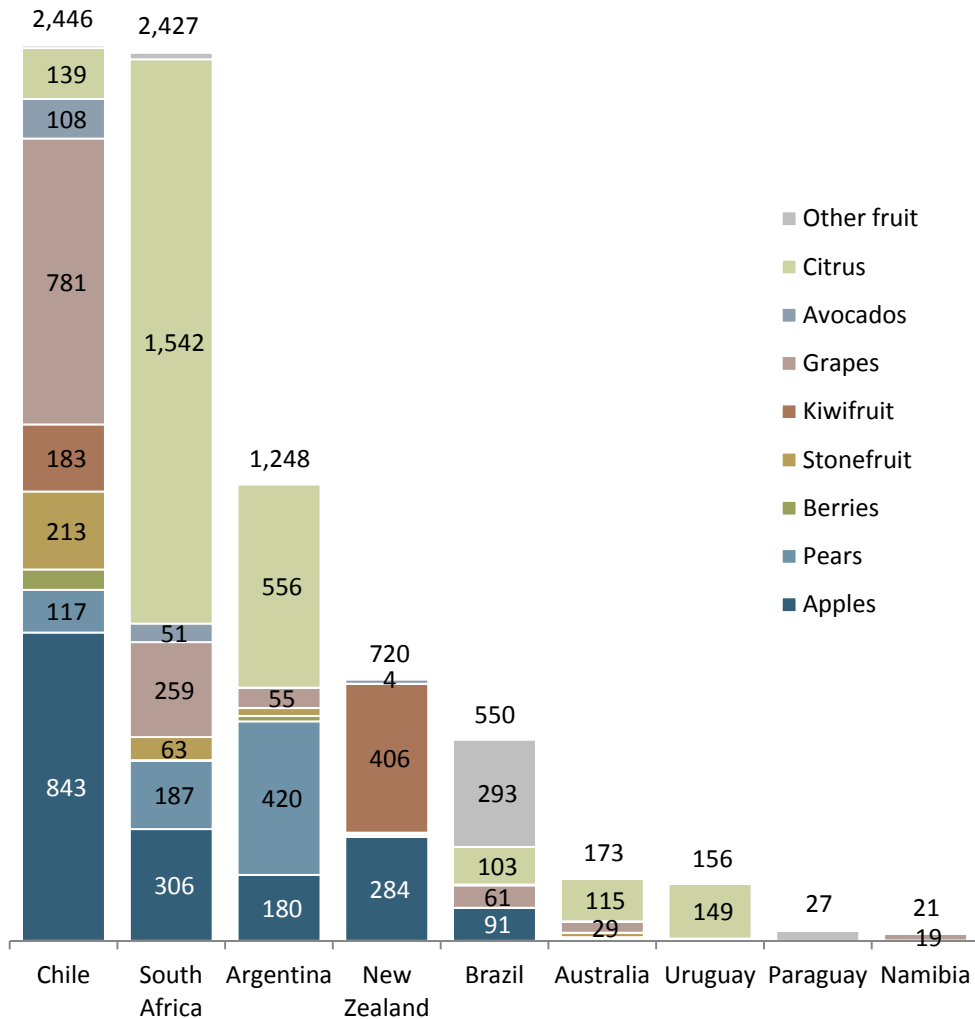
Key Southern Hemisphere temperate zone fresh fruit competitors
2011



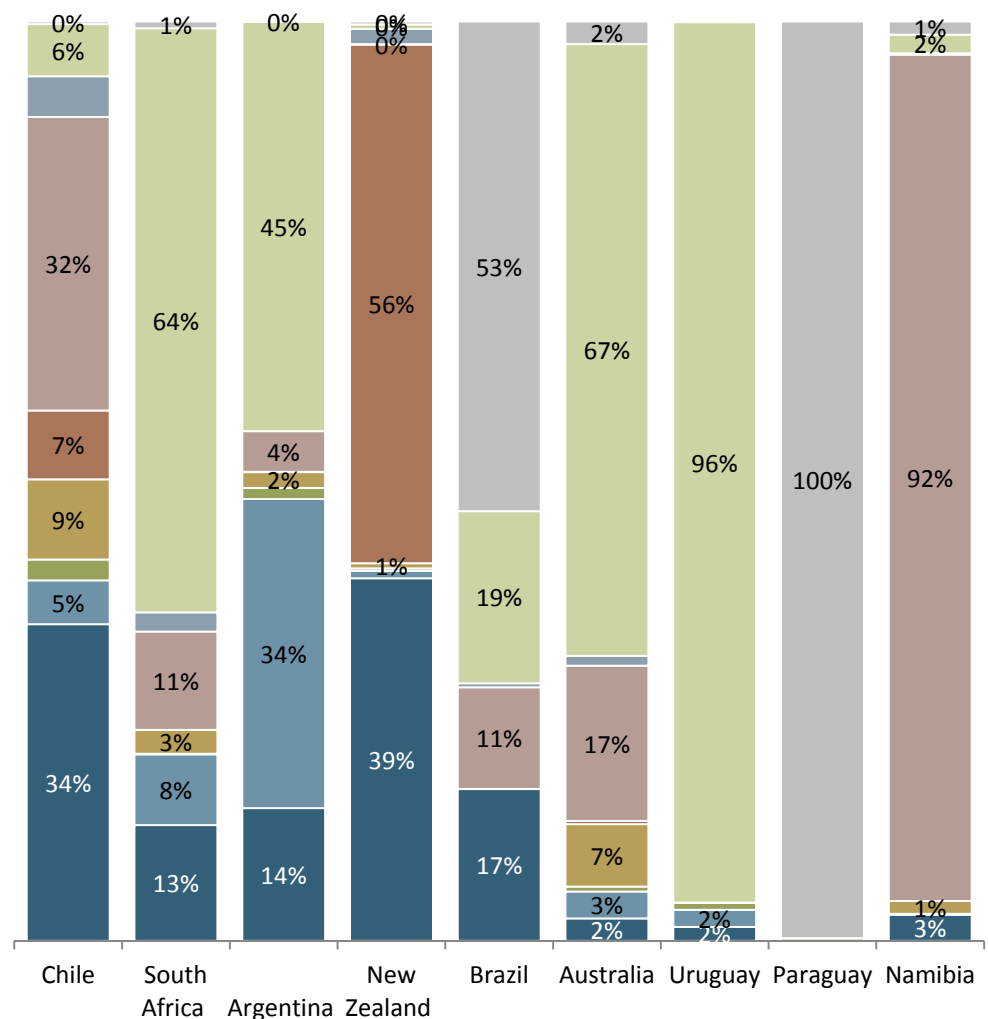
SITUATION – CHILE & SOUTH AFRICA ARE KEY COMPETITORS

Chile & South Africa stand out as key Southern Hemisphere competitors

Fresh fruit export volume of temperate Southern Hemisphere countries
tonnes; 000; 2010



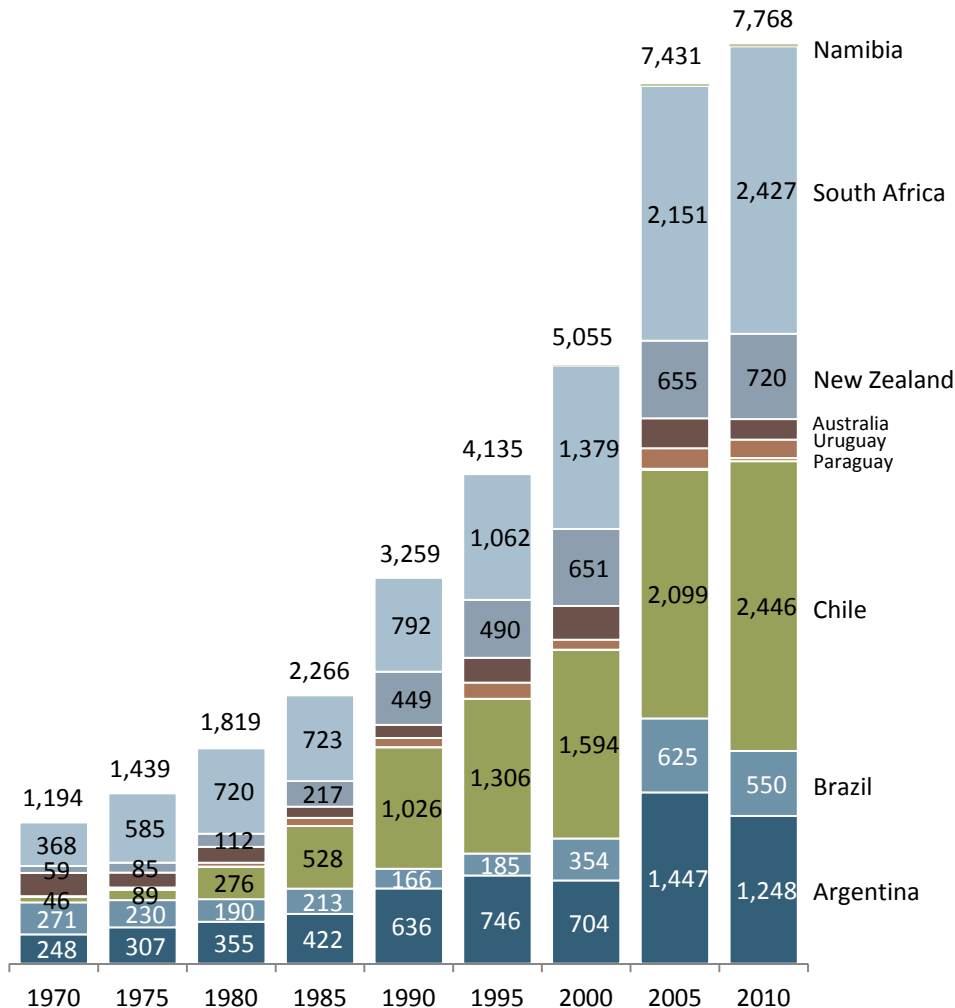
Share of temperate S.H. fresh fruit export volume by type
% of tonnes; 2010



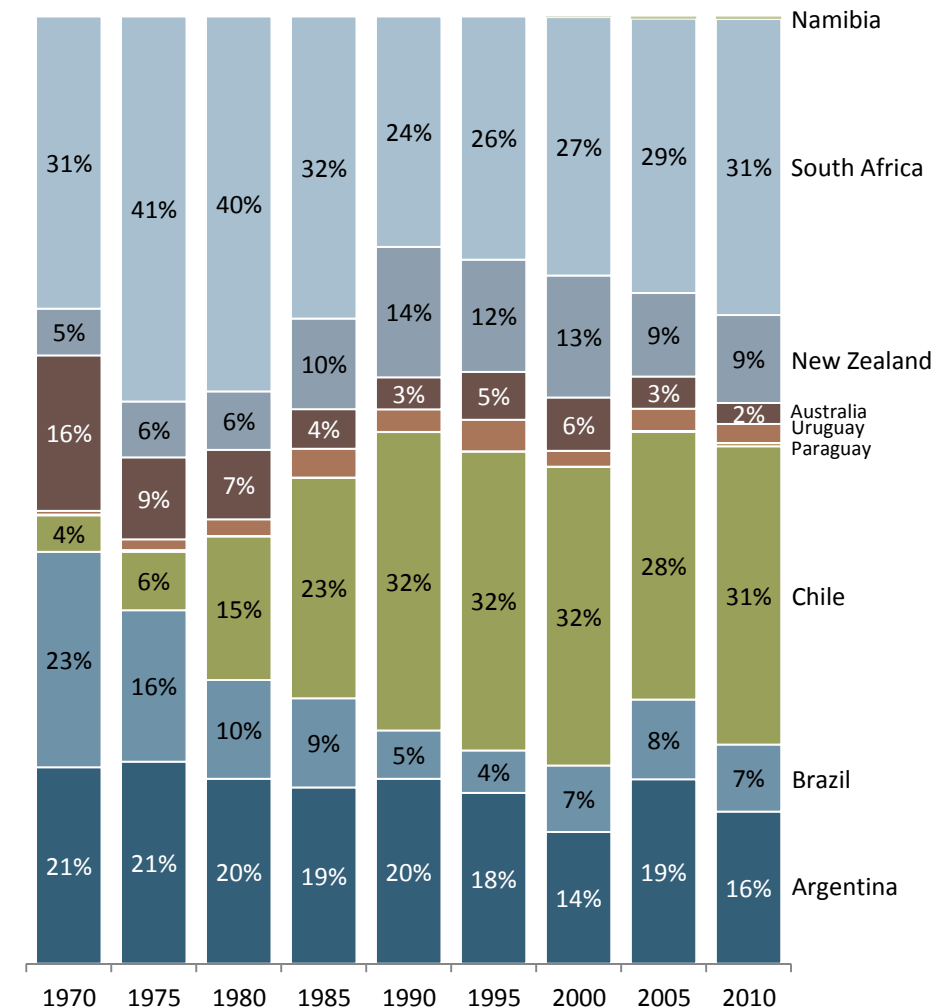
SITUATION – KEY SOUTHERN HEMISPHERE COMPETITORS GROWING

Key competitors showing strong growth; New Zealand share of the total S.H. fresh fruit window is flat-to-falling for last twenty years

Fresh fruit export volume of temperate Southern Hemisphere countries
tonnes; 000; 1970-2010



Share of temperate S.H. fresh fruit export volume by country
% of tonnes; 1970-2010



SITUATION – BARRIERS AND HURDLES

Chile is seen as a **the core competition** and the **key threat** to New Zealand

- “**Chile** is a core competitor. They are constantly improving.”
- “In the last 5 years **Chile** has really expanded their production and export presence. Most is going into the USA but now they are moving into Asia as technology, knowledge and supply chains get better. They have grown substantially. Once they get in a toe hold they are off.” *CEO, Science stakeholder, Jan 2013*
- “**Chile** is our major competitor. The government made the environment right for industry, they opened the property to international investors. The Americans came down with their technology, systems and money. Before the international investment Chile was pretty primitive. That’s why we are seeing a lot more competition from Chile.” *CEO, Distributor, Feb 2012*
- “Investments into **Chile** have been with enormous production units from US corporates or with big family money planting hundreds of acres in one variety over multiple varieties, that can consolidate into huge packing lines and distribution lines so you need 20 containers for one promotion or retailer. We are lucky to do 1 container in New Zealand and that would be between 9 growers.” *CEO, Distributor, Feb 2012*
- “**Chile** is a major competitor now, we used to have the market to ourselves. Chile’s apple is now a similar quality and at a cheaper place. We are now operating in a more commodity market. We used to be the only ones with Gala and Braeburn, but not now. We had no direction in a deregulated market. Those who survived are more forward looking and are doing well. Chile is our main threat.” *CEO, Grower/Shipper, Feb 2013*
- “South America is our biggest threat and challenge, especially **Chile** and **Brazil**. If they over produce one year they under sell in the market and that is disastrous for our markets. We also have the challenges of increasing costs and obviously the exchange rates.” *CEO, Grower/packer/distributor, Jan 2013*



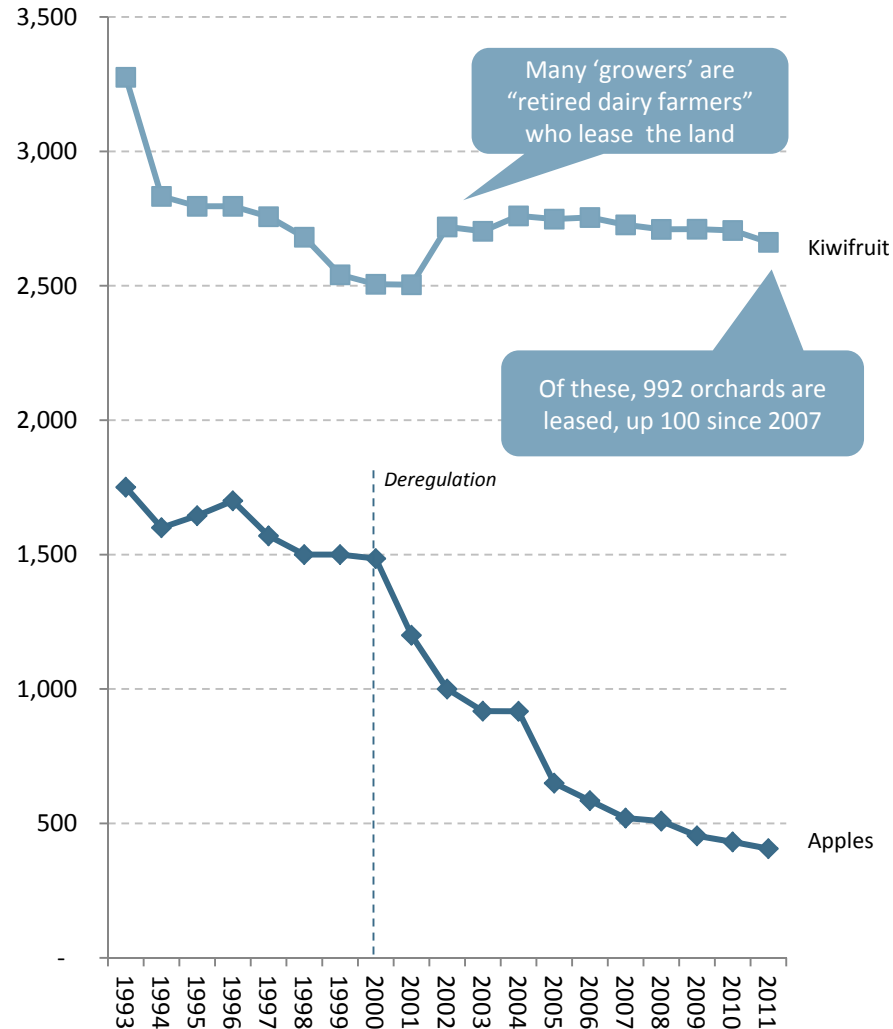
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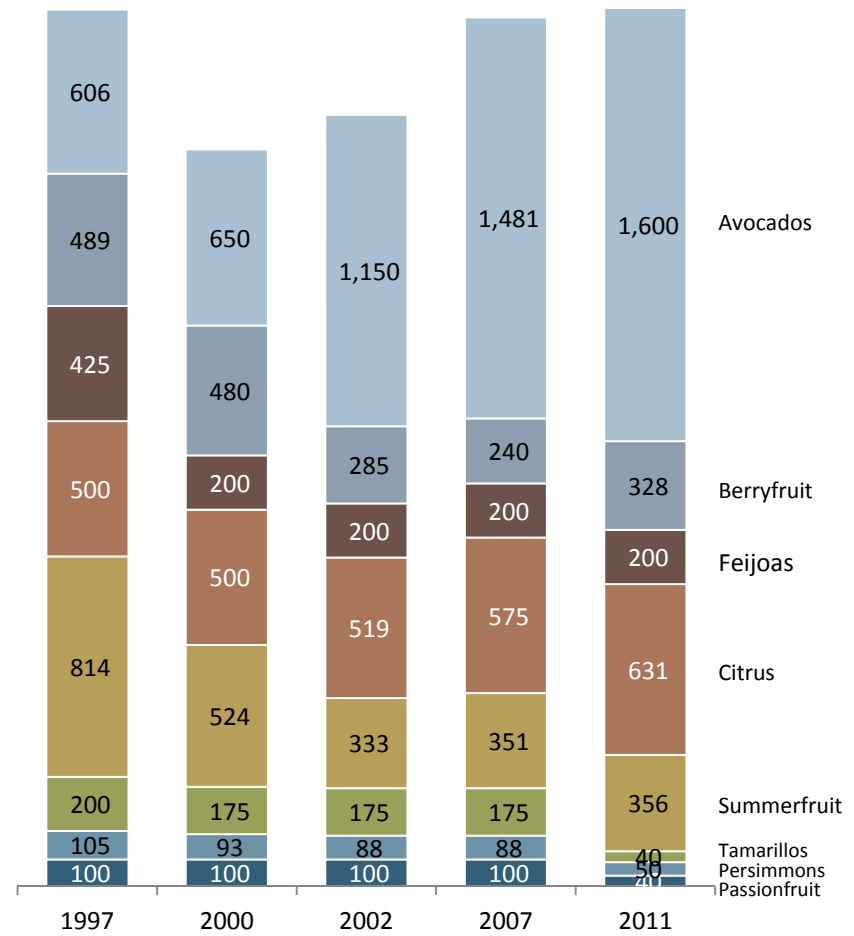
TREND – NUMBER OF GROWERS FLAT TO FALLING

Number of growers flat to falling for most fruit other than avocados

Number of growers: apples & kiwifruit
#; actual; 1993-2011



Number of growers: select other fruit
#; actual; 1997-2011



TREND – NUMBER OF GROWERS FLAT TO FALLING

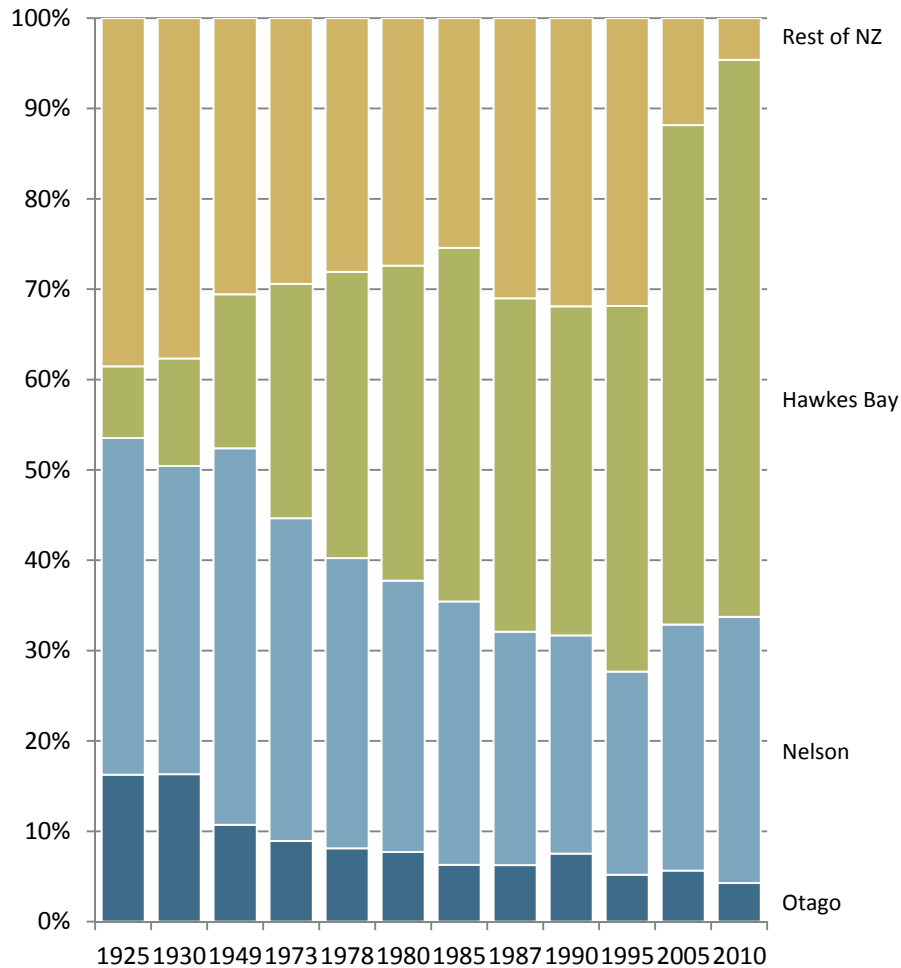
Interviewees **expect the reduction in grower numbers to continue**, though at **different rates** across apples and kiwifruit; in kiwifruit scale is being created by leasing and orchard managers (often packhouses)

- “The **size of the economic unit** is **getting larger**, so your small traditional grower with 10-15 acres is not able to survive. This is a worldwide trend in horticulture and exasperated in pipfruit by some tough times. It’s the same with dairy also: 110 cows to 600 COWS.” *CEO, Grower/Shipper, Feb 2013*
- “When the **pipfruit** industry was regulated there were a huge number of **inefficient growers** and that was the difficulty. Timaru and Hawkes Bay growers got the same price even though the quality and yields were different. **Since deregulation** those **growers** have **moved out** of the industry and left the better more efficient growers.” *CEO, Grower/Shipper, Feb 2013*
- “Many of the **growers** in the **kiwifruit industry** do not work on the land. Their orchard is managed by post harvest. In **apples** we are seeing the **orchards going more corporate** with fewer growers. There is more intensive management in Pipfruit. On big orchards they have orchard managers who manage 25 ha of Pipfruit blocks each and they compete for yields and outcomes.” *CEO, Industry stakeholder, Feb 2013*
- “In **kiwifruit** the **growers are getting older**. They want to exit the industry but it’s not a good time right now. Many growers are having their **properties managed** by the post harvest operators. We have to learn new ways to manage so many orchards. Have us manage the farm is a better outcome for the growers, leasing is risky.” *Managing Director, Postharvest operator, Feb 2013*
- “With kiwifruit there will be **less growers in the future**. At the moment in kiwifruit the corporatising is in the leasing and management options by postharvest entities, where as in Pipfruit they are buying more land.” *CEO, Industry stakeholder, Feb 2013*
- “With kiwifruit this “grower” number is the actual legal land owner. That doesn’t describe well, the people who produce the fruit. There are now large leased blocks with managers who manage many of these orchards, or the land is managed by the packhouses. Thirty percent of the total orchards are now leased by 439 leasees, covering 31% of the total area.” *CEO, Sales and Marketing Company, Feb 2013*
- “Many of these **kiwifruit** players are actually **retired dairy farmers** who actually lease the land or get it managed for them. They invested in the industry as a safe bet. They don’t do the bulk of the work.” *Manager, Postharvest, Jan 2013*
- “Recently the growers are not leasing as much to try and get some value back in the kiwifruit orchards.” *Representative, Kiwifruit Industry, March 2013*
- “There is **limited incentive for corporates to invest in the kiwifruit** sector with Zespri controlling most of the marketing and sales. Corporates would need to have control. The postharvest companies go as far as they can and manage and lease the orchards.” *CEO, Distributor, Feb 2013*

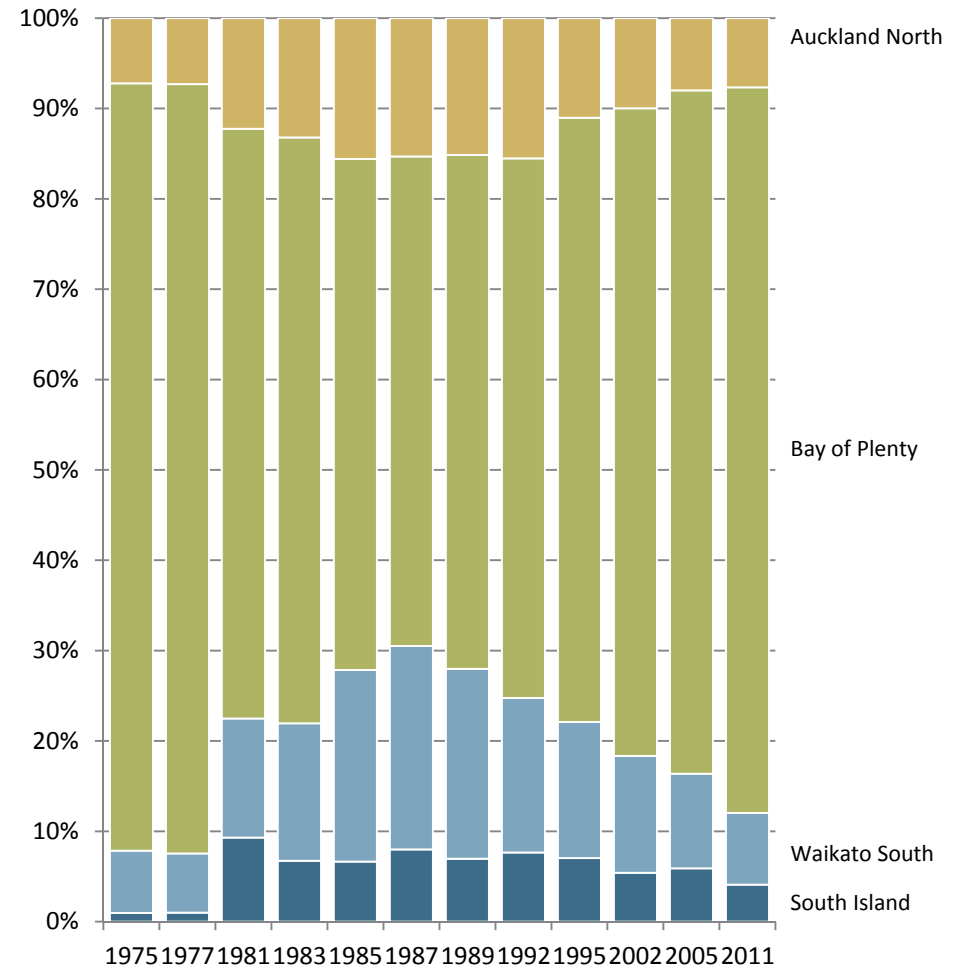
TREND – CONSOLIDATION INTO KEY REGIONS

Main fruits consolidating into one or two key regions

Percent of New Zealand **apple** area by region
% of area; 1925-2011



Percent of New Zealand **kiwifruit** area by region
% of area; 1975-2011



TREND – CONSOLIDATION INTO KEY REGIONS

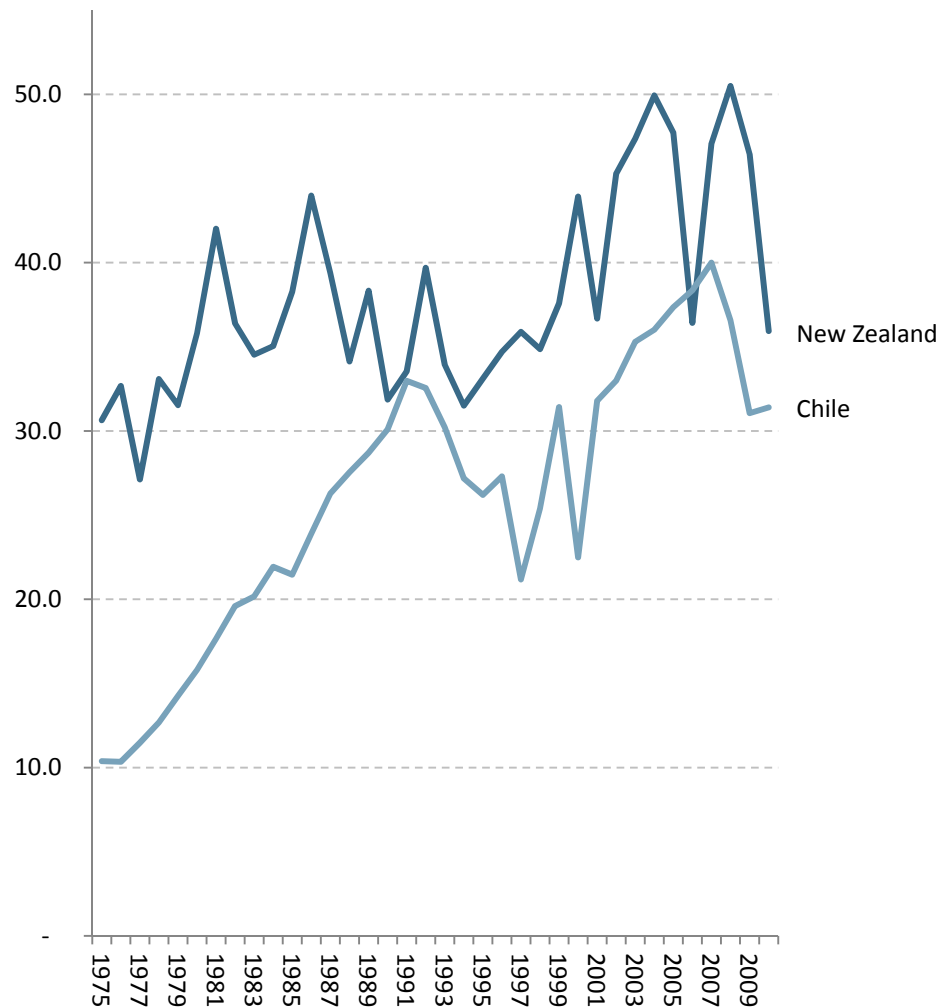
Regional consolidation was seen as a **fact of life**; a number of interviewees **highlighted the challenges facing pipfruit in Nelson** going forward

- “It makes it difficult to get around all your orchards if they are spread out. It **makes more sense** to have **larger blocks in key regions.**” *Industry stakeholder, Feb 2013*
- “You have to look at industries and where they are focusing. It’s **climatic** and the **expertise and levels of support in those regions.** So they can do **that extra 10-20%** which allows them to be **competitive internationally.** Those margins are what we need, it’s the **difference between a profit and a loss.**” *CEO, Industry stakeholder, Feb 2013*
- “Pipfruit are in **Nelson** and the Hawkes Bay. They have different diseases and grow different sized fruit. In **Nelson** they have the EU market as they have the right size, but their shipping service is **more expensive.** The Hawkes Bay is more profitable.” *CEO, Science stakeholder, Jan 2013*
- “**Nelson has been through some hard times.** Some operations are now downsizing, changing varieties, or they are exiting.” *CEO, Industry representative, Jan 2013*
- “**Nelson** grows 30% of New Zealand’s pipfruit. Having fruit in Nelson gives geographical risk spread. It’s not easy for shipping – it’s **getting harder and harder.** Maersk has retained a direct service at the moment, but we don’t think that will last. At times we need coastal feeder vessels to Tauranga, Wellington or Auckland and they charge us more for freight.” *CEO, Grower/Shipper, Feb 2013*

TREND – YIELD RELATIVE TO CHILE

New Zealand needs **continuous improvement in yields to maintain relative competitiveness with Chile**

Apple yield per hectare: New Zealand vs. Chile
t/hectare; 1975-2010



Kiwifruit yield per hectare: New Zealand vs. Chile
t/hectare; 1975-2010



YIELD - VARIABLE

Yield – for both kiwifruit and apples – **varies significantly** driven by both **grower behaviour** and **variety mix**

- “This **yield can really vary by grower**. Many export gold kiwifruit growers can get 35 tonnes per hectare, but some green will only get 7. There is a real difference. If we could bring some growers up in yield and quality, we could really improve things.” *CEO, Science stakeholder, Jan 2013*
- “What drags our [kiwifruit] yield up from 2000 is the **change in varietal mix** when we saw **gold** coming in. With Green you got 8,000 trays per ha, but you can get 12,000 trays per ha in export of gold. It also costs more to grow per hectare but per tray it is not more. You spend \$22,000 and get 8,000 trays per hectare and in the other case you spend \$30,000 and get 12,000 trays/ha. So the per unit is the same.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “[Apple] **yield can really vary** between both **growers** based on **orchard management** and **location** and on the **orchard composition**. An average braeburn block can yield 80/ha but the upper quartile blocks will yield 119/ha.” *CEO, industry stakeholder, Feb 2013*
- “Since deregulation **many inefficient growers have left** the [apple] industry and overall the yields have increased.” *CEO, Grower/Shipper, Feb 2013*

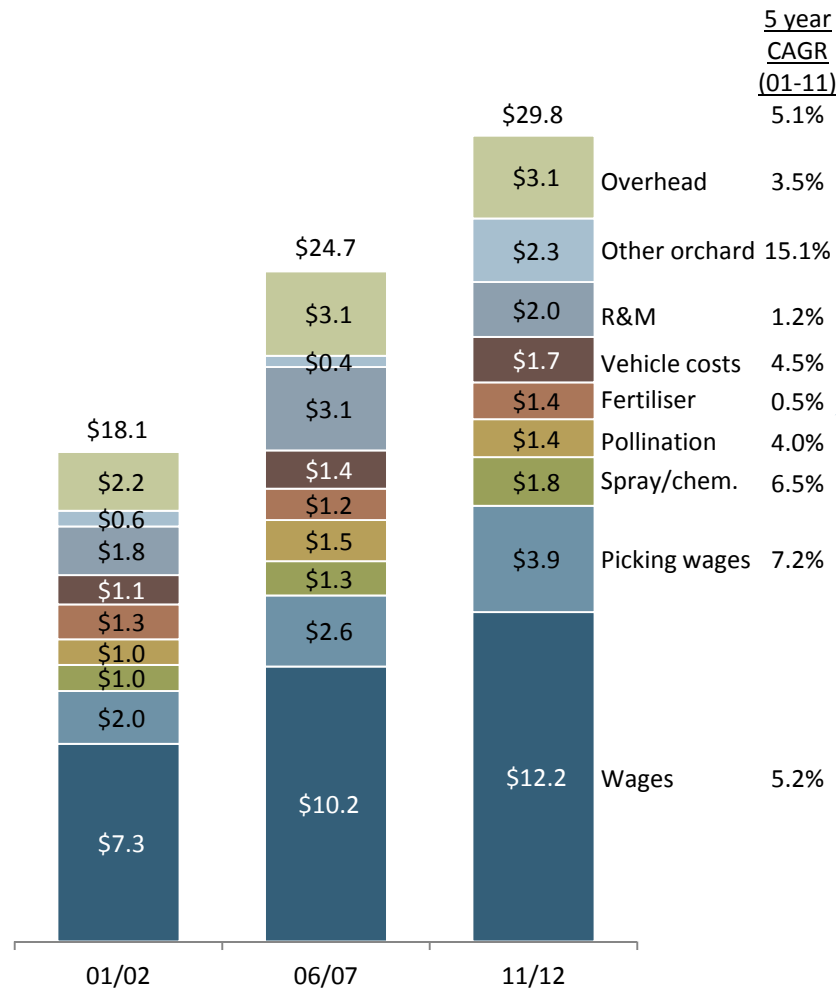
| Yield | | |
|---------------|-----------------|-------------------|
| High Yielders | Medium Yielders | Low Yielders |
| Braeburn | Fuji | Pacific varieties |
| Envy™ | Jazz™ | |
| Granny Smith | Royal Gala | |
| Pink Lady™ | | |

TREND – GROWTH IN EXPENSES

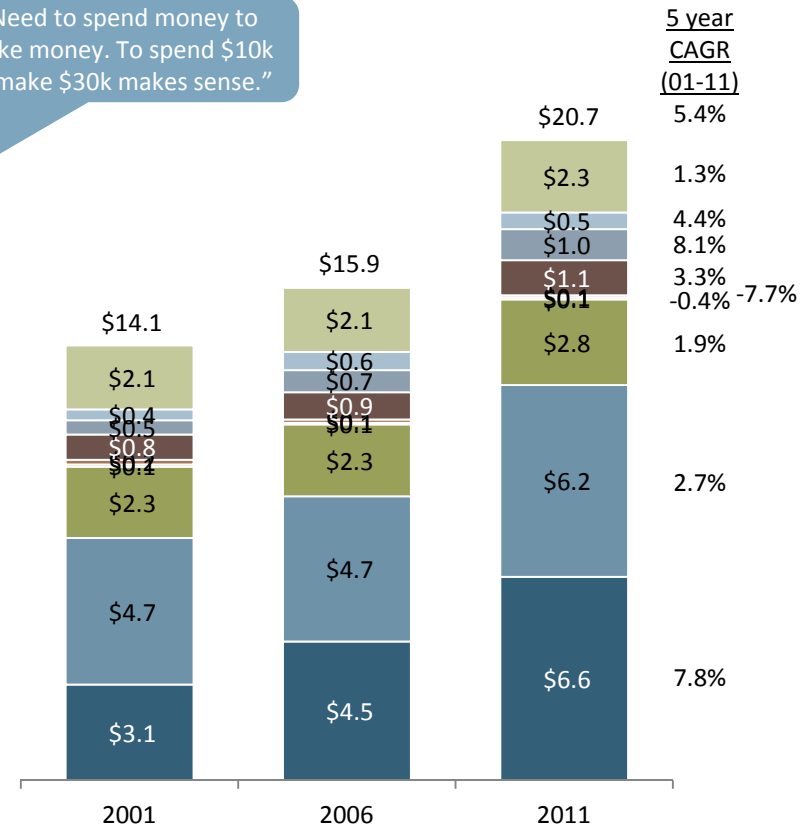
Both the kiwifruit and apple orchards are experiencing a **strong increase in orchard expenses**

Average **kiwifruit** orchard expense breakdown per hectare
NZ\$000/ha; 01/02 vs.06/07vs.11/12 season

Average **apple** orchard expense breakdown per hectare
NZ\$000/ha; 01vs.06vs.11 season



"Need to spend money to make money. To spend \$10k to make \$30k makes sense."



TREND – GROWTH IN EXPENSES

Growing expenses put pressure on the industry

- “**Rising freight costs** are an issue. There has been a significant increase in the cost of chilled sea freight. Some companies like Silver Fern Farms and Fonterra have joined to increase their negotiating power and to be more efficient getting their product to market. Can the Pipfruit industry join Kotahi* to get scale? *CEO, Science stakeholder, Jan 2013*
- “New Zealand has **high distribution costs**. We live at the bottom of the world. We need to get to the market place efficiently. In many categories we don’t have the scale to fill a ship. Are their industrial barriers that push up freight costs or minimising our ability to be competitive with regards to distribution. We need to check there are no cartels and we are treated fairly.” *CEO, Distributor, Feb 2013*
- “New Zealand has **high labour costs** compared to our competitors like Chile.” *CEO, Distributor, Feb 2013*
- “With PSA the **spray costs** will be **through the roof** and with the new bill with the minimum **wages going up** to \$15 in April that will be **a killer to our costs**.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “The **minimum wage in NZ has really grown over the last 10 years** and if we compare that percent of total to Chile I bet theirs is nowhere near as much.” *CEO, Grower/Shipper, Feb 2013*
- “Two major costs to NZ growers is the **cost of marketing and distribution costs**, the cost of getting the product to market. How do we best focus on that. A good example of efficiencies is the USA grape companies. They have their own marketing and free enterprise, but they are also part of “The California Table Grape Commission”** which has a **collective marketing approach**. They have, TV, radio, in-store promotions so the ideas come from 40 people collectively not just individuals. They do joint consumer research and have collective resources. This has been highly successful. But they realised they needed 12 month supply of product and to maintain their relationships with the retailers, so they went to Chile and grew volume down there. So they put in the time, resource, cool-chain distribution and dollars so they can now go to large retailers with reliable supply. Is there an opportunity to **partner with some large international brands overseas** to be part of their network and grow our efficiencies in NZ?” *CEO, Distributor, Feb 2012*
- “**PSA outbreak** had forced the company [*Seeka*] to **focus hard on costs and overheads**. This had included the restructuring of staff positions, with the loss of 100 staff, 80 through voluntary redundancy, saving \$4.5 million.” *Seeka article, FWPlus, NZX Agri, Feb 2013*

TREND – GROWTH IN EXPENSES

Compliance costs are a growing expense

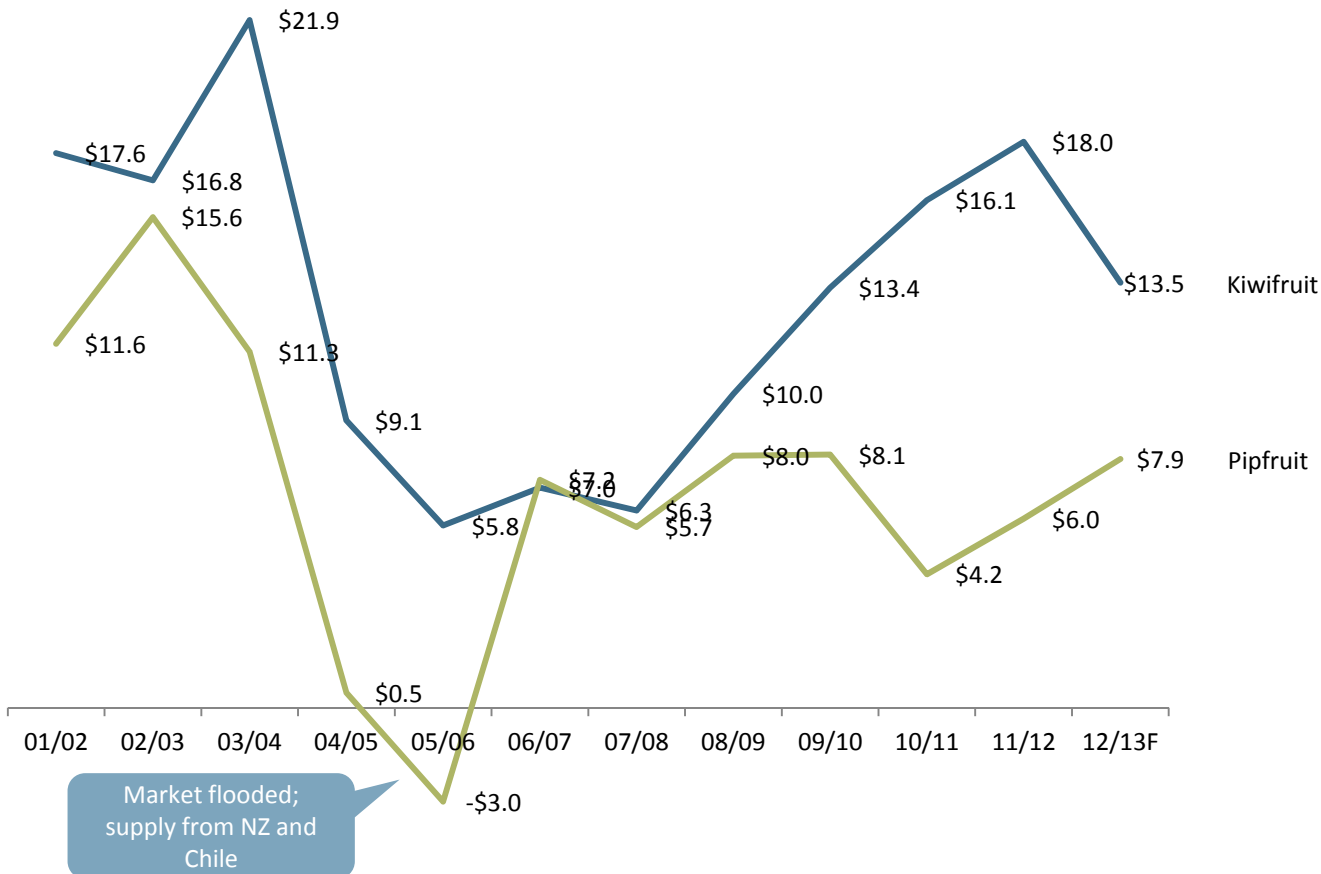
- “**Food safety** - and the **increasing costs** around this - is a real challenge for all the industry. Every party - the grower, contractors, packers, etc. -all have to have measures in place. International chains will not tolerate anything less. We have a full time quality accreditation person managing four different food safety systems: (1) **GlobalGAP**, (2) **NZGAP**, (3) **Woolworths Quality Assurance** (WQA) and (4) **British Retail Consortium** (BRC). There is also the **Tesco Nurture Scheme** Certification and the **Marks and Spencer** scheme. These all take time and cost. 25-30% of our suppliers can’t meet these standards, but soon - if they want to supply it will be mandatory.” *Chairman, Grower/packer/distributor, Jan 2013*
- “The **Tesco program doesn’t differ** that much from global gap anymore **yet it adds \$10,000 of cost** to our business. That is a lot to add to our business. That is just the audit fees.” *GM, Grower/packer/distributor, Jan 2013*



TREND – VARIABLE GROWER PROFITABILITY

While **grower profitability** is clearly **cyclical**, there appears to be a **long-term decline in profit per hectare** for both apples and kiwifruit

Non-inflation adjusted average **kiwifruit** and **apple** orchard EBITDA per hectare
 NZ\$000/ha; 01/02-12/13 (budget) season



Comments / Discussion Points

The outbreak of PSA has added substantial costs to the Kiwifruit industry

05/06 season saw a flood of apples on the market, with high volumes from Chile and New Zealand, in addition to a squeezed volume

Recent decline in kiwifruit based on product mix with the reduced volumes of gold due to psa

Notes

Based on MAF kiwifruit monitoring report data which is based on a MAF model updated with inputs from 20 representative farms and a 5ha orchard (assumes 1ha gold and 4ha green)

12/13 is a budgeted/forecast figure

Grower profitability in pipfruit may not reflect the Corporate business model

TREND – DECLINING PROFIT

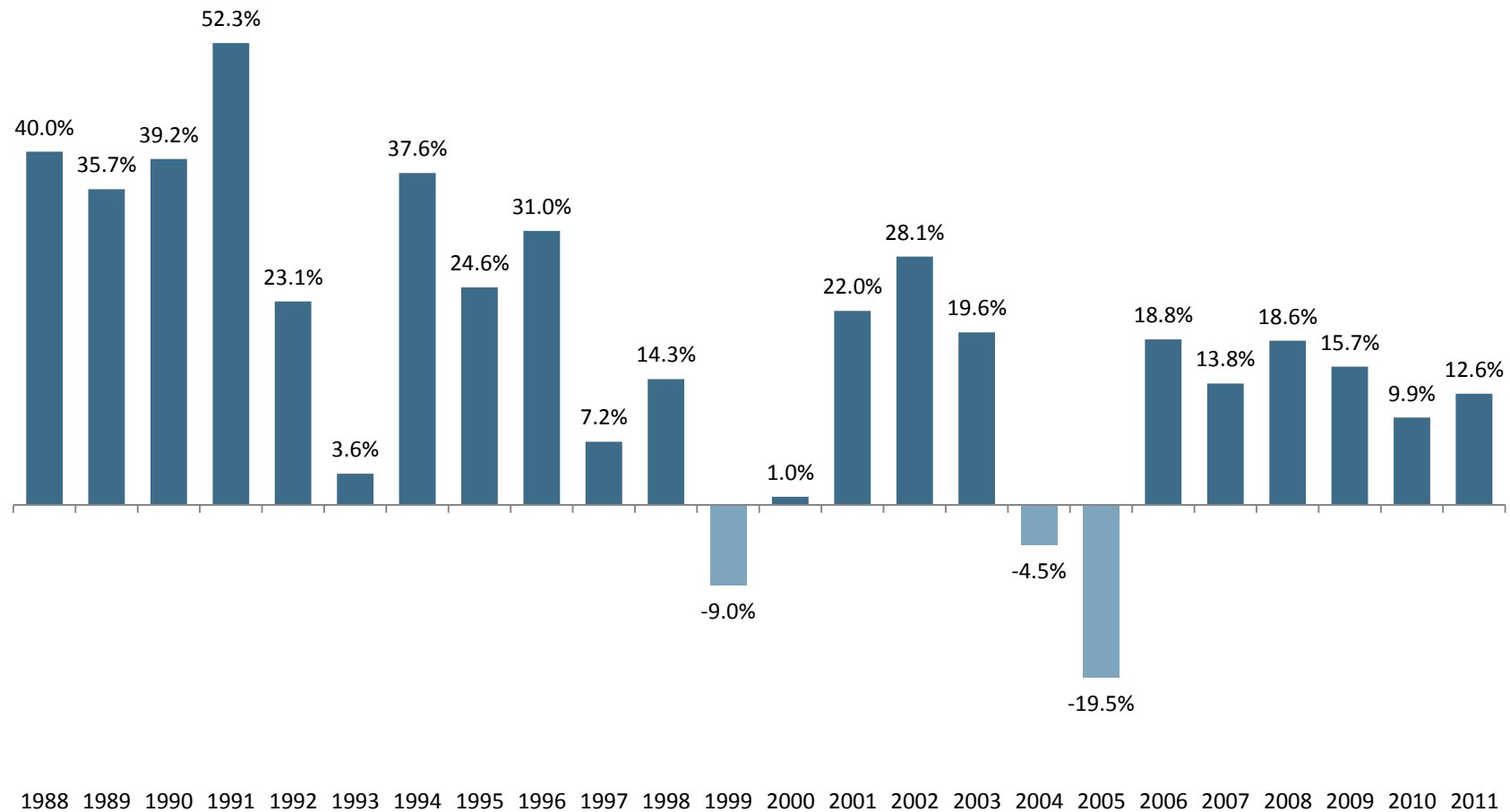
Kiwifruit profitability has been impacted by PSA infections

- **“Having a gold orchard was probably the most profitable landuse on the planet.** It was a license to print money and not a lot of guys were diversified, that is not in the NZ psyche.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- **“With re-grafting and needing new crop varieties, this is expensive for growers.** Over this time there is less money coming in to service debts. Growers have been **selling bach’s and other investments.** In the good times gold orchards were selling for \$450,000/ha if they borrowed \$200,000 they are not overly geared as they make \$60,000/ha after costs. But the land is now worth \$80,000 so they have **negative equity.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- **“That is the average, due to the mix, but obviously a green grower is making nothing like that,** they are probably making \$6,000/ha if he’s lucky and gold is making \$50-60,000 EBITDA. If you compare that to the cost of the land where with green it was \$230,000/ha and they make \$8,000 (EBITDA) and apples the land is \$60,000/ha and they make \$8,000, who is in the better position?” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- **“Kiwifruit will be at their lowest this year,** then they will pick up again. We will grow 2.5million trays of G3 this year and next year it will be 9 million trays. So the volumes will pick up and so will the profitability.” *CEO, Sales and Marketing Company, Feb 2013*
- **“The recent decline in kiwifruit** is showing the **change in the product mix,** with less gold volumes there is less profitability. Green and gold have very different numbers. Green has had a long term decline over 2003-2009, fluctuating between \$3-\$4 a tray but green profitability has been improving as we are grafting across to gold and less fruit in marginal markets and price increases. Now the price is fluctuating between \$4-\$5 a tray.” *CEO, Sales and Marketing Company, Feb 2013*
- **“The margins on green are now very important. So growers will move around** the packhouses to get the **best returns.** This is a **time of flux,** but generally the growers are fiercely loyal to their postharvest companies.” *Managing Director, Postharvest operator, Feb 2013*
- **“When you look at our maximum 2 years ago of 30 million trays, then 22 million last year and only 8 million this year we are looking at millions of dollars of export earnings wiped off.** We hope this will be a road bump and the infections in G3 the new variety can be controlled or a new resistant variety will be developed. Associations in China and with Plant and Food Research are working on it.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*

TREND – DECLINING PROFIT MARGINS IN PIPFRUIT

This long term decline in orchard profitability is particularly apparent in pipfruit

Pipfruit Operating Profit margin
Hawkes Bay; 1988-2011



TREND – DECLINING PROFIT

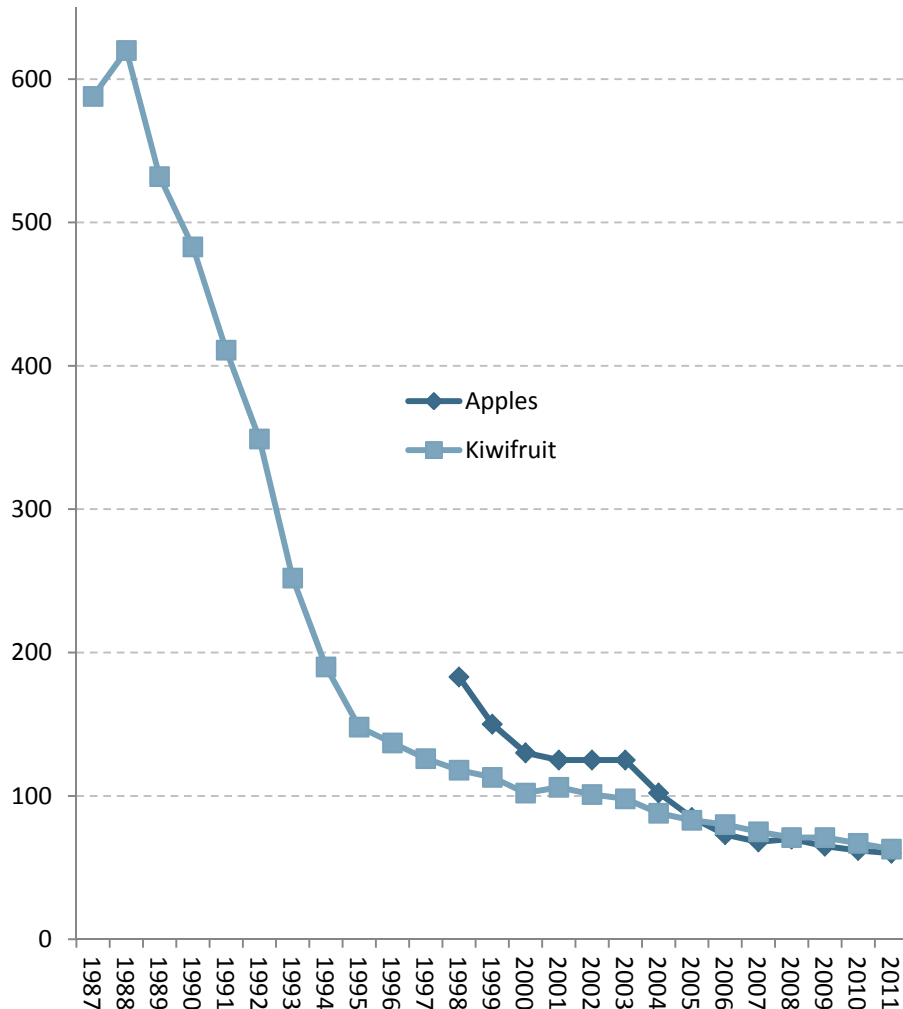
A range of reasons –in addition to competition from Chile (discussed elsewhere) – were given for declines in apples

- “A lot of the declining profit is based on the **exchange rate**. The price for apples overseas is growing, but when you convert it back to New Zealand dollars, then it's just not looking good.” *CEO, Grower/Shipper, Feb 2013*
- “The **returns** on the land are just not there with some apples. It can be around 2% of their investment. People buy land in the boom times \$50-60,000/hectare and that is too much for the returns.” *CEO, Grower/Shipper, Feb 2013*
- “Many growers of Jazz are looking at the **royalties** that Plant and Food and Turners and Growers are taking from Jazz and wondering why they are getting royalties when they are losing a whole heap of money.” *CEO, Industry stakeholder, Feb 2013*

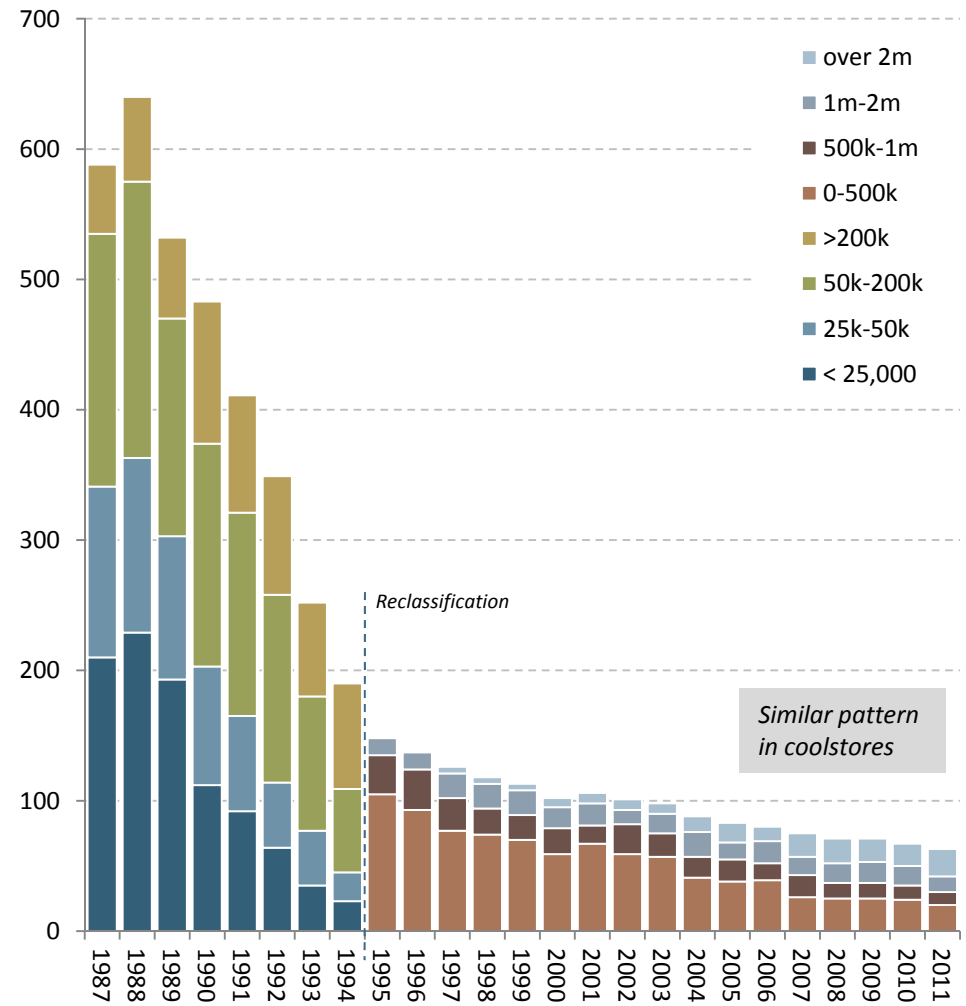
TREND – FEWER, LARGER PACKHOUSES

The packhouse sector is consolidating into fewer, larger facilities

Number of packhouses: apples & kiwifruit
 #; actual; 1987-2011



EXAMPLE: Kiwifruit packhouses by amount of fruit handled
 #; actual; by TCE volume; 1987-2011



TREND – ONGOING MERGERS & ACQUISITIONS

The **post-harvest sector is undergoing** a clear ongoing process of industry **consolidation**

Mergers & acquisitions in the **kiwifruit** post harvest sector
select; 1995-2009

| Year | Acquirer | Target |
|------|--------------------------|--|
| 1995 | Seeka | Kiwifruit Industries Ltd. |
| 1996 | Rangitaiki Fruit Packers | Opotiki Co-op |
| 1997 | Seeka | Kiwi Kool Pak Ltd. Kiwi Coast Growers Ltd. Pioneer Coolstores Ltd. |
| 1999 | Apata | Tauranga Fruit /Centrepac |
| 2000 | EastPack | Zest Company |
| 2001 | Baypack (Satara) | Katikati Fruitpackers |
| 2002 | Seeka | Waimapu Packhouse & Coolstores |
| 2004 | Seeka | Eleos Ltd. |
| 2004 | Seeka | 20% share in OPAC |
| 2005 | Seeka | Bridge Cool |
| 2005 | Eastpack | 50% Southern Produce* |
| 2006 | Satara | Eastlink |
| 2006 | Seeka | Clarks Packhouse & Coolstore |
| 2006 | Aerocool | Birley Packhouse & Coolstore |
| 2006 | Seeka | Peninsula Pack & Coolstore |
| 2006 | Seeka | Verikiwi to Enpack |
| 2008 | Seeka | sold Verikiwi |
| 2009 | Seeka | Huka Pak packing facilities |
| 2008 | Mountpac (JASE) | 50% Aerocool |
| 2013 | EastPack | Satara Ltd - merger |

Mergers & acquisitions in the **apple** post harvest sector
select; 2001-2011

| Year | Acquirer | Target |
|-----------|------------------------------|--|
| Nov 2001 | Scales Corporation/Mr Apple | Grocorp Pacific, Hawkes Bay Apples and Red Apple Packhouse |
| 2002 | Turners & Growers | ENZA |
| 2003 | JM Bostock | D M Palmer |
| 2005 | Turners & Growers JV | Inglis Family (Nelson) |
| 2006 | Apollo Fruit Ltd | United Fruit Packers HB Ltd (Unipac) |
| Oct 2006 | Mr Apple (Scale Corporation) | 50% share in Profruit |
| 2006 | Wolseley Private Equity | FreshMax (60%) |
| 2006-2007 | FreshMax | John Holman/ Panda Ranch/ OzTaste etc. (in Australia) |
| 2006 | Turners & Growers | Other 50% of Latitude 41 Limited |
| 2007 | Freshco | FruPak |
| Apr 2007 | Turners & Growers | Delica |
| 2008 | Turners & Growers | Kerifresh |
| | MG Marketing | 50% Te Mata Exporters |
| 2010 | Turners & Growers | Ingles (orchards) |
| 2011 | Direct Capital | Scales Corporation/Mr Apple |
| 2011 | BayWa | 73% of T&G/ENZA |
| 2011 | Mr. Apple | 10.3% of T&G/ENZA |
| 2011 | Maui Capital | Wolseley's 60% of Freshmax |
| 2011 | Freshmax | Crasborn Gp (JV) |
| 2013 | Mr Apple/Direct Capital | 50% of Fern Ridge Produce |

TREND – FEWER LARGER

Rationalisation is expected to continue

- “I think the recent proposal on the table with Satara and Eastpack is an example of what is occurring in the industry. **Everyone is trying to get bigger and capture more supply.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “In the next 5-10 years we will see **rationalisation with postharvest operators and growers.** There needs to be **more economies of scale going forward.** The industry is in a difficult position with PSA. But I think Zespri will still be around. There will still be a reasonable number of postharvest operators.” *Managing Director, Postharvest operator, Feb 2013*
- “**PSA has really made us look at our facilities and look at how we can rationalise.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “In the past 18 months have marked **considerable consolidation for the company,** with five packing sites reduced to cool storage, with some sold and some leased out. Our debt level is likely to reduce further this year with the expected sale of the company’s Waimapu site... Options debated had included further consolidation, or looking beyond just kiwifruit for post-harvest handling.” *Seeka article, FWPlus NZX Agri, Feb 2013*
- “**Consolidation is happening in the apple industry.** This is what we will see. The days of the 20-30 acre single orchardist are limited and few and far between. The Mr Apple’s, ENZA, Apollo’s, FreshCo, Crasborn’s, DM Palmer are going to grow they sit in a room and discuss sensible issues.” *CEO, Grower/Shipper, Feb 2013*
- “The small inefficient businesses are not going to survive, and the large inefficient operators are disappearing. **Efficient businesses with scale is what is required.**” *CEO, Industry representative, Jan 2013*
- “There are a lot of **opportunities for mergers in the apple industry and in packing capabilities** across the board in other sectors. In Gisborne in the 90’s, there were 24 kiwifruit packhouses, now there are two, potentially next year there may only be one. With citrus there were 8-10 now there are two. This is all **driven by economies of scale,** the technology required with labelling, automated machinery. Supermarkets with their tree to trolley approach demand traceability and that all costs money. You need to be sophisticated.” *Chairman, Grower/packer/distributor, Jan 2013*
- “**Scale** is an issue. It is very difficult to get consistent sizing, quality and taste across all growers. We will see more **consolidation and collaboration to gain efficiencies.** It goes back to more investment in bigger blocks and bigger production and packhouse facilities. We need to be really efficient at taking it off the trees.” *CEO, Distributor, Feb 2012*
- “I think the industry will have **larger companies going forward** and be **more vertically integrated,** with the growers, packhouses and exporters all as one or in a joint venture. Involving all parties in the strategy allows everyone to work toward the same goals.” *Manager, Postharvest operator, Feb 2013*

TREND – NUMBER OF COUNTRIES SUPPLIED

New Zealand is sending fruit to more countries

Number of countries to which New Zealand sent select fruit
#; actual; 1964-2011

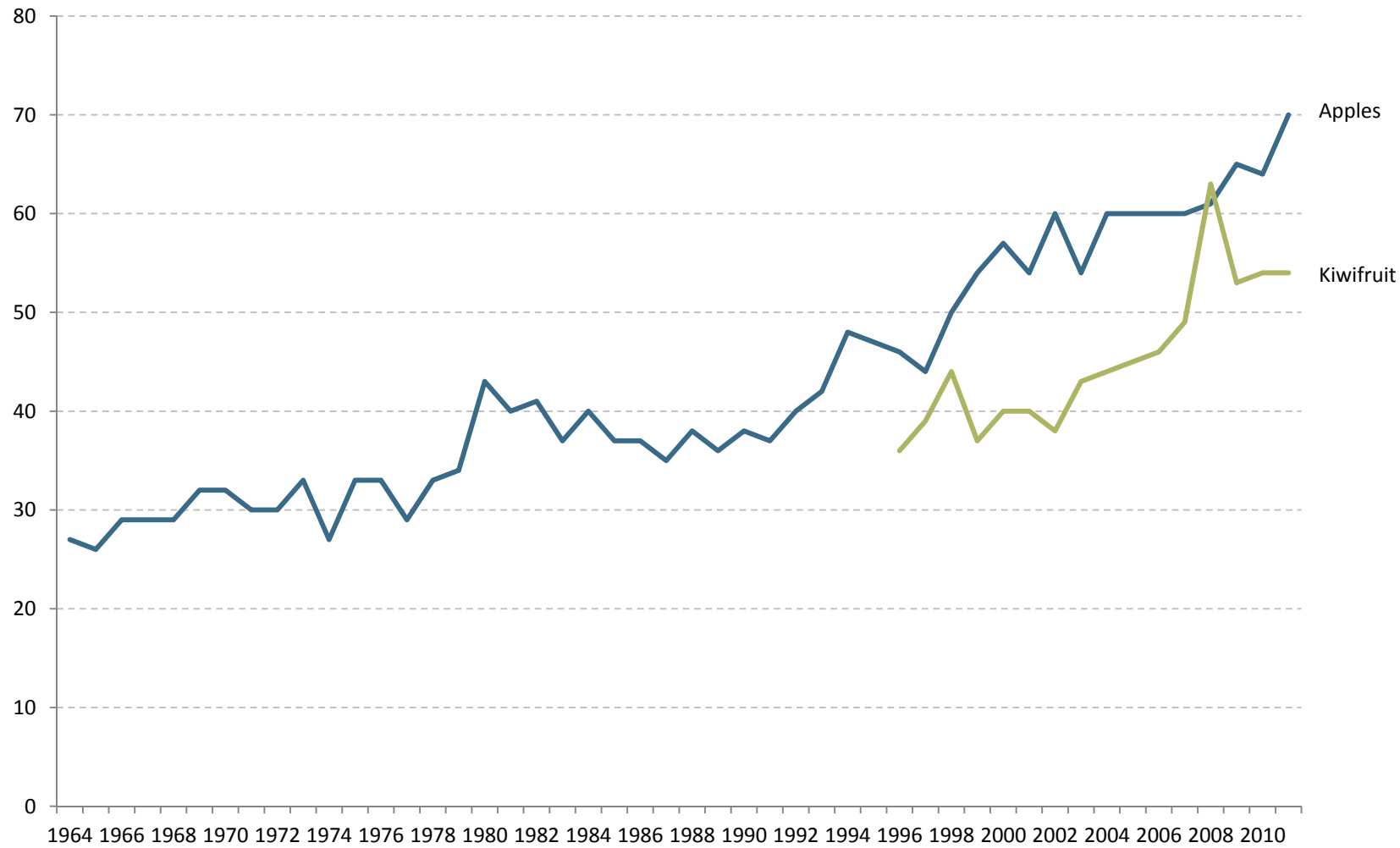


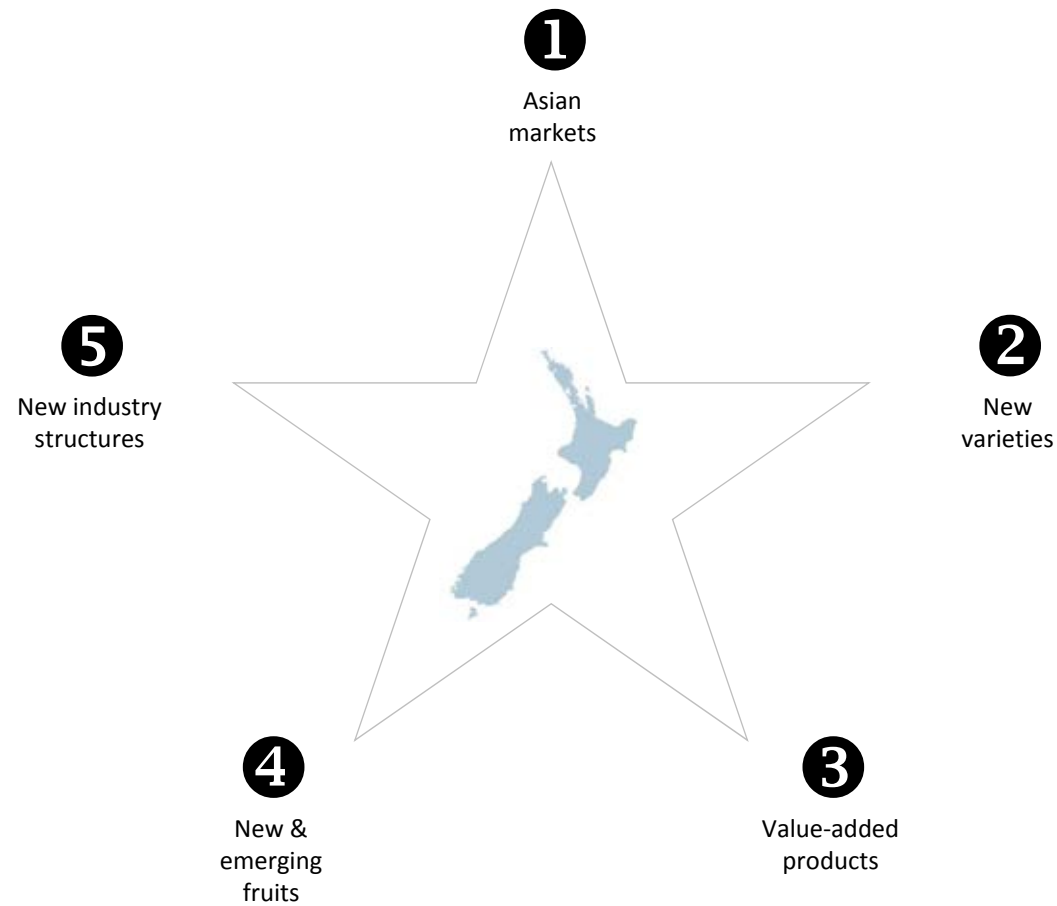


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POTENTIAL DIRECTIONS FOR GROWTH

Research to date indicates **multiple directions for growth** for the New Zealand fruit industry going forward

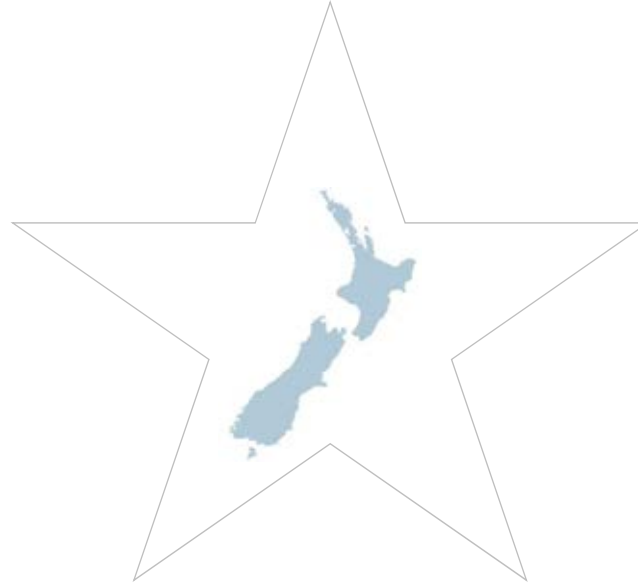


1. ASIAN MARKETS

There are **opportunities** to grow further **in Asia**

1

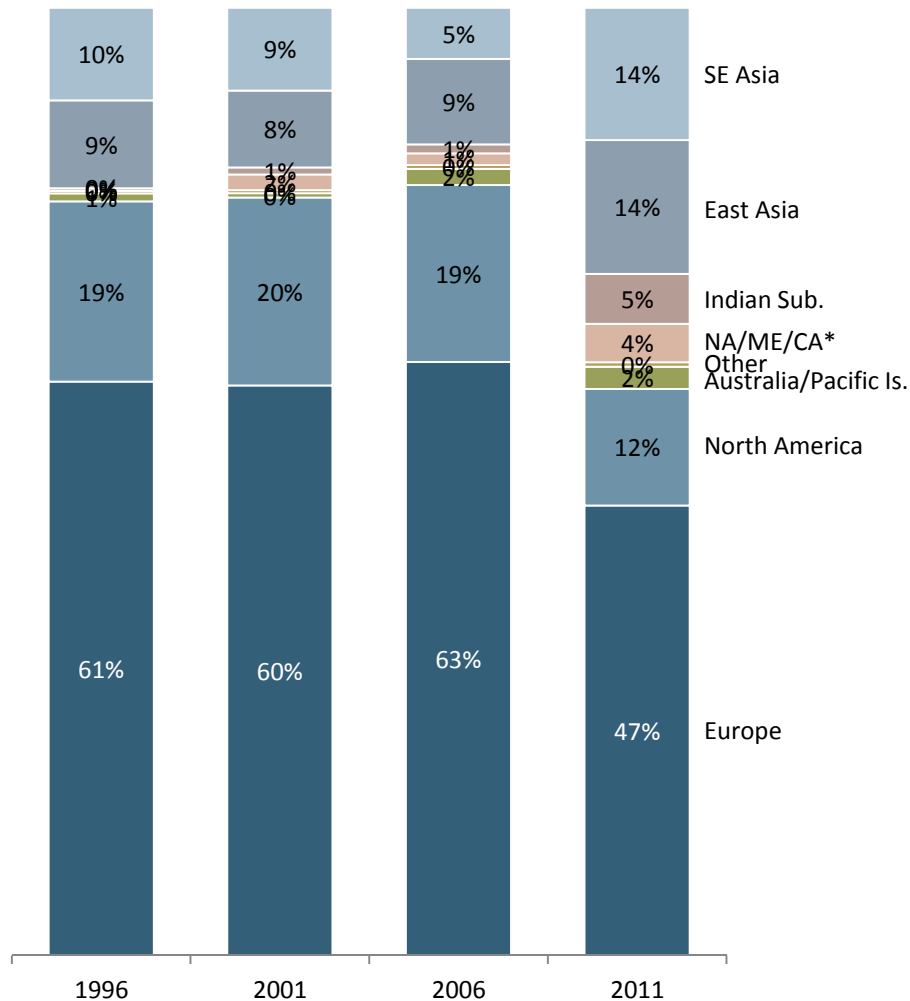
Asian
markets



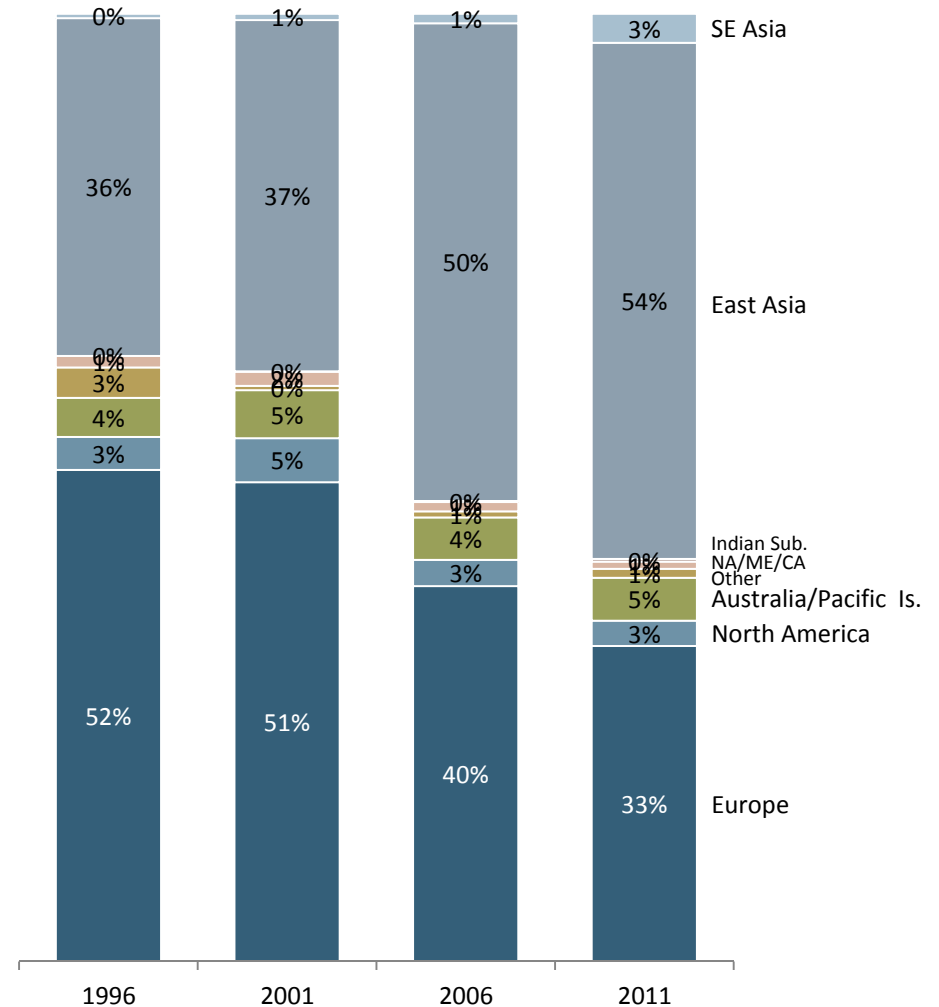
1. ASIAN MARKETS – EXPORT VALUE BY REGION

New Zealand's fruit exports are **shifting** away from Europe and North America **towards Asia**

Share of NZ fresh **apple** export value by destination region
% of value; 1996-2011



Share of NZ fresh **kiwifruit** export value by destination region
% of value; 1996-2011



1. ASIAN MARKETS – OPPORTUNITIES

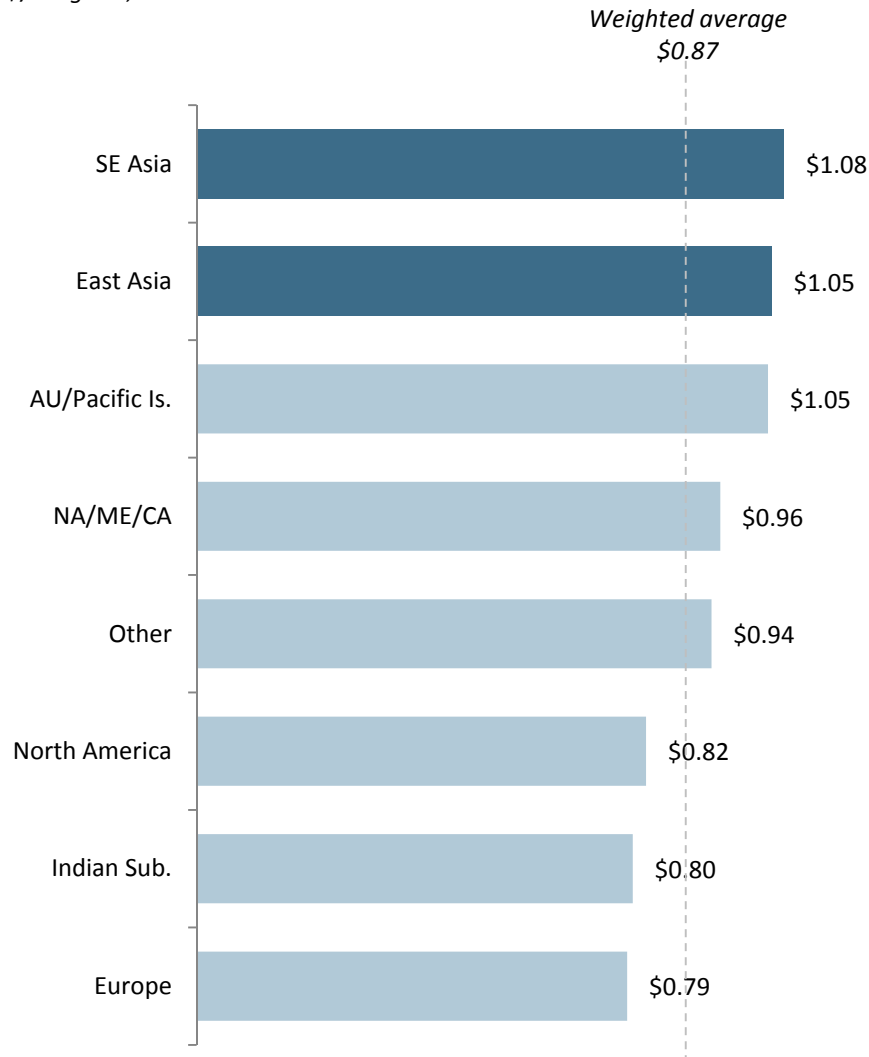
Asia was identified as the real opportunity for growth

- “There is so much **opportunity in Asia**. We are selling more and more and we are getting more successful at doing it. We are changing the types of apples to suit the specific needs of the market.” *CEO, Industry stakeholder, Feb 2013*
- “The **Pacific Rim** is a **real opportunity**. The traditional markets like the USA are more distant - we have less and less focus towards them - and more around **China, India**. We have people going there all the time. We will end up with an office in Hong Kong soon.” *CEO, Distributor, Feb 2013*
- “There is a **real opportunity** to target the segments within the **Asian markets**. As their GDP rises - and the populations income increases - there is more opportunity to send them our premium fruit and vegetables. They are willing to pay a premium. There are good returns in particular apple varieties - they are way higher than Europe. Asia also has **lower freight costs** for us. With technology and the internet, companies are getting more and more online enquiries for cherries, gold kiwifruit and premium apples.” *Export representative, Jan 2013*
- “We can be the **Fruitbowl to Asia**. So the more varieties we can develop that appeal to **Asians** will help us get to our goal. It needs to look and taste good. The market is closer: 2 weeks instead of 6 weeks to Europe.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “There is a **real opportunity in Asia**. There are new areas to develop. The EU takes volume, but in Asia they go for **taste and health**. That is a prime position for us to exploit.” *Managing Director, Postharvest operator, Feb 2013*
- “In **China and India** we can see that they are **more willing** to pay a **higher price** for apples. But they want exclusive rights to certain apples, say compared to the Europeans. **Shipping costs** are also **cheaper** to Asian countries. it's cheaper to Singapore than Rotterdam.” *CEO, Grower/Shipper, Feb 2013*
- “I think the real opportunity in **Asia** - especially for health based foods - is **Japan and Korea**; not so much China. We have familiarity in those markets. There is more of an ease of doing business. They have such a huge health food and nutraceuticals market. We could really promote our products there.” *General Manager, Science stakeholder, Feb 2013*
- “We supply a lot of avocados into the **Japanese market**. If we had more products, we could certainly sell more into **Japan**. We are starting the kiwiberry, but we need to find more development crops.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*

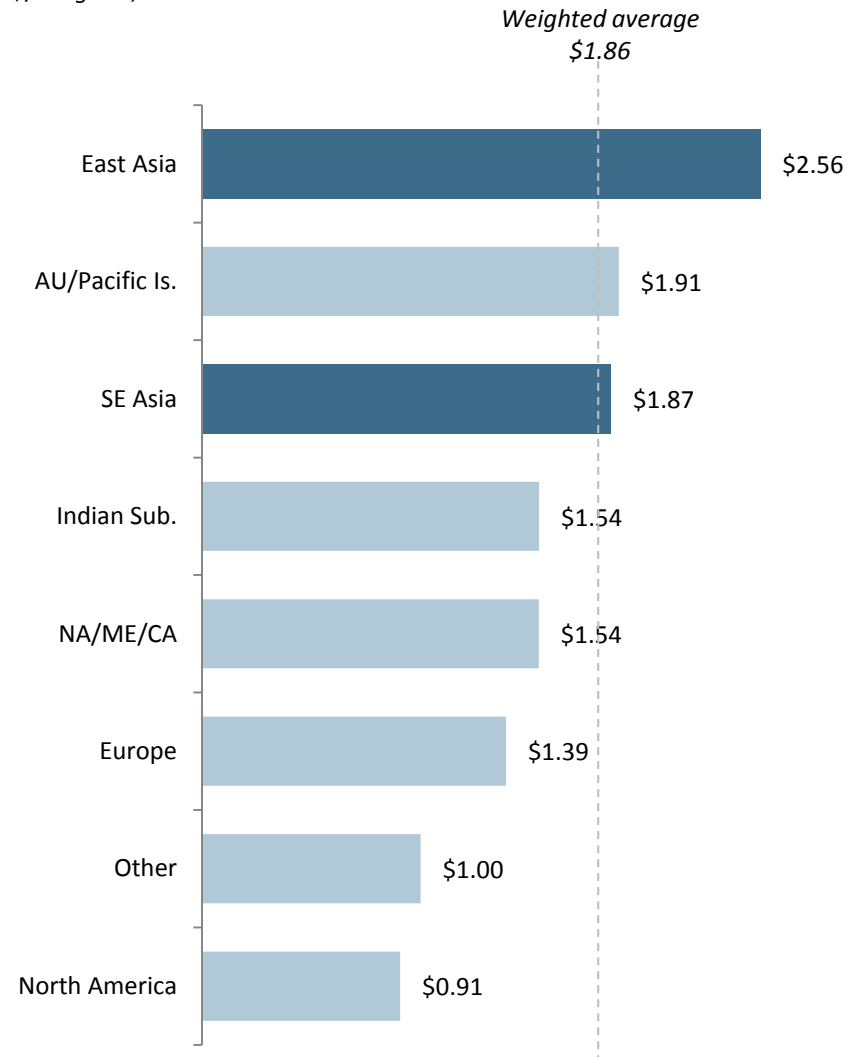
1. ASIAN MARKETS – EXPORTS VALUE PER KG BY REGION

New Zealand achieves **higher returns per kilogram** for its fruit exports in Asia

Average NZ fresh **apple** export value per kg by destination region
US\$/kilogram; 1996-2011



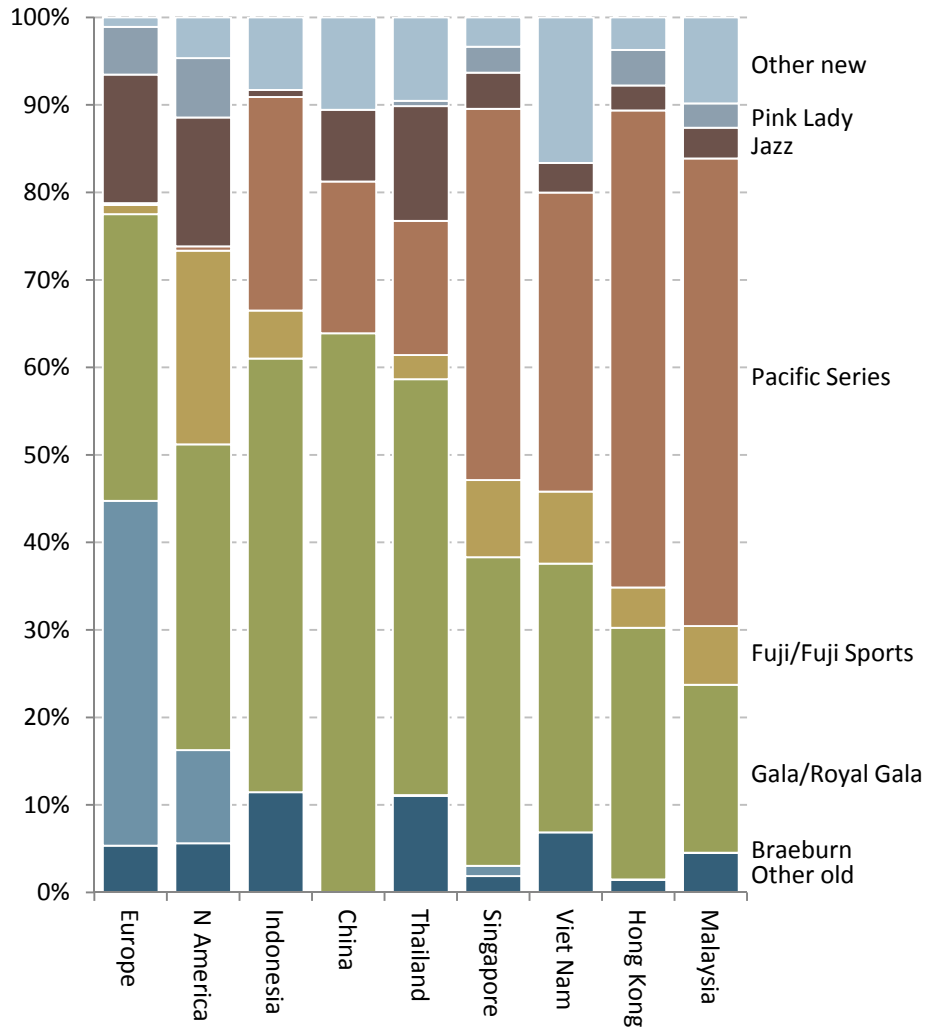
Average NZ fresh **kiwifruit** export value per kg by destination region
US\$/kilogram; 1996-2011



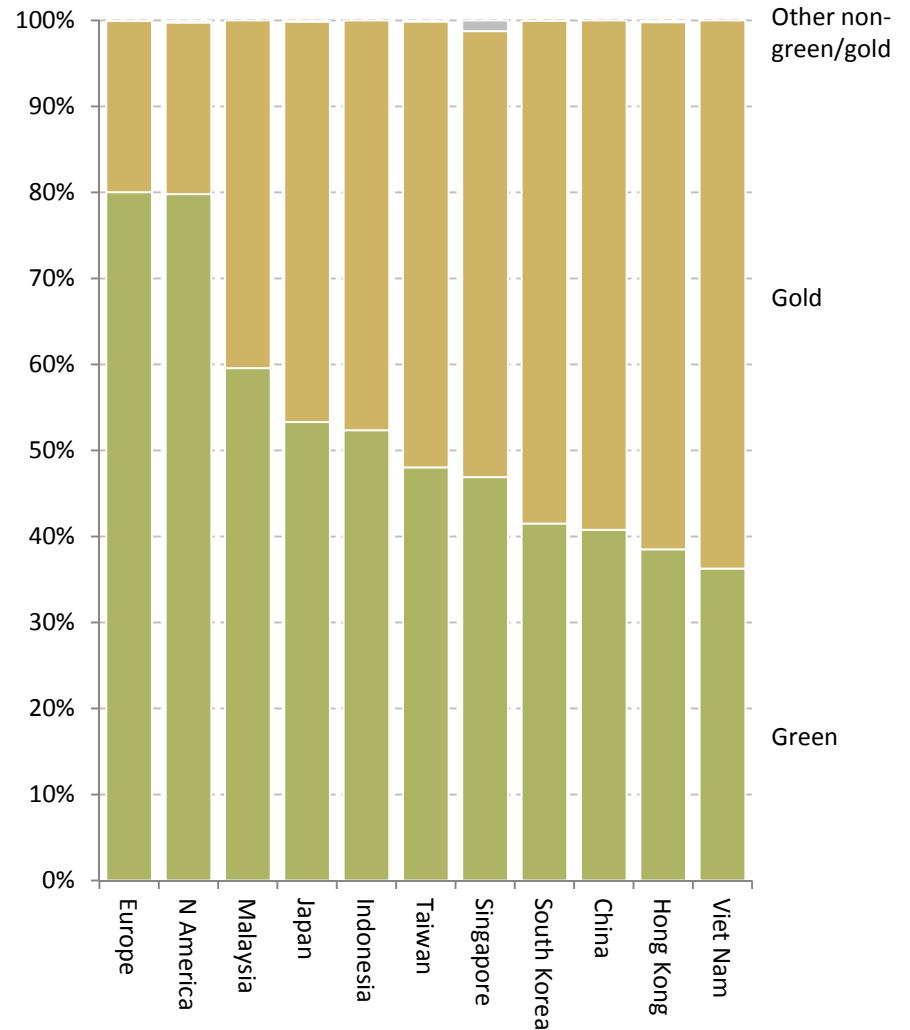
1. ASIAN MARKETS – VARIETY MIX BY MARKET

New Zealand's newer varieties are succeeding in Asia

NZ fresh **apple** export value mix by variety by market
% of value; 2011



NZ fresh **kiwifruit** export value mix by variety by market
% of value; 2011



1. ASIAN MARKETS – CONSUMER PREFERENCE

As a generalisation, Asian consumers like sweet fruit

Apple

- “**Korean consumers** are really only familiar with the Fuji variety apple since imports are prohibited. Consequently, given the limited exposure to other apple varieties, consumers have grown accustomed to **the sweet tasting Fuji apple**, which has a brix ranging from 13~16Bx. The sweet Fuji apple is sometimes served at the end of a meal as desert. Of the other two main apple varieties produced in Korea, the Hongro has a brix of 15, and the Tsauru variety has a brix of 13.5~14.5.” *USDA Gain Report KS9008, March 2009*
- “With improved infrastructure development [in China], domestic supply from Shandong and Shaanxi provinces are transported to the South, mostly Fuji’s... **Fuji’s spicy, crisp sweetness** and firm flesh make it an excellent fresh eating apple which is how Chinese consume them... Fuji flavor improves in storage. Fuji skin color varies from yellow-green with red highlights to very red. It is a cross between Red Delicious and Ralls Janet varieties in Japan. Domestic Fuji’s for the regular public can sell for half that of imported apples. This also limits sales of U.S. apples for the price conscious.” *China, USDA Gain Report CH9606, March 2009*
- “The **Pacific series almost exclusively goes to Asia**. We are planting more and more of that variety. It could be better protected. The biggest opportunity is in China, going via Hong Kong.” *CEO, Industry representative, Jan 2013*

Kiwifruit

- “Chinese people recognise New Zealand kiwifruit is high quality and tasty, **sweet taste preference is very strong**. Chilean kiwi considered “uneatable”, only good for cake and foodservice.” *ENZA presentation, Oct 2010*

1. ASIAN MARKETS – HINDERED BY TARIFFS

Tariffs, phytosanitary and non-tariff trade barriers remain a **key issue** in some Asian markets...

- “Other countries' tariffs on New Zealand's fruit and vegetables **cost each of our 5400 growers \$44,000 a year**, according to a study out today. That was an increase of \$10,000 on 2010, the horticulture industry's latest Trade Barriers Report says. The study says horticultural exporters paid an estimated \$241 million in tariffs.” *Fairfax, November 28, 2012*
- “In South Korea the **tariffs** are between 18% and 45%. It costs \$35m for the kiwifruit alone.” *Export representative, Jan 2013*
- “We really need **to negotiate** better conditions when it comes to the **biosecurity requirements**, but this all takes time. The speed of the negotiations is really determined by the other countries (India, South Korea etc.). When the farmers start burning themselves in the streets the government tends to listen. But we can negotiate. India needs our technology. We just need the right levers to pull in the negotiations.” *CEO, Industry stakeholder, Feb 2013*
- “There is a lot of work to be done with tariffs. The restrictions on pests and disease and the packaging requirements in China is just ridiculous, it's **very restrictive**. It's a battle for everyone. They produced a list of all the pests and diseases we had at the meeting and said they would not allow any of them, with no allowances, it has to be perfect. It is incredibly difficult to achieve **zero**. We could at least drop some things that they already have, like blackspot. Need to find the right people to speak to, it's very slow and what do we have to negotiate.” *CEO, Grower/Shipper, Feb 2013*
- “Market access is very important. In the markets with high tariffs like India and South Korea this is a **real barrier to growth**. The Indian market for apples has expanded hugely [\$9.7m FOB in 2010 and \$23.4m in 2012] even with the high 50% barrier. it's still a big market and if we could unlock it, it would have huge potential.” *CEO, Industry stakeholder, Feb 2013*
- “Gaining access to countries would be great. If we could reduce the **tariffs** on avocados to Korea. The **quarantine issues** in China need to be looked at.” *CEO, Distributor, Feb 2012*
- “The cost of the **non-tariff trade barriers** are more than the costs of the tariffs. They include compliance with quota restrictions, grade standards, fumigation requirements, additional product testing, plus labelling and packaging rules. This can be a real risk. The domestic markets have a strong grower lobby group who protest on the streets. There is also a higher level of corruption, grey channels, and unofficial entry points which are also an issue.” *Export representative, Jan 2013*
- “It is **important** that **everyone gets involved** in opening markets. In-market. We need to be meeting and inviting large distributors and retailers to New Zealand events. We need to put serious, money, effort and serious R&D dollars into solving whatever the problems are so the growers can get access to the high value markets.” *CEO, Distributor, Feb 2012*

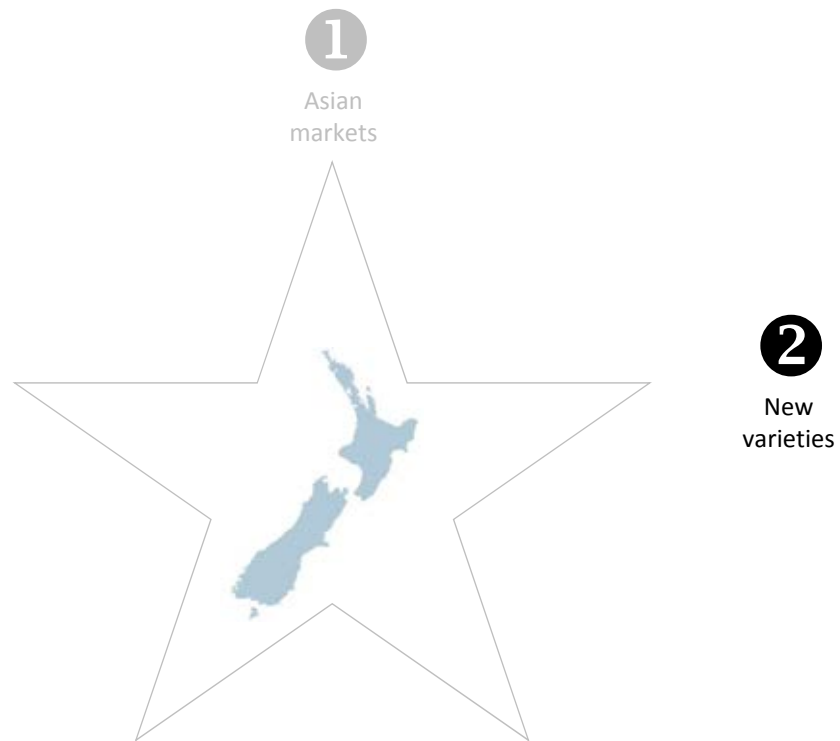
1. ASIAN MARKETS – HINDERED BY TARIFFS

... particularly for apples

- “We really need to **work on** equivalent access for **apples**. We could increase our sales exponentially if we had a change in protocols. Market access is very difficult.” *CEO, Industry representative, Jan 2013*
- “With **apples**, we **can’t export to Japan or Korea** and have severe restrictions to Australia. But kiwifruit export to those countries do well and they are the high paying markets. So kiwifruit do well in those massive markets. If we got access, then we would do well as well. **India with 50% duty** this is the highest paying market.” *CEO, Grower/Shipper, Feb 2013*
- “Due to the **phyto-sanitary barriers** we aren’t allowed our apples into South Korea or China. There is an issue with the codding moth and fireblight.” *Export representative, Jan 2013*
- “Yes, New Zealand can theoretically get apples into China but there has to be 99% assurance there will be no quarantine pests, like fireblight. We can’t give that guarantee, so essentially that market is still closed.” *Chairman, Grower/Packer/Distributor, Jan 2013*

2. NEW VARIETIES

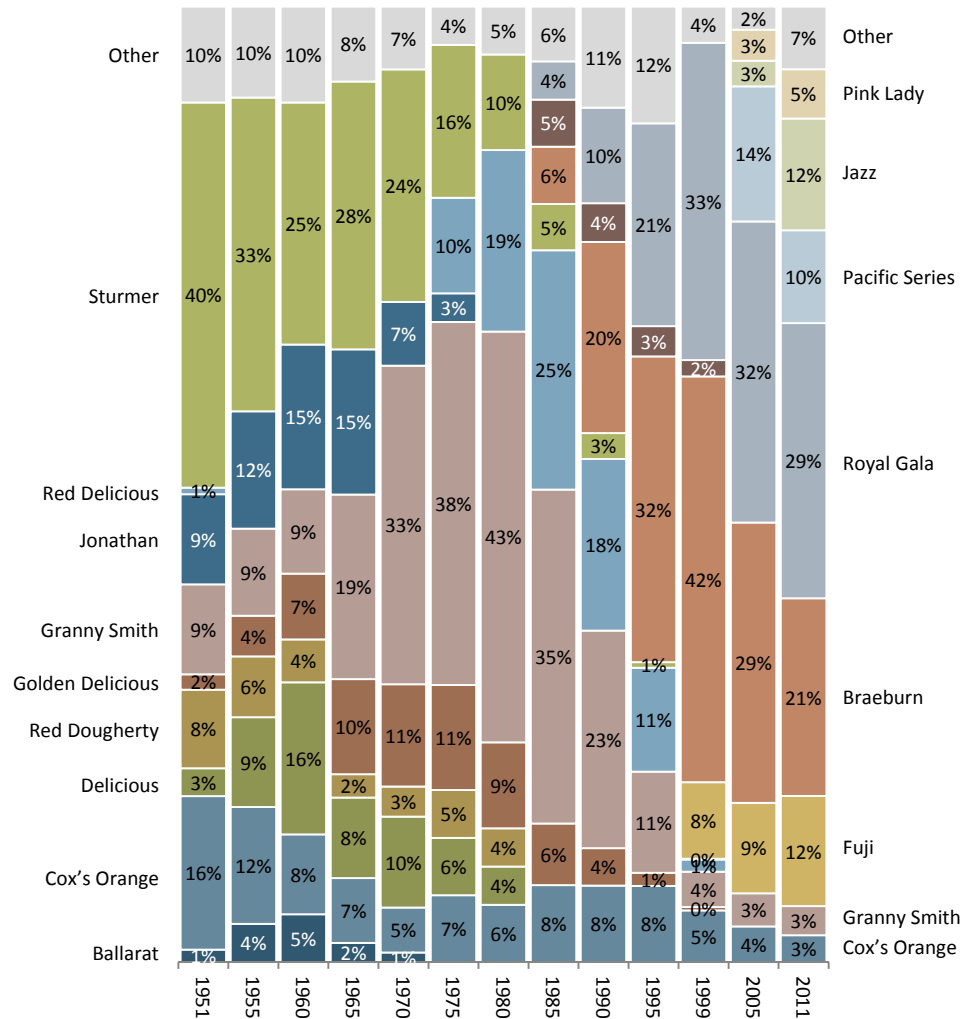
There are **opportunities** for growth in **new varieties**



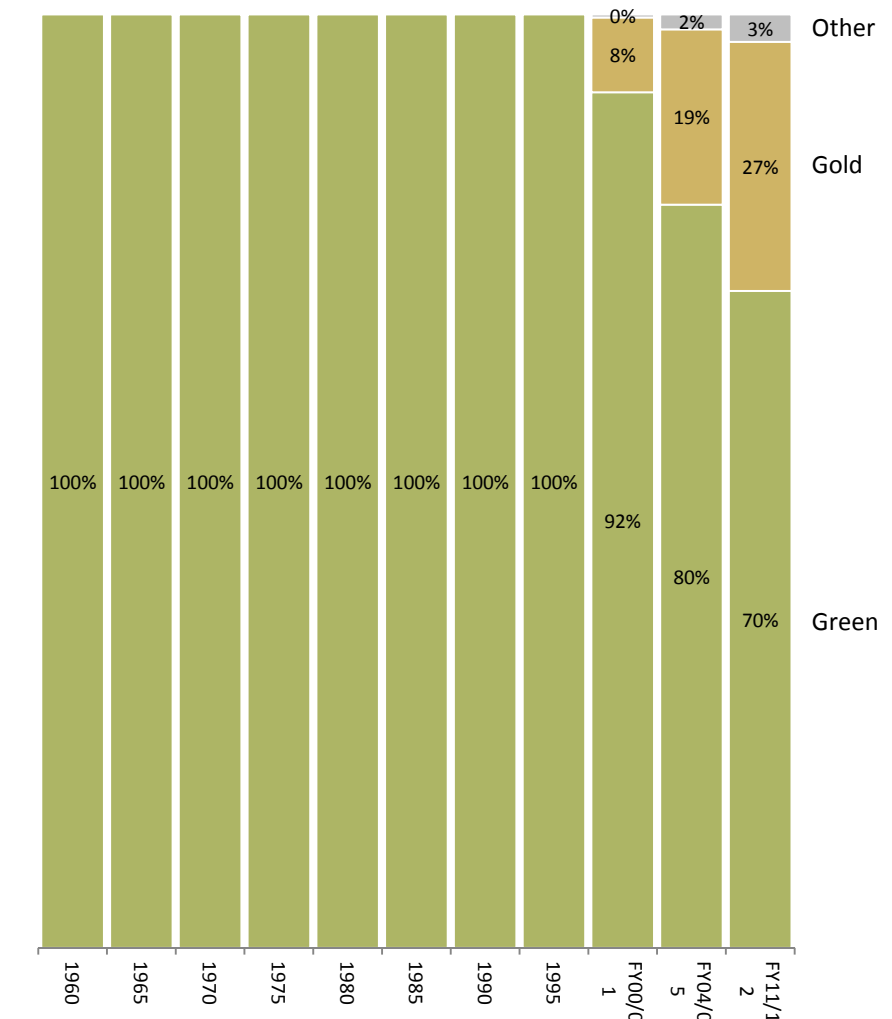
2. NEW VARIETIES – SHIFT TO NEW VARIETIES IN NEW ZEALAND

There is a **clear trend to new varieties**, though the shift is more pronounced in apples than kiwifruit

Share of New Zealand apple exports by variety
% of volume; 1951-2011



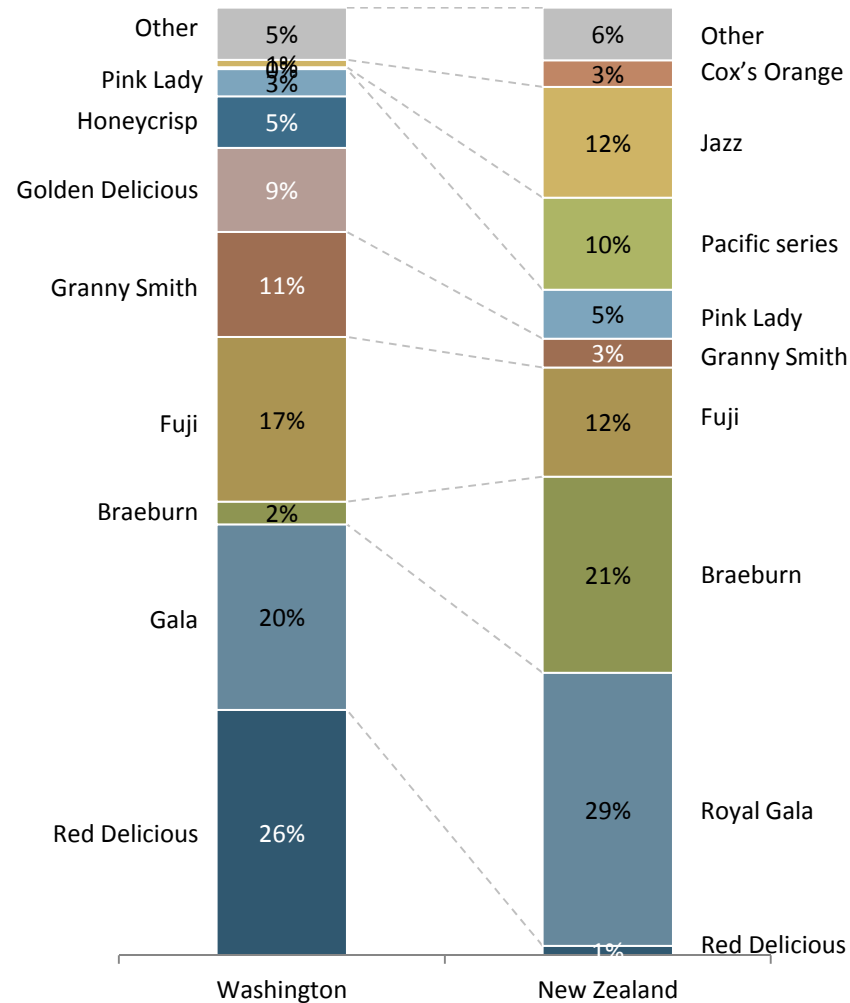
Share of New Zealand kiwifruit exports by variety
% of volume; 1960-2011



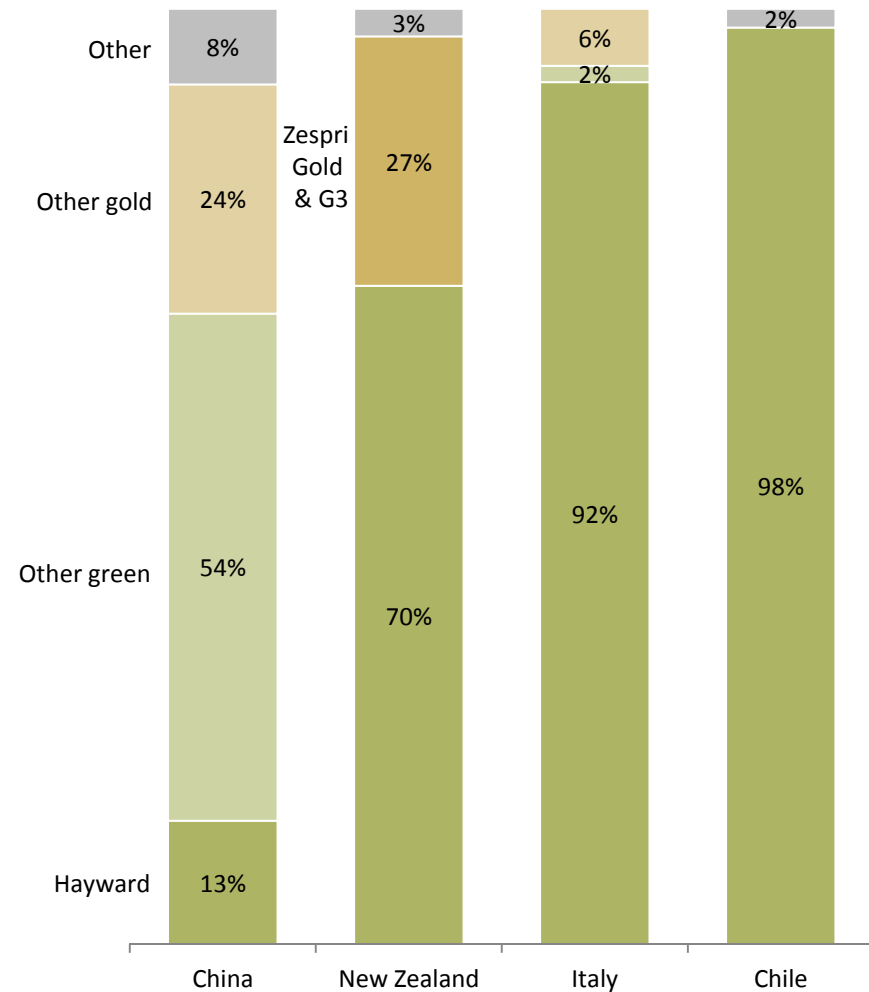
2. NEW VARIETIES – SHIFT TO NEW VARIETIES HAPPENING ELSEWHERE

A **similar shift** is happening in other countries; apples generally more varied than kiwifruit globally

Share of apple volume by variety: Washington vs. New Zealand
%; 2011



Share of kiwifruit volume by variety: New Zealand vs. key competitors
%; 2011 or as available



2. NEW VARIETIES – TARGETING ASIA

Many **new** New Zealand apple **varieties** appear to be **targeting Asian tastes**

- “**Envy** is expected to be in **high demand in Asia** and North America, where people particularly **appreciate the sweetness and crunch** that it offers.” *Dawn Gray, General Manager, ENZA International, Sept 2007*
- “Envy has jumped to 4-5% in 2012. That is showing strong growth.” *CEO, Industry representative, Jan 2013*
- “Given [**new Prevar variety T193**] has a mild sweet flavour profile, is refreshing and juicy and has an excellent crunchy texture we believe it will have very wide consumer appeal. This will be **an outstanding apple in the Asian markets.**” *Rex Graham, Chairman, The T193 Company, Feb 2009*
- “**Smitten** [PremA17] has an acid-sweet' flavour, a good shelf life and a multi-red colouring which would appeal to buyers... it's early picking in February would give it an advantage over later harvested apples and allow it to compete with South American growing nations such as Chile and Brazil... The early variety is expected to **appeal to markets in Asia** and North American.” *John McCliskie, Chairman, T17, Jan 2009*
- “There is such a good opportunity for the **Pacific series in China**. They get to China through Hong Kong. They are after the big, red and sweet fruit. There have been significant new plantings. It is the most valuable apple in the world.” *CEO, Industry representative, Jan 2013*
- “We are getting more clever with the varieties and matching the product to the market. We can breed for the right qualities.” *CEO, Industry stakeholder, Feb 2013*
- “The **Japanese** are probably the second largest consumer of nutraceuticals. So there is a **high interest in health and health qualities** of products and especially **fresh fruit**. There is a huge opportunity to sell NZ fruit with health attributes. Similar in Korea.” *Manager, Science stakeholder, Feb 2013*

2. NEW VARIETIES – IN NEW ZEALAND

There are a **wide range of new apples and kiwifruit being planted** in New Zealand; genetics come from New Zealand and elsewhere

Identified new varieties planted in New Zealand by species, location of development and era of development
2012

| Fruit | Source | Historical (Pre-1900) | First generation (1900-1960's) | Second generation (1970-1990's) | Third generation (2000+) | |
|-----------|--------------------------|---|--|--|--|--|
| Apples | Developed in New Zealand | - | Gala/Royal Gala Kidd's Orange Red Braeburn Splendour | Jazz Pacific series Sonya Eve Ambrosia Southern Snap | Envy Premium Star Smitten Velvetine Rocit Koru® (Plumac) | Sweetie Maxie Crispie PremA153 (Honeymoon) T193 |
| | Developed elsewhere | Red Delicious Granny Smith Golden Delicious Many others... | Fuji | Pink Lady/Cripps Pink Sundowner Tentation Kiku Cameo | Kanzi | |
| Kiwifruit | Developed in New Zealand | - | Allison Bruno (Male) Gracie Hayward Monty <i>Others</i> | EnzaGreen (Skelton) EnzaGold (SkeltonA19) Tomua M-Series (male) | Zespri Sungold (Gold3 & Gold9) Zespri Sweet Green (Green14) KiwiKiss (Skelton) | Bruce (male) |
| | Developed elsewhere | Numerous wild/semi-domesticated | Cal Chico (various) | EnzaRed (HongYang) | SummerKiwi | |

2. NEW VARIETIES

Successful new varieties must achieve key commercial characteristics of **yield, flavour and storage**

- “With clubs, you **need** to have **yield, taste, size, and storage** – all the **commercial characteristics** of the fruit - all **right**. Many people are creating PVR’s [Plant Variety Rights – IP controlled genetics] without these underlying commercial characteristics. They need to be right.” *CEO, Sales and Marketing Company, Feb 2013*
- “There is a lot talk about Smitten™ as a early maturing (earlier than Royal Gala). It has fantastic eating qualities - **high brix, balanced acids, high pressure and crisp** - with **fantastic storage**. These are all really good qualities.” *CEO, Science stakeholder, Jan 2013*
- “There is an opportunity with Fuji, Royal Gala and Pink Lady. But within these varieties there is a trend towards **‘high coloured sports’** that are **redder and firmer**. These high coloured fruit are worth significantly more money. They gain a premium at the sales point that goes back to the grower. There are hundreds of new varieties and the challenge is to get shelf space for all of them. Unless there is something transformationally different then the shelf space goes to the new and improved sports to create exclusivity.” *CEO, Industry representative, Jan 2013*
- “Our new variety Koru® (Plumac) is a new chance seedling - a Braeburn Fuji mix. It has great features for the US market: a great **size, taste, yield and storage**. it's small now, but we see it really growing. There are a lot of new varieties - up to 50 - many targeted to Asia. We are targeting the HoneyCrisp market which can get US\$2-3 more a pound in the USA. If we can get \$5/pound instead of \$2.99 then there is room for a new one.” *CEO, Grower/Packer/Distributor, Feb 2013*
- “The vertically integrated companies get paid higher amounts because of the **quality** parameters. They get paid more by the supermarket for the fruit if they have higher **colour, firmness, brix, dry matter**.” *CEO, Industry representative, Jan 2013*

2. NEW VARIETIES

There is also an emerging concept of **breeding** for **pest resistance** leading to **better market access** through biosecurity barriers

- “New varieties could have the potential to access **new markets** due to **disease resistance**. Asia has set a precedent for having a great tasting fruit that has **pest resistance**.” *CEO, Industry representative, Jan 2013*
- “We are not only breeding for colour and taste, but also to particular **biosecurity** and **pest requirements** to target **certain markets**. Grow according to the market requirements.” *CEO, Industry stakeholder, Feb 2013*

2. NEW VARIETIES – GROWTH OF CLUBS

Led by Pink Lady, there has been a **rise in “club marketing”** of varieties

- “In recent years there have been a **greater number of restricted access cultivars** since ‘Pink Lady’ was **marketed under a club concept**.
- The New Zealand program’s **Pacific series** and ‘Jazz’ are examples of restriction and dual location (New Zealand and Washington State) production.
- Franchise fees and production-based royalties are also new developments. ‘**Delblush**’ (‘Tentation’) is another example of a restricted access variety from the Delbard program in France.
- In North America, we have seen ‘**Ambrosia**’ become restricted to Canada, even after trees had been planted and harvested in the US. ‘**Sonya**,’ from the NZ breeding program of John Nelson, is also a club variety in Washington.
- The most recent restriction is on ‘**Piñata**,’ trademarked by Stemilt in cooperation with Pepin Heights orchard in Minnesota.” *New York Fruit Quarterly, Spring 2005*
- “I think the **big question mark** [for the apple industry] is over the **future of varietal innovation**. Which ones **deliver something more special** in terms of added value than others in the market? Which of them are average and just lookalikes? The challenge is to find the next winner, but there are too many around for all of them to make it.” *Gerhard Dichgans, Managing Director, VOG Italy, Eurofruit, Oct 2012*
- “The past decade has seen an explosion of interest and investment in managed apple varieties and groups of varieties, which now form a long list of commercial names including: **Ambrosia, Arctic Golden, Arctic Granny, Ariane, Ariwa, Autento, Aztec, Cameo, Candy, Chouquette, Enchanted, Envy, Eva, Evelina, Evolution, Fireside, Galmac, Greenstar, Haralson, Honeycrisp, Honeycrunch, Honeygold, Isaaq, Jazz, Juliet, Junami, Kalei, Kanzi, Kiku, Lady Alice, Marlene, Mairac, Modì, Mozart, Opal, Pacific Rose, Pink Lady, Piñata, PremA153, PremA197, Red Prince, Redlove, Rubens, Smitten, Sonya, SweeTango, Sweeties, Tentation, Toshiro, Tunda, Wellant, Zari, Zestar and Zonga.**” *Eurofruit, Oct 2012*
- “**Summerkiwi** is a **new kiwi variety** created in Faenza, Italy after more than **20 years of research** and 18,000 crosses. This is a fruit which is extremely early, maturing 40-45 days earlier than traditional varieties, and which has a very sweet taste and lasts longer after harvest... **Sales of this new variety will be done via Summerfruit**, an association of companies located in the main kiwi producing countries which acquired the rights to Summerkiwi in 1999. Summerfruit works in a **similar way to the apple clubs** which have sprung up so much in recent years. We have various sales offices belonging to our associated companies. Currently there are five French companies, three Italian, seven Chilean and two Argentinean” *FruitToday, Jan 2006*

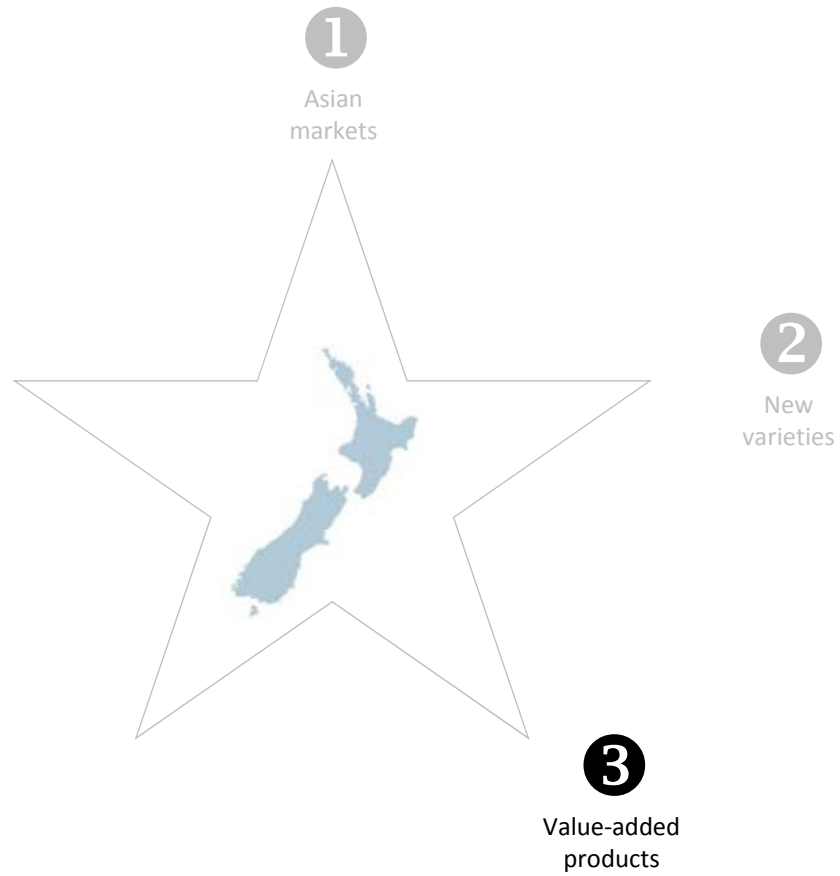
2. NEW VARIETIES

With new varieties it is important to get the commercialisation model and balance right

- “After deregulation the plant program got given to ENZA (needed a commercial operator). But they soon realised funding the program and competing with other exporters didn’t work well. So they took out the gems and stopped doing the rest. So the industry had to take on the role. Pipfruit Growers Incorporated took on that role and went in with Australia and created Prevar. **An individual company even the size of Enza could not sustain the funding of the breeding program. You need scale.**” *CEO, Industry stakeholder, Feb 2013*
- “With a commercial investment they **need control**. Zespri and large Pipfruit players **need to have the control** to make the investment worthwhile and they need to ensure that the **message is getting through to the growers** and through to the breeders and developers.” *CEO, Industry stakeholder, Feb 2013*
- “Prevar have a licensed group who grow new apple varieties and they have to work together. You can’t give the varieties to everyone. Someone invests a million dollars in promotions in a new market and the next person comes along and sells the fruit cheaper as they haven’t invested the million dollars. It doesn’t work and you get traders. It needs control. That’s why Zespri works.”
- “Kiwifruit were **a bit slow** out of the blocks with new varieties. The period between Hayward and gold was a huge amount of time [*Hayward developed in 1924, Hort16A, Gold patented in 1999*]. Hayward was sold all around the world, the root stock etc. for hardly anything. In fact maybe that was a good strategy because it grew the market, it created the market, the awareness of kiwifruit. We then **needed to control the market**. We didn’t follow that up with a new variety that we controlled the plant variety rights on, that would have been more useful.” *CEO, Industry stakeholder, Feb 2013*
- “We’re investing in new varieties, possibly too many. Trying to get out of the commodities and into new IP protected varieties. We developed [apple brand] ourselves, and others like Smitten.” *GM, Grower/packer/distributor, Jan 2013*

3. VALUE-ADDED PRODUCTS

There are **opportunities** to grow into **value-added products**



3. VALUE-ADDED PRODUCTS

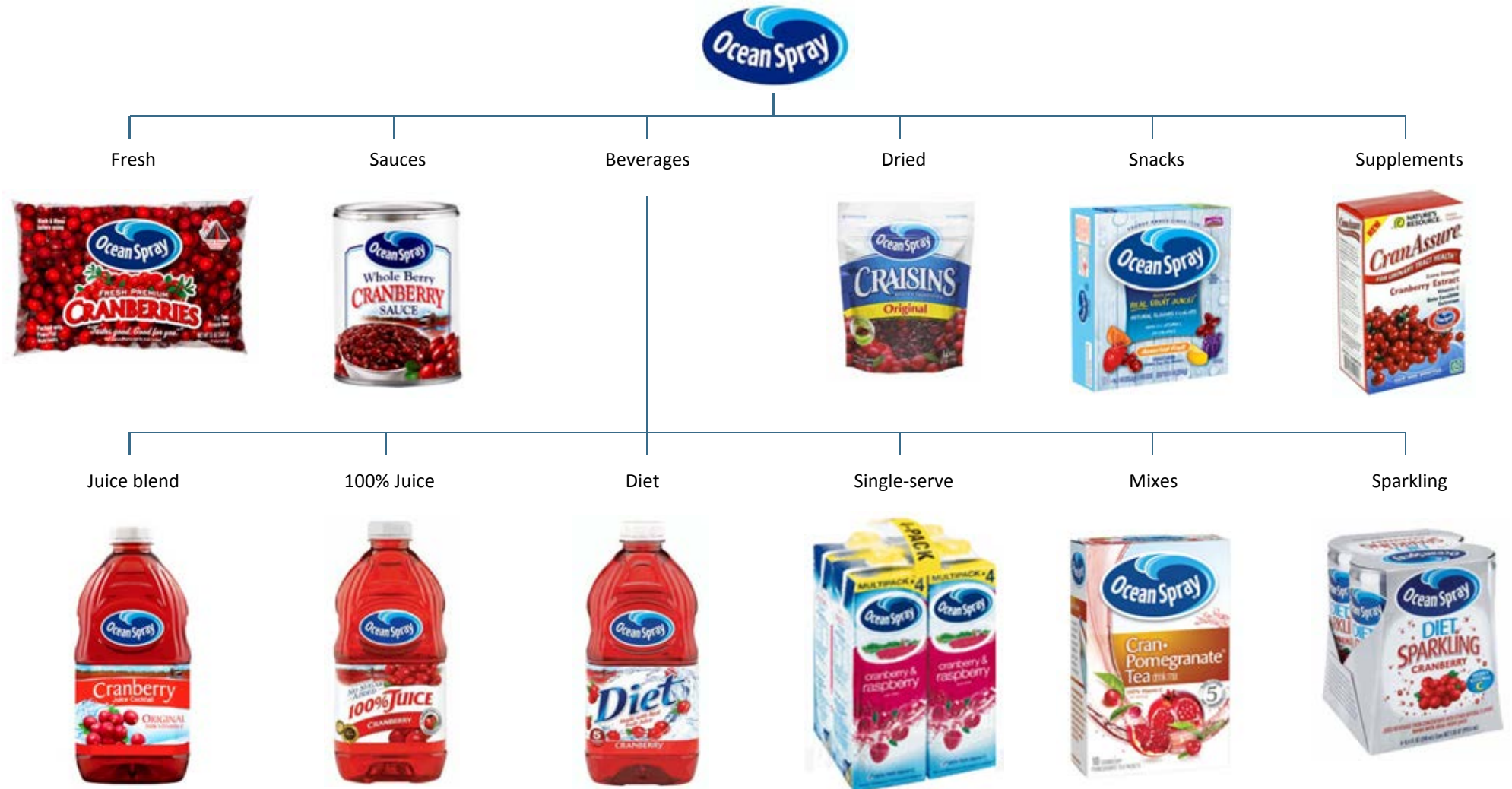
New Zealand firms are making **basic moves into value-adding**

- “It depends how you define **value-added**, low, medium and high quality. Mahana red is able to charge a premium so it adds value, but it is not a processed product.” *CEO, Distributor, Feb 2013*
- “For us it’s all about finding a niche in the market for a quality product.” *GM, Grower/packer/distributor, Jan 2013*
- “We have a **niche product** that we sell direct to retailers. We have higher costs of inputs. We have - for example - **3 or 4 picks** a year, as opposed to, say, some Royal Gala that have 1 maybe 2 picks. We **Smartfresh all our fruit**. We do a lot of **dry matter testing**. We focus on getting our fruit in **coolstorage on the day** of harvest. We do **lots of things throughout the supply chain** to ensure the fruit is in as perfect condition as possible. We want people to eat more apples.” *GM, Grower/packer/distributor, Jan 2013*
- “We do a lot of **pre-packaging**. It is growing domestically and offshore. We are able to sell small items like lunchbox size bags - there are good promotional opportunities around these products. This is gaining in demand in Australia, HK and Japan. We can compete now with the labour costs of packaging these products in NZ. Their labour costs are way above ours.” *Chairman, Grower/distributor, Jan 2013*
- “New Zealand is **adding value by developing fruit extracts and ingredients** for foodservice and for nutraceuticals. There are companies like Leader Brands [vegetable salads], Cedenco [fruit and vegetable powders and pastes], Kiwicrush [kiwifruit drink for digestive health], Enzafoods [processed fruit], Fressure Foods [processed avocado] and blackcurrant powders. These high value powders are marketing straight to the pharmaceuticals or retail.” *CEO, Industry representative, Jan 2013*
- “The companies that have been doing well in New Zealand have been the ones who have been moving into **new varieties with IP and value-added products**.” *CEO, Distributor, Feb 2013*
- “We have had flavour companies in USA and Japan using New Zealand products. To build on “Brand NZ” more New Zealand companies should be doing that.” *Manager, Science stakeholder, Feb 2013*

3. VALUE-ADDED PROCESSED PRODUCTS

Global leaders demonstrate that **successful fruit brands** can be extended **into** a wide range of **value-added processed products**

EXAMPLE: Range of value-added cranberry products launched by Ocean Spray cooperative beyond fresh fruit
2012



3. VALUE-ADDED PROCESSED PRODUCTS - POSITIVE FEEDBACK LOOP






Selling a **wider range** of products than just fresh would appear to **build brand strength** in a **positive feedback loop**



3. VALUE-ADDED PROCESSED PRODUCTS

Most major **global fruit brands** have been **extended** into a wide range of **value-added** processed products

EXAMPLE: Presence of select major global fruit brands in various value-added product categories
2012

| | Ownership structure | Fresh fruit | Processed fresh | Pure juice | Juice drinks | Sauces & condiments | Snack/ confectionery | Supplement & Nutritional ¹ |
|---|--------------------------|-------------|-----------------|------------|--------------|---------------------|----------------------|---------------------------------------|
|  | Grower cooperative | ☑ | ☑ | ☑ | ☑ | ☑ | ☑ | ☑ |
|  | Grower cooperative | - | - | ☑ | ☑ | ☑ | ☑ | - |
|  | Private grower | ☑ | - | ☑ | ☑ | - | - | ☑ |
|  | Grower cooperative | ☑ | ☑ | ☑ | ☑ | ☑ | ☑ | ☑ |
|  | Listed corporate grower | ☑ | ☑ | ☑ | ☑ | - | ☑ | ☑ |
|  | Corporate Investor funds | ☑ | ☑ | ☑ | ☑ | ☑ | ☑ | |

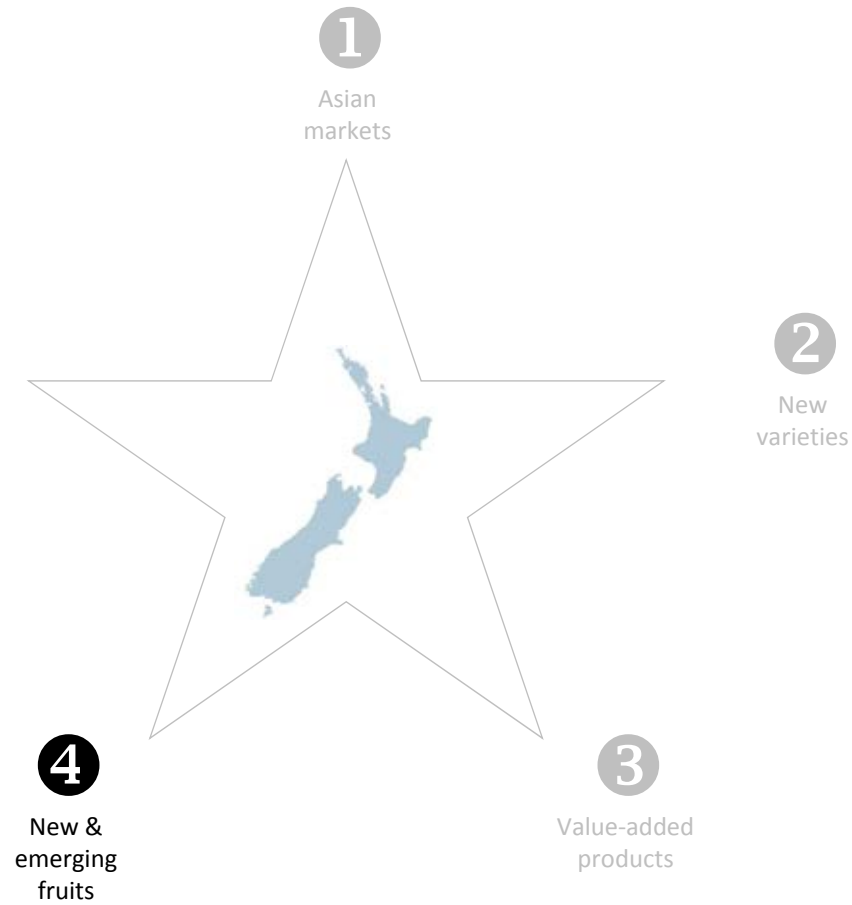
3. VALUE-ADDED PROCESSED PRODUCTS

New Zealand firms have had **limited experience** to date – with very **mixed results** – with processed value-added fruits and moving up the value-chain is **challenging**

- “We have **tried** a number of value added products, **none too successfully**. There have been a number of kiwifruit purees, sauces over the years. The fresh fruit industry is not a process industry. They tend not to overlap. Usually it's processing sub-standard products, with the assumption the input is almost free.”
Chairman, Grower/distributor, Jan 2013
- “There is **no money in processed** for the grower. They are basically only using the reject fresh fruit. There is no focus on that sector.” *Industry stakeholder, Jan 2013*
- “**Zespri started Aragorn** in [2002] to move into value-added processing of kiwifruit into juice and looked at ingredients, but they **wound down their involvement** [2009].” *Manager, Postharvest, Jan 2013*
- “The struggle we had with processed products, was generally **globally processed fruit is a commodity product** and they add the value in the processing and at the sales and marketing end. We are more interested in the value of the input. We couldn't make the same money. We aren't in the same game as those **large FMCG processing companies**.” *CEO, Sales and Marketing Company, Feb 2013*
- “When you deal with processed fruit everything you know about fruit changes. You are up against Heinz. It is a **completely different ball game**. [avocado processing firm] has started and I admire that, but it's hard for them. In the initial fund raising they wanted \$5m and they had \$50,000 for marketing. That didn't seem right to me. I know that in the avocado oil industry the cost of the marketing was really underestimated, the actual costs are huge. They didn't realise it cost tens of thousands of dollars for promotions in US supermarkets. It is a very steep learning curve and it's **very hard going**. They shouldn't have gone so big, they should have started small in New Zealand, expanded into Australia, learnt some lessons and then gone further with organic growth.” *Manager, Postharvest, Jan 2013*
- “Olivado have invested heavily in avocados in Kenya then they ship it back to NZ. They have a brand and a presence and position but can't get the volume out of New Zealand. You need a presence at all times, you need supply.” *Manager, Postharvest, Jan 2013*

4. NEW & EMERGING FRUIT

There are **opportunities** to grow in **new and emerging fruits**

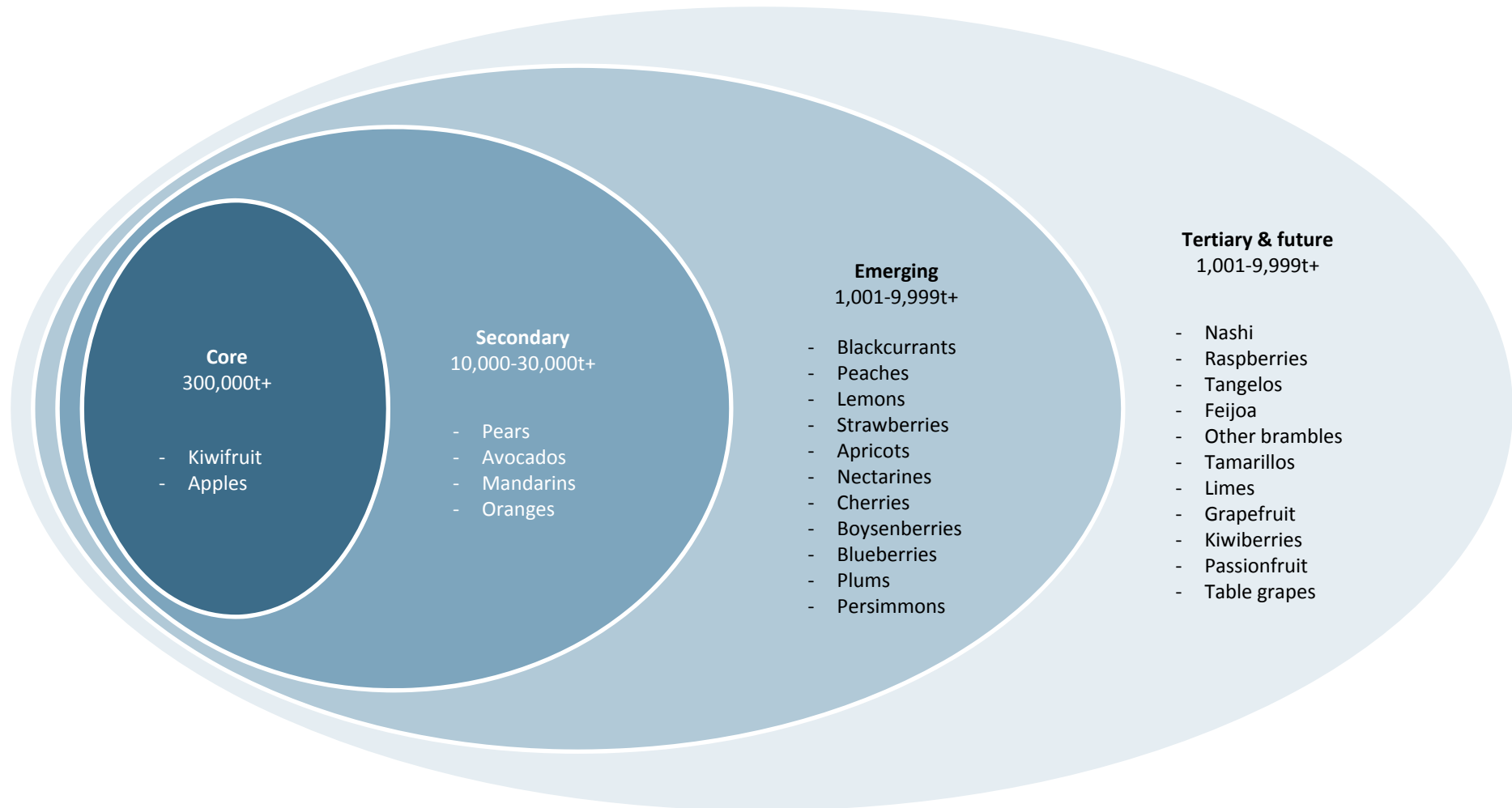


4. NEW & EMERGING FRUIT - SPECTRUM OF PRODUCTION SIZE

New Zealand **fruits** can be **segmented** into a spectrum of **size-related groups**

Spectrum of fruit grown in New Zealand by defined production size groups

Tonnes; 2011 or as available



4. SECONDARY & EMERGING FRUIT

While there are a **wide range** of secondary and emerging fruit, only **avocados, cherries and blueberries stood out for creating any meaningful export growth**

Overview of performance metrics for select New Zealand fruit (other than apples and kiwifruit)

Various; 2011 or as available

| Fruit | # of growers; 2011 | Area; Hectare; 2010 | 10y CAGR; Area %; 00-10 | Production tonnes; 2010 | 10y CAGR production %; 00-10 | Production /acre t/ha; 10 | 10y CAGR t/ha; %; 00-10 | Export value NZ\$m | Absolute Growth \$m; 06-11 | 5y CAGR Export \$ 06-11 | ~ storage life |
|---------------|--------------------|---------------------|-------------------------|-------------------------|------------------------------|---------------------------|-------------------------|--------------------|----------------------------|-------------------------|----------------|
| Pears | N/A | 473 | -6% | 25,100 | -5% | 53.1 | 2% | \$8m | +\$0.5 | 1% | 2-7 mths |
| Avocados | 1,600 | 5,224 | 6% | 16,700 | 3% | 3.2 | -4% | \$86m | +\$44m | 16% | 2-8 wks |
| Mandarins | 285 | 361 | -4% | 13,885 | 0% | 38.5 | 10% | \$3m | +\$2m | 16% | 2-4 wks |
| Oranges | 213 | 406 | 8% | 11,350 | 8% | 28.0 | 13% | \$1m | +\$1m | 35% | 4-6 wks |
| Blackcurrants | 52 | 1,450 | 5% | 8,000 | 12% | 5.5 | 8% | N/A | N/A | N/A | 1-4 wks |
| Peaches | 76 | 307 | -8% | 6,505 | -4% | 21.2 | 4% | \$0.4m | +\$0.4m | 86% | 2-4 wks |
| Lemons | 59 | 178 | -6% | 6,500 | 7% | 36.5 | 15% | \$3m | -\$0.2m | -2% | 1-6 mths |
| Strawberries | 110 | 170 | -1% | 6,500 | 0% | 38.2 | 2% | \$5m | +\$1m | 5% | 3-7 days |
| Apricots | 58 | 332 | -7% | 4,742 | -4% | 14.3 | 4% | \$7m | +\$2m | 8% | 1-3 wks |
| Nectarines | 57 | 328 | -6% | 4,572 | -1% | 13.9 | 6% | \$0.1m | -\$0.2m | -15% | 2-4 wks |
| Cherries | 87 | 646 | 2% | 4,494 | 13% | 7.0 | 12% | \$20m | +\$12m | 21% | 2-3 wks |
| Boysenberries | 21 | 195 | -3% | 3,100 | 2% | 15.9 | 5% | N/A | N/A | N/A | 2-3 days |
| Blueberries | 95 | 522 | 4% | 2,813 | 9% | 5.4 | 5% | \$16m | +\$3m | 5% | 2 wks |
| Plums | 78 | 217 | -6% | 2,781 | 3% | 12.8 | 10% | \$0.3m | +\$0.1m | 9% | 2-5 wks |
| Persimmon | 50 | 250 | -4% | 2,250 | -3% | 9.0 | 1% | \$7m | +\$1m | 2% | 3-4 mths |

4. SECONDARY FRUIT – AVOCADOS

Avocados were seen as a **strong opportunity**, particularly to **Asia**

- “There is such huge **opportunity to sell more Avocados into Asia**. It is showing massive growth. Japan is looking good. So is Singapore and Malaysia. If the production side is right - and it is economical for farmers - then there is unlimited potential.” *MD, Packer/Shipper, Jan 2013*
- “**Avocados** are such an **opportunity**. We need to open up **new markets in Asia**. We need to do what we did with Kiwifruit: get in the supermarkets; in the railway stations cutting up fruit; doing tastings, introducing the consumers to the products; showing them how it goes well with New Zealand salmon; getting it into restaurants, the press, magazines, food industry gurus. Getting them talking about why they choose New Zealand Avocados. We need to continue our focus on avocados.” *CEO, Distributor, Feb 2012*
- “We need to win the hearts and minds of the consumers, and grow **Avocado** consumption. In New Zealand our consumption per capita is approximately 1 kilo. In Australia its 2.5 kilos, it's enormous. In Japan it's 200 grams. If you can get them to 500 grams, this will be huge. We need to attract the Mums and Dads. They will listen to Masterchef or Jamie Oliver equivalents and see how it is used. Give them **a reason to consume** it, in a salad, with salmon, etc.” *Manager, Postharvest, Jan 2013*

4. SECONDARY FRUIT – AVOCADOS

However the **avocado industry** currently **faces real challenges** that need resolving

- “**Avocado** production is **shifting to Northland** - the climate there is so much better [than BOP].” *CEO, Industry representative, Jan 2013*
- “We have to look at how suited we are to avocado growing. If we can’t get around **the massive high lows of the seasons**, I don’t know how we will really sustain the growth.” *CEO, Industry stakeholder, Feb 2013*
- “We invested on a growth curve that hasn’t happened. How can we change things, at all, if it's weather related. **Increasing the production in avocados** is the most important thing. In the Bay it’s a huge retired community, 70% of the growing area is lifestyle blocks, where 5ha is a big block, in but in Northland it's 150 acres. For us in the Bay we have 80% of growers on 2ha or less. The 80/20 rule where 20% of the growers were supplying 80% of the product. We have challenges with this. How can we get new markets with **unreliable supply.**” *Manager, Postharvest, Jan 2013*
- “**We don’t really grow avocados that well** compared to other countries who grow them really well. They are warmer than we are. This is the same for oranges. This is a real issue.” *CEO, Sales and Marketing Company, Feb 2013*
- “The problem with **avocados** is they like 14 degrees day and night and we just don’t have that in the Bay, they are never going to be big and they will be biennial. it's hard when we want to establish markets.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “Avocado growers suffer from **reliable set and hold of fruit.**” *Sandy Scarrow, NZ Kiwifruit Journal, Feb 2013*
- “The nature of **avocados** means the **development of the market is really difficult.** Shortage to oversupply, they are really erratic. They have talked about 5m tray equivalents for the last 10 years and they have only achieved that once in the last 5 years.” *Chairman, Grower/distributor, Jan 2013*
- “There is a real opportunity with Avocados but they are a **tropical plant in a subtropical environment.** Entry level in the Bay is too much, so they move North. They have a lot of issues, but they are resourceful. They have a lot of **pest pressure** up north they need to deal with. We struggle with that **biennial bearing.** It’s very hard to maintain customers with that sort of fluctuation.” *MD, Packer/Shipper, Jan 2013*
- “The **avocado** growers up north might do well. The ones with **more scale** up there will do well. ” *MD, Packer/Shipper, Jan 2013*
- “Some industries need **investment to gain scale.** We need to consolidate to gain efficiencies. How do we get a Maori Trust that is sitting on large pieces of land to invest in the land, the facilities, get a 30 year agreement to lease the land. Get \$30m of avocado trees, investment in **serious volumes to move product** into specific targeted markets. We **need to step up** from a few acres here and a few acres there.” *CEO, Distributor, Feb 2012*

4. SECONDARY FRUIT – CHERRIES

Many saw **cherries** as a **great product**, but not without its **challenges**

- “We have an established customer base. **Cherries** are great, they are high value and in demand. We need to get in front of our retailer customers more often. When we are showing them cherries, we want to be showing them other products as well.”
CEO, Grower/packer/distributor, Jan 2013
- “**Cherries** are a great product that is growing. We need to increase across the season to increase the window, so we have fruit available early, mid and late season. We need the range, but that investment in new varieties takes investment. But New Zealand cherries sell themselves.” *CEO, Industry representative, Jan 2013*
- “We need to get into a market where can we a) open the doors, b) getting the volume to open up distribution channels, and c) get it to market in good condition. For example, **New Zealand cherries are fantastic, but it's difficult to get them in consistent, perfect condition** and we are struggling to complete with Chile in Asian markets. We need to work out how to get to the top shelf and work out our differences. If we can't compete on the international market we need to look at bigger and more streamlined production units rather than lots of little ones.” *CEO, Distributor, Feb 2012*
- “**About 60% of cherries still to be picked** in some parts of Central Otago have been ruined because of recent heavy rainfall, growers say. Up to 60mm of rain has fallen since Thursday night, which, followed by a warmer weekend, caused the **fruit to split**. Summerfruit New Zealand chairman and Roxburgh cherry-grower Gary Bennetts said **between 20% and 60% of the cherry crop had been damaged**, depending on how much rain fell in each area.” *Otago Daily Times article, Jan 2013*

4. SECONDARY FRUIT – BLACKCURRRANTS & BLUEBERRIES

Blackcurrants and blueberries are both under price pressure

- “We need to focus on improving the price as it hasn’t been that great in the last five to 10 years... Most **blackcurrants** are processed into beverage and as around 85% is exported and commodity driven. This is not helped by unfavourable exchange rates... Improved returns will come from new innovative products as well as broadening the number of countries purchasing the product.” *Mike Kearney, Manager, NZ Blackcurrants Cooperative Ltd, article, Oct 2012*
- “With a product like **blackcurrants** we are developing new varieties to spread flowering and harvesting time to mitigate climatic risks. Breeders are also seeking to improve anthocyanin and vitamin C levels, as well as taste.” *Jermyn, Blackcurrants NZ Inc., Chairman, article, Oct 2012*
- “You buy **blackcurrants** at a fixed price from growers, but with **exchange rates** and the **commodity** nature of the market, it is a risky business.” *CEO, Sales and Distribution Co, Jan 2013*
- “With **blackcurrants** we are doing “proof of concept’ trials and there is specific clinical data around sports nutrition. Other berries have qualities with mental ability around stress. Blueberries have anti-inflammation effects. Other berries have an effect on asthma in mice. **But we don’t have the bigger companies to pick it up**, no one to really run with it.” *Manager, Science stakeholder, Feb 2013*
- “Berries are hot globally at the moment. The problem is that typically berries are grown in the country they are consumed.” *CEO, Sales and Marketing Company, Feb 2013*
- “We have been doing well with **blueberries**, but **Chile** has come into the market. They can generally produce product at a **lower cost** than us so they compete at a strong level which puts **pressure on** historically great **returns** for blueberries. They are very site specific, they only grow in peaty areas in the Waikato and BOP, so there is cautious growth opportunities.” *Chairman, Grower/distributor, Jan 2013*

4. TERTIARY FRUIT

Within the tertiary fruit, kiwiberries (*Actinidia arguta*) were the main standout

Overview of performance metrics for select New Zealand fruit (other than apples and kiwifruit)

Various; 2011 or as available

| Fruit | # of growers; 2011 | Area; Hectare; 2010 | 10y CAGR; Area %; 00-10 | Production tonnes; 2010 | 10y CAGR production %; 00-10 | Production /acre t/ha; 10 | 10y CAGR t/ha; %; 00-10 | Export value NZ\$m | Absolute Growth \$m; 06-11 | 5y CAGR Export \$ 06-11 | ~ storage life |
|----------------|--------------------|---------------------|-------------------------|-------------------------|------------------------------|---------------------------|-------------------------|--------------------|----------------------------|-------------------------|----------------|
| Nashi | 25 | 30 | -15% | 1,000 | -2% | 33.3 | 17% | \$0.02m | -\$0.3m | -41% | 2-6 mths |
| Raspberries | 50 | 150 | -5% | 945 | -4% | 6.3 | 1% | \$0.03m | +\$0.01m | 6% | 2-3 days |
| Tangelos | 31 | 34 | -13% | 800 | N/A | 23.5 | N/A | \$0.02m | +\$0.01m | 12% | 6-8 wks |
| Feijoa | 200 | 251 | 1% | 500 | -6% | 12.0 | -8% | \$0.2m | +\$0.1m | 22% | 4 wks |
| Other brambles | N/A | 120 | 6% | 500 | N/A | 4.2 | N/A | \$0.01m | -\$0.00m | -3% | 3-7 days |
| Tamarillos | 40 | 110 | -9% | 475 | -4% | 4.3 | 6% | \$0.2m | -\$0.8m | -30% | 4 wks |
| Limes | 25 | 12 | N/A | 300 | N/A | 25.0 | N/A | \$0.03m | +\$0.02m | 18% | 6-8 wks |
| Grapefruit | 18 | 8 | -22% | 300 | -15% | 37.5 | 9% | \$0.02m | +\$0.01m | 16% | 6-8 wks |
| Kiwiberries | N/A | 27 | N/A | 163 | N/A | 6.0 | N/A | \$1.5m | +\$1.5m | 367% | 6 wks |
| Passionfruit | 40 | 17 | -12% | 110 | -7% | 6.5 | 6% | \$0.5m | -\$0.2m | -7% | 3-5 wks |
| Grapes - table | N/A | 37 | N/A | N/A | N/A | N/A | N/A | \$0.4m | +\$0.2m | 14% | 2-8 wks |

4. TERTIARY FRUIT – KIWIBERRIES & FEIJOAS

Kiwiberries and feijoas were highlighted by interviewees as products with **potential** if the **problems of shelf-life and storage** could be overcome

- “We have **doubled our planting** of the niche **kiwiberry** to 10ha. We need to build these markets. That’s the size we are dealing with.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “The **handling and storing** of the **kiwiberry** is the big **challenge** to overcome. The total market is now 20ha, it’s small.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “We have looked at other fruit to put through our operation, but it’s hard. **Kiwiberry** have a **short shelf life**, as do **feijoas**. We need to look at how to control the supply chain. Then you look at the exchange rate and that butchers most opportunities.” *Managing Director, Postharvest operator, Feb 2013*
- “**Feijoas** and **kiwiberry** both suffer the same problem of **storage life**. They are both fantastic products, they just don’t store well. **Kiwiberry** are **hard to grow and harvest** and they **can’t be sea freighted**. By the time you sell them and air freight them, not enough money drops out of the bottom line. There is the **opportunity in feijoas and kiwiberries to breed for storagability**. When there is loss on the supermarket shelves, the retailers won’t even look at you.” *CEO, Sales and Marketing Company, Feb 2013*
- “There is **no point** having a **kiwiberry** and **only being able to supply it for 2 months of the year**. We have to work out where else it can successfully grow and work with farmers in other countries.” *CEO, Distributor, Feb 2013*
- “**Feijoas** have potential, could do with promotion. They are a nice tropical fruit - most people like them. They have problems with **storage** and **shipping**, but there are too many varieties, not one main variety they can rely on. To be successful they **have to travel well**. It’s the tyranny of distance.” *Manager, Postharvest, Jan 2013*
- “Unfortunately the **costs involved with harvesting and handling** such a small fruit are high. NZ KiwiBerry Growers Inc will continue to develop **improved postharvest handling systems** to reduce the labour component required. **Picking, packing and packaging costs are high** for **KiwiBerry** compared to other Kiwifruit varieties, and the fruit needs to be air freighted to international markets.” *New Zealand Kiwiberry Growers Inc. website, 2013*
- “Freshmax NZ Ltd is the holder of the exclusive New Zealand master **kiwiberry** license, granted by Plant & Food Research (PFR) to commercialise four of their proprietary kiwiberry varieties. This month, Freshmax welcomes the decision by select growers to advance these varieties into commercial production in New Zealand.” *article, August 2012*

4. TERTIARY FRUIT – CHALLENGES

There are a wide range of **challenges** for any **new and emerging fruit**

- “A key issue with new varieties is: “Is there someone who is willing to spend the money and **really invest in it?**” **You need scale.** You can sell 100,000 trays, but if there is only one variety, will you get your money back? How much did you spend to breed that fruit? You need scale. You **need volume** to make it worth while.” *CEO, Industry stakeholder, Feb 2013*
- “**Any business that is air-freight will be a small business** from New Zealand. It is niche due to the high price... We need to look at which fruit store such that we can get them to market via sea freight in great condition.” *CEO, Sales and Marketing Company, Feb 2013*
- “When you move into secondary fruits you are dealing with **smaller quantities, lower volumes, fewer growers overall** and they are **less professional** and **less sophisticated**. They don’t have the good **systems** or **processes** required and demanded these days. There are probably more opportunities with collaborative marketing with Zespri.” *CEO, Grower/Shipper, Feb 2013*
- “We have looked at **citrus** but there is not room for more exporters with the **small size** of the existing supply base. Our **quality** doesn’t compare to Australia’s. You need to do **a lot of work** before you get any traction. It looks **too hard.**” *CEO, Grower/Shipper, Feb 2013*
- “**Persimmon** growers face **difficulties achieving fruit quality** standards due to **pest** and fruit finish problems; the summer fruit industry struggles with its own **bacterial diseases** (caused by *Pseudomonas syringae* and others); cherry growers risk **hail and rainfall events** resulting in high reject rates.” *Sandy Scarrow, NZ Kiwifruit Journal, Feb 2013*
- “I am slightly cynical. We have had **so many boom and bust stories over the years** beyond horticulture: kiwifruit almost went bust in 1983; Angora goats; llamas. We have cautious optimism... We look at IP around new varieties and wonder will they even grow in NZ. They look great out of California and South Africa but until we prove it commercially in New Zealand, it’s risky.” *Chairman, Grower/distributor, Jan 2013*
- “We need to find fruit with a **point of difference**, whether that is taste, appearance. But it also needs to be worth it for the grower, with a high yield. There’s a big investment in dollars and time and not all are winners. Mandarins for example need to be easy-peel and seedless and a good size.” *CEO, Grower/packer/distributor, Jan 2013*
- “There is no point moving into new areas. The price of entering, the scale required in today’s markets and the hassle makes it’s not worth our while. **We would be better just selling more royal gala in high priced markets.**” *CEO, Grower/Shipper, Feb 2013*

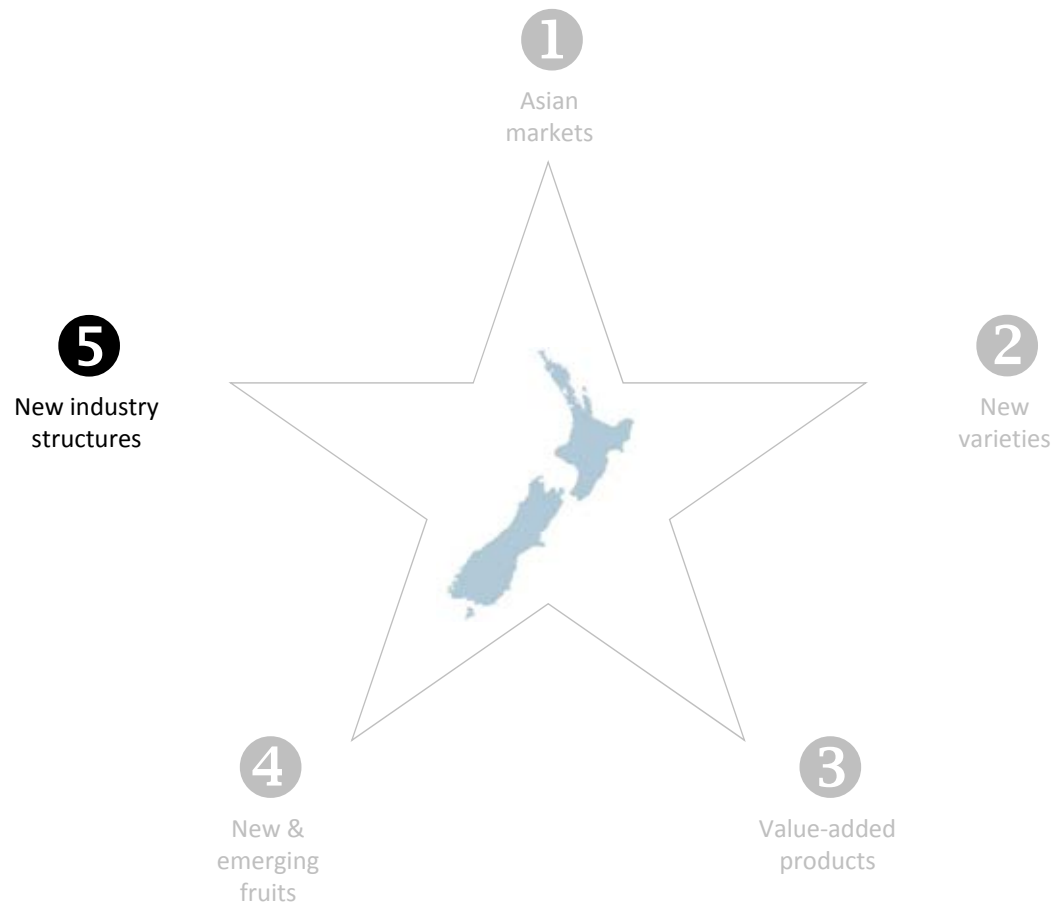
4. NEW & EMERGING FRUIT

Interviewees **appreciated** the research and **capabilities** of **Plant & Food Research**

- “Being able to **develop IP protected fruit** and to be able use **Plant and Food** [Research] is **very important to everyone**. A lot of products like apples **developed** that have **not been commercialised**. I bet there are a lot of other fruit and products that people - the right people - don’t know about that can help companies achieve growth. We would like to build a closer relationship with them.” *CEO, Distributor, Feb 2013*
- “We need to **work more with Plant and Food** Research to see what other fruit are out there, that make sense for us to export to Asia.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “There is a very long and constant **pipeline of fruits** that can come through. Especially ones with real health attributes, blackcurrants, **blueberries**, apples are a few years away... We need to do the marketing and understand what the consumer wants.” *Manager, Science stakeholder, Feb 2013*
- “There is an increasing amount of **research** and breeding specific plants for increased concentrations of **antioxidants** and phenols to be used in the sports and health industries.” *Industry representative, Jan 2013*
- “We are very excited about the development [by P&F] of PremP109 the new “Inter-specific Pears”. These can be developed into a new fruit category.” *CEO, Plant and Food Research, Jan 2013*
- “The Asian/European pear crosses [developed by P&F] are creating a new category of fruit. It is a new fruit type it will be interesting to see how they will be received. I am sure they will focus on big and red. They have the crunch and texture of the Asian pear and the taste/flavour of the European pear.” *CEO, Industry representative, Jan 2013*
- “The idea of introducing hybrids such as “**plumcots**” is an interesting one. There is some opportunity there.” *Industry representative, Jan 2013*

5. NEW INDUSTRY STRUCTURES

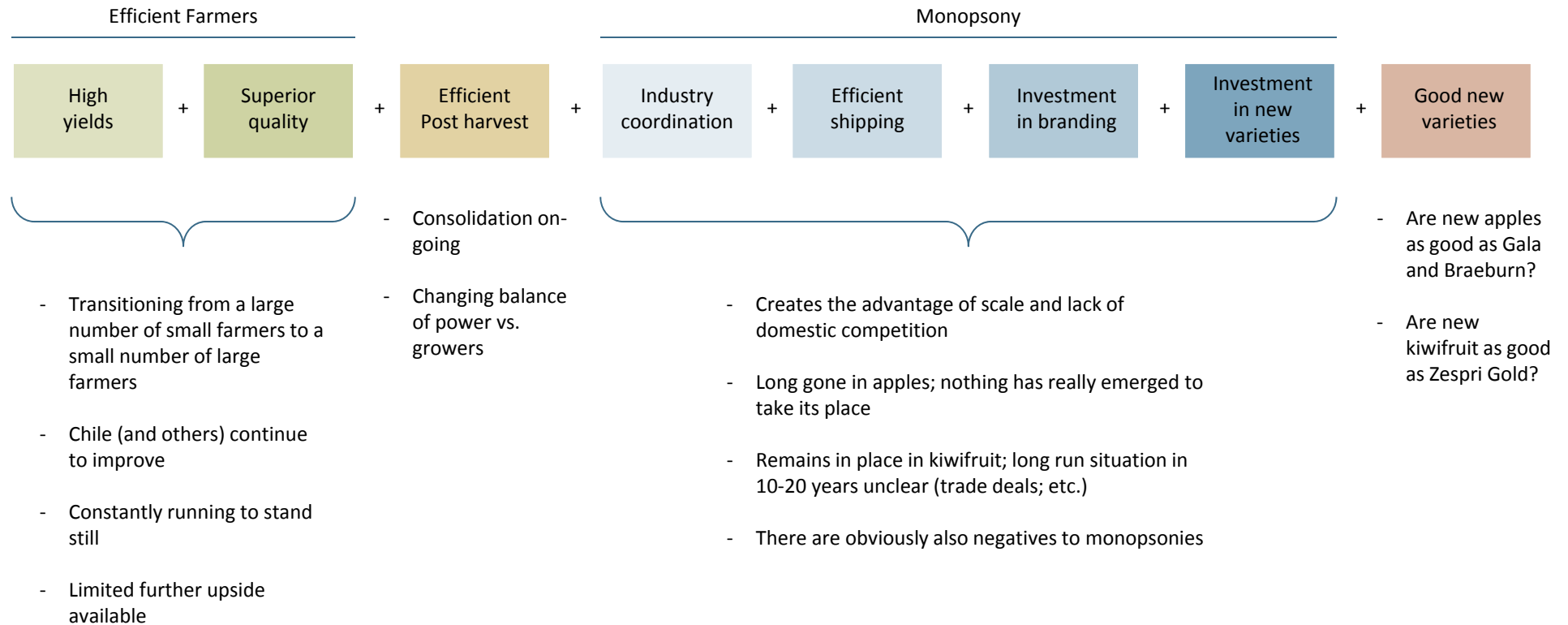
There may be **opportunities** to grow through **new industry structures**



5. HISTORICAL NEW ZEALAND MODEL

We have identified the following as the **key drivers** of the **historical success** of the New Zealand fresh fruit model in **apples** and **kiwifruit**; large parts of the model **no longer function in apples** and are **under pressure in kiwifruit**






Proposed simplified model of the driver of the historical success of the New Zealand fruit industry
Model; 2012



5. CURRENT MODELS

The New Zealand **fruit industry** currently operates **under a range of regulatory environments** that vary by crop (and in some cases by market)

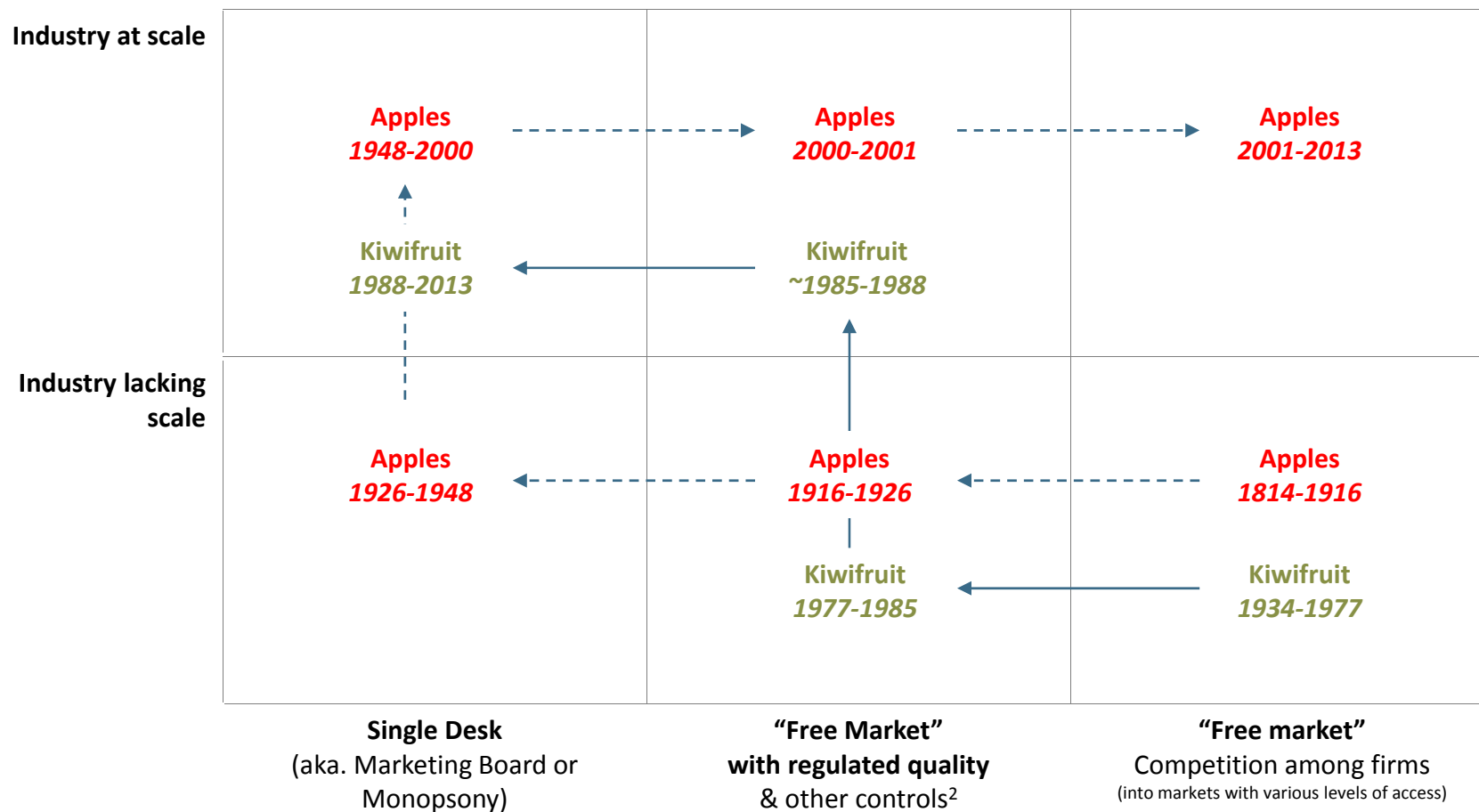
Simplified model of current New Zealand regulatory system by crop
2013

| | 1 Single Desk <i>(aka. Marketing Board or Monopsony)</i> | 2 Regulated “Free Market” <i>with mandated quality & other controls²</i> | 3 “Free market” <i>Competition among firms into markets with various levels of market access</i> |
|-------------------------------|--|--|--|
| Industry at scale |   A&PMB <i>(historically)</i> |  Kiwifruit (AU only) <i>(Others existed historically in NZ; e.g. NZ Kiwifruit Authority 77-88)</i> |  |
| Industry lacking scale | <p>None currently <i>(existed historically in NZ¹; e.g. Citrus Marketing Authority)</i></p> |  <ul style="list-style-type: none"> Avocados Blackcurrants Boysenberries Kiwifruit (AU only) Nashi Persimmons Tamarillos Cherries Apricots Peaches Nectarines Plums | <ul style="list-style-type: none"> Pears Mandarins Oranges Lemons Strawberries Blueberries Raspberries Tangelos <ul style="list-style-type: none"> Feijoa Other brambles Limes Grapefruit Kiwiberries Passionfruit Table Grapes |

5. CURRENT MODELS

It is important to recognise the **regulatory environment** is not “set in stone” and **changes over time**

Simplified model of current New Zealand regulatory system by crop
2013



5.1 MODELS – SINGLE DESK – ZESPRI

There was **strong agreement** by most that the **Zespri single desk structure created value**

- “In kiwifruit the single desk **has worked well**. It works for the benefits all of New Zealand and increases the overall returns. Zespri is **quite well managed**. They have the **size** and **reputation**, so they attract pretty **good people**. They have been able to do a lot of research and invested a lot in branding as well as having the single channel, so you are not competing with NZ suppliers.” *CEO, Distributor, Feb 2012*
- “The **advantages of limited competition** and the **ability to have scale** can not be **underestimated**. It’s not just having the IP in cultivars. It’s having the **ability to invest** in getting the leading range of cultivars. As soon as Zespri loses control of gold volumes, the premiums will evaporate.” *CEO, Sales and Marketing Company, Feb 2013*
- “**Retaining the single desk is absolutely vital**. It gives us strength in the world market. The industry would only survive at the margins, products would turn into commodities not a premium product.” *Managing Director, Postharvest operator, Feb 2013*
- “New Zealand doesn’t have the weight to be **competitive** with each other in-market, we have to **work together**. It’s not like 4 million people can consume what we make, like they can in, say, Australia. You see what is happening in the Meat industry and think far-out. If we competed on price other countries would get in and they are well moneyed.” *Manager, Postharvest, Jan 2013*
- “The single desk cooperative approach for **selling and the free market of postharvest is a really good mix**. We fight for our slice of the pie to do better. If you go into a market and **compete on price you are toast**. The real things you compete on is the surety and quality of supply and safety. They don’t want flaky people who come in and out. In-market it is really important that we work together.” *Manager, Postharvest, Jan 2013*
- “Zespri get messages back to growers via the taste payments and early season payments. It drives people to change their business in accordance with what the market is demanding and will pay for.” *CEO, Industry stakeholder, Feb 2013*
- “**The biggest challenge in growing exports is size**. You need to have reasonably sized producers to export. We lack that. We have **Zespri**, but that is it.” *CEO, Grower/packer/distributor, Jan 2013*
- “We are **better off** having the **single desk, absolutely**.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “Postharvest operators **don’t want to get rid of the single desk**, we just want to sort it.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “The benefits of the Kiwifruit system are such that **if we change a part of it, it may damage it**. It may create more problems. It may be just the personalities of some local people.” *CEO, Industry stakeholder, Feb 2013*

5.1 MODELS – SINGLE DESK – ZESPRI

In particular, Zespri's role in **coordinating the total industry response** to the **PSA** crisis was highlighted

- "A good example of the **cooperative approach** was when **PSA** come through. We all sat around and got to a position of understanding of the issues, changing practices, etcetera in 3 months. It took the Italians 7 years to get to that stage, because they were all working independently." *Manager, Postharvest, Jan 2013*
- "Zespri has a **strong model**, but with **PSA** there is a real can of worms. But they are doing work on **R&D** and we would not have been able to control PSA without their program. In the next 5-10 years there will be a fair bit of change. Ego's need to be put aside, that's the biggest thing." *Managing Director, Postharvest operator, Feb 2013*
- "A well run single desk certainly has its advantages, no doubt about it. In terms of extracting value from the market. The **industry response to PSA** is a good example. Italy was in an absolute shambles." *Chairman, Grower/distributor, Jan 2013*

5.1 MODELS – SINGLE DESK – ZESPRI

However, the Zespri system was **not** seen as **perfect**

- “[Zespri] is **not without its challenges.**” *CEO, Distributor, Feb 2012*
- “There are **risks involved.** An **issue can ruin your reputation** and New Zealand’s. Like in China with the fraudulent business practices and in Korea with the anticompetitive behaviour. There are some **dark clouds on the horizon.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “So much **information is filtered** and it’s filtered for a reason. Some of it is for commercial reasons and some for political reasons... We need growers to focus on what they are doing, so a lot of information is filtered.” *Manager, Postharvest, Jan 2013*
- “Growers have been **removed from the decision-making** for the last 10 years in kiwifruit. I don’t think this model is as strong as the grower co-op which has a strong connection to the grower.” *Manager, Postharvest operator, Feb 2013*
- “You **assume** that Zespri have better **buying scale** when booking **shipping and packaging.** There should be some advantage in that, but **not sure** that they do.” *CEO, Industry stakeholder, Feb 2013*
- “The **model isn’t perfect** with the single desk.” *Chairman, Grower/distributor, Jan 2013*
- “To have a vertically integrated corporate business you need to control the markets, marketing, shipping, cool storage, logistics,

packing, and growing. But with no ability to get near the marketing then you **won’t see the same corporatisation in kiwifruit.** If the Postharvest operators owned Zespri, then you would see more Corporatisation and more money come in.” *CEO, Distributor, Feb 2013*

On the other hand...

- “New Zealand **kiwifruit competes** in international markets against kiwifruit from other countries and against other fruits in the face of **severe competitive disadvantages** particularly land and labour costs, the strength of the NZ dollar, and distance to markets. Of course, by their nature, there is **some noise** around the NZ kiwifruit **regulations**, but in the end when you look at volume growth and value to the grower the model delivers. Growers overwhelmingly support the integrated structure. Growers are the ultimate risk takers in the NZ kiwifruit industry and successive New Zealand governments have supported their choice to retain the integrated structure”. *CEO, Sales and Marketing Company, Feb 2013*

5.1 MODELS – SINGLE DESK – ZESPRI

In particular, many felt Zespri has **opportunities to improve**, particularly around **cost control**

- “Kiwifruit is in a state of flux, with questions around viability of industry... That’s why it’s important to **get as many costs as possible sorted out** in the supply chain and getting more money back. We are all strongly competing to get our packhouses and coolstores full, and we are competing on price... If the **single desk doesn’t feel the same pressure** then that creates some **resentment**. Growers and postharvest operators are shopping at PAK’nSAVE while Zespri are still shopping at Harrods.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
 - “We need to **keep pressure** on the **system**. We need to look at **rationalisation around some expenses.**” *CEO, Industry stakeholder, Feb 2013*
 - “[Zespri] just need to **work on some in-market costs.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
 - “Many operators feel we are **leaving a lot of money on the table** through the supply chain and think “it’s **not that efficient.**” In the process of getting to the guy who wants to buy it, something like \$50-\$100 million is left on the table, lost through offshore fruit loss, or offshore handling costs or offshore loss of fruit quality.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
 - “The **system** is **so cumbersome**, and the checking and handling and rechecking and re-handling, it’s **ridiculous**. If 3% of fruit is suspect, it might be better to leave it alone and send it to China and get it reworked there.” *CEO, Post Harvest Kiwifruit, Feb 2013*
 - “The single-desk has its challenges. There are **issues around choice**. Growers are not able to exert much power over what happens to their fruit once it leaves them.” *CEO, Distributor, Feb 2012*
 - “If you look at the amount that we are **spending per hectare for marketing the price is huge** - to get that crop sold - compared to how much we are making. We could have been **more innovative** to save money. For gold they pay around \$20,000/ha to get it sold... for green it’s \$8,000... Apples are more efficient: they have great packaging. A lack of money has meant they have needed to be more innovative. Our boxes are gilt lined. I’m not attacking Zespri. I think they have a great selling and distribution system. They could just be **more efficient.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- On the other hand...*
- “**Most costs** in the NZ kiwifruit supply chain sit in **fully competitive markets**, i.e., packing, packaging, storage and fruit handling in New Zealand, with international freight and oil markets being the main direct costs offshore. By far the most significant compressible cost opportunity is in fruit quality management. Together New Zealand growers, post harvest operators, and ZESPRI have achieved significant reductions in this space with fruit quality costs for Green reducing from \$1.21 a tray in 2010 to 80 cents a tray in 2012 – that’s \$34 million dollars across the Green inventory.” *CEO, Sales and Marketing Company, Feb 2013*

5.1 MODELS – SINGLE DESK – ZESPRI

Some felt there were **opportunities** for Zespri to enter new products

- “Zespri **aren’t commercially driven**. They don’t see the **opportunities to add other fruit** to their business, but the post harvest operators do. They are trying to drive other fruit, like avocados, and they have to fight with Zespri. There are **no piggy-back benefits** to New Zealand **and there should be**. They should be using their selling power to **sell other products**. That’s where the DelMontes the Doles do especially well.” *CEO, Distributor, Feb 2013*
- “The **postharvest kiwifruit** guys should be **less specialised**. They **should be selling apples**. And the apple guys should be selling kiwifruit. Then we can get the other emerging fruit into the markets, like the cherries, nectarines. The stumbling block is Zespri.” *CEO, Distributor, Feb 2013*
- “In-market Zespri should be able to open the doors to **other products**, but it doesn’t seem to.” *CEO, Post Harvest, Feb 2013*
- “Zespri have **not really developed any other products** to take advantage of their position. If we had Turners and Growers competing with Zespri then Zespri would have to be more commercial.” *CEO, Distributor, Feb 2013*
- “Most exporters try to deal with customers 12 months of the year. Talking to [customers] regularly is an advantage. It would be good to be able to add kiwifruit to our basket. **Zespri looked at having a whole fruit basket, but that was squashed by growers**. For a government protected entity to go out and procure in competition with other NZ companies was **an interesting dynamic**. So they looked at sourcing from the northern hemisphere instead, grown in Italy. To be in the supermarket in a 12 month basis is important.” *Chairman, Grower/distributor, Jan 2013*

5.1 MODELS – SINGLE DESK – COLLABORATIVE MARKETING

Two interviewees cited **challenges with the “collaborative marketing”** model that allows kiwifruit exports outside Zespri

- “It is **very hard** to get the **collaborative model** working well. You develop a market then Zespri could take it over the following year.” *CEO, Distributor, Feb 2013*
- “We are a vertically integrated grower, and marketer of fruit and vegetables and we have developed our own [kiwifruit variety]. But **working through Zespri is very frustrating**. We think we have a great product. But if you are outside the Zespri camp, it’s difficult and not streamlined with so many hoops to jump through. Kiwifruit NZ make the **paperwork and compliance extremely tiresome**. The **process is hard**. There is **no point** in applying for Japan, Taiwan, Korea or mainland China. The **premium markets are off the table**. We have offices in [Asian country]. We could do a good job, but there is no point. So we have production in [South American country] of that variety to enter these premium markets. There is no point funding it in NZ, even the collaborations are for one year.” *CEO, Grower/Shipper, Feb 2013*

5.1 MODELS – SINGLE DESK – HISTORICAL PIPFRUIT

Many stakeholders **highlighted** the historical **“mismanagement”** of the **regulated Pipfruit** industry and the inefficiency inherent in protection

- “The **regulated Pipfruit** industry [under the Apple & Pear Marketing Board] **didn’t really work**. Often the system success depends on how the system is managed. **If management is poor** in a good system then they will cock it up. Pre-deregulation, the Pipfruit industry was poorly managed. Poor decisions were made. They didn’t give the growers good feedback or assist them with what varieties to grow. So the breeding program **lacked focus**. We underestimate the quality of the management, it comes down to a people thing.” *CEO, Industry stakeholder, Feb 2013*
- “The **pipfruit industry** [under the Apple & Pear Marketing Board] had **constant mismanagement**. They went from 100% of the market at deregulation to 75%, now they are down to 25%. It was good for us. We kept picking up supply as our returns went up and ENZA’s went down.” *CEO, Grower/Shipper, Feb 2013*
- “Enza [the Apple & Pear Marketing Board] wasn’t working, but it was such a shame to lose all the IP and the competitive advantage we had in apples. We lost control of the market place. That was really sad. After deregulation every year we were leaving 3-4 euro on the table through negotiations competing with each other. That was a total of 20m Euro. Changes had to be made at ENZA.” *GM, Grower/packer/distributor, Jan 2013*
- **“Protection is not good for any industry.** We need an open market, not a **fat and lazy** market. We can’t afford to sit around, because I guarantee they aren't doing that in South America.” *CEO, Distributor, Feb 2012*
- “The single seller and the integrated system is great, **just not efficient.**” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “As a country we are trying to export a premium product into a market we don’t really understand. Therefore sell together and try and control it, but the downside is the marketer may become **fat and lazy**. How do we find an equilibrium because it is better to sell through a small number of growers.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- **“A single desk does not always mean efficient.”** *CEO, Post Harvest Kiwifruit Operator, Feb 2013*

5.2 MODELS – REGULATED FREE MARKET – THE HEA MODEL

The **HEA model** was seen as **good** as far as it went, but with **real limitations**

- “With the **HEA model**, it **controls some basic factors** around **quality** of product and they have the opportunity to institute **levies for market development**. All growers contribute to it and it encourages players to work together. It’s a good structure to sit around the table and build trust with others before doing business with them.” *CEO, Distributor, Feb 2012*
- “Most of the exports under HEA you have to muck around with, and it’s all a bit cloak and dagger stuff for us. We did one year and **you have to expose quite a lot** about your buyers and suppliers. The board knows all your business. We had a situation where **confidentiality was breached** and the supplier was approached. Everyone knows everything about your business. The actual **system has no teeth**, no one polices it. There are no restrictions on volumes, prices. It just adds another layer of bureaucracy. I can’t really see the point.” *CEO, Grower/Shipper, Feb 2013*
- “The HEA model is **pretty light handed**. It has criteria, but does not dictate to the extent as other models do. There is a minimum entry criteria, but it’s not highly restrictive.” *CEO, Industry representative, Jan 2013*

5.3 MODELS – FREE MARKET

Free markets were recognised as the default global model but with real limitations in the New Zealand environment

- **“Most countries operate in a free market** - Chile, South Africa, Brazil. They all have really big players, like Capespan. We just can’t achieve that, so we are at a disadvantage. A competitive environment is healthy, but information collaborations are needed.” *CEO, Industry representative, Jan 2013*
- **“Generally speaking in Pipfruit and Onions the signals get back to the growers very quickly** via the price.” *CEO, Distributor, Feb 2012*
- **“People are fine with a free market** when the **returns are \$20** a tray. But as soon as it’s **down to \$9** a tray everyone is **baying** for blood and **calling for a co operative.**” *Manager, Postharvest, Jan 2013*
- **“Small players can be involved in a completely free market.** They can export to targeted small market niches. If someone wants 5,000 trays of kiwifruit then they can be serviced. But you can lose value as people try to trade themselves into the market. Opportunistic players can make a mess of some markets and that has implications for the next players.” *CEO, Distributor, Feb 2012*
- **“[In apples] people don’t want a single desk again and some profitable companies have emerged.** But there are 99 exporters. Singapore has 4 major importers of fruit and there are 30-40 exporters from New Zealand knocking on their door. It just doesn’t work. They play them off against each other.” *CEO, Grower/Shipper, Feb 2013*
- **“Many of the players in the avocado space are trying to market from the seat of their tractor.** Ultimately they don’t get that they can’t build on supply and the brand from that position. They are acting like the meat industry. They are after the dollar. There is **a lot of competition** in Australia, it’s open slather. And in bad years where there **is too much fruit** in the market, **the OGRs are low.** They send it to wholesalers and they have to turn it over quick. **Australia can’t just keep absorbing** it at high prices. They can absorb 2 million trays at good prices but not 6 million trays. You need to send 4 million somewhere else.” *Manager, Postharvest, Jan 2013*

5.3 MODELS – FREE MARKET

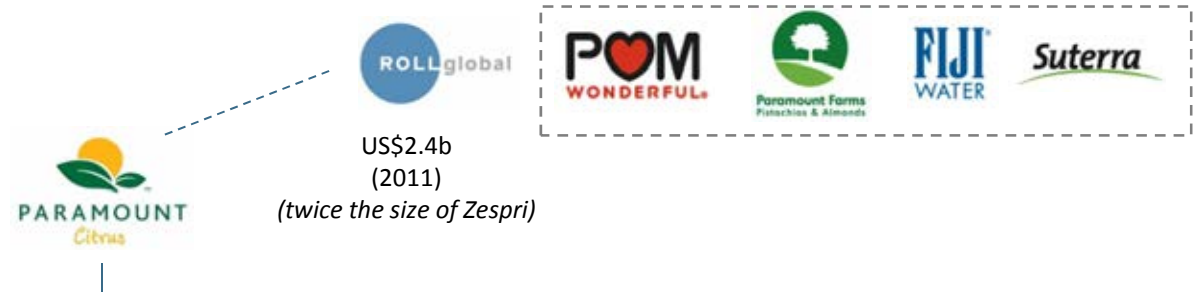
Success – particularly in the free market - requires scale

- “The **trend** in the apple industry is towards a **fully integrated operation** like Scales/Mr Apple, Apollo.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “To **gain scale and control**, the apple industry is moving towards a **grower/packer/shipper model**, where the business is vertically integrated. This model is more profitable, as they get margins throughout the supply chain. These **larger corporates are now 65% of the apple business** and are more profitable.” *CEO, Industry representative, Jan 2013*
- “**Scale is a real challenge**. I think we will see more mergers to create scale... **Scale allows for more investment** in things like large central irrigators, which can be paid off in two years due to the resulting increased yields.” *CEO, Industry stakeholder, Feb 2013*
- “**Scale is overwhelmingly important**. We are seeing rationalisation and consolidation. It is necessary for these large rationalised companies to be able to own their own IP, and organise themselves, and operate their systems and enter markets in rational ways. There is enormous value in that. Scale is important in all models. **Rationalisation is the relentless drive of economics**. The retailer and supermarket consolidation continues; port company integration - most ports in Europe are in the hands of one company now; shipping companies the same. So there are implications to us. The continued need for scale will drive consolidation in the NZ fruit industry.” *CEO, Sales and Marketing Company, Feb 2013*
- “The problem with apples is **scale**. There are **200 exporters**, compared to kiwifruit with essentially one. Apples after deregulation all fought on price. We need to get more controls like Zespri across other categories. Controls on supply, systems, standards and quality. If we get volume, we can increase marketing budgets. But it’s hard - everyone wants to row their own boats.” *CEO, Grower/packer/distributor, Jan 2013*
- “With organic apples we are the number one player with **90% of the export volume**. We are very focused on it. We are good at it, with good yields and efficiencies. **We have scale**, so we are one of the very few left. Mr Apple pulled out of organic apples which left us. It has been extremely successful for us. We are dominated by North America with the organic market. We are also able to **balance the risk** with other products like squash, onions.” *CEO, Grower/Shipper, Feb 2013*
- “We have seen a lot of consolidation downstream with traders purchasing apple orchards. I think the reverse will be true going forward, with independent packers and growers ensuring they have the customers and buying up and consolidating the exporters, to ensure there is more alliance and coordination. There are a lot of NZ exporters, but the bulk is controlled by 10-15 players. We need coordination to maximise the volumes to the good customers.” *GM, Grower/packer/distributor, Jan 2013*

5.3 MODELS – FREE MARKET – INTEGRATED GROWER/PACKER/SHIPPER MODEL

Globally the fruit industry – where un-regulated – appears to be moving rapidly toward the integrated grower/packer/shipper model, where everything is done under one roof

EXAMPLE: Paramount Citrus (US #1 citrus producer)
Model; 2012 or as available



Growing

Own Orchards
17,000 hectare

Similar in size to total NZ apple & kiwifruit area

Contract growers

Seasonal or multi-year contracts

Packing

4 regional packhouses & coolstores

California (2); Mexico (1); Texas (1)

200,000t/year
15m cartons in CA
10m+ 40lb. EQC's

Recently spent YS\$200m for new plant (including \$15m to Compac (NZ))

Marketing

Branding & IP

- Own mandarin variety
- Launched brand in 2004



Marketing

- Spent US\$20m on marketing campaign in 2012

Sales

- Wonderful brands Sales and Merchandising
- Sell directly to retailers
- 180 sales & merchandising employees
- Shared with POM

Logistics

- In-house transportation staff
- Dedicated national carriers

5.3 MODELS – FREE MARKET – ONGOING CONSOLIDATION & GLOBALISATION

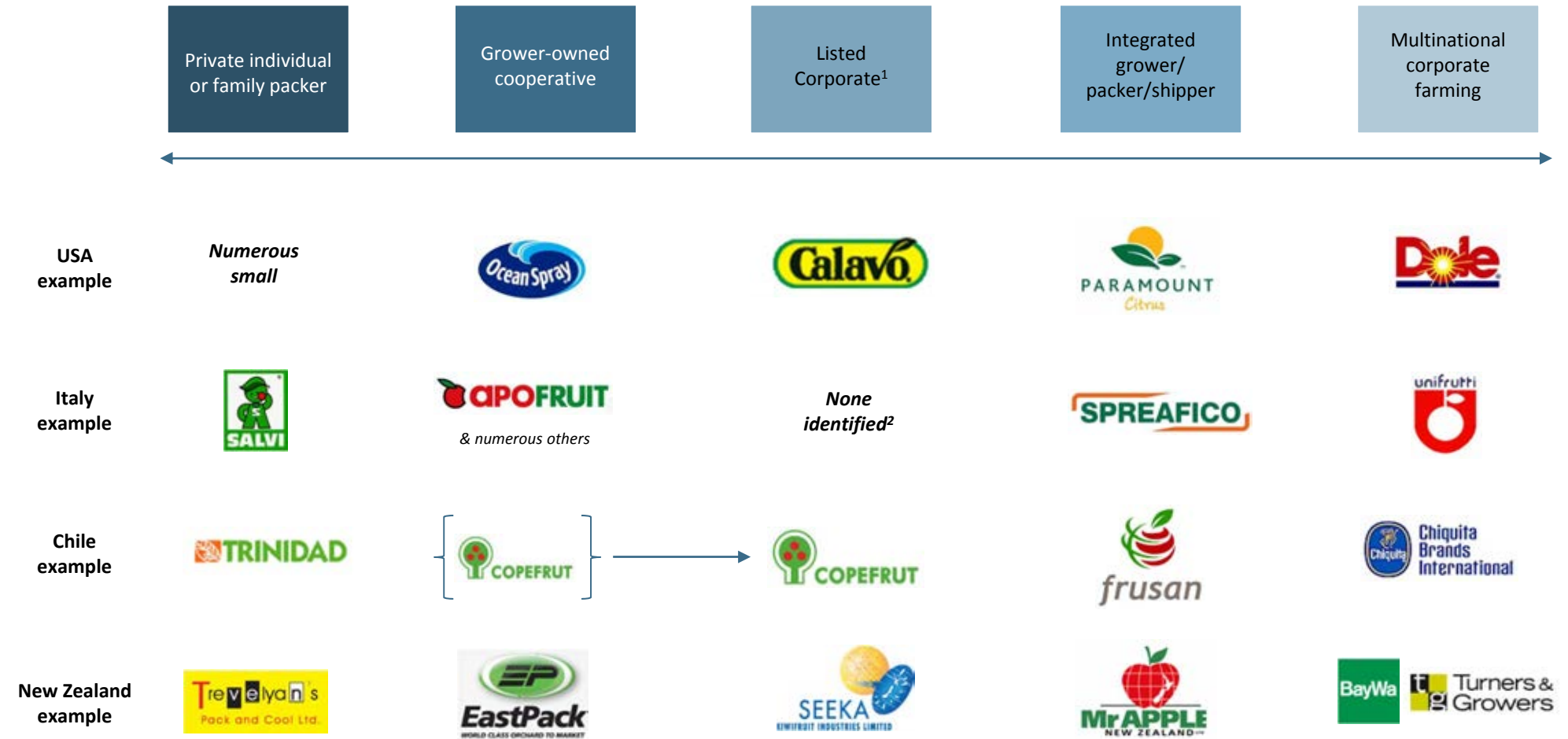
The **Baywa acquisition** of T&G and **Direct Capital's investment** in Mr. Apple were generally seen as **positive**; **more consolidation is expected**

- "The **Baywa** acquisition is **good**. They bring a **lot of expertise and knowledge** in pipfruit and that is a **positive** thing." *CEO, Industry stakeholder, Feb 2013*
- "**Baywa** entering the market has been **hugely positive**, as it brings a genuine apple business to New Zealand. I expect there to be more consolidation in the market and those guys to be focussing on IP. The seeds of growth are there." *CEO, Sales and Marketing Company, Feb 2013*
- "When the big guys get involved, you see **much more plantings and exporting**. You get Direct Capital investing in the industry. It's a **good sign** that **they see growth and potential in the sector**. With the fragmented industry post-deregulation, they obviously see **the opportunity to consolidate** it a bit more. And see **more sensible marketing** in markets like Asia." *CEO, Grower/Shipper, Feb 2013*
- "I think there is **more than one apple company** out there that **would sign the cheque** if they were approached by the big guys. Some of these guys will start to merge. It makes sense. Then if there is 50-60% of volume under one umbrella then we can get grunt in-market and with promotions. Then it's cents per carton instead of dollars." *CEO, Grower/Shipper, Feb 2013*
- "Aggregation is good. **Mr Apple and Fernridge** now have more clout and it's **easier to get scale** in the market with a **stronger position** with price, position and supply. it's good. It shows there is **confidence to invest** in a growing market. it's **worth spending money**. There is now a **global network** to support their business. Now there may be **investment** in the land." *CEO, Industry representative, Jan 2013*
- "There is no long term strategy by moving between exporters and packhouses and playing a trading game. We need to deal with fewer people and work more in-depth in-markets and see what needs to happen to grow. **By merging and working together more we can gain scale - Apples aren't big enough yet**. We need to **keep planting, consolidating, and focusing** on key markets and really showing some strategic thinking, which hasn't been happening." *CEO, Grower/Shipper, Feb 2013*
- "With Maui investment into [Freshmax], we can again look to significant acquisitions in 2012 to further expand our business profile." David Smith said in a statement. Paul Chrystall, managing director of Maui, said the fruit and produce industry was undergoing significant change and growth in both Australia and New Zealand." *Idealog, Jan 2012*

5. MODELS – OWNERSHIP

There is **no one clear “right” model** for industry **ownership**; most countries use most ownership models, as these examples show

Range of ownership models for fresh fruit companies globally
2013



5.3 MODELS – FREE MARKET – OWNERSHIP

The **corporate model is not necessarily superior or infallible** (nor is the cooperative model)

- “We are a grower owned co-operative and the **relationship between the grower and exporter has been getting closer**. Our aim is to provide a niche quality product. . We are trying to maximise the incomes of the grower shareholders. To do this you need good relationships around the world with customers. UK, North America is good for us. 70% of our business is direct to retailers in these market, so there is no middleman because of that we can generate a high return.” *GM, Grower/packer/distributor, Jan 2013*
- “With the corporate model, you have to perform or the growers will move on. With the co-op model you can’t really get out. There **is a lot of loyalty of the growers**. They are pretty evangelical with their model.” *CEO, Post Harvest Kiwifruit Operator, Feb 2013*
- “Corporates are bad for looking at the “P & L” and **trying to get expenses down**, but that is often **at the expense of fruit quality**. Lower value inputs equal lower value outputs and lower net profit.” *Chairman, Grower/distributor, Jan 2013*
- “You need to be large and quick on your feet. [US cooperative] Sunkist changed over time - it got to huge scale - but was not contributing to the bottom line. [The Sunkist growers] ended up having to break it up into regions to get better performance out of it.” *Chairman, Grower/distributor, Jan 2013*



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THE FUTURE – MORE COLLABORATION

Many interviewees highlighted the **opportunities for more collaboration** going forward

- “We really need to **work together** to gain **economies of scale**, whether that is with **logistics, volumes** or **branding**. We can’t do it by ourselves we have to work together, particularly **in market**.”
CEO, Grower/packer/distributor, Jan 2013
- “New Zealand **needs greater cooperation across industry**. We don’t compete with our neighbours we complete with other countries. We get a **trader mentality** because we don’t build a real market and relationship. We try to encourage either the HEA framework or voluntary agreements.” *CEO, Industry stakeholder, Feb 2013*
- “**Working together**, like AVANZA, **really seems to make sense**. It’s the way to go. Don’t compete with each other but compete with other countries. They need scale to supply customer needs 12 months of the year. This is a good decision and held up as a good example of collaborations that can work. We are not going to double exports by small growers growing alone. They need scale and to work together.” *Industry stakeholder, Jan 2013*
- “With apples collaborations are around control of the IP. Generally exporters don’t together to market and promote the product. There are consortia to commercialise new varieties. They coordinate informally on volumes, competitors and sometimes they share information in-market. Generally the exporters are very independent, and it’s taking time to get confidence, but it is evolving.” *CEO, Industry representative, Jan 2013*
- “Getting together in areas like freight would be really beneficial. We could get together and form a shipping company or group.”
GM, Grower/packer/distributor, Jan 2013
- “We have always believed that **offshore, we should have a company that represents a group** apple or fruit of companies. Like the meat in North America. At the time of Enza we could have had part ownership of offshore Enza companies. We could still do something like that. There is greater demand than supply. It would be beneficial in the market to work together.” *GM, Grower/packer/distributor, Jan 2013*
- “To collaborate, companies need to park their ego’s. At the moment many companies think negatively about the competition. They need to change their headspace. They can work together to know the markets, find what the retailers want, and what they need to do to supply.” *MD, Packer/Shipper, Jan 2013*
- “It’s being left up to exporters to coordinate together. They tend to look at financial return now to them, it’s hard. Pipfruit NZ can not mandate it. The growers have to be on board. Do it on a small scale first and others will follow and join. Getting access to the buyer is important. We could work with companies who have different apples that the retailer wants. We don’t have all the apples.” *GM, Grower/packer/distributor, Jan 2013*

THE FUTURE – INTERNATIONAL COLLABORATION

Interviewees also highlighted the **opportunities for more international collaboration going forward**

- “Growers need to work together more and especially in international markets. We can’t afford to have a fortress mentality any more. That has to go. We are all used to running our own empires, but we need to work together to get **scale and efficiencies**. That includes working with Australia also. We can **break down the Trans-Tasman rivalry** and work together. If we have **Central Otago and Tasmania working together** in Cherries they could be much more profitable.” *CEO, Distributor, Feb 2012*
- “The success of Zespri has been in part driven by its relationship with Dole in Japan and Asia.” *CEO, Distributor, Feb 2013*
- “The success of Turners and Growers with Jazz and Envy is they will be able to have the **product on shelf for almost 12 months of the year**, by being able to grow it in **Washington and France**. For Envy and Jazz and that’s a wonderful initiative by New Zealanders, even if it is now a German company.” *CEO, Distributor, Feb 2013*
- “We have joint ventures with farms and companies and IP covering a number of fruit, that we grow and develop in **New Zealand, Australia and California**. This ensures that we have the same or similar fruit grown in multiple regions, so we cover the fruit supply for **as many months as possible**. You need the **complete package**. We don’t want another supplier to get into the market.” *CEO, Distributor, Feb 2013*
- “We have formed a company with other apple producers around the world to develop new varieties, **Chile, South Africa, Chile, Italy, Australia**. Together we own 25-30,000 ha of orchard land. The aim is to share knowledge and information and get access to new varieties. It’s quite a new thing so we are still working things out.” *GM, Grower/packer/distributor, Jan 2013*
- “Aozora is an example of collaborating with other countries - in this case Chile. The idea is **to extend the season** and to also **gain access** into Asian markets like South Korea (where Chile has an established FTA).” *Export representative, Jan 2013*
- “Aozora operates joint ventures with **Chilean** companies Greenvic and Cruxagri to supply Chilean fresh produce to markets throughout Asia... Aozora NZ is vertically integrated with the JB Group, one of New Zealand's largest growing / packing operations.” *Aozora company website, 2013*
- “Primor and Team have a partner in the USA, “Mission” who are growers and packers and they also supply out of South America to take over the window when New Zealand can’t. It’s a bit David and Goliath, but it works. It’s a solution.” *Manager, Postharvest, Jan 2013*
- “We get 12 month supply into Asia by using a US company. They are a good company with good connections and well regarded. It’s important to get into retailers.” *MD, Packer/Shipper, Jan 2013*

THE FUTURE – GENERALLY POSITIVE

Interviewees were generally positive about the future of the industry

- “I have a **positive view of the next 5 years**. We will manage PSA, focus apples on the Asian markets, and we will continue with secondary niche products like Summerfruit, and avocados will move forward. We can create more value out of the avocado industry but how viable will it be for the people in the business. We will produce 3-4 times the volume and double the returns, but that will make it tough for growers, packers and exporters to sell this increase.” *CEO, Industry stakeholder, Feb 2013*
- “I am confident that **kiwifruit can double or triple to 2025**. And Zespri, if you take into account offshore supply will exceed that. We can move into **new products, develop the rapidly growing markets** in China and South East Asia, Brazil, Middle East, and **growing the mature markets by marketing the fruit’s health properties**, building the consumption of kiwifruit.” *CEO, Sales and Marketing Company, Feb 2013*
- “I think **doubling exports is ambitious**... To do that in fruit we would need: new products - P&F need to give us more varieties with new tastes, appearance for us to sell – and more value-added. **New Zealand can be the fruitbowl to Asia.**” *CEO, Post Harvest Kiwifruit Operator, Feb*
- “The underlying issue with apples is that historically it was a European business and there is no growth there due to exchange rate and apples coming out of Eastern Europe. We are now seeing a **reorientation towards Asia**. To succeed firms need to: **develop varieties** suitable to Asia, **achieve scale** in orcharding, packing and exporting, **aligning IP ownership, invest in quality, have strong in-market operations**. **Scale** is needed to invest in in-market personnel.” *CEO, Sales and Marketing Company, Feb 2013*
- “History shows us that **regulated primary industries inevitably evolve**. With proprietary varieties integrated with a genuinely powerful brand and distribution systems we are looking good. Continued consolidation in the post-harvest sector potentially strengthens rather than undermines the glue that binds the industry together. In this regard we have two core challenges in the New Zealand Kiwifruit Industry - first to ensure that evolving structures allow us to maintain integration and secondly and perhaps even more ambitiously to retain ownership and control of the NZ kiwifruit industry supply chain in growers hands. The timing of future evolution will be critically important..” *CEO, Sales Company, Feb 2013*
- “We need to have a good look at ourselves and think, what are we good at? We are good at packing and cooling, so what other fruit or vegetables can we add to our operation to extract the maximum value. What opportunities are we missing? Who or what can we work with?” *Managing Director, Postharvest operator, Feb 2013*











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FRUIT – KIWIFRUIT – KEY FIRMS

The New Zealand kiwifruit industry is organised as a government mandated marketing organisation (Zespri) that sells all export fruit (except to Australia), and firms that pack and export fruit...

Key firms in the New Zealand kiwifruit sector
(2011 or as available)

| | Turnover | Employees | Ownership | Year Founded | Notes |
|---|--|-------------------------------|--|--------------|--|
| Kiwifruit | | | | | |
|  | \$1,415m (2011) | 150 (K) | NZ; co-operative (kiwifruit growers) | 1988 | www.zespri.com Originally NZ Kiwifruit Marketing Board; corporatised Legal monopsony outside Australia |
|  | \$645m (2011) (\$923m under management) | 2,000 (Ci) | Germany; listed (NZX: TUR) BayWa 73%; Bartel Holdings (12%). Mr Apple (10%) | 1897 | www.turnersandgrowers.com Owns a range of subsidiaries (45 companies worldwide) Grows, processes, exports fruit in NZ, AU, Chile, EU etc. EnzaGold, Red, Green grown in NZ& EU, China |
|  | \$137m (2011) | 158 (K) | NZ; public (NZX: SEK) | 1987 | www.seeka.co.nz 7 packhouses; 1,000 ha under production 20% of kiwifruit packing and coolstore capacity |
|  | \$81m (2011) | 101-250 (K) | NZ; co-operative (kiwifruit growers) | 1980 | www.eastpack.co.nz www.satara.co.nz Modern sites in Bay of Plenty to be used merger results in 27-30% kiwifruit volume |
|  | \$50.7m (2011) | 60 (K) | NZ; public/co-operative (NZX:SAT) | 1972 | |
|  | \$43.5m (2010) | 500 seasonal | NZ; public/co-operative (260+ shareholders) | 1983 | www.apata.co.nz Part of G3; kiwifruit 8.7 million trays in 2010 Avocado varies between 0.6 and 1.3 million trays 3 packhouses (2 Tauranga/1 Whangarei); 29% avocado volume |
|  | \$20m (Ce; 2010) | 100 FT 1,400 seas (Ci) | NZ; private (Trevelyan family) | 1960s-1970s | www.trevelyan.co.nz 1 site; 3 packhouse facilities & 25 coolstores, for 220 orch. 8m trays of kiwifruit and 300,000 trays of avocado |
|  | \$22m* (2011) | 70 FT 700 seasonal (ws) | NZ; public (~50% Jones/Greenlees) | 1989 | www.dms4kiwi.co.nz Part of G3; pack kiwifruit (green,/gold) and avocados 3 packhouses; 19 coolstores ; 5m trays in 2010 |

FRUIT – KIWIFRUIT – KEY FIRMS

...continued










Key firms in the New Zealand kiwifruit sector
(2011 or as available)

| | Turnover | Employees | Ownership | Year founded | Notes |
|--|---------------------|-------------|---|--------------|--|
| Kiwifruit | | | | | |
|  | \$20m (Ce; 2010) | Peak: 1,000 | New Zealand; private (Seeka 20%; others) | 1987 | 4.6m trays kiwifruit www.opac.co.nz |
|  | \$12.6m (2011) | 70 (K) | New Zealand; public (grower-owned) (John Anderson 43%) (Birley family 29%) | 2001 | www.aerocool.co.nz Part of G6 1 packhouse; also avocados 4 million trays kiwifruit; Grower base of 120 kiwifruit orchards and 70 avocado orchards (many small avocado orchards) |
|  | N/A | N/A | Australia/NZ; JV between Freshmax Holdings (Australia) and Aongatete Coolstores (NZ) | 2001 | www.freshmax.co.nz/products/kiwifruit.aspx Export company; market kiwifruit in Australia |
|  | N/A | N/A | New Zealand; private (Benes, Darling, Lemon Families) | | www.jacegroup.co.nz/ Owns, APAC, Just Avocados, Global Fresh etc. |

FRUIT – APPLES – KEY FIRMS

The New Zealand apple packing sector is consolidating around a handful of large packers with scale...

Key firms in the New Zealand apple sector
(2011 or as available)

| | Turnover | Employees | Ownership | Year founded | Notes |
|--|--|----------------------------------|--|--------------|--|
| Apples | | | | | |
|   | \$645m (2011) (\$923m under management) | 2,000 (Ci) | New Zealand; listed (NZX: TUR) BayWa (72.5%) | 1897 | www.turnersandgrowers.com Owns a range of subsidiaries Grows, processes, exports a range of fruit primarily in NZ, also Australia, Chile, etc. (40% X pipfruit crop) |
|   | \$223.4m ¹ \$116m (Mr Apple) (2011) | 375 (ws) +1,300 (seasonal) | New Zealand; private equity (Direct Capital 83%) others | 1998 | www.mrapple.co.nz; www.scorp.co.nz Exporting between 3-3.5m cartons/yr Vertically integrated = 20 orchards, 3 packhouses, 1 coolstore and logistics service Currently (May 2011) being sold as part of SCF receivership |
|  | \$125m (NZ) (\$400 consol) (2012; Ci) | 280 (NZ) (incl. casual) | Australia; private equity/others (Mau Capital 60%) | 1994 | www.freshmax.co.nz 3 apple packhouses: Hawkes Bay, Nelson & Wairarapa; more domestic supply than export; YESS brand (apples, kiwifruit & avocados) |
|  | Apples \$35m (ws) \$100m (2006; K) | N/A | New Zealand; private equity/others (50% Mr Apple) | 1995 | www.fernridge.co.nz "4 th largest apple exporter from NZ" |
|  | N/A | 120 at packhouse | New Zealand; private (Beaton and Mossman families) | 2006 | www.apolloapples.co.nz 400 ha of own fruit / ENZA partner with Jazz 100k bins/year; 1m cartons; 44 CA storerooms |
|  | ~\$100m (Ci) | ~100 total (FTE) | New Zealand; private (John Bostock) | 1980 | www.jbgroup.co.nz; www.dmpalmer.co.nz VI HawkesBay- squash onions, grains, ice cream, apples ProFruit (processors), Rush Munro's, DMP, Aozora (exports to Asia, JV Chile)) |
|  | \$20m export | N/A | New Zealand; private (Easton, Hoody, McCliskie, Thompson families) | 2004 | www.heartlandfruit.co.nz (400ha) "Luvya" export brand and "Yummy" NZ brand 4 exclusive licensed varieties 4 grower owners in Nelson own Compass Fruit Packhouse |

FRUIT – APPLES – KEY FIRMS

... continued




Key firms in the New Zealand apple sector
(2011 or as available)

| | Turnover | Employees | Ownership | Year founded | Notes |
|---|--------------|----------------------|---|---------------|--|
| Apples | | | | | |
|  | N/A | 50 (K) | New Zealand; private Currently in receivership | 1988 | www.edenzfruitcompany.co.nz (defunct) 2 packhouses; 1 coolstore complex 350ha or own orchards; apples, stonefruit and pears |
|  | N/A | Peak 200 (ws) | New Zealand; private (Taylor family) | 1995 | www.taylorcorp.co.nz Owns 180ha; packs own fruit and has grower/suppliers 1 site (packhouse/coolstore) |
|  | N/A | | New Zealand; private (Altham & Whyte families) | 2001 | www.pickmee.co.nz Hamilton based grower/packer/shipper Formed in 1997 merger of Sunfruit & Fruitdale |
|  | \$3.0m (Ci) | 4 FT; 40-50 seasonal | New Zealand; private (Taylor; Mangan families) | 1988 | www.freshco.co.nz Formerly Frupak, now Freshco Hawke's Bay 2 packhouse/coolstore (1 HB; 1 Nelson)[Nelson is JV] |
|  | \$26.3m (Ci) | 101-250 (K) | New Zealand; private (Paynter family) | 1974/ 2001 | www.yummyfruit.co.nz Includes stone fruit Marketing company Significant orchard ownership in Hawkes Bay (via Johnny Appleseed) |
|  | N/A | N/A | New Zealand; part co-operative (Caccioppoli family 32%; ~20 growers; others) | 2002 | www.grower.co.nz Cooperative formed in the wake of deregulation Also related Longview Packhouse/Hill Road Coolstores |
|  | \$3.4m (Ci) | 20 (K) | New Zealand; private 50% Bostock Group 50% Scales Holdings | 2006 | www.profruit.co.nz Processor and exporter Apple and kiwifruit juice concentrates |
|  | N/A | 30 (seasonal) | New Zealand; private (Crasborn family) | | www.crasborn.co.nz www.kiwicrunch.com JV with Freshmax |

FRUIT – OTHER FRUIT – KEY FIRMS

Outside of apples and kiwifruit, there are only a handful of medium-large firms

Key firms in the New Zealand other fruit sector
(2011 or as available)




| | Turnover | Employees | Ownership | Year founded | Notes |
|--|----------------|-------------|---|--------------|---|
| Other fruit | | | | | |
|  | N/A | 250 (Ci) | NZ; private (John Greensmith) | 1991 | www.freshfoodexports.co.nz/ Fresh Food Exports Ltd also 25% ownership with Delica Ltd (T&G) of Fresh Food Exports 2011 Ltd Grower of persimmon, blueberries, strawberries and melons |
| Citrus | | | | | |
|  | ~\$57m (Ci) | 10 (Ci) | NZ; private (Thorpe, Ready, Pepper families, others) | 1989 | www.firstfresh.co.nz NZ Fruits Limited (sister company, packing company) Grower/packer in Gisborne, pack for 170 orchards Partners with MG Marketing and Freshmax Collaborative marketing with Zespri "First Gold" exports to Thailand and HK |
| Berries | | | | | |
|  | N/A | N/A | NZ; private (Auton family) | 2000 | http://www.oob.co.nz Production of fresh and frozen blueberries/strawberries, icecream/juice manufacture |

Range of small firms (Berryfruit Exports (Coop), Perry's Berries, Gibb/Sujon Berries)

OTHER EXPORTERS

There are a number of broad based wholesaler/distributor/ importer/exporters that handle distribution and logistics

Key firms in the New Zealand other fruit sector
(2011 or as available)






| | Turnover | Employees | Ownership | Year founded | Notes |
|---|---|----------------------------|---|--------------|---|
| Exporters | | | | | |
|  | \$278m (2011) (\$558m under management) | 350 (K) | New Zealand; co-operative (~400 growers) | 1923 | www.mgmarketing.co.nz Exporter/importer fresh produce 700 growers, 400 grower shareholders Acquired LaManna in Australia Imports Sunkist for NZ and Australia. Imports tropical fruit for NZ including Dole Office in California for procurement |
|  | \$50m (Ci) | 25 (Ci) | New Zealand; private | 1988 | www.primor.co.nz 25-40% exported Importer/exporter; avocado, kiwifruit, apples, blackcurrants Apata/Trevelyan's pack 30% of Avocado export business |
|  | \$125m (NZ) (\$400 consol) (2012; Ci) | 280 (NZ) (incl. casual) | Australia; private equity/others (Wolseley Private Equity 50%) | 1994 | www.freshmax.co.nz 3 apple packhouses: Hawkes Bay, Nelson & Wairarapa; more domestic supply than export; YESS brand (apples, kiwifruit & avocados) |
|  | \$150-200m (Ci) | 400 (Ci) | New Zealand; private (Turner family) | 1995 | www.freshdirect.co.nz Produce, flower distributors inside NZ \$190K from gov't to help develop portable vege processor |

PRODUCE – INDUSTRY ORGANISATIONS

There are a number of key industry organisations in the produce industry

Key produce organisations in New Zealand
(2012)


HortNZ collects its own commodity levy (\$2.1m) to represent all commercial fruit and vegetable growers. It also collects on behalf of Vegetable groups ~\$3m.

| | Represents | # Members | Annual Operating expenditure | Funding | Website/notes |
|---|--------------------------------|-----------|------------------------------|---|---|
|  | Growers advocacy | 6,500 | \$9.3m (O.E. FY11) | <ul style="list-style-type: none"> - Commodity Levy (FruitFed and VegFed) Order 2007 (\$2.1m) - 22 product groups pay levy | Horticulture New Zealand www.hortnz.co.nz/ |
|  | Licensing Export promotions | 59 | 0.4m (O.E. FY11) | <ul style="list-style-type: none"> - Mandatory exporters licencing fees (53 Companies) - Product Group under HEA fees (11 groups) | Horticulture Exporters Authority (HEA) www.hea.co.nz |
|  | Pipfruit industry | ~1,000 | n/a | <ul style="list-style-type: none"> - Commodity Levy Order 2007 | Pipfruit Industry Council www.pipfruitnz.co.nz |
|  | Kiwifruit growers | n/a | 0.9m (O.E. FY11) | <ul style="list-style-type: none"> - Commodity Levy (Kiwifruit) Order | New Zealand Kiwifruit Growers Inc (NZKGI) www.nzkgi.org.nz |
|  | Pan produce | 83 | \$260k (2012) | <ul style="list-style-type: none"> - Funding from voluntary membership fees, 5+ A Day logo user fees and sponsorship | United Fresh New Zealand Incorporated http://www.unitedfresh.co.nz/ launched 5+ A Day® 1994 |

PRODUCE – INDUSTRY SCIENTIFIC RESEARCH

Plant and Food Research is the key organisation involved in the industry research

Key scientific research organisations involved in produce industry research in New Zealand
(2011)

| | Total Income | Total Staff | Focus & activities |
|---|--------------------|----------------|--|
|  | \$113.2m (2011) | 900+ | <ul style="list-style-type: none">- Food innovation – foods with functionalities- Joint research with Prevar into new apple and pear varieties (\$21.6m over 7 yrs)- Prevar Licenses a new pear PremP109 to AIGN |

