Leading the Path to Progress

Australian Avocado Export Development Plan 2014-2019

Project AV12025

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EXECUTIVE SUMMARY

World production of avocados is over four million tonnes and consistently continues to grow. Although much of the major producers of avocados are also major consumers of the product, global trade of avocados generally keep pace at 25% of production with Mexico as the biggest world exporter, at 50% of global exports. Chile, Peru and South Africa[1] follow far behind. The Australian and New Zealand avocado trade are relatively more expensive, minimal in export volume but are considered high in product quality.

Avocados are mainly exported into Europe, North America and Japan. Other Asian countries are very small markets but demonstrate growth in avocado imports.

Over the past 15 years, Australian avocado production has increased at an average of 2,126 tonnes p.a. while Australian consumption has increased at an average of 2,517 tonnes p.a. The difference, equivalent to 20% of the increase in consumption has been supplied by imports from New Zealand.

Domestic consumption of avocados in Australia is currently close to 3 Kg/hd of population. This is high by western standards but less than half that observed in Mexico and other central and South American countries. Global avocado production, consumption and trade are rising because avocados are a relatively new food option, with which many consumers are yet to become familiar.

The rate of growth of consumption in Australia shows no sign slowing. Over the last 6 years avocado prices have grown on average by 3.2% a year in real terms while consumption has grown 6.3% a year. Strong growth in prices while consumption is also increasing is evidence of strong underlying consumer demand. Further, 'brand health' reports prepared by The Nielsen Company show that at most, only ⅓ of households buy avocados in any 4 week period. The market penetration is not high.

Sufficiently detailed data on promotion of avocados to Australian consumers does not exist, so it is not possible to determine whether investment in developing export markets will offer a better financial return than additional investment in marketing and promotion in the domestic market.

Analysis of avocado prices and sales through Woolworths' supermarkets over a 5 year period estimated the elasticity of demand for avocados by Australian consumers to be -0.82. This indicates that if 1 % of avocados were diverted from the domestic market into exports then domestic prices would be expected to increase by 1.22%. This is consistent with the observation that real prices of avocado have been rising while consumption is also rising strongly.

Anecdotal evidence suggests that growers frequently sell avocados for export at lower prices than could be achieved on the domestic market. The low elasticity of demand estimated in the analysis indicates that even when export sales are at lower prices, the industry's aggregate value of sales would rise as a result of diverting supplies of avocados from the domestic market into exports.

Although growth in consumption of avocados in Australia is robust and appears to have the capacity to absorb expected increases in production and imports for the foreseeable future, it would be prudent for the industry to maintain export markets as alternative outlets for product in the event of unforseen shifts in domestic demand or increases in imports.

Scenarios are presented to portray possible outcomes from feasible growth patterns for consumption, production and imports over the next 5 years. From current consumption trends and forecast increases in production and imports, Australian avocado exports could increase to 4-5% of production by 2017-8.

[1] Spain and the Netherlands mainly trade within Europe.

New Zealand is currently the only supplier of Australia for imported avocados. Australia is its largest and most profitable export market. The outlook for Australian avocado exports will be influenced by New Zealand production outcomes and New Zealand's ability to grow its market share in Australia. Forecasts obtained from New Zealand indicate also that the pattern of irregular bearing in New Zealand and the pattern of exports to Australia may be reversed in 2014-5. This could destabilise the supply of avocados in the summer months in the Australian market.

Although imports may not displace substantial quantities of locally produced fruit from the domestic market into exports, they do act to subdue domestic prices through the summer months and facilitate acquisition of fruit for export.

The following have been considered in developing export strategies for the Australian Avocado industry:

- Although the domestic market continues to be strong for the Australian avocado industry, it is prudent to maintain current export markets as alternative markets.
- Avocado imports by Australia's key alternative markets are growing. Maintaining these markets entails growth in supplying Australian avocados to them.
- Maintaining and improving access to existing export markets is a continuous and long-term task in order to defend, maintain and strengthen current Australian avocado exports.
- Gaining access into new markets will provide the Australian avocado industry opportunities as well as alternatives in building the Australian avocado business. It is a long-term endeavour and will prepare the industry for any adverse changes to the current domestic situation i.e. oversupply in the domestic market, decrease in domestic prices.

The following are the export objectives set forth in this plan to strengthen the export business and prepare the industry for further growth in the international trade:

1. To continue being the largest supplier of imported avocados in Singapore and Malaysia in the next 5 years (2012-13 market share levels are at 55% and 52% respectively)
2. To increase trade, in the next five years with:
    - Hong Kong (greater than 17 tonnes)
    - At least one new market - in order of priority
        - Middle East (greater than 79 tonnes)
        - The rest of Southeast Asia (greater than 69 tonnes)
        - Russia (greater than 100 kilograms)
3. To maintain annual export volumes of at least 5% of production (current level) for the next 5 years or 3,500 tonnes in 2018-2019 based on industry production forecast
4. To regain commercially viable access into Thailand by 2016 and regain trade with Thailand of at least 529 tonnes on or before 2018-19 (2012 export volume)
5. To gain access into China within the next 6-10 years and maintain access into existing open markets throughout the next 5 years.

To achieve these objectives, it is recommended that the industry focuses on specific markets and strategies.

The strategies cover the following:

- Industry Capability
- Branding and Positioning
- Market Access
- Trade Development
- Promotions

Key markets are categorised as the following:

- Key growth markets
- New Markets
- Lost Access Markets
- Potential Access Markets

Outlined in this plan are the recommended priority markets and strategies with the corresponding action points, desired outputs and industry outcomes.

Recommended budgets have likewise been provided using levy funds. It is encouraged that the industry seek additional external funding and share resources with other industries / groups of similar objectives to further expand the export programme.

It is expected that Avocados Australia Limited (AAL) will have the responsibility of implementing this plan while coordinating with avocado exporters and other stakeholders, including Horticulture Australia Limited. Note: No budget was allocated for the additional services required of AAL but it is estimated to require 72 working days per year or 1.5 days per week for 48 weeks.

As this export development plan is a living document, AAL will need to periodically review this plan and make revisions, if necessary, to address current industry and market situation. Industry vigilance and flexibility should be a standard practice as market conditions are dynamic and may easily change. These changes will be reflected in the Annual Export Operating Plan and Annual Evaluation Report which AAL will develop.

Strengthening the export business for the Australian avocado industry will spread industry risks, provide the luxury of better market growth options, improve production standards and systems, build industry capability and consequently lead the path to progress.

BACKGROUND

Australian avocado production is growing in response to rising domestic demand and as plantings reach full production. As production rises and imports from New Zealand and other countries become more significant, there is increasing potential for domestic prices to be depressed especially during periods of high production. By expanding markets beyond domestic, the industry is able to better spread its risks and further develop the business. Exports of avocados account for 4 to 5% of domestic production.

A project undertaken in 2008 has assessed opportunities in the avocado export trade and has outlined an 'export road map' for the Australian avocado industry which identifies the key requirements for developing the industry's export markets.

Horticulture Australia Limited (HAL), in consultation with the Australian avocado industry, has commissioned project AV12025 to Oliver & Doam as represented by Agnes Barnard and Garry Goucher with the following objectives:

1. Develop a five-year Australian Avocado Export Development Plan covering the period 2014-2019 that will:
    - Provide a clear export vision/direction for the industry
    - Define the key outcomes required to advance the industry's export performance
    - Help identify best export investment options for HAL and the industry
    - Provide a management framework, to avoid "ad-hoc" investments and a clear basis to evaluate progress
2. Undertake a financial analysis to assess the relative returns from the proposed export development plan compared to further investment in developing the local domestic avocado market.
    - Estimate the cost of the proposed export market development strategies over the next 5 years
    - Calculate a return from investment in those export market development strategies at a range of levels of export growth
    - Estimate the return on investment from an equivalent investment in development of the domestic market
    - Review of the risks associated with the export and domestic markets and assess in relation to the relative returns

The new plan aims to provide the industry with specific strategies and actions to build the industry's export business. An economic analysis on the costs and benefits of expanding exports provides the industry with better insight into making an informed decision on the commitments it will place on exports while it continues to maximise domestic market opportunities.

METHODOLOGY

The entire project was conducted as a transparent process in which industry is an active participant and has input to critical elements of the planning and analysis. This ensures that the project takes full advantage of industry's knowledge and experience and facilitates understanding and confidence in the results.

The following describes the methodology that was followed in developing the Export Development Plan:

Data scoping was conducted where all existing industry plans, reports and studies relevant to the project, and provided by HAL and Avocados Australia Limited (AAL), were assessed and reviewed.

Desktop research was undertaken to gather additional export trade intelligence and insights to map out the opportunities and threats to the industry. Online data sources included ABARE reports, UN Comtrade, USDA Foreign Agricultural Services and other research sites. Oliver & Doam directly accessed market intelligence statistics from Global Trade Atlas from Global Trade Information Services (GTIS).

On-ground contacts verified information and provided additional data i.e. price checks in Japan and Russia

A series of interviews were conducted as part of the consultation process. The following participated in the interviews:

John Tyas – Avocados Australia Limited, CEO
Judy Prosser – Sunfresh, Managing Director
Mark Johnston – Sunfresh, Marketing and New Business Development Manager
Daryl Boardman – Sunnyspot / Avocado Export Company (with prior consultation with the AEC Board)
Wayne and Jennie Franceschi – APM / Avocado Export Company
Hugh Molloy – Antico
Chris Langley – OHMA, Market Access Manager
Michelle Christoe – Australian Horticulture Exporters Association, Executive Director
Edith Gomez – Queensland Trade & Investment, Senior Trade Officer
Brett Tucker – Queensland Trade & Investment, Principal Trade & Investment Officer
Modika Perera – Department of Agriculture and Food WA, Trade Development Manager
Mark Soccio – Rabobank, Senior Analyst
Jeff Scott – ATGA CEO
John Moore – SAL CEO
Various managers in Austrade and Vic DEPI

All data were analysed and presented in the plan. The existing Export Road Map was likewise reviewed and evaluated. Based on analysis conducted, objectives and strategies were mapped out.

A planning workshop was conducted by Oliver & Doam to present and guide discussions on the draft of the export development plan and parameters and assumptions for budget planning and economic analysis.

The planning workshop was attended by a group consisting of industry stakeholders and relevant government representatives:

Judy Prosser – Sunfresh, Managing Director
Mark Johnston – Sunfresh, Marketing and New Business Development Manager
Daryl Boardman – Sunnyspot / Avocados Australia Limited Director / IAC
Chris Langley – OHMA, Market Access Manager
Shaun Woods – CT Freight Brisbane, Export Perishables Manager
Duncan Sinclair – Horticulture Australia Limited, Marketing Manager
Tony Walsh – Lamanna/IAC
John Tyas – Avocados Australia Limited, CEO
Peter Annand – P.G.G. & M.L. Annand / Avocados Australia Limited Director
Jennie Franceschi – Advanced Packing and Marketing Services / Avocado Export Company

Edith Gomez – Queensland Trade & Investment, Senior Trade Officer
Brett Tucker – Queensland Trade & Investment, Principal Trade & Investment Officer
Adam Powell – Queensland Department of Agriculture Plant Division, Assistant Director
Sean Blondeau – QC Fresh Brisbane, Fresh Export Trader

The economic analysis has been undertaken in two parts:

1. Analysis of the domestic avocado industry and domestic consumption
   Estimation of historical growth rates of production, consumption, imports and exports as the basis for assessing the potential availability of fruit for export within the planning period. Analysis of detailed price and sales volume data to estimate a domestic demand function and the elasticity of demand for avocados. Examine data on industry promotion for the purpose of estimating returns to investment in avocado promotion.

2. Construction of feasible scenarios for growth of production, imports and consumption to facilitate an understanding of the drivers of change in the availability of product for export.

The plan underwent a third round of consultation. This plan includes all revisions based on industry stakeholder comments/inputs and consultancy recommendations as well as a recommended budget for IAC endorsement.

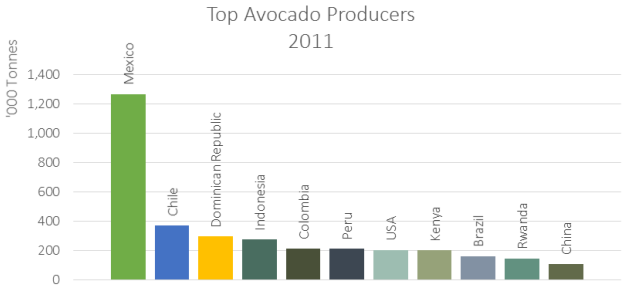
TRADE ENVIRONMENT ANALYSIS

WORLD PRODUCTION AND TRADE

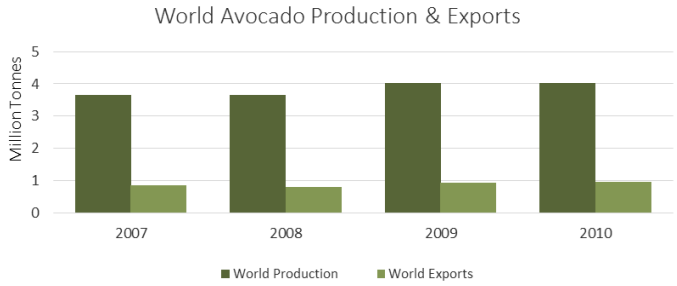
World production of avocados has grown from 3.6 million tonnes in 2007 to 4.4 million tonnes in 2011 with Mexico producing half of world production. The top producing countries have generally experienced growth in the production of avocados. Apart from Chile, Mexico and Peru, much of global growth comes from countries where supply is mainly consumed in the domestic market, such as the Dominican Republic, Indonesia, Columbia, Kenya and Rwanda. Australia produces less than 1% of global production of avocados.

25% of production is traded internationally at about 1 million tonnes worth 2 billion US dollars.

Most of avocados produced are consumed in the domestic market with the exception of Spain at 80% of production in 2011 and to some extent South Africa in 2010.



Source: FAOSTAT, 06Jul13



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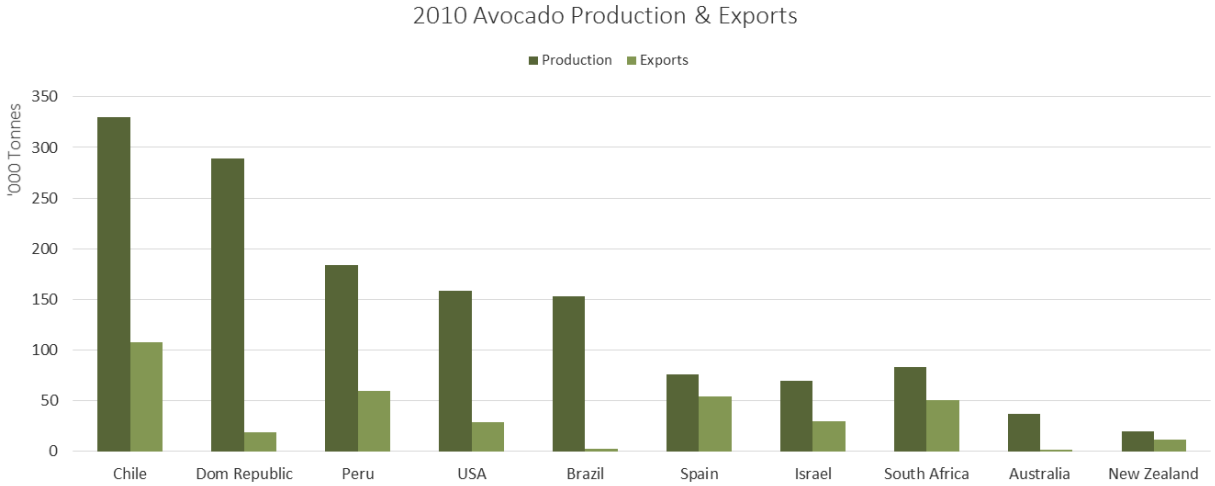


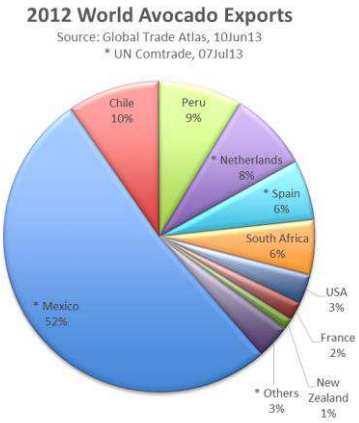
Source: FAOSTAT, 06Jul13

A study by the Secretaria de Economia establishes that there are basically three types of avocado: Antillean, Mexican and Guatemalan with Hass, Fuerte and Nabal as the most internationally traded varieties.[2]

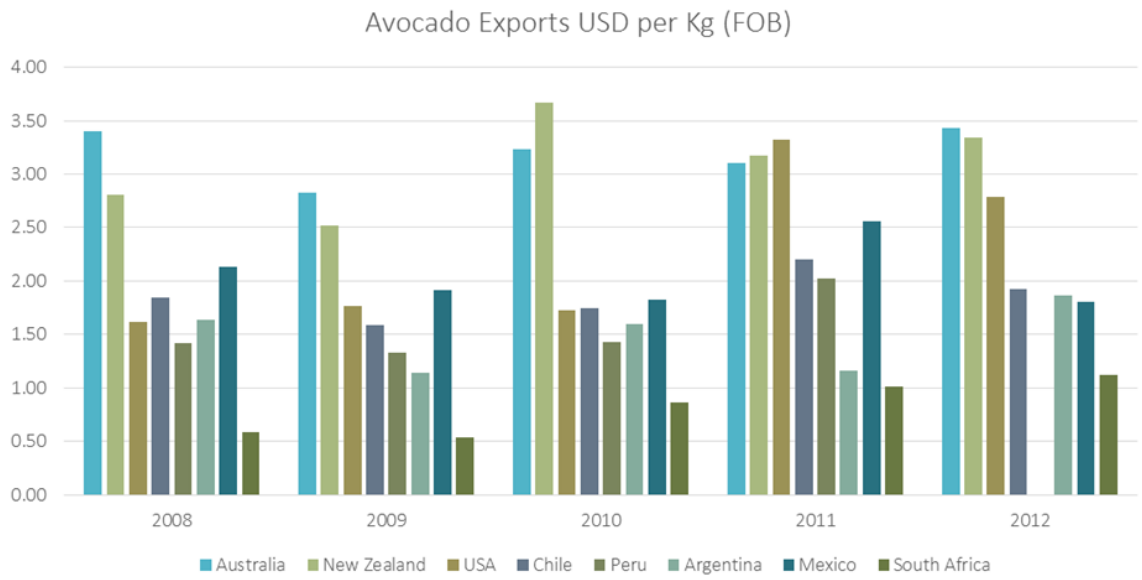
[2] "One out of two avocados consumed in the world is Mexican", Mexican Business Web, Eduardo Hernandez, 22Apr203.

MAJOR GLOBAL COMPETITORS

Mexico is the largest producer and exporter of avocados in the world with Chile and Peru trailing a far second and third in exports. 90% of the avocado international trade is covered by the top 6 exporters: Mexico, Chile, Peru, Netherlands[3], Spain and South Africa. Hass is the main variety traded internationally.



Australian and New Zealand avocados are two of the most expensive, actively traded avocados in the world with American avocados coming in third. South African avocados are traded at much lower prices. As prices are based on declared FOB[4] rates as reported by each country, price differences may vary.



Source: UN Comtrade, 07Jul13

[3] Netherlands re-exports avocados.

[4] FOB = Free on Board; excludes shipping costs.

Australian avocados are counter seasonal with New Zealand and Chile at peak season and directly competes with Mexico, Peru, South Africa and the US. There are significant increases in production from southern Australia which will see summer supply increase over time such that strong supply will continue through to December. In such case, Australian avocadoes will be directly competing with New Zealand and Chile.

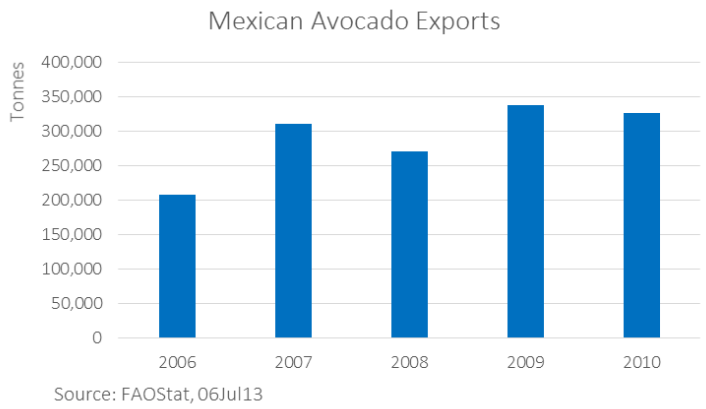
Avocado Availability for Export												
Country	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Mexico												
Peru												
Chile												
South Africa												
United States												
New Zealand												
Australia												

Peak Season
Non-Peak Season
Minimal Trade
No Trade

Source: ITC Comtrade, Department of Agriculture Market Co-ordination & Strategy Analysis, 10Dec13.

Mexico

Half of all internationally traded avocados are from Mexico. It came to nearly 500,000 tonnes valued at US$0.9 billion in 2012. Mexican avocado exports increase every year, but the increase from 2010 to 2011 was quite substantial. Three quarters of Mexican exports are directed at their northern neighbour, the US. In 2012, 370,000 tonnes of Mexican produce went across their northern border. Japan imported a lot more Mexican avocados than previously: 50,000 tonnes. Canada is Mexico's third largest customer. Mexico exports about 30% of its production.[5] The main export markets for Mexican avocados are the US, Japan, Canada, France, Costa Rica and El Salvador. China and Europe are considered potential markets for the future.



Asia is viewed as a "high potential" market for Mexican fresh produce exporters, with both the government and producer organizations hoping to build on a strong performance in Japan to move into other Asian markets. The push into Asia forms part of a period of impressive growth for Mexican agricultural exports in 2012-13, with the country demonstrating progress in several Asian countries, alongside Europe, the US and Latin America. According to figures from the Secretary of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), agricultural exports to Japan, including avocados, pork products and beer, increased by 11.8% year-on-year in 2012, while exports to eight other Asian countries also rose by a combined 11%. Japan

[5] "Avocado market still growing, Holland plays big role in it", Fresh Plaza, Fruit & Vegetable Facts, 13Jun13.

in particular is viewed as a market with high potential for Mexican agricultural exports, with the country achieving record exports to Japan during 2012 in 10 categories, including avocado. Japan is seen as a potential destination for Mexican exports to East Asia and will be a launching point for products that have already achieved success in this market. Mexico is taking a similar strategy to China, Hong Kong, South Korea and Taiwan.[6]

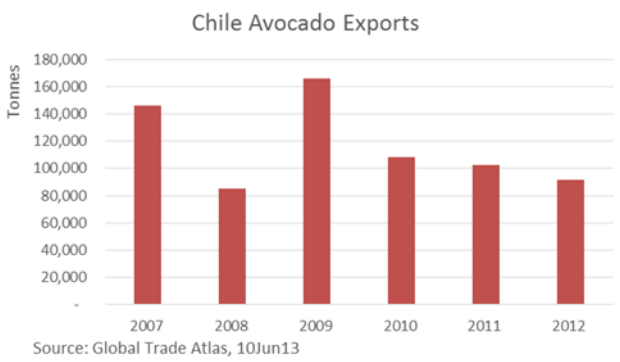
Chile

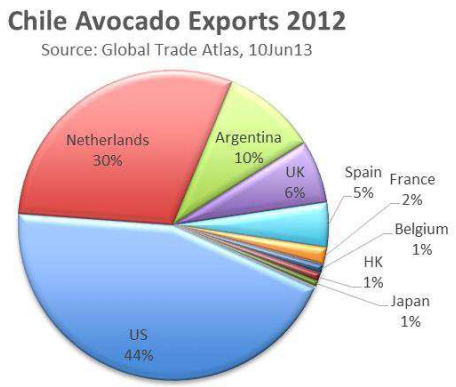
Second largest producer of avocados is Chile which exports 30% of its production to the world, with the USA as the most important customer, and the Netherlands coming in second. Only 2% of exports go to Asia: Japan (550 tonnes) and Hong Kong (800 tonnes). In 2012, Chilean avocado exports fell due to lack of water in some growing regions. Chile exported to Japan only half of 2011 figures. Avocados in Chile come from a total surface area of 30,000 to 34,000 hectares of which the drought and weather conditions have affected 10,000 to 15,000 hectares that suffered losses or were not in production.

The industry is expected to continue to suffer from problems of drought and weather. Chile is entering its 6th year of drought. Although new plantings, in zones with better access to water, are starting to enter production, it is predicted that Chile will not return to the 300,000 tonne production mark for at least three years.[7]

Despite its climate issues, Chile invests more than most counties in promoting and facilitating exports. They have been doing so for decades and have been quite successful at it. The various Chilean horticulture industries collaborate through their Exporters Association: ASOEX[8], whose mission is in the areas of market access, trade development and building industry capability.

Chile has existing trade agreements in force with South Korea (2004), Japan (2007), China (2006), Malaysia (2012), USA (2004) and Canada (1997). [9] In 2013, Chile entered into a free trade agreement with Thailand.

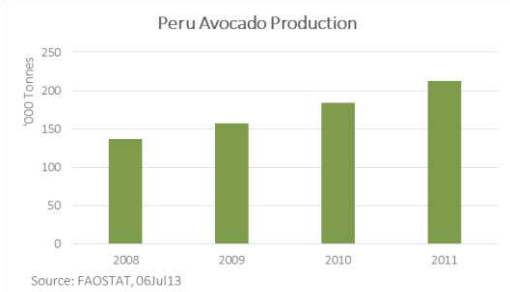


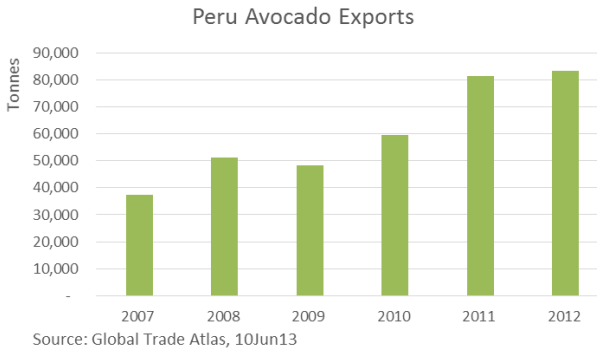


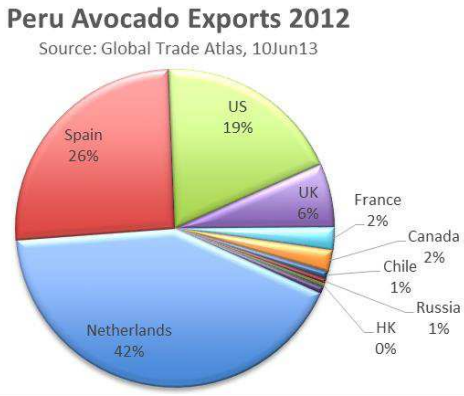
[6] "Mexico makes advances in Japan". Freshfruitportal.com, 19Jul13.
[7] "New avocado plantings set Chilean industry back on track", Fresh Fruit Portal, 17Sep13.
[8] ASOEX: Associacion de Exportadores de Chile A.G.
[9] http://www.sice.oas.org, 19Aug13.

Peru

Peru has been growing in production year on year. Peru exports 40% of its production, most of it to Europe, with the Netherlands as their most important customer, followed by Spain.[10] With increased production, there is greater focus on Peruvian trade and particularly into Asia in recent years. Hong Kong is a new market for Peruvian avocados. At a low base of 132 tonnes in 2011, exports to this market have grown 100% in the following year. A delegation of Japanese officials were recently hosted to further pave the way for exports of Peruvian avocados into Japan. Trade missions to China, Japan and Korea were organised to promote various Peruvian products.







Peru recently announced that they are holding talks with Mexico to evaluate the possibility of establishing arrangements, specifically with Hass avocado, in developing the North American and Asian markets.[11]

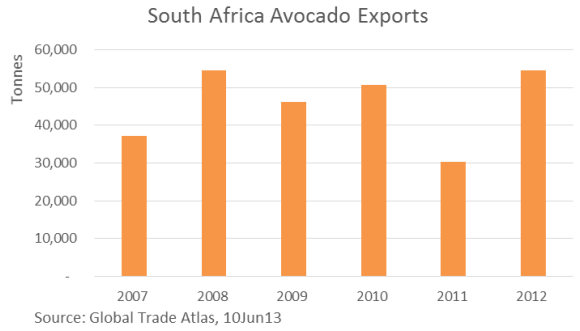
Peru has emerged to be a significant fruit and vegetable exporter. Its success is mainly driven by its ideal climate for horticulture production, relatively cheap labour, investor-friendly business environment and policy framework, its free or preferential trade agreements with major importers.[12] Peru has trade agreements in force with South Korea (2011), Japan (2012), China (2010), Singapore (2009), Thailand (2011), EU (2013), USA (2009) and Canada (2009).[13]

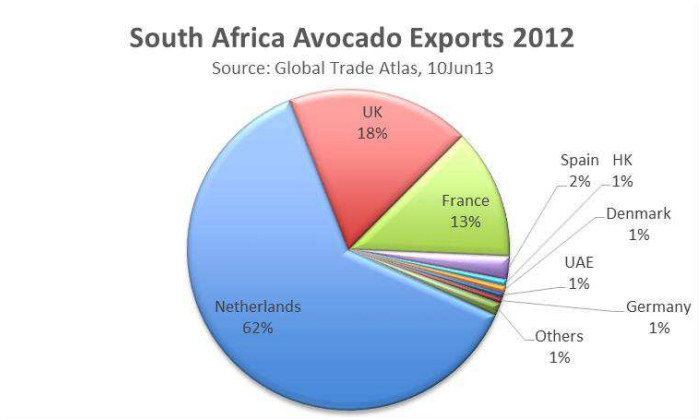
Challenges to Peru include its long distance to export markets, shortcomings in its export infrastructure, water scarcity in coastal areas and unresolved land right issues.[14]

[10] "Avocado market still growing, Holland plays big role in it", Fresh Plaza, Fruit & Vegetable Facts, 13Jun13.
[11] "Peru and Mexico would jointly export Hass avocado to Asia and the US", Fresh Plaza, rpp.com.pe, 23Sep13.
[12] "Peru: An Emerging Exporter of Fruits and Vegetables", USDA ERS, By Brigit Meade, Katherine Baldwin, Linda Calvin, 10Dec.
[13] http://www.sice.oas.org, 19Aug13.
[14] "Peru: An Emerging Exporter of Fruits and Vegetables", USDA ERS, By Brigit Meade, Katherine Baldwin, Linda Calvin, 10Dec.

South Africa

Europe is the main export market for South African avocados. It exported 34 thousand tonnes to the Netherlands and 10 thousand tonnes to the UK in 2012. South Africa sees Peru as its main competitor.[15] Asia is a 450 tonne market for South Africa and this regional market continues to grow. Asian markets mainly include Hong Kong, Singapore and Malaysia.





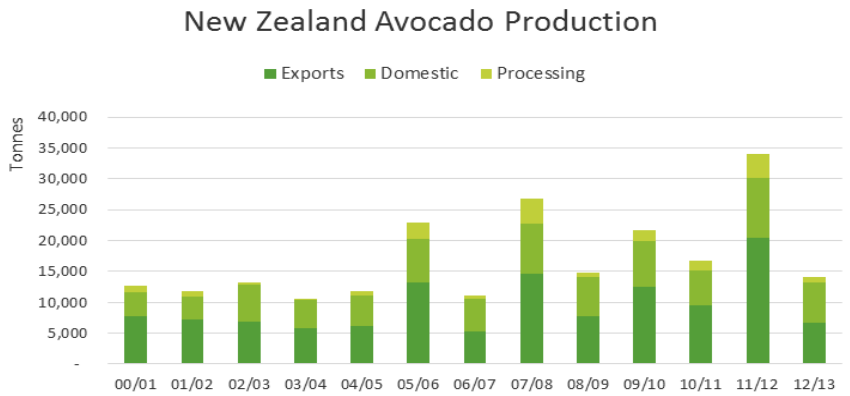
The South African fruit industries have had a lot of challenges in export promotions and like most other competitors like Australia, they continue to struggle in this area. Most of the promotion efforts have been undertaken by their exporter association but because of lack of funding, they hardly made a dent in global promotions until the 2010 soccer world cup South African fever. Government provided massive funding for horticulture for a few years then eventually pulled out. Their challenge as in most cases is: consistency, funding, support from growers. They have since shifted to focusing mainly on access and have left export development to the exporters. They started big and fizzled out soon after. What keeps them going is their low price and high volume.

New Zealand

New Zealand mainly grows the Hass variety of avocados, which comprise 95% of its production. It generally exports 50% to 60% of its production. Australia is New Zealand's largest market. In 2012, Australia absorbed 85% of New Zealand avocado exports and 92% in 2010. New Zealand is Australia's only source of imported avocados. In 2011/12, New Zealand produced 26% of what Australia produced, but in this same year, it exported 240% more than Australia. Outside of Australia, the Asian region is its 2nd largest market. Should they lose market share in Australia, it would be expected that exports to the Asian region will ramp up.

[15] "South Africa prepares for major avocado competition from Peru", Fresh Fruit Portal, 28Feb13.

New Zealand Exports (in Kg)						
Partner Country	Quantity					
	2007	2008	2009	2010	2011	2012
World	**11,847,678**	**10,307,868**	**11,662,644**	**10,286,106**	**18,679,420**	**11,076,683**
Australia	7,798,764	9,412,208	9,750,305	9,475,862	15,021,401	9,437,342
Japan	1,090,825	649,542	1,247,686	550,124	1,984,994	776,607
Singapore	88,249	69,422	223,304	154,878	400,001	516,782
Korea South	155,253	72,693	98,280	71,148	272,400	202,273
Malaysia	23,836	32,234	11,276	-	42,488	63,846
Netherlands	-	-	-	-	-	19,360
Taiwan	12,911	11,049	8,300	-	11,623	17,928
Thailand	18,057	21,277	1,183	8,245	23,150	16,359
New Caledonia	510	-	3,043	7,899	7,557	12,892
United States	2,582,685	20,528	258,286	197	753,672	8,015
Fiji	2,264	515	674	1,216	2,916	3,883
Others	74,324	18,400	60,307	16,537	159,218	1,396



Source: New Zealand Avocado Growers' Association & Avocado Industry Council Ltd Annual Report 2012

New Zealand established a statutory authority in 2005, New Zealand Horticulture Export Authority (HEA). Its primary function is to promote the effective export marketing of horticulture products. It has an Export Marketing Strategy (EMS) which defines the product group's vision for the industry and rules for exporting to achieve its stated goals. It also established an export licensing system where anyone wanting to export the product must obtain a license and is required to meet specified criteria. Product groups come under the HEA exporting model on a voluntary basis and is funded by and represents 5,000 commercial fruit and vegetable growers. The organisation acts as an advocate on national industry-wide issues. Product groups, comprising producers, packers and exporters include: Avocados, Buttercup Squash, Pipfruit, Kiwifruit, Persimmon, Summerfruit, Onions, etc. There are approximately 22 product groups, 11 of which export under the HEA framework.

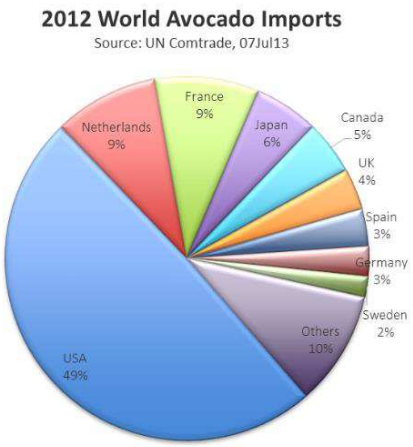
Others

Israel is a relatively small producer, but almost the entire harvest (90%) is sold abroad. After a big drop in export in 2011, 2012 saw an increase in export, namely 60,000 tonnes. France, the Netherlands and Russia are important customers. The Dutch (re)export is mainly aimed at Germany, but Sweden also buys a lot. France, Denmark and Norway are also important customers for the Dutch trade. [16]

[16] "Avocado market still growing, Holland plays big role in it", Fresh Plaza, Fruit & Vegetable Facts, 13Jun13.

MAJOR GLOBAL MARKETS

The United States are by far the biggest avocado importers. The 500,000 tonne mark was passed in 2012. The majority comes from neighbouring Mexico. The Netherlands are the world's second largest import market. Import statistics show that it came to 96,000 tonnes valued at 190 million dollars in 2012. South Africa, Chile and Peru each supplied just under 20,000 tonnes last year. The South African import shows quite a few fluctuations from year to year. Chile and Peru provide more each year. According to South African and Peruvian export statistics more is shipped to the Netherlands than (Dutch) import statistics show. This is partially explained by trade going to the Netherlands through other countries, such as France, Spain and Germany. As an importer, France is almost as important as the Netherlands. This country imported 95,000 tonnes in 2012. Spain is their most important supplier, followed by Peru and Israel.[17]

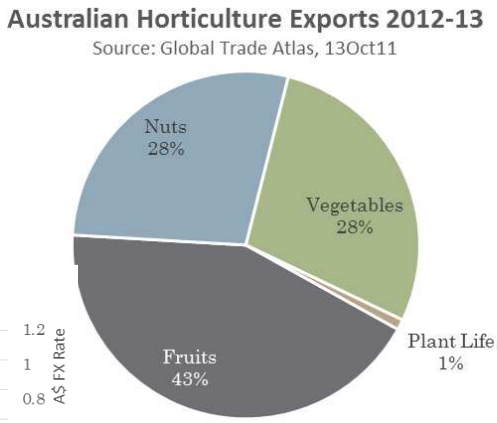


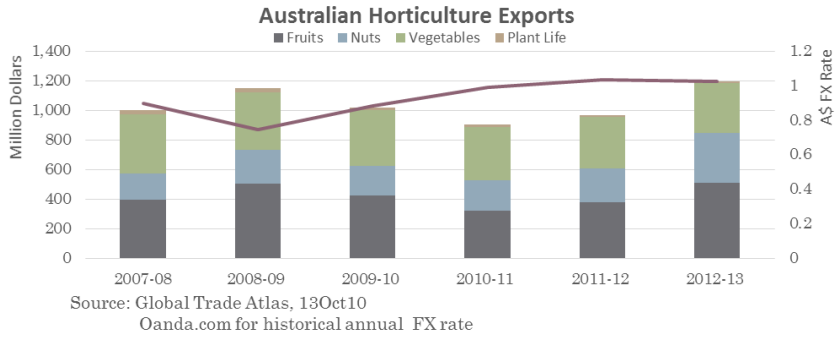
AUSTRALIAN HORTICULTURE TRADE

Australian fruit and vegetable production is on the increase. Consequently, oversupply and fiercer competition across commodities are currently on-going and are expected to worsen in the domestic market. The increase of imports and duopoly of the supermarket industry add to the pressures in the domestic market.

More Australian industries are extending resources to build their export business for market expansion and to ease pressure on the domestic market. The strong value of the Australian dollar, high cost of production and phytosanitary issues, particularly related to fruit fly, pose big challenges for the fresh produce industry in export markets.

The value of Australian horticulture exports has increased since 2010-11 by 30% to $1.2 billion[18]. Avocado exports are valued at $8 million a year. Australian fruit & nut exports accounted for the increase in dollar exports at an average of 60% with export value of vegetables and plant life on the decline.





Citrus and Grapes account for 72% of Australian fruit export value while Avocados are 2% of the half billion dollar Australian fruit export business.

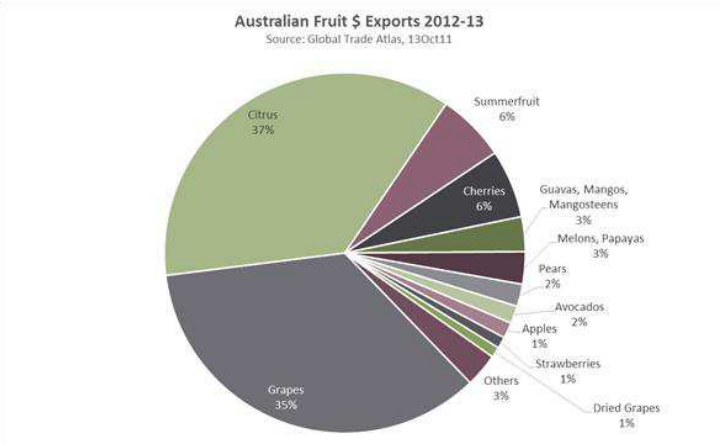
[17] Ibid.

[18] Excludes legumes

Similar to Pears, Avocado exports account for 3-4% of production and is 2% of total Australian fruit exports in value terms. Fruit industries that have been actively developing their export trade are: Citrus, Grapes, Summerfruit, Cherries, Pears and Apples.

Commodity 2012-13	Production In Tonnes	Exports % of Prod'n
Citrus	550,000	40%
Grapes	130,000	55%
Summerfruit	110,000	10%
Cherries	15,000	20%
Avocados	50,000	*4%
Pears	130,000	3%
Apples	250,000	1.5%

Source: HAL MT12009, SHAFFE AGM 2013 Australia Report, Wayne Prowse (* corrected based on Avocado statistics)



Apart from its Chief Executive Officer (CEO) and Market Development Manager, the citrus industry has recently created a Market Access Manager position to actively pursue their market access interests. This team of 3 has been generally working independently of other Australian industries.

Grapes, summerfruits, cherries, apples and pears have been working closely together in developing their export business. Their CEO's are actively involved in market access and development. The cherry industry chairman is also involved. Apples and Pears have their own Export Market Development Manager and another person designated to Market Access. They have recently had a change in CEO.

Asia is the largest export region for Australian fruits with Hong Kong[19] as the largest market with the largest growth trend. The ASEAN and the Middle East regions are also growth markets for Australian fruit exports.

Recognising that Australian fruit exports cannot compare in size to other competing countries, Australia re-launched Australia Fresh as an export development program for horticulture, providing a vehicle for Australian industries to work together as a team in developing markets through building in-market relationships

[19] Includes secondary trade to China.

(government and trade) and promoting their individual products through a consistent and unified message. They are able to share resources and build a larger presence in the markets as a group. Membership is voluntary. 6 industries are currently on board with this program with the lychee industry being the newest member.

Over the medium term to 2017–18, the gross value of production of the Australian fruit industry is projected to increase to around $3.6 billion (in 2012–13 dollars). Australian fruit exports are projected to rise, increasing to around $577 million (in 2012–13 dollars) by 2017–18. In the past few years Australian fresh fruit imports have increased and the value has nearly overtaken the value of fresh Australian exports. Fresh avocados from New Zealand are the largest fruit import, valued at around $64 million in 2011–12.[20]

[20] Agriculture Commodities March 2013, ABARE Report.

MARKET ACCESS FOR AUSTRALIAN HORTICULTURE

Market access is a significant challenge to the Australian fresh produce industry. Phytosanitary issues have been a major stumbling block to developing the export trade. The table below gives a snapshot of the access & trade situation for the Australian fruit trade in 2012.[21]

Fresh Fruit Exports by Product and Market Jan - Dec 2012

	Oranges	Mandarins	Table Grapes	Cherries	Summerfruit	Apples	Pears	Mangoes	Avocados	Other	Total	share
Total 2011 (Tonnes)	112,102	33,323	32,219	1,064	7,732	2,354	5,574	3,844	2,175	10,972	211,359	
Markets 2012												
S Korea	1,594	X	X	11	X	X	X	2	X		1,607	1%
Japan	31,204	1,917	X	15	X	-	X	54	X	481	33,671	13%
China	2,371	1,219	191	X	X	-	X	29	X	20	3,830	1%
Taiwan	1,158	1,821	204	264	142	104	X	X	X		3,693	1%
India	4,323	-	253	7	18	103	-	X	X	51	4,755	2%
Indonesia	4,972	5,775	6,511	50	53	577	2,643	1	11	175	20,768	8%
Vietnam	572	8	3,954	91	67	39	64	148	2	44	4,989	2%
Thailand	1,774	4,572	2,920	X	X	577	34	6	528	216	10,627	4%
											-	
NZ	4,866	3,437	1,837	X	X	X	1,528	495	-	4,211	16,374	6%
UAE	6,213	3,228	785	60	2,102	-	-	426	276	3,122	16,212	6%
USA	11,113	1,805	-	-	X	X	X	X	X		12,918	5%
Canada	3,272	453	-	-	26	-	1,202	39	-	319	5,311	2%
UK	63	241	-	30	41	497	70	-	-		942	0%
Russia	314	750	637	51	20	-	-	-	-	298	2,070	1%
NON Phyto												
Hong Kong	31,325	4,787	17,714	720	4,885	56	581	1,817	187	1,012	63,084	24%
Singapore	10,525	1,144	3,394	219	1,531	57	356	500	895	3,461	22,082	9%
Malaysia	11,739	455	2,105	61	289	246	142	145	266	369	15,817	6%
Non Phyto share	*39%*	*19%*	*55%*	*60%*	*68%*	*10%*	*14%*	*59%*	*59%*	*33%*	*39%*	
all other	10,460	1,984	1,627	76	669	1,478	1,362	527	135	760	19,078	7%
Total 2012 (Tonnes)	137,858	33,596	42,132	1,655	9,843	3,734	7,982	4,189	2,300	14,539	257,828	100%
Change %	*23%*	*1%*	*31%*	*56%*	*27%*	*59%*	*43%*	*9%*	*6%*	*33%*	*22%*	

legend	
X	closed - no access
-	access though no trade
1,000	volume of tonnes in 2012

source : ITC Comtrade, DAFF analysis

Market access covers new or improved entry for products into markets where terms and conditions of access need to be negotiated on an inter-governmental basis with those authorities responsible for the control of import, health and safety regimes. Market access covers phytosanitary (quarantine), sanitary (contaminants e.g. pesticides) and non-quarantine (e.g. exclusion, duties, quotas, tariffs, licenses) requirements which need to be addressed through the established channels for authorising or improving access.[22]

Australia has seven Free Trade Agreements (FTAs) currently in force with New Zealand, Singapore, Thailand, US, Chile, the Association of South East Asian Nations (ASEAN) (with New Zealand) and Malaysia. Australia is currently engaged in nine FTA negotiations - five bilateral FTA negotiations: China, Japan, Korea, India and Indonesia; and four multi–lateral FTA negotiations: the Trans–Pacific Partnership Agreement (TPP), the Gulf Cooperation Council (GCC), the Pacific Trade and Economic Agreement (PACER Plus), and the Regional Comprehensive Economic Partnership Agreement (RCEP).[23]

The Office of Horticulture Market Access (OHMA) was established in 2009 to provide advice to government on market access issues. It sets priorities for horticulture in market access. The OHMA committee is composed of 10 horticulture industry representatives with Horticulture Australia Limited (HAL), Department of Agriculture, Fisheries and Forestry (DAFF) and the Department of Foreign Affairs and Trade (DFAT) as observers. The Australian avocado industry is represented in the OHMA committee.

[21] Data provided by Wayne Prowse, DAFF and presented by Chris Langley, OHMA Manager, Export Symposium, September 2013.
[22] Horticulture Australia Limited, www.horticulture.com.au.
[23] http://www.dfat.gov.au/fta/.

Domestic Avocado Market Evaluation

Growth in Domestic Consumption of Avocados

The following table shows consumption of avocados in Australia, estimated as production less net international trade. On this basis, domestic consumption of avocados has increased year–on–year at an average of 2,517 tonnes per annum over the period from 1997-8 to 2012-13. Over this period Australia's population has increased and to obtain a measure of 'market penetration' it is common to express consumption on a per capita basis, to remove the contribution to demand made by population increase and provide a measure that can be used for international comparison. Consumption measured per head of population has grown from around 1.4 Kg per head per annum in the 1990s to close to 3 Kg per head per annum. This is consumption rate is high by global standards, other than in Central and South American countries. Consumption per head has increased year–on–year at an average of 0.09 Kg per head per annum from 1997-8 to 2012-13.

Year	Consumption (tonnes)	Population	Consumption (kg/person)
1997-98	23,282	18,516,612	1.26
1998-99	29,315	18,711,113	1.57
1999-00	26,868	18,923,534	1.42
2000-01	32,508	19,151,002	1.70
2001-02	32,929	19,388,468	1.70
2002-03	32,706	19,609,728	1.67
2003-04	33,781	19,830,355	1.70
2004-05	37,521	20,054,254	1.87
2005-06	46,103	20,317,077	2.27
2006-07	40,408	20,637,985	1.96
2007-08	49,078	21,031,905	2.33
2008-09	51,914	21,478,444	2.42
2009-10	48,505	21,869,877	2.22
2010-11	56,562	22,182,879	2.55
2011-12	65,705	22,522,583	2.92
2012-13	58,278	22,905,379	2.54

Australian Consumption of avocados.

Appendix A shows estimated per head consumption of avocados over the years 2008 to 2010 calculated from FAO statistics on avocado production, trade and population. From this data, the highest consumption rates are found among the Caribbean islands (e.g. Dominican Republic 20.9 Kg/hd, Grenada 14.0 Kg/hd, Haiti 4.7kg/hd), South America (e.g. Chile 12.5 Kg/hd, Columbia 4.2 Kg/hd, Peru 3.7 Kg/hd) and Central America (e.g. Mexico 7.7 kg/hd, Costa Rica 6.8 Kg/hd, Guatemala 6.8 Kg/hd). In the English speaking world, Australia has the highest per head consumption (2.2 Kg/hd), ahead of New Zealand (2.0 Kg/hd) and the United States of America (1.7 Kg/hd). In Europe the highest consumption occurs in Portugal (1.6 Kg/ha), Denmark (1.6 Kg/hd), Sweden (1.3 Kg/hd), France (1.2 Kg/hd) and Spain (1.2 Kg/hd).

Nielsen 'Brand Health Reports'

Data extracted from periodic 'Brand Health Reports' on avocados prepared for HAL by The Nielsen Company, indicate that in the year to July 2013, 66% of Australian households bought avocados at least once during the year. As the data in the table shows, the market penetration of avocados measured by the percentage of households that purchase the fruit during a year has increased from about 62% in 2009 to 66% in the last year.

In 2011 about 15% of households that purchased avocados made only one purchase during the preceding year. If these occasional purchasers are removed from the measure, the proportion of households that purchase avocados more than once a year is likely to be about 45-50%.

Further information from the brand health reports indicates that in any four–week period the market penetration by avocados ranged from about 20% of households purchasing the fruit, to as high as 34%. The penetration rate fluctuates from season to season, generally being highest in the summer months and lowest in the winter.

Since 2009, the average annual expenditure on avocados has increased from slightly less than $22 per annum to almost $24 in the most recent 12 months.

	12/8/09	19/2/10	11/6/10	12/8/10	19/2/11	11/6/11	7/7/11	29/12/11	7/7/12	13/7/12	29/12/12	13/7/13
Penetration (%)	62.1	62.6	63.3	62.5	65.2	66.4	66.4	66.9	67.7	67.8	66.1	64.4
Average An. Purchase ($)	$21.90	$22.50	$22.00	$20.50	$22.30	$22.30	$22.50	$22.50	$21.80	$21.80	$23.70	$26.50
% one time buyers				18.3	14.5	16.5						
Penetration by demographic (%)												
Start–up families	69.2	71.1	72.0	70.9	73.3	77.0	76.7	75.8	78.7	78.5	78.4	77.7
Small–scale families	66.4	70.1	66.1	66.1	68.7	68.6	68.8	69.3	69.0	69.2	69.2	65.2
Bustling families	64.8	65.6	66.8	65.9	68.1	66.9	68.0	68.8	69.8	70.0	67.7	67.7
Young transitionals	67.5	63.8	65.5	64.1	65.7	66.4	65.7	65.9	67.4	68.0	67.9	67.8
Independent singles	52.7	50.8	52.5	51.5	56.3	57.7	58.0	58.0	58.6	58.7	56.6	53.3
Established couples	63.0	61.8	62.6	61.9	65.3	66.7	66.7	67.4	67.6	67.4	65.6	65.6
Senior couples	61.5	68.0	68.4	68.2	68.5	71.6	71.0	72.3	73.6	73.2	70.5	67.4

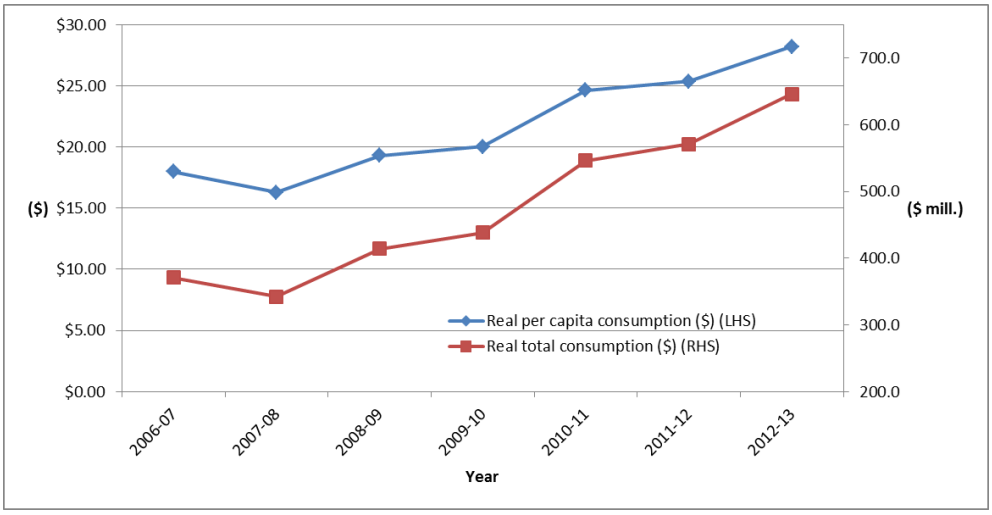
Nielsen 'Brand Health Report' data on avocado consumption

The table also shows the market penetration by demographic groups defined by Nielsen in their reports. This data indicates that the penetration is relatively even across the different demographic groups, that penetration in most of the demographic groups has increased over the period spanned by the reports and that rises and falls in penetration are moderately well correlated between the demographic groups.

Consumer Expenditure on Avocados

Analysis of the value of avocados consumed in Australia is constrained by the availability of consistent, long–run data on prices of avocados in the domestic market and the volume of sales. Since 2007, AAL has maintained a series of retail prices collected on a weekly basis from a range of retail outlets in Brisbane, Melbourne, Sydney and Perth. The series provides average per unit price of avocados throughout the year. The information can be used to estimate the value of consumption of avocados but, for analytical purposes, is difficult to match precisely to consumer purchase volumes.

The graph below depicts the increase in total real value of consumption and real value of per capita consumption over the period from 2006-7 to 2012-13 expressed in 2012-13 dollar values. Over the period, total real value of consumption increased on average by 9.7% per annum. Over the same period, real value of per–capita consumption increased by 7.8% per annum.



Real per–capita expenditure and total value of consumption (2012-13 $ values)

Investment in Promotion

Promotion of avocados takes place at a number of levels; by retailers, sometimes in conjunction with industry; by packers and wholesalers; by food service industry businesses; and by industry organisations. There is no comprehensive data on the amount of money invested in marketing and promotion by these industry participants. This limits the capacity for analysis to shed light on the financial returns derived from these investments.

The annual, Avocado Industry Report published by HAL set out the investment of industry marketing levies through marketing 'levy programs'. While these programs represent only a portion of the total industry investment in marketing and promotion, they report the expenditure on industry funded marketing which forms a substantial part of the generic promotion of avocados across Australia. The table shows the investment through HAL in levy funded marketing programs for the avocado industry.

Year	Expenditure on marketing 'Levy Programs'
2003/4	$952,745
2004/5	$491,575
2005/6	$898,172
2006/7	$990,674
2007/8	$1,572,707
2008/9	$1,905,162
2009/10	$1,837,262
2010/11	$1,692,422
2011/12	$1,887,093
2012/13	$2,477,098*

* Budgeted amount

Annual expenditure on levy funded avocado marketing programs

DEMAND FUNCTION ESTIMATES FOR AVOCADOS

In this section we analyse the relationships between factors effecting demand for avocados in Australia and the quantity of the product purchased in the domestic market. Estimation of the demand function for avocados is an important analytical tool. Although estimation of the demand relationships is not the central purpose of this project, the estimates are important in assisting the industry to make a judgement on whether investment in developing export markets will offer a better financial return than additional investment in marketing and promotion in the domestic market and the impact on the domestic market of diverting fruit from the domestic market into exports.

The analysis seeks to answer two questions:

- What is the relationship between price of avocados and the quantity purchased by consumers in Australia?
- To what extent does advertising and promotion influence demand for avocados in the Australian market?

Estimating the response of avocado demand to expenditure on promotion would enable us to estimate the return from investment in marketing and promotion by the industry. This would provide a benchmark against which to compare the expected returns from investment in export market development.

The relationship between price of avocados and the quantity purchased sheds light on the outlook for avocado producers as more supply comes on–line from currently immature trees, as well as to estimate the likely impact on the domestic market of developing and supplying export markets. Increased supply of fruit to the domestic market will, in the absence of other changes, cause the price of avocados to fall. If product is diverted from the domestic market into exports, this will apply upward pressure on the price in the domestic market (subject to complementary increases in imports from New Zealand or other markets). Understanding this relationship is important to estimating the benefits from export market development. The impact of exports on the domestic price of avocados, in effect, spreads the benefit of the export market development across the domestic industry, even to growers and others who are not directly engaged in the export market. This price response is a significant contributor to the overall return from diversifying the sales of avocados into export markets. Later analysis will endeavour to estimate this effect.

Response to Promotion

At this time we have insufficient information to make a conclusive finding about the relationship between industry promotion of avocados and aggregate consumption. A detailed database of activity or expenditure on advertising and promotion does not exist. Distinctions between retail advertising, point of sale promotion, wholesale promotion and industry promotion are difficult to define, at least at the margins, and the effects can be complementary. Industry promotion through HAL commenced in 2003/4, but the extent to which this supplemented promotion by other industry participants, or replaced or added to pre–existing industry advertising and promotion, is not clear. Further, records of the HAL promotion programs are also not sufficiently detailed to identify the nature, location and timing of the impact of the programs on consumers. Without information of this type, it is not possible to estimate the relationship between spending within these programs and shifts in domestic avocado consumption. It is also likely that there are complex lags between promotion programs and the consumption response which need to be evaluated over a relatively long period in order to obtain sufficient observations from which to calculate statistically significant estimates of the relationships.

Estimating the Effect of Exports on Domestic Prices

When avocados are exported there is less fruit available for the domestic market which will cause domestic prices for avocados to increase. To assess the net impact that exports have on the avocado industry, we must add the effect of an increase in domestic prices to the gross value earned from export sales. To assess the increase in value of domestic sales when avocados are exported instead of sold domestically, we must estimate how domestic prices respond to changes in the supply of avocados. In economics this relationship between the quantity of a product sold and its price is called the price elasticity of demand (ED). The (ED) is defined as:

$$ED = \frac{\text{Change in quantity sold}}{\text{Change in price}}$$

The ED for avocados can be estimated by analysing how prices have responded to changes in the availability of avocados over a period of time, after isolating the impact of other factors that might influence consumer demand for the fruit such as the changing seasons and increases in population.

Fragmented availability of data on avocado prices and quantities sold effect the ability to calculate a reliable estimate the ED for avocados in Australia. Data from two sources were tested to determine whether a satisfactory estimate of the ED could be calculated. These were supermarket sales data obtained from HAL and product dispatches and average retail prices collected by AAL. The analysis of the data from these two sources is discussed below.

AAL dispatch and retail price data

AAL provided data for the period from 2008 to 2013 on product dispatches, imports, and exports and average capital city retail prices. Estimates of total quantity of avocados sold domestically were made by subtracting from total dispatches by Australian producers the quantity sold for export and adding imports.

These consumption estimates were analysed against the monthly retail price trend estimates prepared by AAL, which are an average of Brisbane, Melbourne, Perth and Sydney retail prices collected in a weekly survey of a range of retail outlets.

An adjustment was made to the data for the lag between dispatch of product from packing sheds and retail sale. A seasonal variable was introduced to reflect the shift in demand between seasons, and avocado prices were adjusted to remove the effects of inflation. Notwithstanding these adjustments, a sufficiently reliable estimate of the demand relationship could not be calculated. Retail prices and seasonal shifts in demand explained only around 40% of the variation in the quantity sold from month to month. It is likely that a monthly average price is not sufficiently flexible to capture the adjustments to market prices that occur in response to factors such as weather and the continuous rise and fall in the volume of fruit dispatched from packing sheds on a daily basis.

Supermarket scan data

Two sets of supermarket sales scan data compiled by The Nielsen Company were obtained from HAL. These data sets, one for the period 2008 to 2010 and the other from 2011 to 2013, are not contiguous and are compiled on different bases. The scan data is a series of weekly records of average avocado prices charged by Woolworths' supermarkets and the total number of fruit sold by the Woolworths group across Australia. Nielsen report that Woolworths' share of retail avocado sales is currently around 23% of total, fresh, whole, fruit sales (This market share has fallen from around 30% in 2011). A sample of this magnitude and geographic distribution is sufficiently robust to reasonably represent consumer behaviour the aggregate relationship between avocado prices and sales volume. To isolate the relationship between price and quantity sold we

must also account for the impact of other factors that influence avocado sales, such as seasonality, population increase, changes to household income and expenses that influence food buying patterns and inflation. The extent to which each of these factors influence purchases can be expressed as a mathematical equation usually called a demand function.

The demand function which we estimated can be written as:

Quantity sold = Constant + ƒ real price + ƒ population + ƒ real household food expenditure + ƒ season,

where ƒ is the coefficient of each variable in the equation. From this equation we can isolate the relationship between price and quantity sold and use this to estimate the effect which exports have on the aggregate value of domestic avocado sales.

The reported prices were inflated by the Consumer Price Index (all groups, all capital cities) so that all prices are expressed in constant (2013) value terms. A seasonal variable was introduced to reflect the shift in consumption patterns through the year. Estimates of national household expenditure on food, derived by the Australian Bureau of Statistics (ABS), were used as measure of movements in the average household food budget, within which consumers make decisions whether to purchase avocados. The ABS estimate of the increase in Australia's population was used to capture the impact of rising population on consumption of avocados. The two series available to us (2008-10 and 2011-13) were analysed both separately and as a combined series comprising 212 observations. No statistical difference was found between the series indicating that the joint analysis would not bias the results of the analysis.

An annual variable was tested to determine the impact of changes in quality, origin, type and underlying demand for avocados from year to year. The annual variable was found to be not significant in explaining changes on consumption of avocados.

Aspects of these data series limit their ability to explain movements in avocado purchases by consumers. The frequencies of the observations are not uniform—the price and quantity series are weekly observations, while the CPI, population and household food expenditure series are quarterly observations. The original prices supplied by Woolworths' are averages that do not account for specials, local competition or differences in fruit size quality or origin. While Woolworths' have a substantial market share in supply of fruit and vegetable, the volumes sold at any given price may not be representative of the retail market as a whole and there is likely to have been movements in Woolworths' market share of avocado sales during the period under observation.

Statistical estimation of the above demand function was moderately successful in describing the variation from week to week in the quantity of avocados sold. The coefficient of each of the variables was statistically significant, indicating that each variable contributes to explaining changes in consumption of avocados. However, only 65% of the variation in sales is explained by the terms of this demand function. The remaining, unexplained variation is due to the deficiencies of the data outlined above, random variation in consumer demand and other variables for which we do have appropriate data.

The table below contains the coefficient of each of the variables calculated in the regression analysis. The sign of each coefficient is as would be expected—the price coefficient is negative (if price is increased, sales quantity falls), the coefficients of population and food expenditure are positive (as population and household food expenditure increase, sales of avocados increase), each of the season coefficients are negative (demand at any given price is less in Autumn, Winter and Spring than in Summer).

Variable	Coefficient
Intercept	-2,440.1
Real Price	-458.2
Population	0.00014
Food exp	1.63
Season 2	-197.5
Season 3	-271.5
Season 4	-118.9

Regression results

From these results, we are able calculate the relationship between price and quantity sold to identify the amount by which price is expected to alter in response to a given shift in quantity offered for sale the elasticity of demand).

ED varies from season to season, but during the summer season when demand is high the elasticity of demand for avocados in the domestic market was calculated to be -0.82. That is, where a fall of 1% occurs in the avocado price, the quantity of avocados sold would rise by 0.82%. Conversely, if the supply of avocados for domestic consumption declines by 1%, domestic prices would be expected to increase by 1.22% This suggests that the demand for avocados is only moderately inelastic, or that the price of avocados moves by a proportion that is a little greater than the proportion by which sales of avocados change. This is consistent with the discussion above of the strong consumer demand that has been observed.

The important conclusion from this calculation is that if avocado exports increase and the supply of avocados to the domestic market falls commensurately, domestic prices rise so that in aggregate, even if the export sales are made at a discount to the domestic price, the total value of the industry's sales will increase.

The calculation of the ED is a useful indicator of avocado demand and the effect that exports may have on industry revenue, but care should be taken not to over-rely on the estimate of the demand elasticity (and its consequence for revenue). The ED has been calculated using retail data which may not reflect the price responses at a wholesale stage or at the farm gate (if wholesale or retail margins also change when supplies rise or fall). The analysis did not differentiate between different sizes of fruit, and it is likely that the ED for the preferred export-sized fruit (size 28-30) would differ from the ED for larger sized fruit preferred in the domestic market. Also the reliability of the estimate of ED is limited by the data difficulties discussed above and because the demand function explains only around 2/3 of the observed movement in quantity of avocado sales.

Other Estimates of Demand Elasticity of Avocados and Other Fruit

The demand relationships for Australian avocados have not previously been estimated, nor are there recent estimates of these relationships for other fruit or vegetables in the Australian market. We suspect that in most industries, there is insufficient information about production, supply to the domestic market, and prices over a sufficient period of time to support quantitative estimates of demand relationship. Hasler et.al[24] made estimates of the own–price and cross–price elasticities for broad categories of foods. These included estimates of the elasticities of fresh fruits, preserved fruit, fresh vegetables and preserved vegetables, but did not estimate the elasticities for individual fruit or vegetable products. The authors estimated the price elasticity of fresh fruit to be -1.049 and the elasticity of fresh vegetables to be -0.526.

[24] Haszler, H., Hone, P., Ulubasoglu, M., Mallick, D. and Wadud, M., 2010, Food Demand Elasticities in Australia, School Working Paper SWP 2101/17, Faculty of Business and Law, Deakin University, Melbourne.

Van Zyl and Conradie[25] evaluated the demand for avocados in South Africa in 1998. At that time, average consumption of avocados in South Africa had increased in the previous decade by an average of 6.3% p.a. and per capita consumption in 1987 was estimated at 0.82 Kg per head. They estimated a demand function in which quantity was a function of real price, a real weighted price of substitute foods, a real weighted price of complementary foods, time and per capita real monthly income. The authors estimated the elasticity of demand for avocados at between -1.13 and -1.93.

Carmen and Rodriguez[26] evaluated demand for avocados in the United States of America in 2004 using a demand function in which per capita consumption of avocados was a function of average annual f.o.b. prices for Californian avocados, real per capita disposable income and the value of advertising and promotion expenditure by the Californian Avocado Commission (CAC). They estimated the price elasticity of demand for avocados to be -0.43. They calculated the elasticity of demand with respect to advertising to be 0.21. Promotion of avocados by the CAC was at that time funded by a levy on growers of 2.5 cents per pound of fruit sold.

Carman and Craft[27] used a detailed simulation model in 1998 to estimate the effect of California avocado industry advertising and promotion expenditures on the demand and price for California avocados and to estimate the ratio of benefits to program costs. They estimated that California avocado producers received an annual average benefit-cost ratio of 2.84 from industry expenditure on promotion over the 34-year period covered by their analysis. The benefit cost ratio for short term advertising, based on an assumption of fixed supply, ranged from $5.25 to $6.35 per dollar spent on advertising.

PRODUCTION AND TRADE

The Australian avocado industry has demonstrated strong, almost uninterrupted growth over more than 15 years. Production has grown year–on–year at an average of 2,126 tonnes per annum since 1997-98. Annual imports also have grown over the period from around 3,000 tonnes to a peak of over 17,000 tonnes in 2011-12, although the volumes have fluctuated dramatically since 2004-05 due to the biennial cycle of New Zealand's crop or other adverse cropping events. As a proportion of local production, imports have increased from 15%, to 25% of local production. Exports, though relatively small in volume, have increased consistently since 1997-98 from less than 100 tonnes, or 0.3% of local production to around 2,000 tonnes, equivalent to about 4 % of production.

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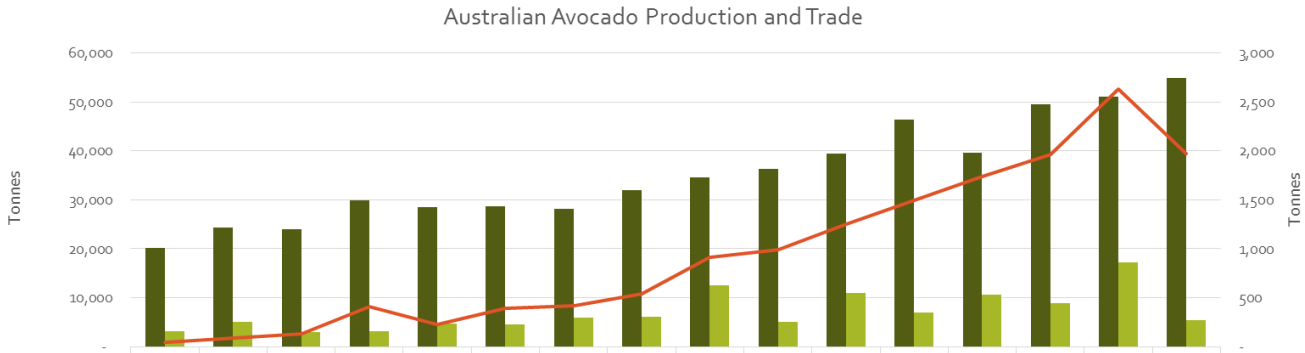
[25] Van Zyl, J. and Conradie, G. J., 1988, Factors that influence the domestic demand for avocados in South Africa with special reference to urban black consumer preferences, South African Avocado Growers' Association Yearbook.

[26] Carman, H. F. and Rodriguez, A. M., 2004, The Hass Avocado Promotion And Research Order: Offsetting Price Impacts From Imports With Advertising and Promotion, Working Paper No. 04-006, Department of Agricultural and Resource Economics, University of California, Davis.

[27] Carman, H. F. and Craft, R. K., 1988, An Economic Evaluation of California Avocado Industry Marketing Programs, 1961-1995. Berkeley: University of California Agricultural Experiment Station, Giannini Foundation Research Report No.345.

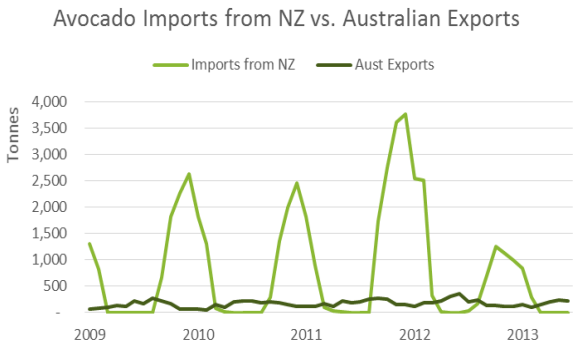


	97/98	98/99	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08	08/09	09/10	10/11	11/12	12/13
Production	20,173	24,311	23,976	29,834	28,485	28,638	28,196	31,960	34,515	36,359	39,394	46,446	39,641	49,612	51,113	54,877
Imports	3,153	5,089	3,027	3,083	4,669	4,461	6,002	6,098	12,505	5,036	10,933	6,962	10,601	8,912	17,221	5,378
Exports	44	85	135	409	225	393	417	537	917	987	1,249	1,494	1,737	1,961	2,629	1,977

The annual cycle of Australia's avocado exports match the cycle of production, peaking in mid-calendar year and declining progressively to a minimum around the Christmas to New Year season. Australia imports avocados during these low season months.

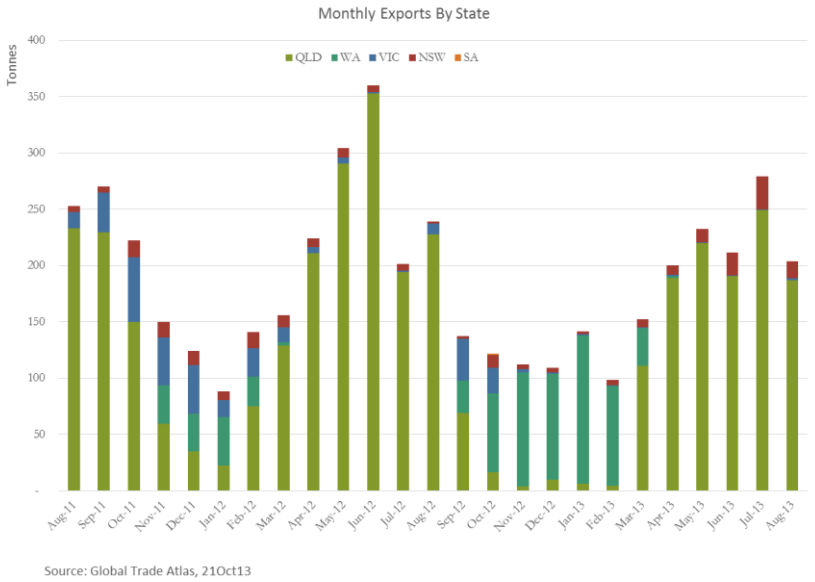
Despite strong growth, Australian production has not kept pace with the growth in demand. Imports from New Zealand have made up for this shortfall as well as providing for the growth in exports from Australia. There has been an increase in new plantings in Australia in recent years, particularly in areas that will supply the domestic market during the summer months in competition with imports from New Zealand (i.e. southern New South Wales, Victoria and Western Australia). If these were to eventually generate a sufficiently large volume of fruit, New Zealand may be faced with diverting some of its exports to their next largest export market: Asia. With seasonal compatibility, this scenario may not be a big threat to Australia and may provide an opportunity for collaboration between both countries in building the export trade.

Source: Global Trade Atlas, 26Aug13

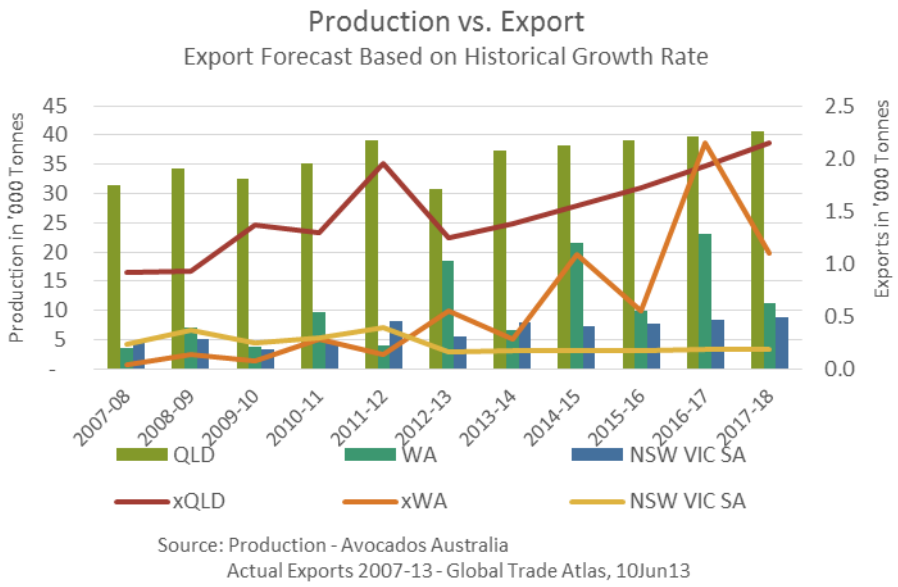


Source: Global Trade Atlas, 26Aug13

Monthly exports by state show the impact of lower New Zealand imports on exports from Victoria and New South Wales in the summer season of 2012-13. The shortfall from these two states was more than compensated by higher yield in Western Australia that year. It is also observed that the irregular bearing in Western Australia is currently alternate to the bearing cycle in New Zealand.



70% of Australian exports are from Queensland. Much of the growth of exports are from Queensland and Western Australia with an average year-on-year growth rate of 12% and 98% respectively.

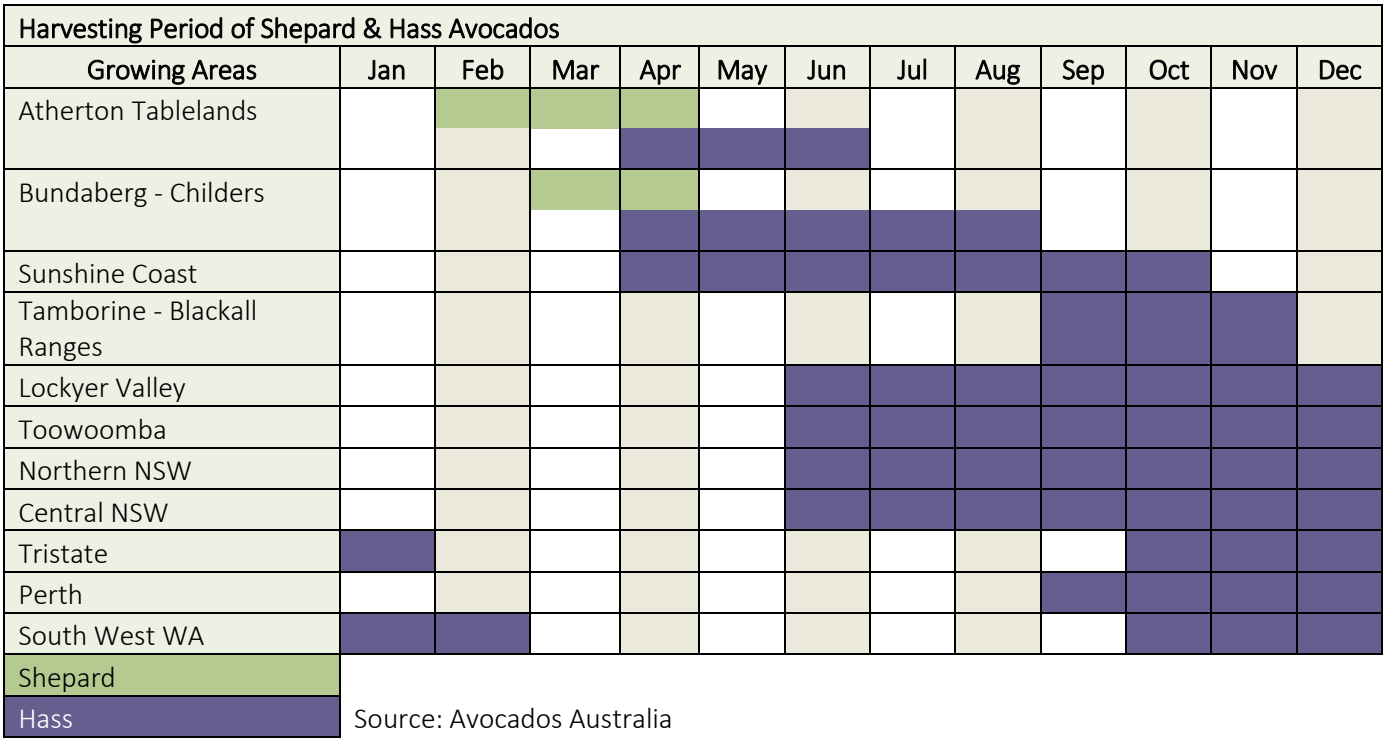


Should Australian avocado exports continue to follow historical trends based on year-on-year growth, by 2016-17, exports could average at 5-6% of total production forecast. Western Australia may be supplying as much or more product for export as Queensland by 2016-17. With more industry commitment to exports, the increased growth in production in Queensland, from an average of 398 tonnes p.a. in the last 5 years to 1,663 tonnes p.a. in the next 5 years, could easily magnify the growth in exports.

State	Average Annual Growth (tonnes p.a.)			
	2008-13		2013-18	
	Production	Export	Production	Export
QLD	398	133	1,663	182
WA	2,051	79	25	224
NSW VIC SA	448	-7	517	5

EXPORT SUPPLY CHAIN

Australia exports Hass and Shepard (green-skin) varieties. Hass is Australia's main export variety, similar to most global suppliers.



Source: Avocados Australia

Asian markets prefer smaller fruit to the domestic market preference. This offers an opportunity for the industry to export the less preferred fruit at a better price.

Standard product order specifications include[28]:

Count: Number of fruit of a specific size that fits into a standard P84 tray
Count sizes available for export: 16 18 20 23 25 28 30 Large, Medium, Small, Cocktail 10Kg carton
Weight: The net weight (fruit only) of a tray varies between 5.3kg and 5.5kg depending on the fruit size when packed
Air Freight: Two standard air freight pallets available
LD3 also referred to as AV pallet; 250 trays
LD7 also referred to as PP pallet or Air pallet: 732 trays
Sea Freight: 120 trays are packed per standard sea freight pallet
6m (20 ft.) Reefer container: 12 pallets = 1440 trays
12m (40 ft.) Reefer container: 26 pallets = 3120 trays

Almost all avocados are exported by airfreight due to a nominal cost difference compared with sea shipments from Queensland or Western Australia to Asia, as well as lower export volume requirements. This gives Australia a leading edge as fruit may be harvested and landed in Asian markets within 48 hours, ensuring maximised product quality standards.

The lack of product to supply export markets has been a barrier to export growth. This is mainly due to a strong domestic market and the lack of commitment by growers to exports. With the exception of a few, most growers still take a more opportunistic approach to exports. This is not unique to the avocado industry. It is a

[28] Avocado Export Company website

general approach and culture among growers in most fresh produce industries due to a strong domestic market. But with increasing production and increasing import trends, the industry will need to take a stronger, more strategic and visionary leadership approach to exports.

Most of Australian avocados are exported through 2 cooperative groups: Sunfresh and Avocado Export Company (AEC). The AEC was formed as an industry initiative to have a more coordinated and cooperative approach to exports, as recommended in the Avocado Export Road Map developed in 2006. Due to this new export structure, most avocados are exported directly from the growers, which is expected to provide better returns. A strategic approach to export markets between both export cooperatives is essential to maximise this setup.

A consequence of the cooperative initiative is the decline in the avocado trade through Australian fresh produce consolidators who have established export market pathways to major importers i.e. leveraging on larger fruit export trade such as citrus, grapes and stonefruit. This may or may not be a significant opportunity loss.

Case Study 1 Zespri[29]

Concern: Multiple exporters were competing to sell New Zealand kiwifruit independently around the world. A large increase in crop volume meant that the overseas importers and retailers could put pressure on the industry to drive prices down and effectively diminish returns to the grower.

Solution: The industry changed from having a marketing board to a corporation that would be responsible for the sales and marketing of the entire New Zealand crop.

Now known as Zespri, the business revolves around the sales, marketing, procurement, and logistics of the kiwifruit brand. They manage grower relationships in New Zealand and also procure fruit from around the world. Zespri has proprietary rights for the Gold variety which allows them to produce gold kiwifruit in other countries. Over the past 10 years, New Zealand sales volumes have almost doubled from 52 million to 100 million trays (approximately 30 pieces of fruit per tray).

Case Study 2 Fontera[30]

Concern: Dairy is a very important industry to the economy of New Zealand. As early as the 1930's dairy factories were owned by over 400 cooperatives which found it very difficult to sell product overseas.

Solution: The government established a dairy board which gave farmers power to access new markets earn better returns for their products. As the export business grew and prospered, cooperatives began joining forces to become more efficient. In the 1960's 400 cooperatives merged into 168. The industry consolidated further and by 1996, there were only 12 dairy companies. New Zealand's competing dairy cooperatives were forced to work together for the first time when the government transferred the Dairy Board's assets to them in 1996. By the end of 2000, 95% of the industry was owned by two major companies. In 2001, these two companies merged into a new company, Fonterra Cooperative Group Limited. Fontera is the world's leading exporter of dairy products, responsible for more than a third of international dairy trade and one of the top six diary companies in the world by turnover. This company represents 96% of all dairy farmers in the country.

Key lesson learned from these two case studies is the need to consolidate and minimise competition in exports, to deliver maximum returns to the grower, although consideration should also be given to the consequences of loss of diversity and competition that comes with consolidation.

[29] http://asia-knowledge.tki.org.nz/Business-case-studies/Case-study-3-Zespri, 29Oct13.
[30] http://asia-knowledge.tki.org.nz/Business-case-studies/Case-study-5-Fonterra, 29Oct13.

It is quite common to see a market controlled by very few gatekeepers: importers. With so many players in the global avocado export industry, these gatekeepers can be quite powerful. It is essential to avoid competition amongst avocado exporters. The initiative to export most product through cooperative groups is commendable. But with very low volumes in a vast global avocado market, it is strategically essential that there be a more unified and collaborative approach to markets.

2 exporters trading most of 2,000 tonnes can be quite 'crowded'.

Source for diagram statistics:
Singapore & Malaysia – A Desktop Study
Queensland Trade & Investment
By Adriano Brescia, 2012.

MARKET ACCESS FOR AVOCADOS

With geographical advantages to Asia, the avocado industry is and should be focused on the Asian market. It enjoys zero tariffs to most countries in the ASEAN region due to the ASEAN Australia New Zealand Free Trade Agreement (AANZFTA), but no access into what is considered to be high value markets in Asia: Japan, South Korea, Taiwan and China. Trade into one of its existing key markets, Thailand, has recently halted due to unfavourable import conditions.

After a visit to Australia in September 2013, Thai government officials are currently evaluating possible improvements in the protocol for avocados: interim chemical use, non-host status and shorter cold treatment.[31]

New Zealand is another market that has imposed trade protocols that cannot be used by Australia. The industry is currently investing in research to develop a short cold treatment protocol for green-skin varieties for the domestic market. This same science may be used in negotiating with the New Zealand government.

The Australian Avocado industry is in the processing list for China. Negotiations are currently underway (and hopefully concluding) for the summerfruit industry. Apples is next in line, followed by lychees then avocados.

The industry has likewise submitted an application for Japan which has yet to be evaluated by the OHMA committee. The process for negotiations with Japan is quite lengthy as other industries are in the pipeline. Table grapes have been awaiting access into Japan for years and hope to see results within the next two years. The table grape industry has invested over $1 million for access requirements into this market. This is in addition to investments made on an internationally acceptable and commercially viable cold treatment protocol.

The biggest obstacle to gaining access into markets is due to phytosanitary reasons. Similar to other industries, the avocado industry has to work on an internationally acceptable and commercially viable protocol.

Research data is available to support conditional non-host status of Hass and Lamb Hass varieties. This has been accepted by Australian interstate quarantine authorities. This protocol has been put forward to the Thai government and has yet to be evaluated. No other international market is using this protocol for imported Australian avocados as of this writing.

The Australian avocado industry is a member of the OHMA committee.

Please refer to a tariff and import requirements schedule on selected markets.

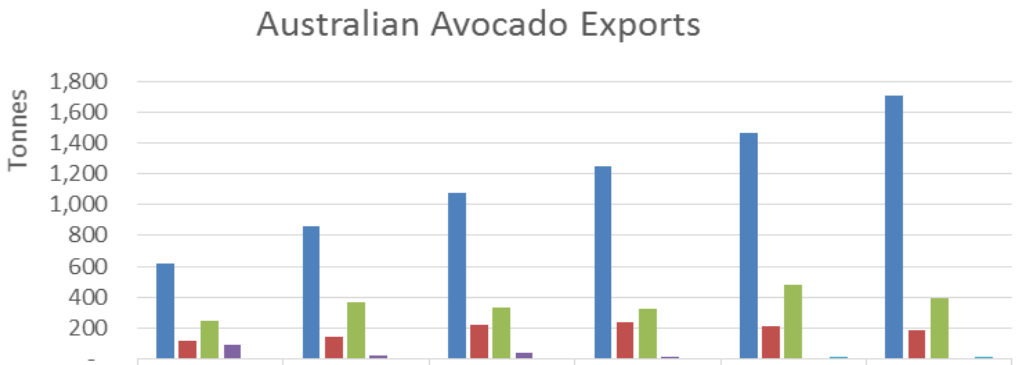
[31] OHMA Quarterly Report, Chris Langley, OHMA Manager, 3rd Quarter, 2013.

Avocado Tariff Rates of Selected Markets[32]	Import Requirements
China Average: 25% tariff; Bound: 25%*	No access.
Hong Kong Zero tariff*	Open market.
India Average: 30% ; Bound: 100%*	No access. No avocado imports recorded. Poor cold chain infrastructure.
Indonesia 5% tariff; reduced to 4% tariff on 2015	Australia is one of a handful of countries allowed to export through the major ports of Indonesia including Jakarta. Despite this, all have been experiencing uncertainties and delays in release of shipments. Uncertainties on import conditions remain.
Japan Average: 3% tariff; Bound: 3%*	No access.
Malaysia Zero tariff	Open market.
Middle East: UAE, Saudi Arabia, Qatar Zero tariff; Bound: 15%, 10%, 15%*	Open market.
New Zealand Zero tariff	No trade due to commercially unviable protocols for avocados. See Appendix B.
Philippines Zero tariff	No existing airfreight protocols. Sea freight protocols for major fruit commodities have been recently eased but no protocol for avocados have been negotiated.
Russia Average: 5%; Bound: 5%	Open market.
South Korea Average: 30%; Bound: 45%*	No access.
Taiwan Average: 15%; Bound: 15%*	No access.
Thailand Zero tariff	No trade due to commercially unviable protocols for avocados. See Appendix C.
United States Australia's FTA with the US delivers conditional new market opportunities to Australian avocado producers, eliminating the previously prohibitive tariff of 11.2 US cents per kilogram, and creating initial duty-free access to the US for 4,000 tonnes of Australian avocados after two years, growing by an additional 10 per cent each year. The 4,000 tonne duty free quota is divided into two seasonal periods, which cover the whole year. Over-quota tariffs will also be completely eliminated over 18 years.[33]	No trade due to phytosanitary issues. No protocol negotiated. No application with OHMA. Australian citrus is currently the only fruit commodity being traded with the US. This market accepted Australian mangoes and lychees in September 2013.
Vietnam Tariff schedule 2013: 20%, 2014: 15%, 2015: 10%, 2016: 7%, 2017: 5%, 2019: 0%	Open market.

[32] http://www.dfat.gov.au/fta/, * http://tariffdata.wto.org/ReportersAndProducts.aspx. Bound rate is the commitment not to increase a rate of duty beyond this agreed level.
[33] Source: http://www.daff.gov.au/market-access-trade/fta/ausfta#Tariff

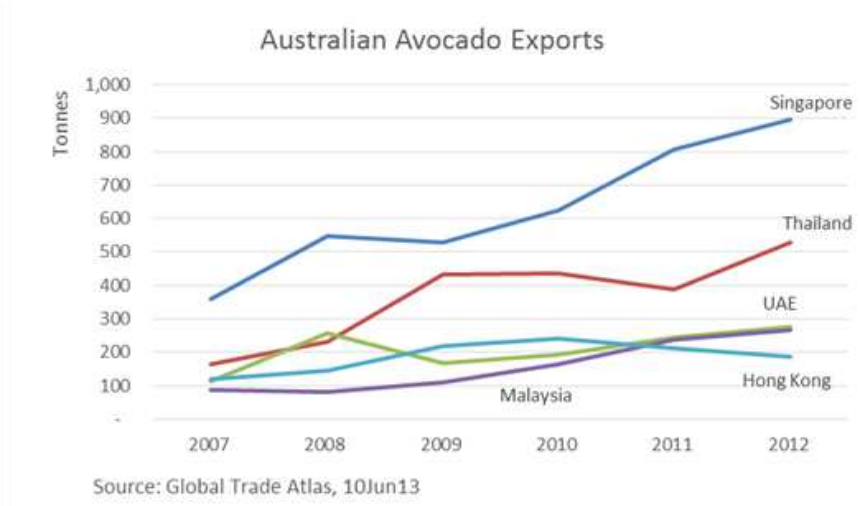
EXPORT MARKET ANALYSIS

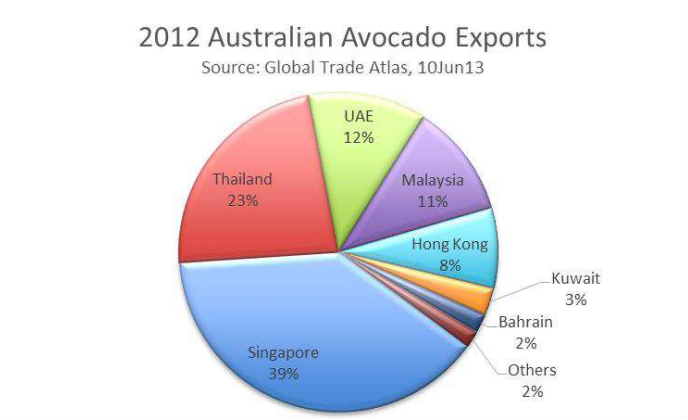
Australian avocado exports have generally been growing in the past decade with Asia (ASEAN region and Hong Kong) taking in 80% of the volume. Growth is mainly seen in the top 4 markets which take 85% of Australian avocado exports. Australia is a major player in these markets.



	2007	2008	2009	2010	2011	2012
ASEAN	614,022	863,369	1,079,212	1,247,459	1,466,042	1,703,967
HK	121,234	144,898	219,623	240,787	213,126	187,554
Middle East	244,827	364,519	331,866	319,945	480,280	396,301
New Zealand	89,373	22,290	42,465	16,010	-	1,600
Others	4,762	5,542	6,019	7,186	15,882	10,746

Source: Global Trade Atlas, 10Jun13





Australian Avocado Export Statistics						
	Average FOB Prices (Australia Dollars per Kilogram)					
Partner Country	2007	2008	2009	2010	2011	2012
Vietnam	4.54	3.14	3.42	7.21	4.38	6.51
Indonesia	4.92	4.92	5.94	5.27	4.69	5.22
Brunei Darussalam	6.89	4.69	4.44	4.33	4.16	4.58
New Zealand	2.75	3.48	3.61	3.56	0.00	0.00
Qatar	3.69	4.00	3.93	3.52	4.58	4.46
United Arab Emirates	3.30	4.10	4.27	3.61	3.93	4.40
Thailand	3.82	5.75	3.58	4.13	3.84	4.18
Saudi Arabia	3.46	6.27	5.15	4.01	3.25	4.14
Malaysia	3.95	0.00	4.69	3.48	4.07	4.06
Bahrain	4.76	4.34	4.28	4.17	3.58	3.67
Singapore	2.78	2.78	3.73	3.35	5.84	3.30
Hong Kong	2.93	3.58	3.40	3.34	2.94	3.26
Russia	2.69	3.22	3.63	3.59	3.08	3.14
Kuwait	2.09	1.65	3.31	2.27	0.00	2.92

Source: Global Trade Atlas, 10Jun13

Australian avocado export prices are among the highest in the world due to high production costs and the high exchange rate. With a high quality product and high price, the industry will need to focus on high value niche market segments in the countries they trade with, providing excellent customer service and utmost reliability and consistency.

World Avocado Import Trends by Selected Markets							
	In Tonnes						
Reporting Country	2007	2008	2009	2010	2011	2012	Year-on-Year Average Growth
Japan	26,511	24,073	29,840	44,552	37,173	58,555	21%
Russia*	-	4,806	5,827	8,367	9,474	11,157	24%
UAE	-	-	3,155	4,559	5,087	-	28%
Hong Kong	1,304	989	1,293	1,970	2,361	2,606	18%
Saudi Arabia*	-	376	682	1,610	2,056	-	82%
Singapore	659	747	978	1,285	1,496	1,691	21%
Malaysia	158	227	256	359	523	565	30%
South Korea	655	492	325	457	402	534	1%
Thailand	188	413	664	540	440	530	33%
Oman*	-	69	100	136	148	202	32%
China	-	4	-	2	32	154	965%
Taiwan	34	39	31	26	53	87	29%
Indonesia	18	35	10	15	16	52	62%
New Caledonia*	-	3	7	9	15	18	58%
Cambodia*	-	0	2	4	6	-	190%
Vietnam*	-	2	34	7	6	-	539%
New Zealand	88	8	41	128	-	1	174%

Source: Global Trade Atlas, 10Jun13; * UN Comtrade, 07Jul13

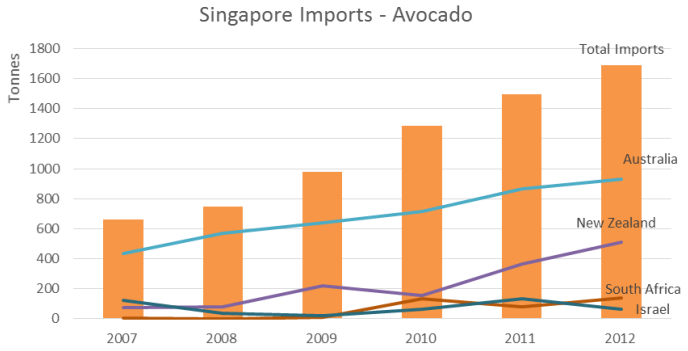
Note: No available data for some markets with "-"

The world avocado market is growing as can be seen among selected markets relevant to the Australian trade. The Avocado industry will need to take advantage of this opportunity by developing strong relationships with priority markets, providing excellent and consistent quality product and making a commitment in building a presence in these markets.

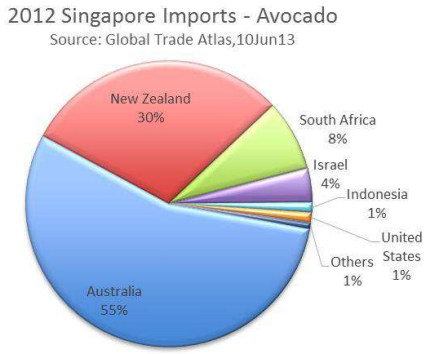
EXISTING KEY MARKETS

Singapore

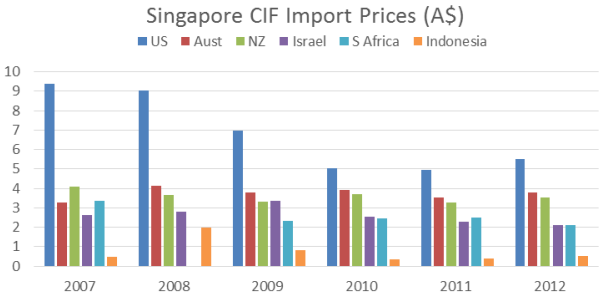
Singapore is one of two markets where Australia is the market leader for imported avocados. Australia is at an advantage due to its close proximity to Singapore, the quality of fruit it delivers and zero tariffs based on ANZFTAA (ASEAN-Australian-New Zealand Free Trade Agreement). Mexican avocados were traded into Singapore up to 2010 at a high of 172 tonnes. Both Mexican and South African avocados do not measure up to the quality that Australia can deliver. This is partly due to long shipping days. New Zealand enjoys similar advantages to Australia and is gaining market share in Singapore. CIF[34] price trends also show similar rates between both countries. New Zealand's exports to Singapore would be expected to increase if New Zealand's main export market, Australia, weakens.



Source: Global Trade Atlas, 10Jun13



Australia should maximise its leadership in the imported avocado category by locking in and strengthening its commercial relationships with Singapore's major importers. According to a market report developed by Trade & Investment Queensland in 2012, Singapore has six major food importer-distributers that cover 50%-80% of avocado imports.



Source: Global Trade Atlas, 21Oct13

Market preference is on smaller sized (count 28-32), unripened Hass avocados. Hard, green and unblemished fruit is generally preferred to allow importers to sell unripened fruit or to manage ripening according to their customer requirements. Food service customers have a preference for semi to fully ripened avocados and skin blemishes are acceptable.[35]

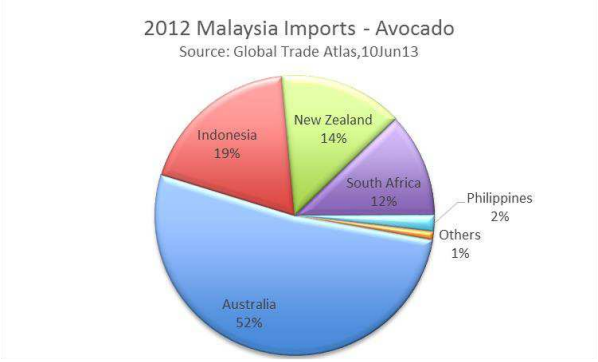
Please refer to Appendix D for a detailed market report on Singapore and Malaysia by Trade & Investment Queensland.

[34] CIF – Cost, Insurance and Freight.

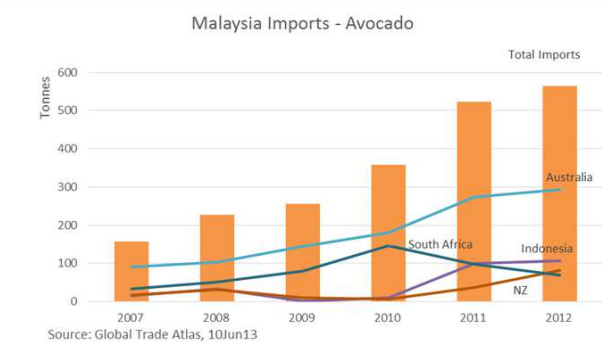
[35] "The market for avocados in Singapore and Malaysia", Adriano Brescia, Trade & Investment Queensland, 2012.

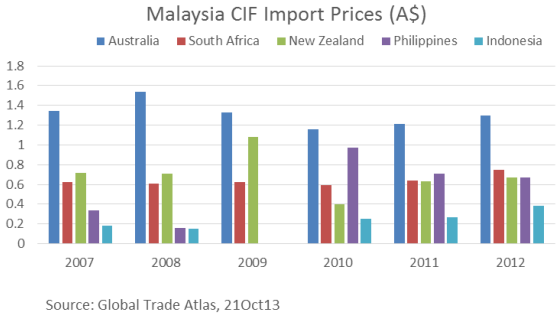
Malaysia

Like Singapore, Malaysia is a market where Australia is the market leader for imported avocados. This market is similar to Singapore and Australia enjoys the same advantages as it does in Singapore. In this market, Australian avocados command a highest price compared to other country sources.



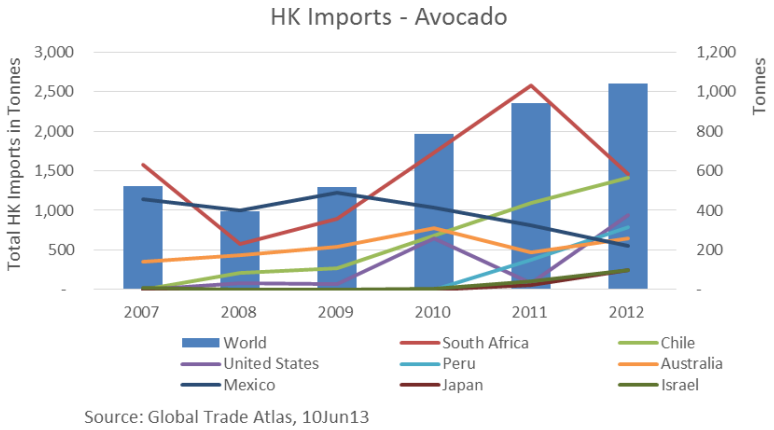
Malaysia has just two major food importer-distributors importing 70% of imported avocados. [36] Please refer to Appendix D for a detailed market report on Singapore and Malaysia by Trade & Investment Queensland.





Hong Kong

Hong Kong is a major export market for Australian fruit and is considered the gateway to mainland China. Avocado imports have been consistently growing in this market.

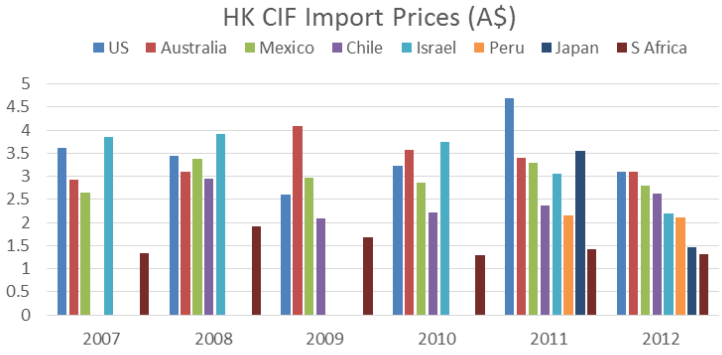


There is only 1 importer that dominates the market handling 80-90% of imported avocados. Like other Asian markets, smaller sized Hass avocados (count 28-30 packed in 5 kg cartons) are preferred. Avocados retail at around HK$10 - HK$13 (A$1.35 - A$1.75) per piece in upmarket stores. [37]

[36] "The market for avocados in Singapore and Malaysia", Adriano Brescia, Trade & Investment Queensland, 2012.

[37] "The Market for Avocados in Hong Kong", Queensland Trade & Investment, Adriano Brescia, 2012.

There are many countries trading avocados through this market and competition is quite fierce. Australia is competitive in the higher end of the price spectrum. Anecdotal evidence reflect trading prices at HK$200-HK$260 per carton or A$5.35 – A$6.95 per kilogram[38] (an expected higher rate than customs declared CIF prices).

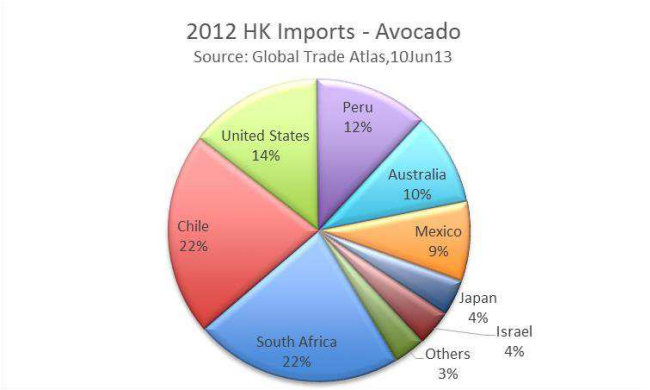


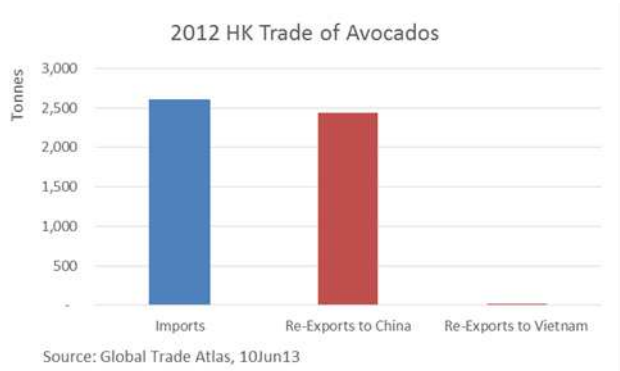
Source: Global Trade Atlas, 21Oct13

Please refer to Appendix E for a detailed market report on Hong Kong by Trade & Investment Queensland.

It was reported by the Hong Kong Census and Statistics Department that in 2012, Hong Kong re-exported 94% of imported avocados to China and 1% to Vietnam. Hong Kong is the biggest market for other Australian fruit industries and it is strategically essential that these industries are able to gain direct access into China in case the Hong Kong-China trade shuts down, as witnessed with the Australian rock lobster trade.

Despite having direct access into China, many still prefer to trade through Hong Kong because of existing trade relationships and lower trading costs and risks.



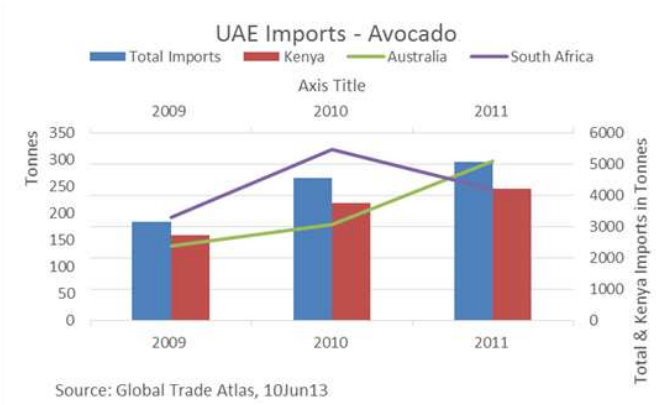


[38] "The Market for Avocados in Hong Kong", Queensland Trade & Investment, Adriano Brescia, 2012.

United Arab Emirates (UAE)

The UAE has been ranked as the fifth strongest emerging market in an index of global retail investment.[39] The UAE is an Arab country and is a federation of seven emirates (equivalent to principalities). The constituent emirates are Abu Dahbi, Ahman, Dubai, Fujairah, Ras al-Khaimah, Sharjah and Umm al-Quwain. The capital is Abu Dhabi, which is one of the two centres of commercial and cultural activities, together with Dubai. UAE per capita income is the world's seventh highest. According to the World Bank, the population of the UAE is around 9.2 million. Another study by a Kuwaiti think-tank puts the UAE's population at 8.5 million with expatriates making up 84% of the population.[40]

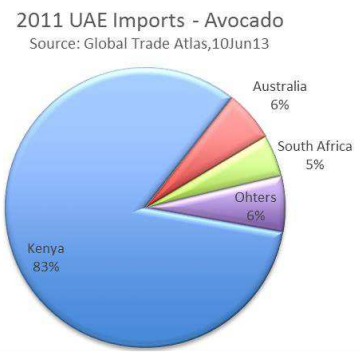
The UAE is part of the Gulf Cooperation Council (GCC), a political and economic union of Arab states which include Bahrain, Kuwait, Oman, Qatar and Saudi Arabia. Consumer spending in the GCC food retail sector is expected to reach US$106 billion in the next five years. Food remains the largest segment of consumer expenditure in the region, standing at $83 billion year end 2012. Food accounts for 28% of the total consumers spend in 2012. Saudi Arabia and the UAE together account for around 75% of the total food retail market. UAE food retail sector is dominated by the modern retail sector which has around 60% share due to UAE's unique demographic profile of an 84% expatriate population. While all food retail formats, spanning large hypermarkets to small convenience stores, have witnessed solid growth, it is the larger sized stores, such as hypermarkets, which are set to dominate GCC market share over the next five years. Large stores are typically viewed as a source of entertainment for the whole family.[41]

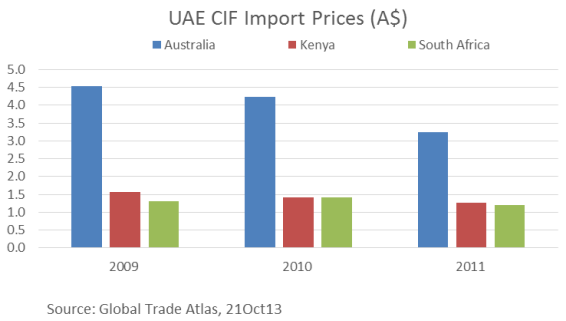


To work this market, on-ground consultants with the right connections may be the easier way to penetrate it.

Avocado imports by the UAE is consistently growing. Though the majority of avocados are sourced through Kenya, Australia has found a niche in this market at 6% market share and growing. South Africa is a very close competitor.

Import CIF prices from Australia is quite competitive compared to some global major avocado suppliers such as Chile, Peru, US and New Zealand.



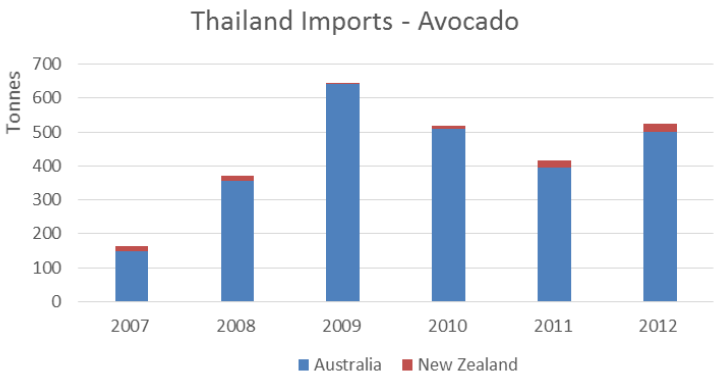


[39] "UAE retail market attractive but very saturated – Report", Andy Sambidge, arabianbusiness.com, 23Jun13.
[40] "Give expats an opportunity to earn UAE citizenship", Sultan Sooud Al Qassemi, Special to Gulf News, 22Sep13.
[41] "GCC Food Retail Industry potential for $23bn Growth", AT Kearney, 25Feb13.

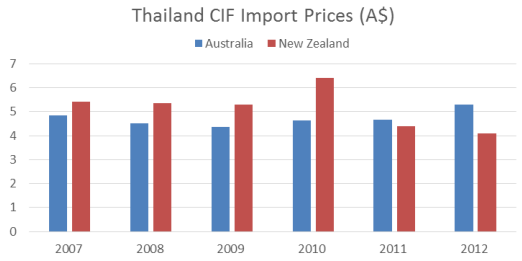
KEY MARKETS WITH NO ACCESS

Thailand

Thailand was the 2nd largest export market for Australian Avocados with 94% market share of total imported avocados in 2012. Thailand received 23% of Australia's total avocado exports in 2012-13. Under the Australia Thailand Free Trade Agreement, Australian avocados are at zero tariff. New Zealand, Thailand's far second option for imported avocados, also enjoys zero tariff into this market. Both suppliers compete in price.



Source: Global Trade Atlas, 10Jun13



Source: Global Trade Atlas, 21Oct13

A strong market for Australia across various fruit commodities including avocado, Thailand is reviewing its import conditions for all horticultural products which has negatively impacted on Australian industries.

By July 2013, new trade protocols were established for table grapes, citrus, apples, pears, avocados, strawberries, persimmons and kiwi fruit. Access for Australian cherries and summerfruits was suspended in January 2012.

Please refer to Appendix C for the new Australian avocado import protocols established by Thailand.

With the new protocols effective July 2013, Australian avocado trade into Thailand has ceased. Cold treatment protocols are not commercially viable with temperature requirements too low and exposure period too long. After a visit to Australia in September 2013, Thai government officials are currently evaluating possible improvements in the protocol for avocados: interim chemical use, non-host status and shorter cold treatment.[42]

China

China is considered the 2nd largest economy after the US, surpassing Japan in 2001. Economic development has progressed further in coastal provinces than in the interior.

China is one of the largest consumer of food and beverage in the world, and is also one of the largest producers. Urban populations have increased by an estimated 153 million over the past ten years. By 2025 it is expected that urban areas will swell from 607 million to 822 million people. China's major cities of Beijing and Shanghai will continue to be leading consumer hubs. Beyond Beijing and Shanghai, McKinsey predicts that by 2015, nine large markets will account for 30% of luxury consumption in China. These will be: Chongqing, Dongguan, Foshan, Guangzhou, Hangzhou, Nanjing, Shenzhen, Tianjin, and Wenzhou.

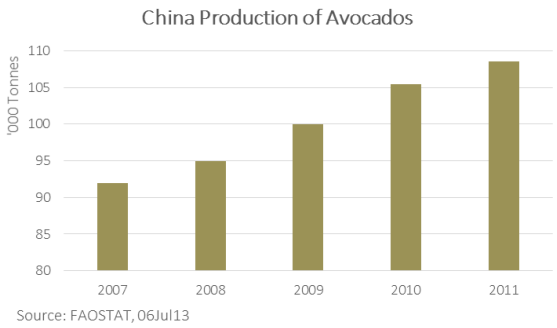
Consumers of imported food in China are generally high among upper-middle income locals and expatriates. These consumers can afford to pay higher prices for food and they are motivated to do so because of increasing concerns about food safety and health. Imported western-style products have a good reputation for

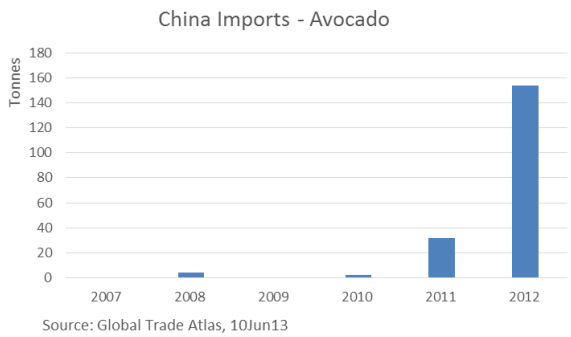
[42] OHMA Quarterly Report, Chris Langley, OHMA Manager, 3rd Quarter, 2013.

being good quality, nutritious and safe. Health and wellness remain a very important driver, with many new product developments focusing explicitly on healthier ingredients and processing. Across almost all the packaged food sectors, *health and wellness has been the key selling point for new launches.* As Chinese lifestyles become increasingly urbanized and fast paced (for high and upper-middle income consumers), packaged and convenience foods have become more popular. Chilled processed food and frozen processed food are predicted to show relatively rapid growth in the near future.

The Hong Kong 'grey channel' is still a primary supply route for products destined for the Pearl River Delta and south western China, including Sichuan, Yunnan, Hunan, and Chongqing. Most northern distributors have eliminated reliance on the grey channel or reduced these imports to less than 20% of total volume. Grey channel goods are handled by Hong Kong agents who work with Mainland agents, often based on family connections, across the border in Guangdong Province. Cargo is under-invoiced to reduce tariffs. In addition, some distributors say, it is easier and less expensive to source low-volume shipments out of Hong Kong, rather than landing full containers in northern ports. However, WTO tariff reductions and general loosening of controls have diminished the advantages of under-invoicing, as the central government continues to crack down on customs tariff and tax avoidance. In addition, the leading edge of growth in the imported food market is moving north, away from Guangzhou, since the cost of transportation often eats into the perceived savings of grey channel product shipments.[43]

China production of avocados is slowly growing at a very low base and is totally consumed locally. Note: Production data sourced through FAOSTAT may be overstated. Findings conducted by Avocados Australia in a 2013 China trip show very minimal local avocado production. Starting 2011, China imported Mexican avocados though quite minimal in volume. Avocado is not part of the Chinese cuisine but the growing demand for healthy eating in the urban areas is an opportunity that the industry may tap into supported by an intensive educational program among the trade and consumers.





Japan

With a difficult economic situation in Japan, consumer expenditure remains modest and retail sales continued to be flat in 2012. Traditional grocery retailers continue to exit the market, as competition intensifies. Modern grocery retailers launch private label products to appeal to affordability. The Japanese consumer continues to look for discounts when purchasing daily necessities. Among non-store-based retailers, catalogue shopping / internet retailing is growing. As more and more consumers become comfortable shopping online, internet retailing demonstrated one of the strongest growth rates in 2012.

[43] "China and Hong Kong Food Opportunities for Maine", Jessica Bradbury, MITC Research Assistant, Maine International Trade Centre, Mar12.

As urbanisation advances with growing inflow of population into large cities, there is increasing demand for grocery retailers in central areas. Large shopping malls are often located in suburbs and are too far away for daily grocery shopping. Land space is limited in urban areas prompting retailers to open outlets with smaller selling space. The number of convenience stores and small grocery stores has increased. As the number of elderly people residing in urban areas increases, conveniently located small outlets are highly valued by local consumers. Large shopping malls are often located in suburbs and are too far away for daily grocery shopping.

With the growing population of elderly Japanese, retailers are increasingly offering services and product varieties targeted at older consumers. Among grocery retailers, supermarkets launched small pack size deli products and increased healthy menu options. Convenience stores started to sell fresh groceries to attract elderly consumers who have limited access to supermarkets. Across various channels, retailers focus their attention on the elderly consumer segment due to its growth potential. [44]

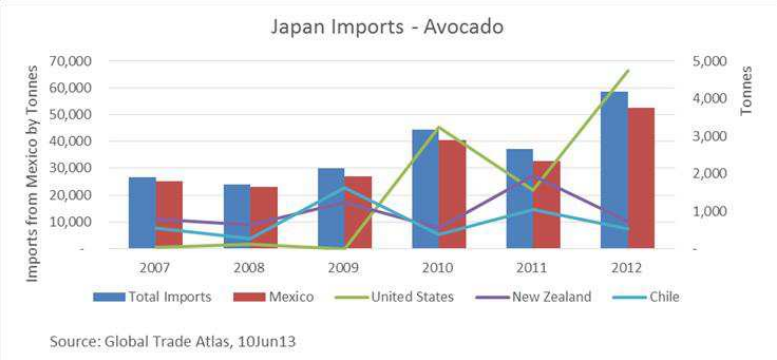
Despite all these, Japan is still the 2nd biggest retail market in the world with 127 million sophisticated consumers that appreciate high quality and excellent service. Japan accounts for more than 55% of the whole Asian retail market (JETRO, 2008). Japan is also the nation with highest demand of food imports worldwide. It has the lowest self-sufficiency rate (41% only) among the G8 countries. Japan is in need to import almost 60% of all food consumed (United Nations, 2008).[45]

In addition to the ageing population another trend affecting the retail situation is the growing number of working women outside the home from 51.5% in 1980 to 60.11% in 2011. This has brought about the increased demand for convenience. To compete with convenience stores, large supermarkets are developing small "city-style stores."

In Japan, 80% of vegetables and 60% of fruits are distributed by way of wholesale markets. As indicated above Japanese consumers tend to buy small amounts of vegetables and fruits frequently.[46]

Japan is the largest market for imported avocados in Asia. Japan's avocado imports are growing, most of which are sourced from Mexico. The US is the next biggest source of avocados followed by New Zealand where both countries are also experiencing trade growth with this market.

Australian avocados have no access to Japan.

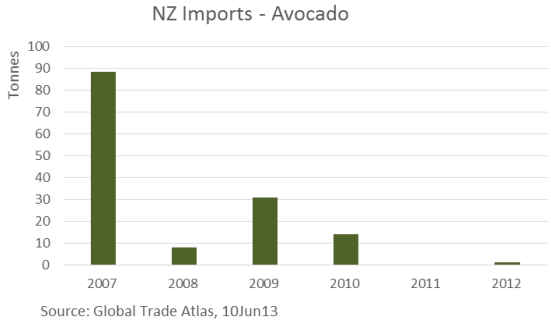


Japan: Retail Prices on Imported Avocado

Country Source	A$ per Piece
Mexico	1.07 - 1.63
US	1.05 - 1.09
Chile	1.05 - 2.25
FX Rate: JPY 92 = A$1, 16Dec13	

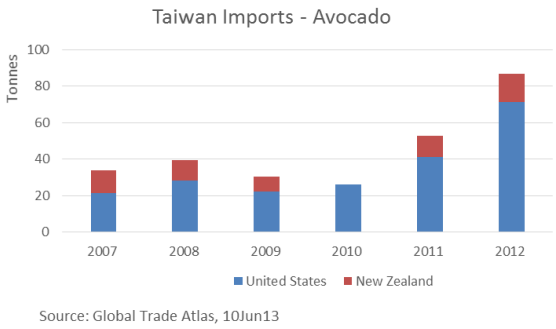
[44] "Retailing in Japan", Euromonitor International, May13.
[45] "Is Japan still an important consumer market?", G&S Asia Limited, http://www.gs-int-ltd.com/japans-retail-market.html, 29Sep13.
[46] "A Two-Level Purchase Problem for Food Retailing in Japan", Masatoshi Sakawa, Ichiro Nishizaki, Takeshi Matsui, Tomohiro Hayashida, Faculty of Engineering, Hiroshima University, Higashi-Hiroshima, Japan, 22Sep12.

New Zealand



New Zealand is a similar market to Australia, though much smaller in size. Opportunity to supply this market is in May to July when domestic supply is low. It is considered a challenging market as many local growers start harvesting their early season fruit when they see Australian avocados enter the market. Current trade protocols established by New Zealand on Australian avocados require pre-shipment cold treatment at a very low temperature of 1 degree prior to airfreight. Please see Appendix B for protocol details. This increases cost and a longer lead-time to deliver. Unless Australia is able to negotiate on a more favourable protocol, the New Zealand market would not be commercially profitable.

Taiwan

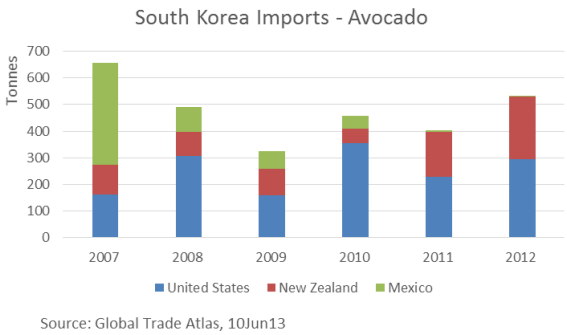


Taiwan is a market of interest for New Zealand which is one of two players in the imported avocado category. Taiwan is the 6th largest export market in value terms for New Zealand. Taiwan is one of a number of high tariff markets – a feature of many Asian economic and a significant barrier to developing market opportunities in the region. New Zealand entered into an economic cooperation agreement with Taiwan in 2013 which will reduce tariffs to zero either as soon as the agreement comes into force or on a phase out period.[47]

Total Taiwan imports of avocados are considerably low in volumes but it rates the highest in paying average $/Kg CIF[48] compared to other avocado importing countries in the last 6 years.

South Korea

South Korea has entered into Free Trade Agreements with the EU, the US, Singapore, Chile, Peru, the European Free Trade Association (consisting of Switzerland, Norway, Iceland and Lichtenstein) and ASEAN. A Closer Economic Partnership Agreement between South Korea and India was implemented in 2010. The FTA on Trade in Goods with Turkey was signed in August 2012. It is currently negotiating with China and Japan for a trilateral free trade agreement.[49]



South Korea imports of avocados is generally on the increase in the last 4 years and it is 3rd in ranking in average $/Kg CIF. New Zealand avocado exports to this

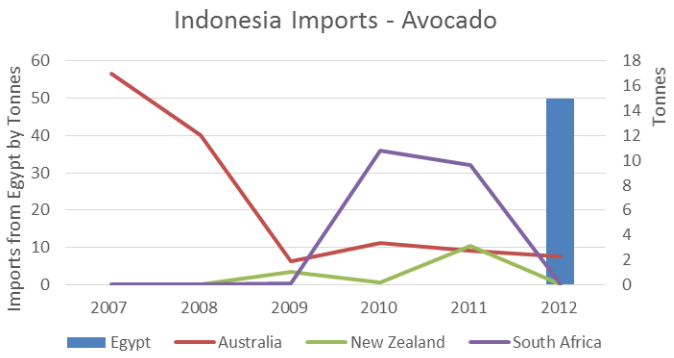
[47] "Horticulture Gives Thumbs Up to Taiwan Trade Deal", Simon Hegarty, Chief Executive, NZ Horticulture Export Authority, media release 11Jul13.
[48] Cost, Insurance, and Freight Import Value – This value represents the landed value of the commodity at the first port of arrival in the importing country. It is computed by adding Import Charges to the Customs Value and there excludes import duties.
[49] http://developed-markets-research.hktdc.com/business-news/article/Korea/Republic-of-Korea-Market-Profile/mp/en/1/1X000000/1X0010DN.htm, 27May13.

market are growing despite no Free Trade Agreement in place.

OTHER MARKETS

Asia is an important region for Australia because of its close geographical location. With the current AANZFTA where Australia and New Zealand supposedly enjoys preferred tariff schedules, it is worth looking at other ASEAN countries.

Indonesia is the fourth largest producer of avocados in the world. With its massive population, emerging economy, growing middle to upper class and the growing western influence on this market segment, there may be opportunity to supply high quality avocados to this market. Access issues for other horticulture industries are emerging in this market and should be closely monitored.



Source: Global Trade Atlas, 10Jun13

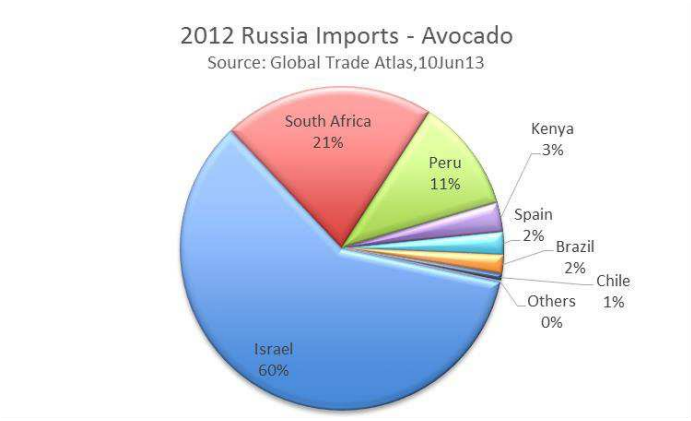
Vietnam is another emerging market that Australia has limited trade intelligence on. Though tariffs have yet to be eliminated in the next 5 years, other horticulture commodities have found high end niche opportunities in this market. It is uncertain if Vietnam will tighten import conditions similar to Thailand.

The Philippines is catching up with its neighbours with strong economic growth. Another highly populated market. For over 10 years, the market closed its doors on Australian fruits due to reciprocal trade challenges. The market has recently opened its doors to Australia in this sector but no protocol was negotiated for avocado. The Philippines produces its own avocados and there is no evidence of any avocado imports. Local avocados retail at A$3 per kilogram.

Major avocado competitors have easy access into North America and the European Union. With slowing economies, strong competitor presence and the long distance from Australia, opportunities for Australian avocados are quite minimal.

Russia is one of the largest emerging economies that heavily relies on imported produce. Though an "unknown" market to Australian avocados, it is a major importer of the product that mainly trades with Israel, South Africa and Peru. It is known to be a difficult market to do business with particularly if the industry's network in this market is limited.

Imported avocados from Israel retail at an average of A$2.04 per piece while those from Mexico retail at A$1.22 – A$2.35 per piece.



SWOT ANALYSIS

Export Markets

Export Market	Strengths	Weaknesses	Opportunities	Threats
Singapore	• Largest export market for Australian avocados - 39% of total Australian avocado exports • Australia is market leader for imported avocados with 55% markets share • Close geographical location • Zero tariff	• Avocado is not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits • Price conscious market	• Total year-on-year import growth of 21% in the past 5 years. • Trend towards healthier food • Strong "foodie" culture • Large expat community • Existing high income niche market segment	• Other competitors could easily gain market share from Australia
Malaysia	• 4th largest market for Australia -11% of total Australian avocado exports • Australia is market leader for imported avocados with 52% market share • Close geographical location • Zero tariff	• Avocado is not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits • Price conscious market	• Total year-on-year import growth of 30% in the past 5 years. • Trend towards healthier food • Existing high income niche market segment	• Existing trade agreements with Chile • Other competitors could easily gain market share • Possible shift to a phytosanitary market
HK	• 5th largest export market for Australia - 8% of total Australian avocado exports. • Gateway to the China market • Close geographical location • Zero tariff	• Avocado is not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits • Price conscious market	• Same trade players in China • Trend towards healthier food • Large expat community • Existing high income niche market segment	• Grey trade to China may be restricted or shut down • Fierce competition with other suppliers

Export Market	Strengths	Weaknesses	Opportunities	Threats
Middle East	• 3rd largest market for Australia -12% of total Australian avocado exports • Australia is 2nd/3rd largest supplier to the UAE – 6% market share • Zero tariffs	• Price conscious market	• Total year-on-year avocado import growth of: – UAE 28% – Saudi Arabia 82% – Oman 32% • Strong food service and retail industry in the UAE • Large expat community in the UAE • Existing high income niche market segment	• Strong presence of Kenyan avocados • Strong South African influence on the trade
Thailand	• 2nd largest market for Australia – 23% of total Australian avocado exports • Australia was the main supplier of imported avocados – 94% market share • Close geographical location • Zero tariffs • Gateway to other markets: Vietnam, Cambodia, Laos	• Avocado is not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits • Price conscious market • New import protocols are not commercially viable	• Total year-on-year import growth of 33% in the past 5 years. • Trend towards healthier food • Existing high income niche market segment	• New import protocols are not commercially viable for Australia • Competition from New Zealand and other players • Existing trade agreements with Chile and Peru
China	• Large population • Strong and controlled economy • Close geographical location	• Minimal avocado trade, though growing – no Australian access • More costly trading practice vs. trade through HK • Complex market dynamics – each region to be treated as a separate market • Avocado is generally not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits	• Strong migration to urban centres • Focus on food security & food safety • Growing western influence on food trends • Trend towards healthier food • Existing high income niche market segment	• Currently no access – outcome of negotiation may not be commercially viable • Existing trade agreements with Chile, Peru and New Zealand • Sensitivities with HK trading partners • Mexico – only player in the market

Export Market	Strengths	Weaknesses	Opportunities	Threats
Japan	• 4th largest global market for imported avocados – 6% • Largest market in Asia for imported avocados • 2nd largest retail market in the world • Close geographical location	• Ageing population • Shift to lower priced goods • Order specification standards are exacting	• Total year-on-year import growth of 21% in the past 5 years. • Existing high income market segment	• Currently no access – outcome of negotiation may not be commercially viable • Possible high investment requirements to gain access • Existing trade agreements with Chile and Peru • Strong competition with US, Mexico, Chile and New Zealand
New Zealand	• Similar market as Australia • Strong local avocado industry High value market • Close geographical location	• Low or no avocado trade • Small population	• Local supply is counter-seasonal to most of Australian avocados	• Currently no access – outcome of negotiation may still not be commercially viable • Extended seasonality of local supply
Taiwan	• Generally considered a high value market • Close geographical location	• Low avocado trade • Avocado is generally not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits	• Growing western influence on food trends • Trend towards healthier food • Existing high income niche market segment	• Currently no access – outcome of any future negotiation may not be commercially viable • Existing trade agreement with New Zealand
South Korea	• Generally considered a high value market • Close geographical location	• High tariff market • Low avocado trade	• Avocado imports are increasing in the last 4 years – particularly from New Zealand	• Currently no access – outcome of any future negotiation may not be commercially viable • Strong imported avocado presence of US, Mexico and New Zealand • Existing trade agreement with the US, Chile, Peru and ASEAN

Export Market	Strengths	Weaknesses	Opportunities	Threats
Other ASEAN Markets	• Large population • Emerging economies • Close geographical location • Preferred tariff rates due to ANZFTAA	• Low value markets – price conscious markets • Indonesia has a large local supply • Weak distribution infrastructure • Minimal avocado trade • Avocado is generally not part of the regular cuisine and diet – need to educate on usage handling, storage and health benefits	• Existing high income niche market segment • Trend towards healthier food	• Trade barrier uncertainties • Protectionist approach on locally produced commodities (Indonesia)
Russia	• Large population • Emerging economy • Considered as most appealing market for luxury goods including gourmet foods • Relatively high imported avocado retail prices	• Underdeveloped distribution infrastructure • Challenging trading practices • Long distance supply chain	• Total year-on-year import growth of 24% in the past 5 years. • Existing high income market segment	• Arbitrary government rulings that create market access issues • Strong avocado presence by competition: Israel, South Africa and Peru

Australian Avocado Industry

Key Industry Strengths	Maximising Industry Strengths
Australia's image of high quality and excellent food safety standards High quality product standards of Australian avocados	Focus on high value market segments Communicate the following in all markets: • Country of origin in all materials (except for grey trade markets) • Excellent best practice production, pre/post-harvest systems • Product differentiation with other country sources
Airfreight advantage due to close proximity to Asian markets	Aggressively promote capabilities to 'supply on demand' Focus efforts on Asia Further study Asian markets to maximise trade opportunities
In-market training program	Develop a more integrated standard training program and training schedule for key export markets to include various levels of the supply chain i.e. importers/traders/wholesalers, retailers and merchandisers, food service buyers and chefs and retail consumers

Key Industry Weaknesses	Addressing Industry Weaknesses
No access to high value markets and/or key markets	Invest in scientific evidence on commercially viable airfreight protocols, acceptable to phytosanitary markets Commission market studies of potential high value markets and/or market segments Develop relationships with relevant government and trade players in these markets Collaborate with other key groups that have similar concerns and objectives in market access
Domestic-focused industry with limited export commitments to markets Lack of export experience Lack of a more collaborative approach to exports	Take a leadership and more visionary role in developing the export business rounding up the grower members in supporting the industry's export position Ramp up industry export capability through: more in-depth intelligence reports, market studies and market visits/study tours Have a more unified approach to developing markets and better product supply commitments among exporters Ensure that studies, reports, key messages are communicated to growers on a timely and effective manner
High cost of production & high Australian dollar	Focus on high value market segments, highlight high quality and food safety standards, provide in-market training service and build the image of true partnership
Lack of exposure in international markets for Australian avocados	Collaborate and participate with other key groups that have similar concerns and objectives in developing a bigger presence in export markets Ensure consistency of messaging and imaging

Key Industry Opportunities	Leveraging on Industry Opportunities
In-market training programs for both the trade and end-consumers	Develop a more integrated standard training program and training schedule for key export markets to include various levels of the supply chain i.e. importers/traders/wholesalers, retailers and merchandisers, food service buyers and chefs and retail consumers Further enhance training programs as a competitive advantage which will strengthen relationships and build the Australian Avocado image
Smaller sized fruit preference in Asian markets complements domestic market preference for larger fruit	Study production levels on fruit differentiation based on export and domestic market preferences. Include production planning strategies to sustain/grow both markets. Consider product standard classification systems to assist growers in making informed decisions in supplying the markets.
Increasing awareness and interest on avocados in international markets	Build the image of and expand exposure for Australian avocados as products of excellence Collaborate with other key groups in building presence in international markets
Counter-seasonal to New Zealand that shares similar product quality standards	Explore collaborative opportunities with New Zealand in supplying all year round avocados to export markets at consistent volumes and quality standards each year

Key Industry Threats	Minimising Industry Threats
Well-resourced competitors	Collaborate and participate with other key groups that have similar concerns and objectives in developing a bigger presence in export markets
Protocol development trend among non-phytosanitary markets New and unfavourable import protocols among existing export markets.	Invest in scientific evidence on commercially viable airfreight protocols, acceptable to phytosanitary markets Develop relationships with relevant government and trade players in these markets Collaborate with other key groups that have similar concerns and objectives in market access
Increase of imports into the domestic market (i.e. new country suppliers)	Take a leadership and more visionary role in developing the export business to manage risks and expand markets Form an export and import planning committee that will allow improved collaboration and a more unified approach to developing markets (both domestic and export) and better product supply commitments Develop strong relationships with other key groups such as AHEA and current/potential avocado importers

AUSTRALIAN AVOCADO EXPORT DEVELOPMENT PAPER 2008 – REVIEW

The export development paper for the Australian avocado industry was a good initiative and a good foundation to awaken the need to develop the export business. Although no objectives were set nor were all identified outcomes measurable, the export road map in this paper, identified key industry needs, appropriate strategies and actions and expected outcomes. Within the last five years, the industry has had a bullish trend in exports with a year-on-year growth rate of 12%, though at a low base of 4% of total production. With a committed outlook on exports across industry members and a strong industry leadership, export growth potential for the avocado industry is formidable.

This document identifies key achievements by the industry within the last 5 years and related next steps. Please see table below.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Improved industry coordination for export activity	Avocados Australia (AAL) to provide focal point / support for export development activity Industry to adopt appropriate operational model to develop a coordinated and cooperative approach to export development Use Export Efficiency Powers to license exporters	Coordinated, integrated and focused export development activity Increased market opportunities through coordination of product <u>Timeframe:</u> Short / Long term	• Avocados Australia is a member of Australia Fresh and provides a coordination role with key grower packer exporters (AEC and Sunfresh) in relation to collaborative trade development opportunities: trade shows, trade missions and market reports, communication to foreign buyers on product information and industry developments and other ad hoc opportunities. • The industry facilitated the formation of the Avocado Export Company (AEC) to consolidate export supply from grower/packer exporters. However, this does not include all grower/packer exporters. AEC and Sunfresh are the two key exporters that trade most of the product. Note: Export efficiency powers were considered by AAL but the mechanism no longer exists through HAL.[50]	Explore opportunities to better integrate export development activities between AEC and Sunfresh

[50] The export licensing of horticultural products is provided for under the Horticulture Marketing and Research and Development Services Act 2000 (HMRDS Act) and its associated regulations and orders. The regulations enable Horticulture Australia Limited (HAL), in consultation with industry, to place broad ranging conditions on the export of horticultural produce including; requiring use of a specific exporting or importing agent, or specifying quality standards (colour, shape or size) for produce destined for export. The 2010–2014 statutory funding agreement between the Commonwealth and HAL requires that export licensing be reviewed against the principles of National Competition Policy. This policy provides that legislation or regulations that restrict competition should be retained only if:
•the benefits to the community as a whole outweigh the costs
•the objectives of the legislation/regulation can be achieved only by restricting competition.

An interdepartmental government committee was established to undertake a review. It commissioned the Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) to review the regulation of horticultural exports enabled by Horticulture Marketing and Research and Development Services Act 2000 and subordinate legislation1. The terms of reference for the review required ABARES to assess the regulations against the principles of national competition policy. The draft report concluded the arrangements for the regulation of horticulture exports do not meet the requirements of national competition policy and recommended the arrangements be discontinued. After further deliberation and consultation, this conclusion was made final. < http://www.daff.gov.au/agriculture-food/hort-policy/review-of-horticulture-australia-limited-export-regulation-powers>

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Identify specific activities required for export development	Determine the ability (and willingness) of industry to participate in export activities Set export volume (and profit) goals Develop an appropriate Industry Market Development Plan incorporating: • Branding strategies • Target markets (retail/food service) • Supply chains / partners • Specific activities in each market (promotions / sales strategies / training etc.)	Defined and focused export development activities leading to more effective use of resources Identification of Australian product to assist with long term positioning of product <u>Timeframe:</u> Short / Long term	• Export development activities have mainly been driven independently by Sunfresh and AEC.	Export Development Plan will be in place for 2014-2019.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Improved market intelligence • *Market opportunities* • *Competitor activity* • *Market threats*	Engage with key support agencies to improve market intelligence (HAL, AHEA, Austrade, QDPI&F, Trade Queensland, Freight Councils etc.) Ongoing in-market research/ visits On-going participation in AMAPWG[51] Participation in key trade fairs Dissemination of information through industry communication channels	Better informed and improved decision making process in regard to export development leading to improved market position Better informed production sector and supply chain leading to improved market position <u>Timeframe:</u> Short / Long term	• The avocado industry has invested in HAL Project MT12009 - quarterly export- import market intelligence reports. Through this project, the industry is also subscribed to Global Trade Information Systems (GTIS).[52] • Through Australia Fresh, the industry has access to participating in trade shows and trade missions. AAL with its major exporters have had a presence in China FVF and have participated in trade missions to Taiwan. The industry was also represented in the trade mission to the Philippines and Indonesia. Reports on mission findings are provided to the industry. • Sunfresh and AEC have independently participated in trade shows: Asia Fruit Logistica, Food & Hotel Asia, Food & Hotel Indonesia, Worldfood Moscow and commissioned market studies: Malaysia, Singapore, Hong Kong in conjunction with Queensland Trade & Investment. • AAL has been liaising regularly with DAFF in 2012-13 relating to Thailand market access and other market access issues. • AAL has continued to provide information to AMAPWG as required regarding industry statistics.	Have a more integrated approach to market studies to ensure all of industry benefits. Conduct more in-depth market specific studies. Ensure all market information is cascaded to the industry members and exporters.

[51] AMAPWG – Avocado Marketing and Promotion Working Group

[52] GTIS is a database containing trade data from different sources for different countries. This database is used by most relevant government agencies around the world and major exporting industry groups.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Market growth in existing markets • *Singapore* • *Thailand* • *Malaysia* • *Middle East* • *Pacific / Brunei / Indonesia*	In-market research to identify further growth opportunities (other retail / food service) Develop stronger relationships with key stakeholders (importers, wholesalers, retailers) in the market Develop country –specific marketing strategy including promotion, training and other support. Participate in relevant trade fairs Deliver consistent quality product meeting market specifications at defined value points	Improved market position through increasing export sales Better understanding of export market requirements Increased ability to identify and respond to market opportunities More refined and effective use of market development resources <u>Timeframe:</u> Short / Long term	• The industry has had success in growing the following markets: <u>Singapore</u> at 17% year-on-year growth 2007-2012 with current market share at 55%, #1 position <u>Thailand</u> at 41% year-on-year growth 2007-2012 with current market share of 94%, #1 position <u>Malaysia</u> at 28% year-on-year growth 2007-2012 with current market share of 52%, #1 position <u>UAE</u> at 47% year-on-year growth 2009-2011 with current market share of 6%, #2 or 3 position • Stakeholder relationships have been developed at a commercial level by AEC and Sunfresh in key markets. • In market research has been undertaken primarily by AEC and Sunfresh as indicated above. • No country specific marketing strategies exist at an industry level. AEC and Sunfresh have their own internal strategies which include training and promotions. Industry support through HAL (R&D and Marketing levies) has been provided to these exporters. Queensland Trade & Investment has also actively supported exporter initiatives. • Trade show participation as above. • AAL has supported ongoing R&D to improve supply chain management. Individual exporters manage this at a commercial level.	Have a more integrated approach to market development strategies. Industry needs to have a more committed approach to developing the export business.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Develop new markets *Potentially Vietnam* *UK & EU*	Further research (including in-market research) of potential new markets including: • potential barriers to entry • Costs • possible market entry strategies (target markets, supply chains, associated promotional activity) Explore opportunities with other supply countries (particularly for the UK/EU)	Diversification of markets (risk mitigation strategy) Potentially, improved market position through increasing export sales <u>Timeframe:</u> Medium / Long term	• The industry and its exporters have been exploring new markets, though still at an initial stage. • Participation in the trade mission to Taiwan (no access). • Trade reports provided from Australia Fresh trade mission to the Philippines and Indonesia. • Exporters have also initiated market development/research in markets like Indonesia and Russia. Note: UK/EU is no longer seen as a priority market.	Participate in the next trade mission to Indonesia. Participate in Gulfood through Australia Fresh. Coordinate with Australia Fresh on a trade mission to Vietnam. Conduct more in-depth market specific studies. Industry needs to have a more committed approach to developing the export business.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Market Access	Validate potential for Australian product into Japan and China through further market research and pursue if market potential exists Revalidate potential for Australian product into USA and pursue market access for USA Pursue changes to in-transit cold disinfestation protocol with NZ (note: short – medium term benefit timeframe)	Potential access to more lucrative and higher volume markets Diversification of markets (risk mitigation strategy) Improved market position through improved access protocols <u>Timeframe:</u> Long term	• The industry is now represented in the OHMA committee. 2 applications have been submitted to OHMA for access to China and Japan accompanied by high level analysis on each market. For China, avocado is 3rd in line, following the apple industry while summerfruit is currently being processed. Japan application has been accepted and is next in line after table grapes which is currently being processed. • Research data is available to support conditional non-host status of Hass and Lamb Hass varieties. This has been accepted by Australian interstate quarantine authorities. This protocol has been put forward to the Thailand government and has yet to be evaluated. No other international market is using this protocol for imported Australian avocados as of this writing. • The industry is currently investing in a research project to develop a short cold treatment protocol for green skin varieties. This research outcomes would be relevant for access to the New Zealand market. Note: No further work has been undertaken to validate the potential for USA as it is not a priority market. Bigger competitors such as Mexico, Chile and Peru are saturating this market.	Coordinate more closely with AHEA[53] which actively represents exporters and importers in matters of market access. Carefully evaluate available science in negotiating for access into phytosanitary markets, particularly for the Hass variety. Determine if additional investment is needed. Industry needs to have a more committed approach to developing the export business.

[53] AHEA - Australian Horticulture Exporters' Association

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Acceptable / improved product for export markets	Increase R&D effort in relation to pre and post harvest treatments, in- transit technologies and handling practices Investigation of MRL requirements in potential new markets and identification of limiting pre and post-harvest treatments (chemicals) and alternate treatments. Development of an export manual with details re: product specifications, treatments, handling, packing etc.	Improved product out-turns leading to improved market position Increased shelf life of product, resulting in more markets being feasible export destinations, due to sea freight option being viable On-going / increased access to appropriate treatment protocols <u>Timeframe:</u> Short / Long term	• Investments are being made on extensive R&D to improve fruit quality through the supply chain. • Phytosanitary barriers addressed as above.	Evaluate MRL requirement trends against current practice to avoid any future access issues in this area. Consider development of an industry export manual.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Develop an export culture and understanding of export market needs within the Australian avocado industry	Communication program in relation to export activities Provide industry with access to training and information on key aspects of export requirements Development of an export manual with details re: product specifications, treatments, handling, packing etc. (as above)	Better informed production sector and supply chain with confidence to participate in export markets Supply base and supply chain more resilient and better able to respond to market needs More growers participating in export activities <u>Timeframe:</u> Medium / Long term	• Export development has been supported by AAL and the IAC and progress communicated through the AAL communication program. • AAL supports independent initiatives funded by commercial players.	Industry needs to have a more committed and active approach to developing the export business. Consider development of an industry export manual.

Industry Need	Key Strategies / Actions	Industry Development Outcome	Achievements	Next Steps
Funding support for export	Identify opportunities for industry through HAL and Federal and State government support programs Utilize Austrade's EMDG process where applicable	Improved industry outcomes through better resourcing Timeframe: Short / Long term	• Support has been provided through HAL/avocado levies for cooperative promotions, food service training, supply chain training. • Qld Government support has been provided through GMI for training and market research – see Edith Gomez for reports. • Exporters independently avail of EMDG funds.	Further explore EMDG opportunities with HAL due to funding overlaps.
On-going evaluation of benefit to industry	Undertake econometric modelling	Effective allocation of industry resources Timeframe: Medium / Long term	• The industry has commissioned a project to develop the export development plan to include a return-on-investment analysis on exports vs. domestic.	

EXPORT GROWTH ANALYSIS AND EXPORT DEVELOPMENT

EXPORT VS. DOMESTIC DEVELOPMENT – A STRATEGIC PERSPECTIVE

Globally, and in Australia, avocado production is an emerging industry. Global production is increasing, but with significant seasonal ups and downs. Consumption rates vary from country to country but generally are also rising—in many cases reaching new highs. Although around 25% of global production is traded internationally, many export markets are relatively new, with domestic consumers who are mostly unfamiliar with the product. This is a difficult environment in which to make strategic plans, and demands that planning and the implementation of plans remains responsive to the prospect of changing circumstances and market conditions.

Export markets for most agricultural products are costly to develop and maintain, and generally yield a lower return to growers than sales made to the domestic market. Avocados are no exception to this rule and export sales should not be pursued for their own sake, but for the purpose of increasing industry net returns. This envisages that sales that are made to export markets will earn a greater return than if the same product had been sold to the domestic market. This seemingly simple objective is in reality difficult to monitor at an industry level and also is likely to involve trade–offs between reduced short–term returns and greater long–term returns.

The industry's consideration of an export strategy takes place within a complex set of circumstances—production is expanding across a range of environments that have different impacts on production; unpredictable, catastrophic weather events can destabilised production, potentially for many years; the domestic market has displayed sustained robust expansion over a long period; and imports from New Zealand have a regular, though variable presence in the market.

Further, the time required to gain access to and expand export markets can be quite long, especially if pest disinfestation methods or quarantine protocols have to be developed and agreed as a prerequisite to the commencement of sales. Therefore, it is prudent to commence developing export markets long before the industry reaches a threshold at which returns from sales to the domestic market fall below sales to available export markets.

Under these market conditions planning must draw on both strategic and analytical tools. Plans should incorporate a clear strategic view of how export sales will contribute to overall industry returns and reasoned judgements about the time required to develop export markets. With a limited bank of data with which to support analytical forecasting and considerable, real–world uncertainties about future production and markets, the principal role for economic analysis is to test the impact of the strategic considerations and judgements and to narrow the feasible range of options. Under these conditions, analytical tools are mostly not sufficiently precise to supplant the decision-making process.

The Role for Avocado Exports

The path by which exports of avocados can contribute to increasing the returns of the Australian industry can be considered against the strategic background outlined above.

Segments of the industry envisage that export markets need to be developed in order to provide an outlet for rising domestic production. However, from past experience, and from forward projections of production and consumption discussed in more detail below, it is evident that exports markets are not primarily required in order to dispose of surplus domestic demand, since production is consistently below domestic consumption. Even when examined month by month, there have been few occasions when monthly domestic output has exceeded domestic consumption. While the prospects that production will exceed consumption in the

foreseeable future appear remote at present, this eventuality must be assessed in the light of the uncertainty of production and markets, and the knowledge that nearby export markets in Asia have relatively long–term development horizons.

The development of export markets also provide the opportunity to segment local production by size of fruit, since there is a clear preference in the domestic market for larger sized fruit (size 18-25 fruit per tray), whereas export markets have a preference for smaller fruit (size 28-30 fruit per tray). Within this smaller size range, which makes up between 5% and 15% of the Australian crop, there are stronger prospects that sales can be made to export markets at a premium to the price that could be achieved in the domestic market, at least in years when the supply of avocados is high. Anecdotal reports indicate that growers do, from time to time, get better prices for the smaller fruit when sold for export, but an analytical assessment of the overall contribution to returns would require detailed price data, by size of fruit, over an extended period of time.

The means by which exports could contribute to increasing industry net returns must be considered in the context of growth and contribution that avocado imports make in the domestic market. Imports have made, and continue to make, a significant contribution to the expansion of the avocado industry in Australia. Imported fruit has essentially 'topped up' local production, particularly in the summer months when local supply is limited. The imported fruit has supplied the volume necessary to explore the potential for increased domestic consumption, in advance of that increasing demand being supplied from local production. This has permitted Australian growers to increase plantings to supply proven market volumes, a much lower risk decision than planting new areas in the hope that local consumption will need to increase in the future to absorb the increased supply.

Imports from New Zealand have also substantially been seasonally complementary to Australian production, increasing the availability of fruit in the high–demand summer months when local production has not been able to supply all of the demand in the relevant period. In addition, the complementary biennial fluctuations in production in Australia and New Zealand have contributed to a stabilisation of the supply of fruit (and consequently of prices) faced by domestic consumers. The availability of regular supplies and stable prices make a significant contribution to winning over new consumers to avocados and retaining consumers who might otherwise drift away from the product if confronted with irregular supply or affordability.

Export markets may also provide an opportunity to stabilise prices and returns in the domestic market within and between years to avoid periodic depression of prices in years when seasonal conditions and the biennial variation would cause sharp increases in supplies of locally produced fruit.

The potential benefits from developing export markets must be assessed against the market opportunities that Australia can access and potential returns which may be exacted from those markets. Australia (and New Zealand) has a comparative advantage in supplying such markets in Asia.

However, the Asian markets in which we can exercise this comparative advantage are not traditionally big consumers of avocados. These markets require a longer time perspective and lead time to access, develop and grow. In order to have a capacity in the future to export significant quantities of fruit to these new more specialised and discerning markets within air–freight range, must have a sustained presence in the markets and be willing to supply relatively small quantities of fruit in the early years of market growth. A strategy that focusses on export markets of this type has attendant risks that the emerging markets may not develop and grow as expected, that Australia's position may be supplanted at some time in the future by other lower cost exporters or that access may lost as a result of sovereign political decisions.

Notwithstanding these risks, a strategy that focuses on slower growing, higher quality, higher value, markets is well suited to the circumstances of Australia's avocado industry. The forecast production growth is relatively low, there is no evidence that domestic demand has peaked and the rate of growth of imports has not been

disruptive to the domestic market. The access and market presence that has been achieved to date and the prospect of continuing, manageable growth in these markets provides an effective 'insurance' against the possibility of an unforseen disruption, decline or intervention in the domestic market that, in the absence of alternative markets would lead to drastic declines in prices and grower returns.

DRIVERS OF GROWTH IN EXPORTS

The export strategy for Australian avocados over the period to 2017/8 and beyond is formulated against the background of the domestic demand and its supply by both local fruit production and imports. This section briefly discusses the growth and strength of the domestic market and its prospects for future growth, the profile of domestic avocado production and role that imports play in responding to domestic demand.

Domestic Demand

Domestic demand for avocados has been consistently strong over the past 15 years, growing at an average of 2,500 tonnes per annum (p.a.). The current consumption of just less than 3 kg/head of population is among the highest in the English speaking world, although well below the consumption levels in some central and South American countries which are as high as 7 Kg/head. Consumption per head of population has been rising consistently at about 0.09 Kg/head per year, effectively contributing about ¾ of the yearly increase in total consumption, with the balance arising from population increase.

Notwithstanding Australia's comparatively high consumption rate, there is no indication that the rate is reaching a peak or commencing to plateau. Further evidence of the strength of demand is that real (inflation adjusted) consumer prices for avocados have increased over at least the last 5 years, when consumption has also increased. In a stable, mature, product market, rising prices would normally be expected to depress consumption. The underlying demand or consumer preference for avocados is clearly continuing to increase at a rate that exceeds the capacity of the market to supply the product.

Domestic Production

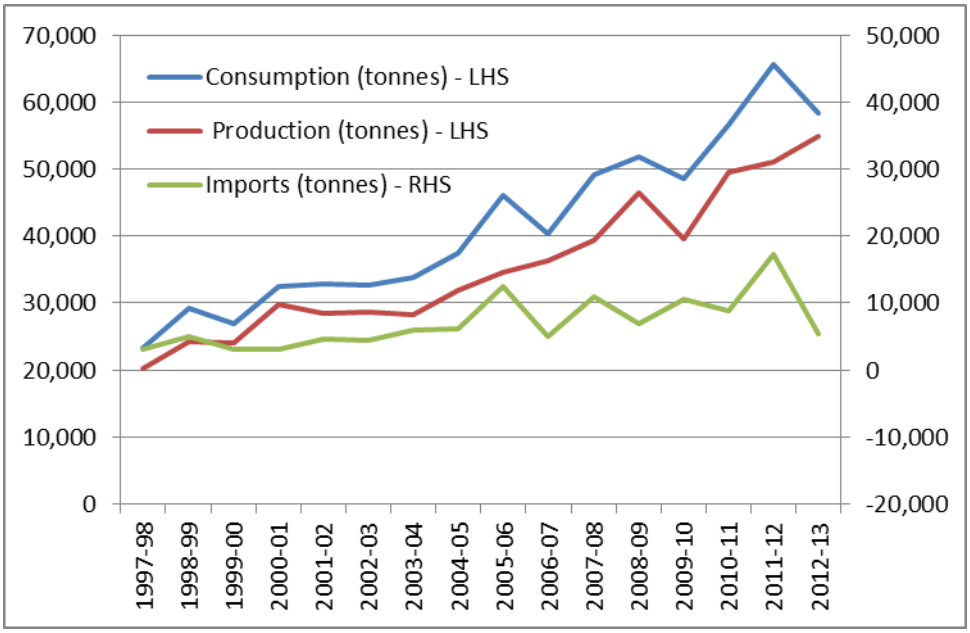
Australian production of avocados has also grown strongly over the last 15 years, at an average of 2,100 tonnes p.a. However, production has remained consistently below domestic consumption by, on average, about 15%. In addition, as a result of seasonal conditions, production has fluctuated significantly from year to year which, in low production years, exacerbates the shortage of supply of locally grown fruit for the domestic market. Fluctuation in production is added to by the irregular bearing tendency of the avocado tree, although this feature is more pronounced in temperate climates than in tropical and sub–tropical conditions. There is also a strong seasonality in Australian avocado production, since most orchards are located in Queensland where the harvesting peak occurs from May to August. This production peak is counter–seasonal to consumer demand which peaks in the summer months around December to February.

Imports

The difference between domestic production and consumption is supplied by imports, sourced almost exclusively from New Zealand. New Zealand production occurs in temperate climates in which the production peak occurs in the summer months, which is counter–seasonal to the peak Australian production. Imports from New Zealand have increased by an average of 550 tonnes p.a. over the last 15 years although the annual import volume has fluctuated by around 30% from the trend growth. Conveniently, the biennial fluctuation of New Zealand's production, and exports to Australia, have generally been counter-cyclical to Australia's variation. While this complementarity could be reversed in the future (as a result of climatic events), in recent years it has worked to stabilise supplies to the domestic market. A forecast of New Zealand avocado

production obtained recently obtained by AAL indicates an expectation that the cyclic pattern of New Zealand production will reverse in 2014-5.

The following graph shows the growth of Australian consumption, production and imports of avocados since 1997/8. The key strategic features of the graph are that production is consistently below consumption, that imports have made a significant contribution to expanding domestic consumption of avocados and that imports have also made a contribution to stabilising the supply of avocados for domestic consumption in Australia.



Australian consumption, production and imports of avocados (tonnes)

POTENTIAL FUTURE GROWTH SCENARIOS

To plan for future export development, it is necessary to understand the boundaries within which the supply of fruit for export is likely to occur. There are a number of factors contributing to the exportable surplus of fruit, which have been discussed above. Modelling of these factors as a means of estimating their contribution to future growth in supplies of fruit for export would not provide a reliable indicator of likely outcomes, since each of these drivers is subject to substantial variability due to seasonal conditions and other unforeseeable factors. Over the past 15 years, the average variance of the annual volume of domestic production (measured relative to the growth trend) is around 7%, the variance of the annual volume of imports is around 28% and the variance of consumption is around 6%. Among all of these influences, prices function as the balancing force. When the supply of avocados (from imports and local production) alters, the price of avocados (and to a lesser extent the prices of complementary and substitute foods) will rise or fall, leading to shifts in the volume of avocados consumed and the volume available for export. Here also, the available data is not sufficiently robust to permit the price elasticity of demand for avocados to be estimated with sufficient precision to provide a reliable guide to expected future responses to change in supply volumes.

Therefore, in order to obtain some guidance on the bounds within which future export supplies are likely to fall, we have set out below a number of scenarios that represent possible future shifts in production, imports, consumption and exports. The scenarios are constructed by varying each of these drivers within the range of

feasible future possibilities. This allows us to gain an understanding of the influence which each driver exerts on the potential supply of fruit for export.

Feasible Future Growth Scenarios

In this section we present three scenarios that combine estimates of production, imports, consumption and exports for the years 2013-4 to 2017-8. Other than in the 'Trend Scenario' we have relied on estimates of production provided by AAL. These production estimates have been carefully prepared on a region by region basis, including estimates made of likely biennial fluctuations, and are considered to be as accurate as could reasonably be prepared. In each scenario, exports have been calculated as the residual of production plus imports, less consumption. For the remaining variables, the basis on which the future estimates have been developed is discussed in relation to each scenario.

In all scenarios, future estimates have, unless otherwise indicated, been made by extrapolating a linear trend of the variable calculated from the historical data, for the past 15 years. In each case, the linear trend was compared to the other forms of the growth function (exponential logarithmic, polynomial and power) to determine which form most closely fitted the actual historical data using the conventional ordinary least squares methodology. In all cases the linear form of the growth equation either resulted in the closest fit to the actual data or was so close that use of a more complex growth formula would make an insignificant difference to the future estimates within the time span under consideration.

Trend Growth Scenario

The table below presents estimates of the future course of production, imports, consumption and exports derived by extrapolating the trend rates of growth of each variable (production, imports and consumption) over the past 15 years using a linear formulation.

	Actual	Forecast				
Year	2012-13	*2013-14*	*2014-15*	*2015-16*	*2016-17*	*2017-18*
Production	54,877	*53,543*	*55,669*	*57,795*	*59,921*	*62,048*
Imports	5,378	*11,763*	*12,315*	*12,867*	*13,419*	*13,971*
Exports	1,977	*2,317*	*2,478*	*2,638*	*2,799*	*2,960*
Consumption	*58,278*	*62,989*	*65,507*	*68,024*	*70,541*	*73,059*
Surplus Production	-3,401	*-9,446*	*-9,837*	*-10,229*	*-10,620*	*-11,011*
Exports	1977	*2317*	*2478*	*2638*	*2799*	*2960*
Exports % of production	3.60%	4.33%	4.45%	4.57%	4.67%	4.77%

Trend growth in all variables

The scenario results in production remaining below domestic consumption in all year to 2017-8, shown as a negative 'Surplus Production'.

This 'trend growth' scenario shows outcome for the volume of exports if historical trends for production, imports and consumption continue, unchanged, into the future, with no provision for seasonal variation or biennial fluctuation in production and imports. The scenario represents a base–line indicator of how the 'average' level of exports might grow, free of the random seasonal and other influences that destabilise annual outcomes.

The scenario shows exports growing to just less than 3,000 tonnes p.a., equivalent to 4.8% of production. This compares to the previous highest volume of exports of 2,629 tonnes in 2011-2 which was equivalent to 5.14% of local production. Export growth of this magnitude would not be a challenge to existing export businesses,

infrastructure or available markets and would require little or no additional investment in market development.

Scenario 1

The Scenario 1 table below presents estimates of the growth of export volumes that arise from:

- Production estimates formulated by AAL which incorporate a slowing of production growth as a result of the 2011 floods in Queensland, a growth in production on W.A. and expected significant biennial production fluctuation in southern production areas (W.A., Tri–State, Sthn NSW). In these estimates the annual average volume of production for the 5 years to 2017-8 is 61,571 tonnes p.a., 3,776 tonnes p.a. greater than in the same period in the trend scenario above.

- Trend rate of growth of imports of 370 tonnes p.a., slightly less than has occurred over the last 9 years (406 tn p.a.) and the last 15 years (552 tn p.a.) but more than has occurred in the past 5 years (37 tn p.a.). A biennial fluctuation in imports has been incorporated into the growth at a level which is consistent with historical variance from trend of about 28% and is in keeping with the cycle of variation that has been experienced in recent years. (The low average growth in imports in the last 5 years is due substantially to the very low volume of imports recoded in 2012-3.)

- Consumption growth derived from the product of the growth in population as forecast by the Australian Bureau of Statistics[54] and the trend rate of growth of per head consumption of avocados experienced over the last 5 years (0.082 kg/hd). This yields a trend rate of growth of 2,421 tonnes p.a. in total consumption, which is below the 15 year trend rate of growth of 2,727 tonnes p.a. No biennial variation in the level of consumption has been incorporated into the consumption estimates, whereas recent experience has shown significant year to year variation in consumption.

	Actual	Forecast				
Year	2012-13	*2013-14*	*2014-15*	*2015-16*	*2016-17*	*2017-18*
Production	54,877	*51,958*	*66,993*	*56,845*	*71,346*	*60,713*
Imports	5,378	*10,000*	*5,000*	*12,000*	*6,500*	*14,500*
Exports	1,977	*1,697*	*8,946*	*2,956*	*9,060*	*3,475*
Population	22,905,379	*22,941,133*	*23,271,004*	*23,601,546*	*23,932,398*	*24,263,123*
Consumption per hd	2.54	*2.63*	*2.71*	*2.79*	*2.87*	*2.96*
Consumption	58,278	*60,261*	*63,047*	*65,889*	*68,786*	*71,738*
Surplus production	-3,401	*-8,303*	*3,946*	*-9,044*	*2,560*	*-11,025*
Exports	1,977	*1,697*	*8,946*	*2,956*	*9,060*	*3,475*
Exports % of production	3.6%	*3.3%*	*13.4%*	*5.2%*	*12.7%*	*5.7%*

Scenario 1 - Production Forecasts from Avocados Aust. and conservative trend growth in consumption and imports

This scenario shows stronger growth in production and imports compared to the trend scenario and a more conservative rate of growth in consumption. This leads to production exceeding consumption in 2013-4 and 2016-7 when production reaches biennial highs. The appearance of these significant production surpluses is unlikely to eventuate under real market conditions, as the increased supply of avocados would result in lower prices and increased consumption.

The scenario yields a trend rate of growth of exports of 648 tonnes p.a., significantly greater than the actual trend growth over the last 5 years, of 207 tonnes p.a. and with very high levels of variation from year to year.

[54] ABS publication no. 3222.0 - Population Projections, Australia, 2006, Series B

Both, the high growth in exports and the very high peaks in 2013-4 and 2016-7 are the result of the stable growth trend adopted for consumption. Under real market conditions consumption would absorb a substantial portion of the production peaks and exports would be expected to be significantly lower.

Export growth of this magnitude would be a significant challenge to existing export businesses, largely because of the high degree of annual variation. Such variation would be difficult to place into existing markets without significant discounting and may only be absorbed by diversion of some product into lower value markets.

Scenario 2

The Scenario 2 table presents estimates of the growth of export volumes that arise from:

- Production estimates formulated by AAL as appear in Scenario 1.
- Imports at a (25%) higher average volume than in the previous scenario (average 12,121 tonnes p.a. compared to 9,600 tonnes p.a.). Trend rate of growth of imports of 370 tonnes p.a. the same as are included in scenario 1 and with the same pattern of biennial fluctuation.
- Trend rate of growth in consumption of 2,727 tonnes p.a. equivalent to extrapolating the average annual growth observed over the last 5 years, incorporating both increasing consumption per head and population. A level of biennial fluctuation has been incorporated into the projections that is consistent with historical level of variance from trend growth in consumption of about 6% and is in keeping with the cycle of variation that has been experienced in recent years.

	Actual	Forecast				
Year	2012-13	*2013-14*	*2014-15*	*2015-16*	*2016-17*	*2017-18*
Production	54,877	*51,958*	*66,993*	*56,845*	*71,346*	*60,713*
Imports	5,378	*13,911*	*8,014*	*14,709*	*8,461*	*15,508*
Exports	1,977	*4,865*	*6,276*	*5,096*	*4,623*	*4,310*
Consumption	58,278	*61,004*	*68,731*	*66,457*	*75,184*	*71,911*
Surplus Production	-3,401	*-9,046*	*-1,738*	*-9,613*	*-3,838*	*-11,198*
Exports	1977	*4,865*	*6,276*	*5,096*	*4,623*	*4,310*
Exports % of production	3.60%	*9.36%*	*9.37%*	*8.97%*	*6.48%*	*7.10%*

Scenario 2 - Production Forecasts from Avocados Aust. with high growth and biennial fluctuation in consumption and high growth in imports

This scenario projects a consistently greater volume of imports from New Zealand then has occurred to date, although isolated instances of greater volumes have occurred e.g. 17,000 tonnes in 2011-2. The biennial variation in consumption absorbs the increased production and a substantial share of the increased exports from 2013-4 to 2016-7. Consumption remains above production in all years. The trend rate of growth in consumption represents a continuation of recent experience with the result that exports are left to take a substantial share of the increased total supply (production plus imports).

The trend rate of growth of exports in this scenario is 279 tonnes p.a., only slightly above the trend rate of growth experienced in the last 5 years. Exports peak at 6,276 tonnes in 2014-5, equivalent to 9.4% of production, over double the previous peak in exports of 2,629 achieved in 2011-2 (equivalent to 5.1% of production). Because this scenario make no provision for adjustment of domestic prices and consumption volume in response to increased supply of fruit, the higher volume of imports (approximately 2,500 tonnes p.a.) effectively flows directly through to a greater supply of fruit for export, lifting the average volume of exports to 5,034 tonnes p.a. in the 5 years to 2017-8, compared to an average of 1,960 tonnes p.a. in the 5 years to 2012-3. This is a sharp increase both in volume terms and as a percentage of production which peaks at 9.36% in 2013-4.

Under real market conditions, the increased supply of fruit to the domestic market anticipated in this scenario would cause prices to fall and domestic consumption to rise.

Scenario 3

The scenario 3 table presents estimates of the growth of export volumes that arise from:

- Production estimates formulated by Avocados Australia Limited as appear in Scenario 1.
- Imports have been calculated from forecasts supplied by the NZ Avocado Growers Association (NZAGA) and historical shares of NZ production that are supplied to exports and to Australian market.
- In this scenario, both exports and consumption have been adjusted to absorb the total supply of fruit (from domestic production and imports). The estimates are based on calculating the change in domestic consumption from the historical response of consumption to an increase in total supply of fruit, leaving the balance of supply to be sold for export.

	Actual	Forecast				
Year	2012-13	*2013-14*	*2014-15*	*2015-16*	*2016-17*	*2017-18*
Production	54,877	*51,958*	*66,993*	*56,845*	*71,346*	*60,713*
Imports	5,378	9,388	14,648	8,717	14,143	8,494
Exports	1,977	*2,068*	*3,274*	*2,318*	*3,503*	*2,535*
Consumption	58,278	*59,278*	*78,367*	*63,243*	*81,986*	*66,671*
Surplus Production	-3,401	-7,320	-11,374	-6,399	-10,640	-5,959
Exports	1977	2068	3274	2318	3503	2535
Exports % of production	3.60%	3.98%	4.89%	4.08%	4.91%	4.18%

Scenario 3 - Production forecasts from Avocados Aust., imports derived for NZ industry production forecasts, consumption and exports adjusted to absorb total supply.

This scenario projects a greater average volume of imports from New Zealand then has occurred to date (11,078 p.a. from 2013-4 to 2017-8 compared to 9,815 p.a. from 2007-8 to 2012-3), although isolated instances of greater volumes have occurred e.g. 17,000 tonnes in 2011-2. The forecast average year on year increase in NZ production on which these estimates are based is 9.4% tonnes p.a. which seems optimistically high and implies a significant increase in area of production or yield (or both) in New Zealand, which we are unable to verify.

It should also be noted that the forecasts show a moderate increase in production and exports in 2013-4 compared to last year, and a further increase in 2014-5. If this occurs, it will change in the cycle of irregular bearing from a pattern that is alternate to Australia's irregular bearing to a pattern that matches Australia's irregular bearing. This would result in greater fluctuation from year to year in total supply of fruit in Australia and therefore of prices which will likely increase the opportunity for exporters to acquire fruit for exports.

NZAGA have also made a forecast of production and exports if research, understood to be currently underway, results in a reduction of irregular bearing. This forecast has production increasing on average by an average of 15% p.a. over the next decade. The impact of the research on irregular bearing is forecast to be mostly realised in 2016-7 and beyond. By 2019-20 adoption of the results of this research is forecast to increase production by 44% and rising to 54% by 2021-2, compared to the forecast where the research has no impact on production. This would appear to imply that the research is both highly successful in redressing irregular bearing and that it is adopted very quickly and by almost all growers. We hold some doubts that all of these apparent assumptions could be realised.

In this scenario, the trend rate of increase in consumption is slightly less than in Scenario 2, but the variation from year to year is significantly greater, reflecting the change in the pattern of imports from New Zealand. Under these circumstances, the balance between volumes of domestic consumption and exports is likely to be much more sensitive than when supply is more stable so that predicting the volumes that will be diverted from domestic consumption to exports is much more difficult to predict. Overall, the average volume of exports is slightly higher in this scenario (2,740 tns p.a.) than in scenario 2, and fluctuates between 4% and 5% of domestic production.

SCENARIOS – CONCLUSIONS DRAWN

These scenarios and the related data provide some insight into the relationships between the key drivers of the future growth of exports of Australian avocados. From this and knowledge of the range within which these drivers can feasibly move we can draw conclusions about the range within which export volumes may rise to in the period to 2017-8 and beyond and for which export development activities should make provision. The scenario analysis described above is to be interpreted with caution since it is essentially a static analysis in which historical trends are extrapolated into the future. This analysis does not consider significant events— 'game changers'— that may disrupt historical trends, or the relationships between supply and demand in various markets. The analysis also does not encompass the dynamic relationship between production, consumption, imports and exports in which markets and prices, both of avocados, and other products, cause all factors to move simultaneously, such that responses to shifts in one factor are spread over all other factors and not absorbed solely by any one factor.

The scenarios outlined above are all based on annual 'snapshots' of the movement in production, consumption, imports and exports. The actual relationships between these components of the supply and demand are more complex because imports from New Zealand occur during September to March whereas most of Australia's exports are sourced from the winter bearing production in Queensland. Analysis of the monthly supply and demand movements, including the timing of supply of smaller sized fruit is required to better explain these relationships, but has not been possible with the data available to us for this project.

However, there are conclusions and guidance that can be taken from the analysis. We discuss these in the following points.

- Growth in consumption of avocados in Australia is robust and appears to have the capacity to absorb expected increases in production for the foreseeable future.
- Imports of avocados from New Zealand, which occur from September through to March each year, are a routine part of supply to the domestic market. Imports fluctuate, sometimes dramatically, from year to year, but have grown progressively with the growth of consumption in Australia. Imports have provided for about 20% of the growth in domestic consumption.
- There is significant prospect, based on forecasts of New Zealand production that the pattern of irregular bearing in New Zealand and the pattern of exports to Australia may be reversed in 2014-5
- Although imports may not displace substantial quantities of locally produced fruit from the domestic market into exports, they do act to subdue domestic prices through the summer months and facilitate acquisition of fruit for export. Through this process the supply of fruit for export at reasonably competitive prices during the import peak period from October to February, is substantially controlled by the volume of avocado imports.

- In order to better understand Australia's potential to export avocados in the future the industry needs to maintain a close understanding of the dynamics of production in New Zealand, since exports to Australia represent on average 46% of New Zealand production and 86% of New Zealand exports.

  Change in the volume of imports from New Zealand is likely to be the single largest factor that influences the supply of Australian avocados for export over the next 5 years.

- While the domestic avocado market remains robust and prices buoyant, domestic consumption will absorb the majority of the movement from year to year in imports. This cushions the supply of fruit for exports, protecting the market from dramatic shifts in volume that would be difficult to place in the existing relatively small, high–value markets currently serviced.

- Subject to more accurate information about future production in New Zealand, exports from Australia could rise over the next 5 years to over 3,500 tonnes, a rise of around 80% compared from the current level of exports.

Cost of Export Sales

For the purposes of this analysis the value of export sales is assessed from the perspective of returns to growers, measured as the price received for sales of fruit for export compared to the sale of the same fruit into the domestic market. The costs of exporting are assumed to be recovered by exporters from sales of fruit in export markets.

Anecdotal evidence indicates that in most years (especially years when production is low and domestic prices are high) growers receive a lower price for export sales than on the domestic market. Some indications are that this loss may be of the order of $1 per tray for fruit of size 28-30, or around 4% of farm gate value. While this loss is real for growers who sell product to exporters at a discounted price, the total cost to the industry is likely to be less, since the removal of product from the domestic market would be expected to cause prices in that market to rise. The magnitude of this response is difficult to measure or estimate. A simple breakeven calculation indicates that a loss of $1 on, for example, 3% of the crop exported would be negated if the price of the remaining sales to the domestic market increased by only 3.5 cents. An adjustment of this size is obviously impossible to identify in the market, but would none–the–less be real. Where a price response occurs, however small, it would accrue mostly to growers other than those who made the export sales and indeed some of the value may also be captured by other participants along the supply chain. While this response would be extinguished if imports increased to replace fruit diverted to the export market, imports only occur during the summer months (whereas 70% of exports are soured from Queensland in the winter months) and it could be argued that the volume of New Zealand exports to Australia are determined independently of decisions in Australia about the volume of exports from southern States.

Thus, while domestic demand for avocados is strong and growers receive a lower price for sales to export markets, the development of those markets incurs a cost in foregone grower income. The 'first round' estimate of this forgone revenue, if it amounts to $1 per tray and were applied to 2,500 tonnes of exports would be $450,000 p.a. Based on the elasticity of demand calculated above, the loss of industry revenue from sale of product into the export market at a lower price will be more than recovered as a result of the rise in price received for the balance of the crop on the domestic market. Although there is some uncertainty about the accuracy of the estimate of the elasticity of demand in the domestic market we can conclude with reasonable certainty that total industry revenue will not be diminished by exports in the range of 4-5% of total production, even if those export sales are made at a small discount to the market price in Australia.

This calculation of impact on revenue from exports does not include the other costs of market development associated with negotiating market access and promotion programs funded by industry and governments.

RECOMMENDATIONS

The following are draft recommendations based on analysis conducted to date. It is expected that these recommendations will be revised following discussion with industry and any further analysis leading up to preparation of the final report.

The export strategy for Australian avocados should be driven by a mix of the availability of fruit of suitable type and standard for export, as well as a perspective on the expected path for development of those markets in which we have a comparative advantage and the value, in the future, of having alternative markets for Australian avocados.

The Australian avocado industry has invested significant resources in tracking production and consumption of avocados in Australia. However, imports from New Zealand are an equally important determinant of the availability of fruit for export during part of the year and there appears to be less attention given to understanding the drivers of New Zealand production and exports.

Recommendation 1.

> **To predict the growth in volume of Australia's avocado exports avocados the industry needs to better understand the dynamics of production in New Zealand, since exports to Australia represent on average 46% of New Zealand production and 86% of New Zealand exports and make up virtually 100% of avocado imports into Australia.**

Australia's exports of avocados have grown on average at 160 tonnes p.a. over the last 15 years and although the rate of growth has accelerated over this time, in the last 5 years the growth has average just over 200 tonnes p.a. Australia's comparative advantage in exporting avocados is greatest in sales of high quality and very fresh fruit, transported by air to markets in southern Asia. These markets are small and grow slowly, which to date has suited the pace of growth of Australia's exports, and are prepared to pay sufficiently high prices to meet Australia's higher production costs and the cost of air transport.

If the Australian industry expects to see continued growth in production over the long term, at a rate that exceeds the growth in consumption, then it is prudent to take a long term perspective on development of these high–value export markets. Commitment of progressively greater volumes of fruit to these markets will provide alternative markets to which Australia can have recourse in future if, or when, available supplies in Australia surpass the growth in domestic demand. It appears that availability of fruit for export could rise gradually to between 4.5-6% of production by 2017-8 with prices remaining within their historical range. Volumes in excess of this range are only likely if there is a substantial increase in imports, either from New Zealand or a third country, or domestic consumption slows significantly. Fluctuation of supplies within this range will be regulated by prices in response to the vagaries of supply and demand of the order experienced over recent years.

Recommendation 2.

> **Australia's avocado export strategy should plan on a progressive increase in the volume of exports to between 4.5-6% of production or 3-3,800 tonnes over the next 5 years to continue to grow and develop those high–value markets in which Australia has a comparative advantage in supplying with high–quality fruit**

Key Aspirations

The Australian avocado industry aspires to be: a growing progressive, profitable and sustainable industry; and a leader in product, supply chain and industry development innovation.

It aims to deliver to its customers: a consistent, good quality product; innovation and choice; and a product that is recognised and appreciated as Australian and an essential health food.

So that...Australian Avocados are an everyday food option/purchase.

Export Objectives

To continue as the largest supplier of imported avocados in Singapore and Malaysia in the next 5 years (2012-13 market share levels are at 55% and 52% respectively)

To increase trade, in the next 5 years with

- Hong Kong (greater than 17 tonnes)
- One New Market - in order of priority:
  - Middle East (greater than 79 tonnes)
  - The Rest of Southeast Asia (greater than 69 tonnes)
  - Russia (greater than 100 kilograms)

To maintain annual export volumes of at least 5% of production (current level) for the next 5 years or 3,500 tonnes in 2018-2019 based on industry forecast on production

To regain commercially viable access into Thailand by 2016 and regain trade with Thailand of at least 529 tonnes on or before 2019 (2012 export volume)

To gain access into China within the next 6-10 years and maintain access into existing open markets throughout the next 5 years.

Industry Capability Strategy	Branding & Positioning Strategy	Market Access Strategy	Trade Development Strategy	Promotions Strategy

EXPORT MARKET MATRIX

Market Category	Key Export Markets	Rationale	Strategy	In Tonnes		
				2013 Aust Exports	2018 Aust Export Scenario[55]	Increased Trade Scenario
All Export Markets				1,850	3,500	1,650
Key Growth Markets Existing markets that have potential for further growth	Singapore	• Major export markets for Australian avocados with Australia as market leader – a reflection of the strength in trade relationship • Consistent growth in avocado imports by these markets	• Continue to maintain strength of trade relationship and further increase exports to these markets • Keep vigilant on Malaysian access by regularly engaging with other relevant export-focused organisations, government agencies and publications • Build relationship with key decision makers and influencers in the Malaysian trade and government • Support through co-funded trade education and promotional activities	956	3,120 Assumption: 55% market share of projected total imports based on the market's historical average compounded growth rate of 23%	2,164
	Malaysia			283	1,328 Assumption: 52% market share of projected total imports based on the market's historical average compounded growth rate of 27%	1,045

[55] Horticulture Australia (HAL) and Avocados Australia (AAL) requested that specific export targets be assigned to each key market. Note: Assumptions were made to perform this exercise but increased trade will be achieved based on commercial decisions made by exporters. The projected scenario demonstrates that the 3,500 tonne export volume target can easily be met even with the current trade situation i.e. maintained market share in existing markets. Export industry initiatives in this plan will provide increased options in growing the total business for Australian avocados and prepare the industry in growing alternative markets.

Market Category	Key Export Markets	Rationale	Strategy	In Tonnes		
				2013 Aust Exports	2018 Aust Export Scenario[55]	Increased Trade Scenario
All Export Markets				1,850	3,500	1,650
	Hong Kong	• Major export market for Australian avocados but with strong competition and gateway to the China market	• Monitor grey trade closely by regularly engaging with other relevant export-focused organisations, government agencies and publications • Support through co-funded trade education and promotional activities	17	188 Assumption: Based on 2012 export volume	171
New Markets (in order of importance) Open markets to Australia that may or may not trade imported Australian avocados. These markets are unfamiliar to the industry and need to be explored.	Middle East	• Major export market for Australian avocados but the industry have taken a more opportunistic approach with limited understanding of the market • Large expat community and existing high value market	• Gain a better understanding of this region • Build trade relationships with high value niche segments to grow trade • Support through co-funded trade education and promotional activities	79	396 Assumption: Based on 2012 export volume	317
	Other ASEAN Markets: Vietnam, Indonesia, Philippines	• Emerging economies with close geographical location and preferred tariff rates through ANZFTAA	• Gain a better understanding of these markets • Support trade where commercial opportunities to develop these markets arise, through co-funded trade education and promotional activities	69	69 Assumption: No increased trade	0

Market Category	Key Export Markets	Rationale	Strategy	In Tonnes		
				2013 Aust Exports	2018 Aust Export Scenario[55]	Increased Trade Scenario
All Export Markets				1,850	3,500	1,650
	Russia	• Emerging economy, considered a luxury goods market, strong growth in avocado imports	• Gain a better understanding of this market • Exporter-driven approach to trade growth at the initial stage • Commission market study when there are signs of trade growth • Support through co-funded trade education and promotional activities	0.1	0.1 Assumption: No increased trade	0
Lost Access Markets Key Markets for Australian avocados with changed import conditions resulting in a weakening or loss of trade.	Thailand	• Major market for Australian avocados with Australia as market leader before access was restricted • Gateway to other markets • Essential to gain commercially viable trade protocols	• Negotiate for non-host status, interim chemical use and short cold treatment for non-Hass varieties • Develop and provide acceptable technical verification of a more commercially viable trade protocol • Build relationships with key decision makers and influencers in trade and government • Re-gain market share through co-funded trade education & customer promotions upon regaining commercial access	398	529 Assumption: Based on 2012 - prior to change of trade protocols	131

Market Category	Key Export Markets	Rationale	Strategy	In Tonnes		
				2013 Aust Exports	2018 Aust Export Scenario[55]	Increased Trade Scenario
All Export Markets				1,850	3,500	1,650
Potential Access Markets (in order of importance) Markets with high potential to increase Australian avocado export business when trade barriers are lifted.	China	• Strong and large economy, close geographical location • High potential to grow high value avocado market	• Negotiate for cost-effective requirements to gain access • Negotiate for non-host status and short cold treatment for non-Hass varieties • Develop and provide acceptable technical verification of a more commercially viable trade protocol • Market entry through one major city with concentrated high value niche market segment, due to limited supply volume (further research required – see last strategy point) • Build relationships with key decision makers and influencers in trade and government • Work with local avocado industry to signify Australia's support for the China market (serves as a negotiation tool for access) • Commission market study to develop market entry and maintenance action plan – when China starts application process for avocado access	0	0 Assumption: No Access	0

Market Category	Key Export Markets	Rationale	Strategy	In Tonnes		
				2013 Aust Exports	2018 Aust Export Scenario[55]	Increased Trade Scenario
All Export Markets				1,850	3,500	1,650
	Japan	• Largest avocado market in Asia • High level of familiarity of avocados among Japanese consumers • Growth in avocado imports	• Negotiate for cost-effective requirements to gain access • Negotiate for non-host status and short cold treatment for non-Hass varieties • Develop and provide acceptable technical verification of a more commercially viable trade protocol • Build relationships with key decision makers and influencers in trade and government • Commission market study to develop market entry and maintenance action plan	0	0 Assumption: No Access	0
	New Zealand	• Similar market attributes as Australia • High value market • Close geographical location • Access to this market will provide increased negotiation power in gaining/improving access to other markets	• Negotiate for cost-effective requirements to gain access • Negotiate for non-host status and short cold treatment for non-Hass varieties • Provide acceptable technical verification of a more commercially viable trade protocol to improve access • Forge industry and commercial partnerships (exporter driven)	0	0 Assumption: No trade	0

Industry Capability Building Strategy

Develop the Australian avocado industry to take a leadership role in exports and cultivate a more export-oriented culture among its members.

To take a leadership role in exports, the industry needs to:

1. Be more informed with improved industry and trade intelligence
   - Improve data monitoring systems on plantings, production, yield, etc. for more in-depth industry analysis
   - Continue subscription to Global Trade Information System / Global Trade Atlas and periodically evaluate quarterly import/export trade intelligence reports for improved analysis and reporting
   - Commission studies to further understand specific market dynamics and opportunities for trade
   - Closely collaborate with other export focused industries (ATGA, CGA, SAL, APAL), agencies (QTI, Vic DEPI, DAFF, DAFWA, International offices of Austrade in markets of interest and industry groups or committees (AHEA, OHMA, HEICC, Australia Fresh)
   - Continued participation in trade missions and export-related conferences such as the HAL Export Development Symposium

2. Improve the industry export development structure
   - Form an export and import planning committee that will allow improved collaboration and a more unified approach to developing markets (both domestic and export) and better product supply commitments
   - Appoint an Industry Export Development Coordinator who will ensure all export needs of the industry are identified and addressed. The Export Development Coordinator will work with the CEO and communication staff in Avocados Australia to coordinate the implementation of this plan.

3. Develop an Annual Export Operating Plan that will map out specific activities for each year and evaluate the Export Strategic Plan to ensure that strategies are still relevant

4. Monitor and evaluate available funding options: Asian Century Grant, DAFF/HEICC funding, EMDG, QTI, Victorian Government, National Food Plan

To cultivate a more export-oriented culture among avocado growers, the industry needs to:

5. Establish an “export section” in all aspects of the AAL Communications Program that will give growers a better appreciation and understanding of the importance and role of exports; identify opportunities for export growth; benefits to the domestic market; and overall impact on industry development (Website, publications, road shows, AGM, etc.)

6. Encourage growers to participate in study tours or trade missions to gain a first-hand experience of the export market/s

7. Subscribe avocado growers and exporters to the Australia Fresh e-newsletter to build awareness on export activities and news from other export focused industries

Strategy 1: Industry Capability Strategy Develop the Australian avocado industry to take a leadership role in exports and cultivate a more export-oriented culture among its members.		General	Key Growth Markets	Lost Access Markets	New Access Markets	New Markets
Actions	1.1 Improve data monitoring systems on plantings, production, yield, etc. for more in-depth industry analysis	●				
	1.2 Continue subscription to Global Trade Information System (GTIS) and periodically evaluate trade intelligence reports	●				
	1.3 Commission market studies and a detailed approach to each market				●	●
	1.4 Closely collaborate with other export focused groups and initiatives	●				
	1.5 Participate in trade missions and encourage growers/exporters to attend		●	●	●	●
	1.6 Form an export-import committee and have regular meetings and consultations	●				
	1.7 Appoint an "Industry Export Development Manager"	●				
	1.8 Participate in export-related conferences	●				
	1.9 Develop an Annual Export Operating Plan	●				
	1.10 Monitor and evaluate available funding options	●				
	1.11 Establish an "export section" in all aspects of the AAL Communications Program (Website, publications, road shows, AGM, etc.)	●				
	1.12 Subscribe avocado growers and exporters to the Australia Fresh e-newsletter	●				
Outputs	• Continued access to GTIS and improved trade intelligence reports • New market studies • Close collaboration with industries, agencies, industry groups and export initiatives • Membership in OHMA, HEICC, Australia Fresh, AHEA • Export - Import Committee • Industry Export Development Coordinator • Annual Export Operating Plan • Access to external funding • Growers and exporters to receive Australia Fresh newsletters					
Industry Outcomes	• Better informed export sector of industry • Improved coordination of Australian avocado export development					

Branding and Positioning Strategy

Build the image of Australia as an excellent source of high quality, nutritious and versatile avocados.

Avocados in many markets, especially in Asia, are not a familiar fruit. Usage, handling and storage of this fruit is quite limited with misconceptions and a low level of awareness of its nutritional benefits. In addition. Although Australia is known to be a good source of high quality fresh produce, it has yet to build international awareness that it is a reliable source of avocados, of good quality avocados.

The Australian avocado industry needs to communicate the following:

1. Country of origin (except for grey trade markets)
2. Quality attributes, including best practice systems throughout the value chain
3. Usage, handling and storage of avocados
4. Nutritional benefits (to leverage on the healthy eating trend)
5. Product versatility

With the limited Australian avocado trade, it will be very challenging to build a brand (or even multiple brands). Building the brand takes time, volume and substantial funding.

> Case Study: Meat & Livestock Australia spent over $120million in a span of a decade to build their "Aussie Beef" brand in their 2nd largest market (Japan). Note: "Aussie Beef" is not as known worldwide as it is in Japan. It is also not necessarily a "brand" but a "mark" to communicate that the product is from Australia.

The industry should maximise its membership with Australia Fresh by using the Australian Grown logo as a mark of origin in all export materials. Although the free use of this logo is limited to industry materials and within the Australia Fresh program, exporters may opt to register with the Australian Made Australian Grown Foundation to also use this on commercial packaging. As this logo is currently being taken up by other Australia Fresh industry members, the avocado industry is able to leverage on a more extended use of the mark in each market, thus gaining improved recognition through time i.e. The summerfruit, cherry and table grape industries will be using this mark during the summer period when avocado presence is at its lowest.

Ideally, the industry should build only one brand with the option of either using the Australian grown logo on its own or using it in conjunction with a specific label similar to Zespri.

Strategy 2 : Branding and Positioning Strategy Build the image of Australia as an excellent source of high quality, nutritious and versatile avocados.		General	Key Growth Markets	Lost Access Markets	New Access Markets	New Markets
Actions	2.1 Consistently use the Australian grown logo in all industry export materials	•				
	2.2 Develop a guideline to identify key elements that should consistently be in all industry export materials, communicating the following elements: – Country of origin (except for grey trade markets) – Quality attributes, including best practice systems throughout the value chain – Usage, handling and storage of avocados – Nutritional benefits – Product versatility	•				
Outputs	• Brand Guidelines • Consistent communication of image and message					
Industry Outcomes	• Increased awareness and understanding of Australian Avocados among export markets					

Market Access Strategy

Open new high value markets that will bring substantial increase in trade for the Australian avocado industry and maintain/improve access among existing key markets.

Australian avocados are a high value commodity especially in international markets and relative to its global competitors. The industry needs to focus on markets and segments where Australia has a competitive advantage: Asian region.

With Asia as the primary focus of Australia, the industry has current applications for new entry into China and Japan and negotiations for improved protocols into Thailand and New Zealand.

The industry needs to invest in R&D projects that will deliver an internationally acceptable air and sea freight protocol for Australian avocados: non-host status, chemical usage, shorter cold treatment standards at higher temperature settings. This will assist in its case with Thailand, China, Japan and New Zealand as well as serve as "insurance" to maintain access in non-phytosanitary markets that may make the shift as did Thailand.

Market Access Strategy by Market	Thailand	China	Japan	New Zealand
Negotiate for non-host status, chemical usage, shorter cold treatment at higher temperature settings (in order of priority)	●	●	●	●
Develop and provide acceptable technical verification of a more commercially viable trade protocol	●	●	●	●
Negotiate for cost-effective requirements to gain access		●	●	●
Work with local avocado industry to signify Australia's support for the China market (serves as a negotiation tool for access)		●		
Market entry through one major city with concentrated high value niche market segment, due to limited supply volume (further research required – see last strategy point))		●		
Build relationships with key decision makers and influencers in trade and government	●	●	●	●
Commission market study to develop market entry and maintenance action plan		●	●	

To avoid or at least curtail impact from any future access issues that may arise, the industry would need to:

1. Work closely with other export-focused industries, AHEA, OHMA, DAFF, QTI, Vic DEPI and DAFWA
2. Build good relationships in export markets with key influential importers (importers' associations if existing) and relevant foreign government officials through multi-industry activities organised by OHMA, Australia Fresh and relevant Australian government agencies
3. Monitor multi-industry access-related initiatives and evaluate opportunities to be involved.

Like other export-focused fruit industries, the Australian avocado industry would need to appoint an industry representative to focus on access issues and work closely with a designated avocado exporter.

Strategy 3: Market Access Strategy Open new high value markets that will bring substantial increase in trade for the Australian avocado industry and maintain/improve access among existing key markets.		General	Key Growth Markets	Lost Access Markets	New Access Markets	New Markets
Actions	3.1 Invest in developing an internationally acceptable air and sea trade protocol and other key market specific access requirements	•				
	3.2 Commission new market studies				•	
	3.3 Closely collaborate with other export-focused groups and initiatives	•				
	3.4 Participate in multi-industry opportunities to build relationships with key influential players and government officials in Australia and export markets	•				
Outputs	• Internationally acceptable air and sea trade protocol • New market studies • Participation in multi-industry activities and initiatives					
Industry Outcomes	• Improved access into Thailand • Closer to gaining access into China • Maintained access into existing markets					

Trade Development Strategy

Develop awareness of Australian avocados and strengthen the trade in export markets.

To develop awareness of Australian avocados and strengthen the trade in export markets, the industry needs to build its presence and cultivate relationships with trade players (importers, wholesalers, retailers, food service buyers and chefs/cooks) and relevant foreign government officials through the following:

1. Participation in major trade exhibitions: Asia Fruit Logistica, Food & Hotel Asia, China FVF (Food & Hotel China when access is received). Also consider shared participation in other shows such as Gulfood to explore opportunities in this region.
2. Participation in trade missions to Asian markets as organised by Australia Fresh and state government agencies
3. Participation in international trade briefings for importers (usually conducted as part of trade missions).
4. Development of export kits to communicate a unified positioning and messaging as indicated in the Branding and Positioning Strategy. Initial development is in English and Simplified Chinese (China).
5. Regular communication with foreign trade players through the Australia Fresh newsletter and website. Contact lists are built through various export activities and the sharing of contacts by industry members. The industry will need to develop a calendar of articles to publish and ensure that avocado information is current in the Australia Fresh website.
6. More importantly and where the industry has a competitive advantage, a training program should be developed and standardised to support exporter-importer relationships. The industry would be able to support exporters by developing the curriculum and actual materials as well as co-fund the activities.

To predict the growth in volume of Australia's avocado exports the industry needs to better understand the dynamics of production in New Zealand, since exports to Australia represent on average 46% of New Zealand production and 86% of New Zealand exports and make up virtually 100% of avocado imports into Australia. It is recommended that the industry forge partnerships with New Zealand at both the industry and commercial levels. This will not only provide intelligence on New Zealand capability but it will also open opportunities for Australian exporters to expand their business through the strength of New Zealand traders.

To have a better understanding of "unknown" markets such as the Middle East and Russia, it is recommended that market studies be commissioned in collaboration with other fruit industries. i.e. The summerfruit and cherry industries are particularly wanting to study opportunities in the Middle East. The Australian avocado industry may share resources with these two industries.

The industry should also consider supporting exporter/s in promoting processed avocados (in tubs) particularly in markets where there is no access such as Japan and China. This is a good entry level initiation into developing trade relationships and having commercial exposure to these markets.

Trade Development Strategy by Market	All Key Growth Markets	Middle East	Other ASEAN	Russia	Thailand [56]	China	Japan [57]	New Zealand
Participate in major trade exhibitions & missions	●	●	●	○	●	●	●	
Develop and produce export kits	●	●	●	○	●	●	●	○
Conduct trade education	●	○			●			
Commission market studies		●		○		Δ	Δ	
Forge industry and trade partnerships								●
Promote processed avocados in tubs						●	●	

○ Only when there is observed growth in trade

Δ As indicated in market access strategy

[56] Upon resumption of commercial trade access

[57] Participate in trade exhibitions, missions and develop/produce export kits only as part of a multi-industry activity prior to obtaining access.

Strategy 4: Trade Development Strategy Develop awareness of Australian avocados and strengthen the trade in export markets.		General	Key Growth Markets	Lost Access Markets	New Access Markets	New Markets
Actions	4.1 Participate in major trade exhibitions, trade missions		●	●	●	●
	4.2 Participate in the Australia Fresh Program	●				
	4.2 Develop & produce export kits		●	●	●	●
	4.3 Actively contribute to the Australia Fresh buyer communications program	●				
	4.4 Develop a standard training program for use in export markets	●				
	4.5 Co-fund trade education program		●			
	4.6 Commission market studies					●
	4.7 Forge Industry & Trade Partnerships				NZ	
	4.8 Promote processed avocados in tubs				●	
Outputs	• Participation in trade exhibitions and trade missions • Export Kits • Australian avocado articles and information • Standard training program • Participation in trade education program • Market studies • Exporter support for promoting processed avocados					
Industry Outcomes	• New or improved trade relationships with export markets • Greater awareness of Australian Avocados in export markets • Effective collaboration with New Zealand indsutry representatives and exporters					

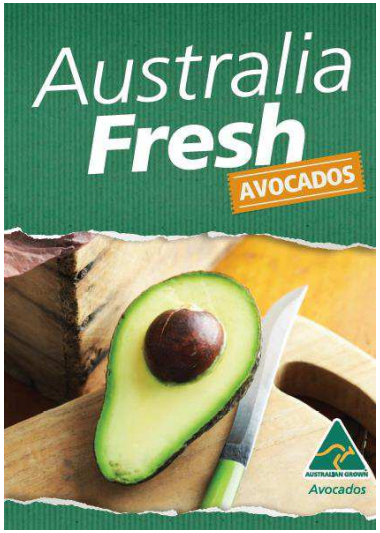
Promotions Strategy

Build the presence of Australian avocados among consumers and the trade to generate increased demand for the product.

The industry needs to support the export trade through promotions:

1. Develop and produce merchandising materials: posters, flaglines and leaflets using the Branding and Positioning Strategy.
2. Co-fund retail and food service promotions in key growth markets, working closely with exporter/s. Promotions would also include an educational component in the usage, storage and handling of the product.

The industry may also share resources with other industries by having joint promotions, depending on timing of these activities.



Promotions Strategy by Market[58]	Singapore	Malaysia	HK	New Markets
Merchandising Materials	●	●	●	●
Customer Promotions	●	●	●	

[58] Both promotions strategies apply to key growth markets. This applies to Thailand, China & Japan upon commercial trade access entry.

Strategy 5: Promotions Strategy Build the presence of Australian avocados among consumers and the trade to generate increased demand for the product.		General	Key Growth Markets	Lost Access Markets	New Access Markets	New Markets
Actions	5.1 Develop and produce merchandising materials		•			•
	5.2 Co-fund retail and food service promotions		•			•
Outputs	• Merchandising materials • Exporter co-funding mechanism • In-market promotional activities					
Industry Outcomes	• New or improved trade relationships with export markets • Greater awareness of Australian Avocados in export markets					

APPENDIX

See attachments on the following:

Appendix A – FAO Estimates of Avocado Production, Consumption & Trade 2008-10

Appendix B – New Zealand Import Protocols for Australian Avocados

Appendix C – Thailand Import Protocols for Australian Avocados

Appendix D – Singapore & Malaysia, a Desktop Study

Appendix E – The Market for Avocados in Hong Kong