

HORTICULTURE GROWING/ PROCESSING INDUSTRY

SEPTEMBER 2015

Global Horticulture Industry

The global horticulture industry primarily comprises a large variety of fruits, vegetables and nuts, and is increasingly in focus as growing populations, especially in the emerging economies, put pressure on the availability of food across the world. Furthermore, with rising per capita income driving changes in dietary preferences, rising consumer health consciousness is increasing the demand for fruits and vegetables¹. Fruit production in 2013 is estimated to have reached 676.9 mt in 2013, with the industry dominated by production and trade of bananas, semi-tropical fruits, citrus fruit, berries, apples and stone fruits¹. Global vegetable production is estimated to be 879.2 mt¹, which is largely made up of potatoes followed by tomatoes, onions and cabbage. China and India are among the top fruit and vegetables producers in the world, while Brazil, USA and Indonesia also play an important role in fruit production. The Asia-Pacific region, which accounts for the majority of global population, is expected to lead in terms of overall consumption and a key destination market.¹

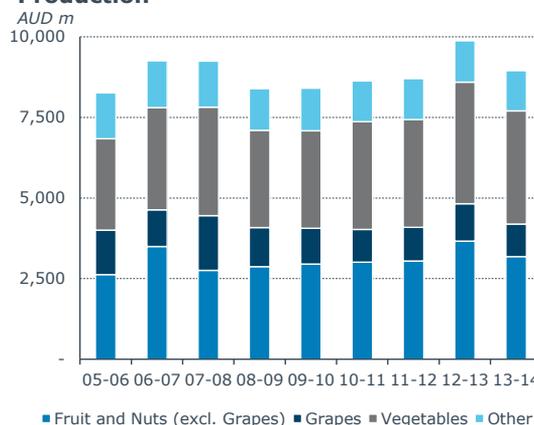
Australian Horticulture Industry

While not a major horticulture producer in the global arena, Australia, with its favourable climatic diversity and world renowned food quality and safety standards, is well placed to cater to these markets (Asia Pacific). In Australia, horticulture is the third largest agricultural sector with an estimated gross value of production (GVP) of \$8.9bn in 2013-14², after the Livestock & products (\$22.7bn) and broad acre/cropping sector (\$19.2bn). In addition, horticulture makes up the largest agricultural sector employer with around 61,000 people employed in the sector, with a further 6,250 in fruit and vegetable processing as of August 2014². As of June 2013, Australia had around 30,000 horticultural producers, which are largely small and medium sized family businesses.²

Over the past five years, the fruit and nut segment has experienced around 20% volume growth annually, followed by vegetables (12.9%) and grapes (11.6%)³. However, in terms of total gross value of production (GVP) vegetables contribute the largest to the sector with around 39% of total GVP, while fruits and nuts (excluding grapes) account for around 36%. Overall value of vegetable production is estimated to be \$3.5bn, closely followed by fruit and nut (excluding grapes) production, which is estimated to have reached \$3.2 bn in 2013-14³. Domestic production is largely concentrated in New South Wales, Victoria and Queensland, accounting for over 70% of horticulture production in 2013-14³. Much of the production is sold in domestic market, with only a small portion being exported.

Although the wide range of horticulture commodities produced in Australia provides counter seasonal availability of products when compared to the northern hemisphere, recent climatic conditions have adversely affected production and led to supply constraints, which is considered to be a key constraint, both at domestic and international level, given the seasonality of horticulture produce. Further, high production costs, lack of coordinated approach towards promoting in international markets and lack of information on consumer markets leads to Australia underplaying its role⁴. However, there is an increasing effort by the peak industry bodies to promote the domestic products in the international market. In June 2014, Apple and Pear Australia Limited hosted representatives from companies from Thailand, Malaysia, Singapore and China to highlight the production, harvesting and export process of Pink Lady™ apples, known for their appeal and taste. Importers have highlighted such products help them offer differentiated experience to consumers⁵, despite the higher prices.

Australian Horticulture Gross Value of Production



Source: ABS, Catalogue No: 7503

Australian Horticulture trade

The value of Australia's horticulture exports was estimated to be around \$1.6bn in 2013-14, which had increased at a CAGR 6% over the past 5 years. In 2010-11, total horticulture exports fell to \$963m, recovering by 66.5% in 2013-14, on the back of restored fruit export value to historical levels along with increasing contribution of nuts exports to the total export value.⁶

Historically, fruit exports have accounted for at least 55% of total value, though in 2013-14 this accounted for only around 45% of the total export value, followed by nuts (38%) and vegetables (17%)⁶. This is largely due to relative increase in Nuts exports value compared with other horticulture produce

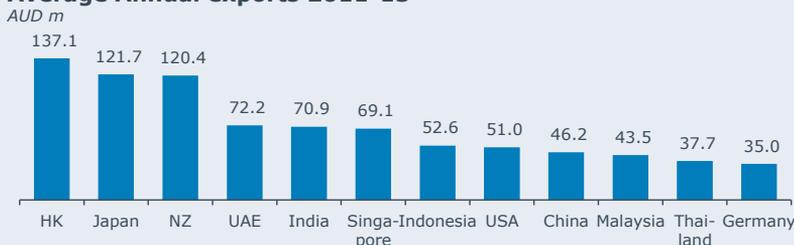
Nuts exports reached \$600m in 2013-14, an increase of around 75.3% over previous year, largely due to increased demand in the Asia Pacific region including Taiwan, Korea and Japan, driven by an increasing preference for western diets⁷. Furthermore, with the recent FTA announcements, tariffs reductions in important markets will continue to fall, making domestic nuts exporters more competitive in the international market.

On a net trade value basis, Australia is a net importer of vegetables, with exports valued at \$270m in 2013-14, compared to imports of \$912m. Among the exports, fresh vegetables account for 62%, followed by processed (~14%) and frozen vegetables (~9%). Carrots and turnips are major vegetable exports, while onions and shallots, potatoes and asparagus are among other important exports. Similar to the overall horticulture exports, vegetable exports are largely destined to Asian and Oceania countries (Japan, New Zealand and Singapore – together account for over 40% exports)

Export Destinations by Region

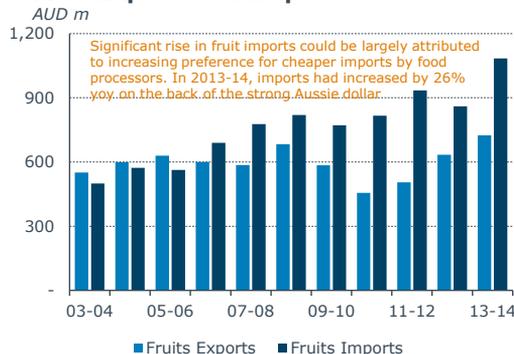
Around 58% of the horticulture exports are destined to the Asian region, followed by Europe (14%) and Pacific countries (13%). Middle East and Africa regions account for ~10%, while the Americas account for only 6%, over 2011-13 period. Asian countries dominate the export destinations with Hong Kong, Japan, New Zealand, India and Singapore being the important destinations.

Average Annual exports 2011-13

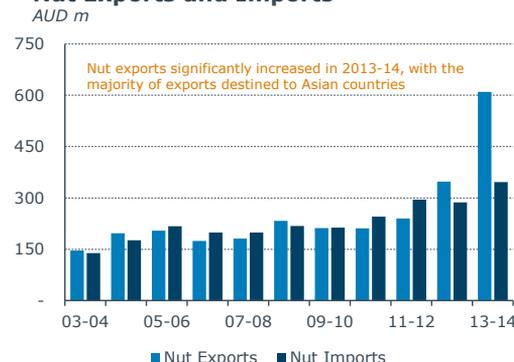


Source: Office of Horticulture Market Access April 2014 report

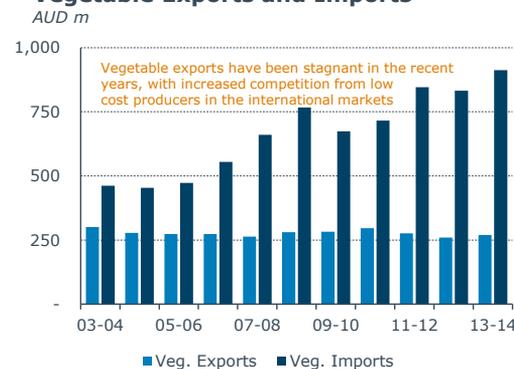
Fruit Exports and Imports



Nut Exports and Imports



Vegetable Exports and Imports



Source: Australia Commodity Statistics

Main products exported to various export destination

Hong Kong	Table grapes, citrus, summerfruit, cherries
Japan	Macadamias, citrus, asparagus
New Zealand	Almonds, table grapes, processed fruit
UAE	Carrots, almonds, summerfruit
India	Almonds
Singapore	Carrots, Table Grapes, Citrus
Indonesia	Table grapes, Potatoes, mandarins
United States	Almonds, Macadamias, Oranges
China	Macadamias, Citrus, Table grapes, Walnuts
Malaysia	Citrus, Table grapes, Carrots
Thailand	Table grapes, potatoes, Almonds
Germany	Almonds, Onions

Key export destination markets for Australian Horticulture produce

Singapore relies largely on imported fruits and vegetables for its domestic consumption and is estimated to have imported 400,000 tons of fresh fruit in 2013 . Fresh fruit imports largely include apples, followed by bananas and oranges. Australia was a key supplier of apples and pears to the market in early 2000s, but this is not the case in current scenario. Despite its proximity and ability to supply high quality product, Australia had lost market share to countries like China, South Africa, Argentina and New Zealand. South Africa, with its consistent promotion programs to improve appeal among the buyers, has increased its share of trade significantly⁸. On the vegetable side, Australia is one of the key suppliers to the country with vegetable growers providing a variety of vegetables into the market. Further, increasing R&D to produce innovative products like vacuum-sealed baby beetroots (launched in 2014) are perceived to have high value-adding for the Singapore market.⁹

Japan is the 5th largest export market for Australian horticulture, with the trade between two countries estimated to be AUD 116m (year to May 2014). Oranges, mandarins, macadamia nuts, onions and asparagus are some of the main products exported to Japan.¹⁰ Recent trends in the market include a fall in fruit consumption, which is estimated to have fallen 25 percent – the lowest level since 2000. An estimated ~70% of fresh fruit purchased by elderly (aged 50+), while the younger generation prefer snacks and other confectionaries rather than fruits amidst rising prices and poor domestic economic conditions.¹¹ Overall per capita fruit consumption is estimated to have reduced by 60% in the past 40 years.¹² However, industry backed new labelling laws that promote the health benefits of fruits are likely to improve consumer perceptions.¹¹

China’s total imports of fruits and vegetables is estimated to have increased by 26% and reached USD 4bn over the past five years to 2014.¹³ With rising income levels, improving cold storage technology and changing consumer preferences, increasing demand.¹³ Although its imports are highly diversified, sourced from countries like Thailand, Canada, Vietnam, US and Philippines, Australia can cater to consumers who prefer quality products and willing to pay a premium for them. Amidst various food safety concerns, Chinese retailers are increasingly looking for direct sourcing¹⁴, which could be an opportunity for Australia, given its diverse high quality produce. Pagoda, the world’s largest greengrocer chain, has recently expressed interests in direct sourcing Tasmanian apples to its stores in Shenzhen.¹⁵

Malaysian consumers have continued to acquire a taste for exotic foreign fresh produce and juices. There is an increasing demand for pre-packed salad mix, which may be partly driven by the lifestyle changes.¹⁶ In the case of **Thailand**, a market which is dominated by other country imports, availability of product during the off season is one the key factors in encouraging wholesalers/retailers to source products from Australia.¹⁷

Key Drivers for Consumption of Imported Fruits in Asia

Consumer Focus	Institutional Focus
Strength of established tastes and preferences	Development of modern retailing
Openness to new products	Extending cool chain to second tier cities
Availability and prices of domestic products	Improved infrastructure
Promotional programs for individual commodities	Views on imports as enriching lifestyles or damaging local economy

Aside from Asian countries, there is an increasing export trend into the UAE, which is now considered a regional hub for fresh fruits and vegetable trading¹⁸. Overall, changing consumer lifestyle preferences with increasing disposal incomes is likely to push the demand for horticultural produce higher in the long term.

Source: Quantifying Future Asian Import Demand for Selected Fresh Fruits - 2013

Fruit and Vegetable processing in Australia¹⁹

In terms of industry revenue, the Australian fruit and vegetable processing sector reached \$5.9bn in 2013-14, an increase of 2.2% over previous year. Revenue has been stagnant in the recent past, largely attributed to rising input costs along with increased competition from processed imports.

New South Wales, Victoria and Queensland account for over 75% of the processing establishments. Ongoing consolidation and closures have seen a fall in the number of operations in the domestic market, partly driven by high labour costs.

Adverse climatic conditions and deteriorating growing conditions in some areas have seen an increase in raw material prices. In addition, the combined high bargaining power of large supermarkets and increasingly price sensitive domestic consumers has tightened margin squeeze, which has led to the exit of some players.

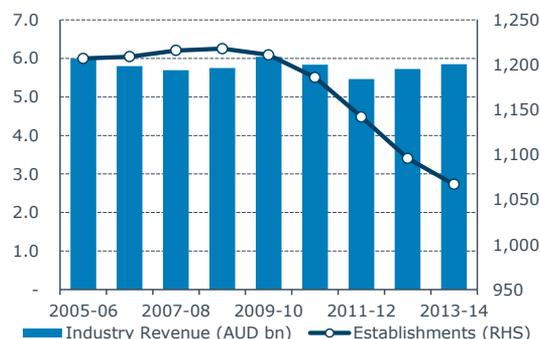
The industry product portfolio is dominated by frozen fruits and vegetables, providing unique value to end consumers through increased shelf-life. In addition, frozen products provide a cheaper alternative to customers during periods where the availability of fresh fruits and vegetables is impacted by seasonality and other causes. Frozen vegetables, which account for a major portion of industry revenue, largely include peas, beans, carrots and vegetable mixes. Shelf-stable fruit, including products packaged in tins, jars and plastic containers, is dominated by pears and apricots, while the shelf-stable vegetables include tomatoes, corn and beetroot.

A further component of the overall sector is made up of condiments, or vegetables preserved with added vinegar and preservatives. The share of industry revenue of this segment has increased over the past few years on the backdrop of increasing popularity of new cooking flavours among consumers.

Until recently, all product segments have faced significant competition from processed cheaper imports due to the strong Australian dollar. Processed fruit and vegetables are predominantly imported from New Zealand, China, the United States and Italy – these countries represent around 50% of imports. On the export side, India is a major market, taking around 27% of processed exports, followed by Bangladesh, Egypt and Pakistan.

Domestic processors have either been forced to innovate, due to increasing competition from cheaper imports, or operate in niche markets. SPC Ardoma, responding to increased competition from imports caused by high Australia Dollar; increased private label penetration; and consumers moving away from tinned products, announced in 2014 that it will spend nearly AUD 100m (inclusive of Victorian Government support) to renew its operations, introduce new products and new packaging

Industry Revenue and Establishments



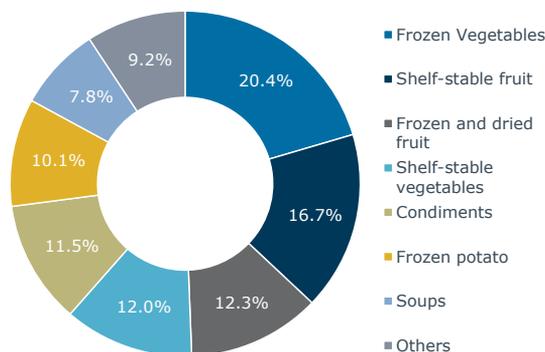
Source: IBIS Report, 2014

Industry Characteristics

Life Cycle	Decline	Regulation Level	Medium
Revenue Volatility	Medium	Technology Change	Medium
Capital Intensity	Medium	Barriers to Entry	Medium
Industry Assistance	Low	Industry Globalisation	Medium
Concentration Level	Low	Competition Level	High

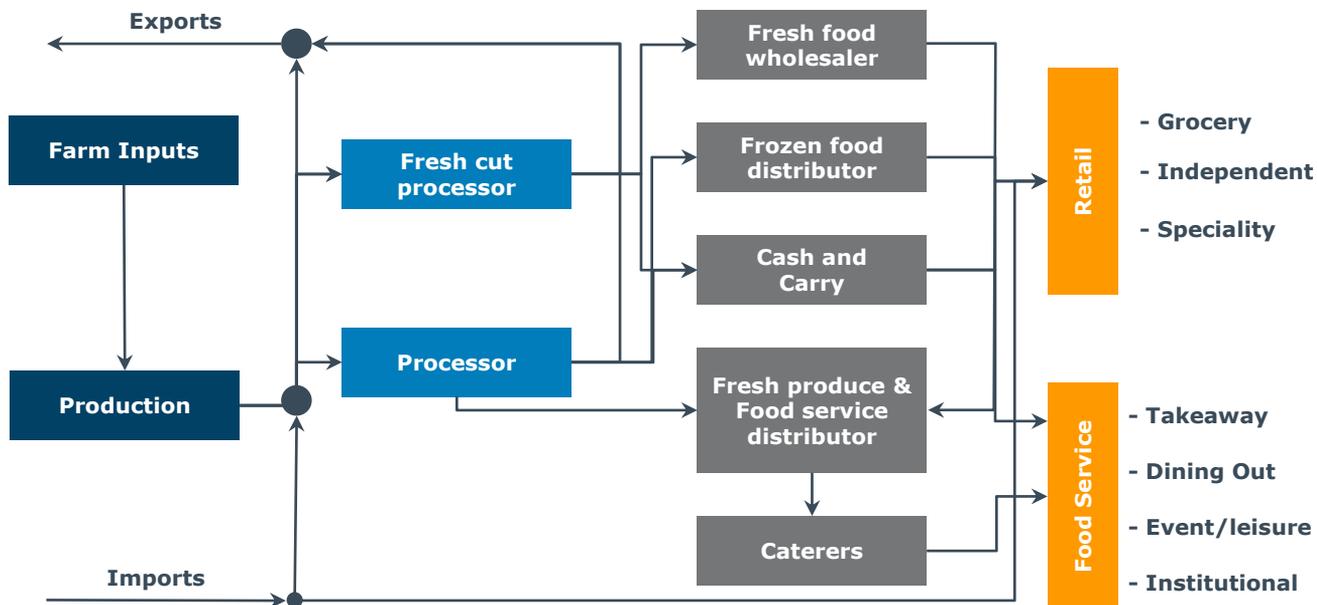
Source: IBIS Report, 2014

Revenue share by Product segment



Source: IBIS Report, 2014

Fruit and Vegetable Supply Chain²⁰



Source: DAFF - Foodmap Report,

The horticulture supply chain is largely categorised into production, processing and distribution, with the inputs sourced from both local and imported sources. According to the Department of Agriculture’s food map report, supply to the processing sector is relatively stable, given the range of import supply sources available. While local producers have largely oriented towards fresh domestic markets, low cost imported products continue to increase their market share at the processing sector. Traditionally fresh food wholesalers play a significant role in pricing and further distribution into retail channels, while rising ‘direct sourcing’ by supermarkets poses a threat to wholesalers and distributors in the long term. This changes in the supply chain would benefit the growers and consumers by increasing the price realisation for the former and reducing the retail price for the latter. Supermarket account for an estimated 55% (2012) of total market share at the retail level.

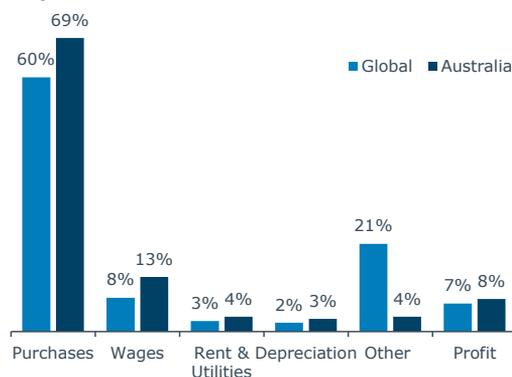
Cost Structure^{19&21}

When benchmarked with international players, the Australian industry has relatively high raw material and labour costs, although overall profitability is also generally higher. Raw materials include packaging materials apart from the key fresh fruits and vegetables. Australian labour costs are, in general, high compared to the global industry. Domestic processors are increasingly investing in automation to reduce the labour costs. ‘Other’ costs – which are significantly lower for Australia compared to the global average, primarily include the capital investment to expand the production facilities/ capacities.

Across Australia, cost structures vary with economies of scale and varieties

of product manufactured, with some of the players vertically integrated and others having supply agreements with individual producers. However, differentiated products, the ability to pass on costs to customers, and development of new products remain key factors for profitability in the domestic industry.

Comparison of Australia vs Global Industries



Source: IBIS Report

BARRIERS

The overwhelming challenge to the Australian horticulture industry remains the need to raise **profitability** on a sustainable basis. While the opening up of preferential markets has provided assistance, there is arguably a greater need for **investment** that will lead to improved productivity and strategic growth.

Australian produce competes in global markets on the back of comparably the highest **costs of production** and the second lowest government **subsidies** in the OECD. As such, there needs to be an improvement in the cost structures and a lift in productivity in order to raise the level of global competitiveness.

High energy use for cold storage and irrigation infrastructure results in very high **energy costs**. Given that **~87%** of the horticulture industry is under **irrigation**, high energy costs significantly impact the profitability of growers. For example, one major QLD grower is facing estimated power bills of A\$ 150,000 per annum.

Further, **labour requirement** for horticultural produce is **very high**, especially during the harvest time. High labour costs along with burdens on farmers due to **superannuation, paperwork and reward systems**, even for affordable **“working visa”** labourers, creates disincentives for both farmers and casual workers.

Transport costs generally comprise approximately **20%** of the cost of production where **80%** of produce requires **cold freight**. While the nature of the perishable and delicate goods renders an efficient and safe freight network essential, this comes at a notable cost.

Australian farmers have low bargaining power with the downstream retail sector which is dominated by two major supermarkets, which makes farmers **price-takers**.

In terms of extending to new export **markets overseas**, there is a need to develop strong on-going ties with the booming Asian regions beyond FTAs. There is now a greater need to focus on **strategic products and market windows** so as to maximise the opportunities across the Australian supply chain.

OPPORTUNITIES

Energy Costs There is potential to use existing programs to encourage investments in technological applications of renewable energy sources such as solar or wind in agriculture. Investment in R&D could deliver systems which would complement the grid, placing downward pressure on electricity costs while still delivering fresh, clean and safe food.

High Labour costs Many in the industry argue for a need to move industrial relations policies to a more flexible and affordable structure, accounting for the specifics of the horticultural industry, particularly relating to penalty rates and simplifying superannuation for seasonal labourers. A significant source of inefficiency is the superannuation documentation and processing that is imposed on the high turnover “holiday workers”. Simplification of such legislation could free up productive time and enhance efficiencies.

Grower bargaining power For export markets, however, the family farming model may need to be scaled up in the form of cooperatives or consolidation to form bankable and scaled corporations, that target export markets and integrate into high value processing components

Roads and Infrastructure There remains a strong need to invest in road and port infrastructure, particularly long haul routes where extreme weather events occur. There is also scope to decentralise distribution hubs into smaller towns to cut the long haul distance limit operating costs and diversify risk.

Market & product mix Finally, government and trade agencies need to continue to support, identify and market high value products in growing markets

Innovation Recently, Horticulture Innovation Australia along with AusVeg had conducted a study on improving the attractiveness of Australian Vegetables in Asian markets and highlighted 10 major innovations which are largely focussed on (1) longer shelf life, (2) extended freshness, (3) post-harvest packaging, (4) reducing costs through supply chain/ manufacturing process (5) increased resonance with environmentally-conscious consumers (6) culturally inspired packaging.²²

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