

Cherry

STRATEGIC INVESTMENT PLAN

2017-2021

Horticulture
Innovation
Australia

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Introduction

This Strategic Investment Plan (SIP) is the roadmap that helps guide Hort Innovation's oversight and management of individual levy industry investment programs. The SIP lays the foundation for decision making in levy investments and represents the balanced interest of the particular industry from which the levy is collected. The very important function of the SIP is to make sure that levy investment decisions align with industry priorities.

Horticulture Innovation Australia Limited (Hort Innovation) is the not-for-profit, grower-owned research and development (R&D) and marketing company for Australia's \$9 billion horticulture Industry.

As part of the role Hort Innovation plays as the industry services body for Australian horticulture, the organisation is tasked by the Australian Government with working alongside the cherry industry to produce a strategic plan for investment of levies in industry research and development (R&D) and marketing activities.

Each individual levy industry investment strategy also speaks to the future growth and sustainability of the Australian horticulture industry as a whole. The SIPs are produced under the umbrella of the Hort Innovation Strategic Plan, which takes a whole-of-industry view in setting its direction, as it considers broader agriculture government priorities for the advancement of Australian horticulture.

The process in preparing each SIP was managed by Hort Innovation and facilitated in partnership with Industry Representative Bodies and Strategic Investment Advisory Panels (SIAPs). Independent consultants were engaged to run the consultation process, to gather the advice from stakeholders impartially and produce a plan against which each levy paying industry can be confident of its strategic intent.

Hort Innovation has valued the support, advice, time and commitment of all stakeholders that contributed to producing the SIPs, especially cherry growers.

The cherry SIP

Producers in the cherry industry pay levies to the Department of Agriculture and Water Resources (DAWR), who is responsible for the collection, administration and disbursement of levies and charges on behalf of Australian agricultural industries.

Agricultural levies and charges are imposed on primary producers by government at the request of industry to collectively fund R&D, marketing, biosecurity and residue testing programs.

Levy is payable on cherries that are produced in Australia and either sold by the producer or used by the producer in the production of other goods. The levy rate on cherries is 7 cents per kilogram.

Hort Innovation manages the cherry levy funds with proportions directed to R&D and marketing investments (6.97 cents per kilogram), while separately, Plant Health Australia (PHA) manages plant health programs (0.03 cents per kilogram). In 2015/16 total cherry levy receipts were approximately \$1.09 million; \$620,000 of R&D levies and \$470,000 of marketing levies.

Hort Innovation has developed this SIP to assist in strategically investing the collected cherry levy funds in the priority areas identified and agreed by the cherry industry. The ability to deliver on all the articulated strategies (and investments) in an impactful manner will be determined by the ability of the statutory levy to provide the resources to do so.

This plan represents the Australian cherry industry's collective view of its R&D and marketing needs over the next five years (2017 to 2021). This plan has been developed in consultation with Australian cherry levy payers through a synthesis of direct consultation with research providers and industry leaders and two workshop sessions with Hort Innovation's cherry SIAP. The SIP development process and the stakeholders consulted are outlined in **Appendix 1**.

The cherry SIAP has responsibility for providing strategic investment advice to Hort Innovation. Both Hort Innovation and the panel will be guided by the strategic investment priorities identified within this plan. For more information on the cherry SIAP constituency please visit Hort Innovation's website at www.horticulture.com.au.

Cherry

STRATEGIC INVESTMENT PLAN 2017-2021 AT A GLANCE

POTENTIAL IMPACT OF THIS PLAN



Based on an estimated investment of \$8.43 million over the next five years.

OUTCOMES	STRATEGIES
Increase the unit value of fruit sold onto the domestic market to improve industry economic sustainability	Develop a domestic marketing strategy focused on extending the seasonal demand into the new year and repositioning cherries as a luxury and gift fruit
	Engage with supermarkets to improve category management
	Conduct R&D and industry training on packaging technology and messaging
	Scope out opportunities to develop profitable markets for secondary quality fruit for value-adding
	Improve marketable yield while still delivering on consumer eating experience
	Initiate program to identify nutritional attributes of cherries to support marketable health claims
	Build industry capability in agritourism and other direct-to-consumer marketing models

OUTCOMES	STRATEGIES
Grow export markets to leverage the forecast increase in production over the next five years	Develop a five-year integrated export market development plan
	Gain industry agreement on the workable market access protocols into priority markets and complete required business cases (airfreight protocols is a priority)
	Build export readiness and capability
	Introduce electronic export registration system
	Establish effective market intelligence channels in target export markets
Reduce costs at every level of the supply chain to improve global competitiveness	Support wider Queensland fruit fly (Qfly) agenda across all horticulture industries and state governments
	Link in with Hort Innovation automation/robotics programs to develop cherry specific technology
	Manage pest and disease challenges/risk through maintaining biosecurity manual and on-farm practice
	Improve soil health to maximise yield
	Elevate orchard management skills by introducing a low cost local 'orchard improvement group' program with benchmarking component
	Investigate opportunities to improve pack house efficiency
	Facilitate industry adoption of improved cultivars and rootstocks
	Equip industry to understand and respond to the impact of environmental change on both production and marketing

Cherry

STRATEGIC INVESTMENT PLAN

2017-2021 AT A GLANCE

OUTCOMES	STRATEGIES
A culture of continuous improvement has been embedded, improving industry professionalism and profitability	Introduce a production and harvest forecasting system to improve industry data
	Introduce business basics program with short courses specifically tailored to orchard businesses and supply chains (cross-funded with other temperate fruit industries)
	Encourage and mentor young industry leaders to apply for travel scholarships, such as Nuffield, and grants for overseas study/observation
	Promote and encourage industry attendance at Hort Innovation Global Masterclass course in horticultural business (Pool 2)
	Drive industry awareness of the need for food safety, traceability and product integrity systems
	Introduce voluntary grading standards for export and domestic markets

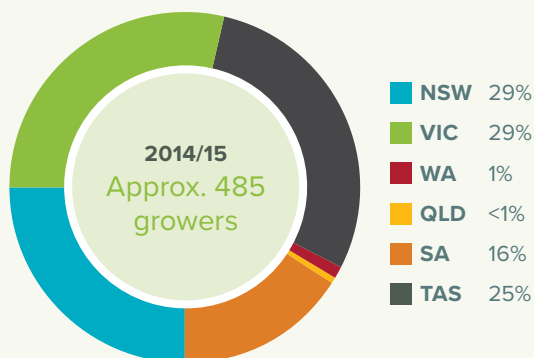
Major opportunities

- To take advantage of the growing demand from the Asian markets
- Improve price competitiveness driven by the recent signing of free trade agreements (FTAs) in China, South Korea and Japan
- To de-commoditise and reposition cherries in the domestic market as a luxury item, such as New Year gift giving.

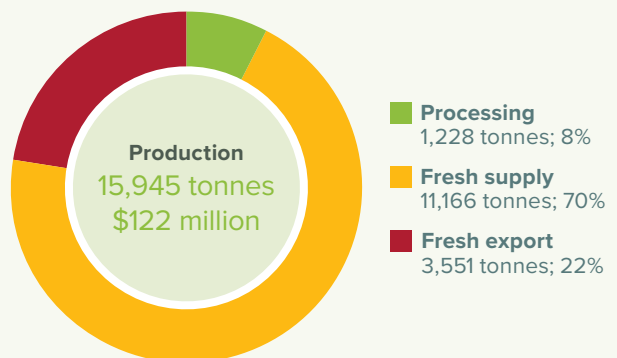
Major challenges

- More frequent and more damaging adverse climatic events due to climate change
- Appreciation of the Australian dollar which impacts on price competitiveness in the more price sensitive markets
- Increasing competition from other Southern hemisphere producers particularly Chile
- Abrupt disruption to the China market and deterioration of market access conditions in key markets
- Food safety, particularly with respect to maximum residue levels (MRLs)
- Higher input costs relative to competing countries, particularly in labour
- Lack of workable market access into the higher returning markets for mainland fruit.

Industry size and production distribution



Cherry supply chain and value 2014/15





SECTION ONE

Context

The Australian cherry industry overview

In the 2014/15 season, the Australian cherry industry produced 15,945 tonnes of cherries with a production value of \$122.1 million and a wholesale value of fresh supply worth \$116.8 million¹ from an estimated 2,845 hectares operated by 485 enterprises². In 2014/15, 70 per cent of this fruit was sold for fresh consumption on the domestic market, 22 per cent exported and eight per cent used in processing¹.

Table 1: Industry snapshot 2014/15

Production	15,945 tonnes 2015/16 ^A
Hectares under production	2,845 hectares ^C
Production value	\$122.1 million 2015/16 ^A
Wholesale value	\$116.8 million 2014/15 ^A
Number of enterprises	485 ^C
Exports (value)	\$47.9 million 2015/16 ^A
Exports (volume)	3,551 tonnes 2014/15 ^A 5,593 tonnes 2015/16 ^B

Sources:

^A Australian Horticulture Statistics Handbook 2014/15

^B IHS Global Trade Atlas

^C Australian Cherry Strategic Investment Plan, 2012-2017

The cherry industry is in a strong growth phase with increased plantings, predominantly in Tasmania and Victoria. These orchards have been developed to service the anticipated demand increase from China, enabled by the recently granted airfreight market access for Tasmanian fruit and the prospect of similar access for mainland fruit from some areas.

Nationally, production volume has been steadily growing at approximately six per cent compound annual growth rate (CAGR), over the last decade³, mostly driven by increased yields. This production increase is despite the fact that according to the Australian Bureau of Statistics (ABS) data, the number of trees has declined by more than seven per cent in the past year, indicating the extent of the productivity gains. Growers are replanting orchards to replace old trees with newer varieties that have higher yields, better quality fruit, or are more suited to export markets. The value of production is highly volatile each season due to the fact that returns are always dependent on a combination of factors that impact market prices, including weather conditions across all growing areas.

Exports have increased significantly, in terms of volume and value, since Tasmanian growers gained airfreight market access into mainland China. This increase was buoyed further by the favourable exchange rate in recent seasons. The industry is focused on building export markets because of the concern that the predicted increased plantings will add to the oversupply dynamic as the trees approach full bearing, therefore, further depressing domestic market prices. There is a demonstrable export demand for Australian cherries, particularly from Asian markets. The barrier to fulfilling this demand is the lack of workable market access protocols for mainland Australian growers. For this reason, mainland Australian producers are urgently seeking a workable airfreight market access into northern Asia. The current protocol to China is considered by the industry to be unworkable because it is damaging to the fruit quality.

The domestic market is relatively flat with per capita consumption⁴ showing a slight decline, arguably because of increased competition from other fruits such as berries.

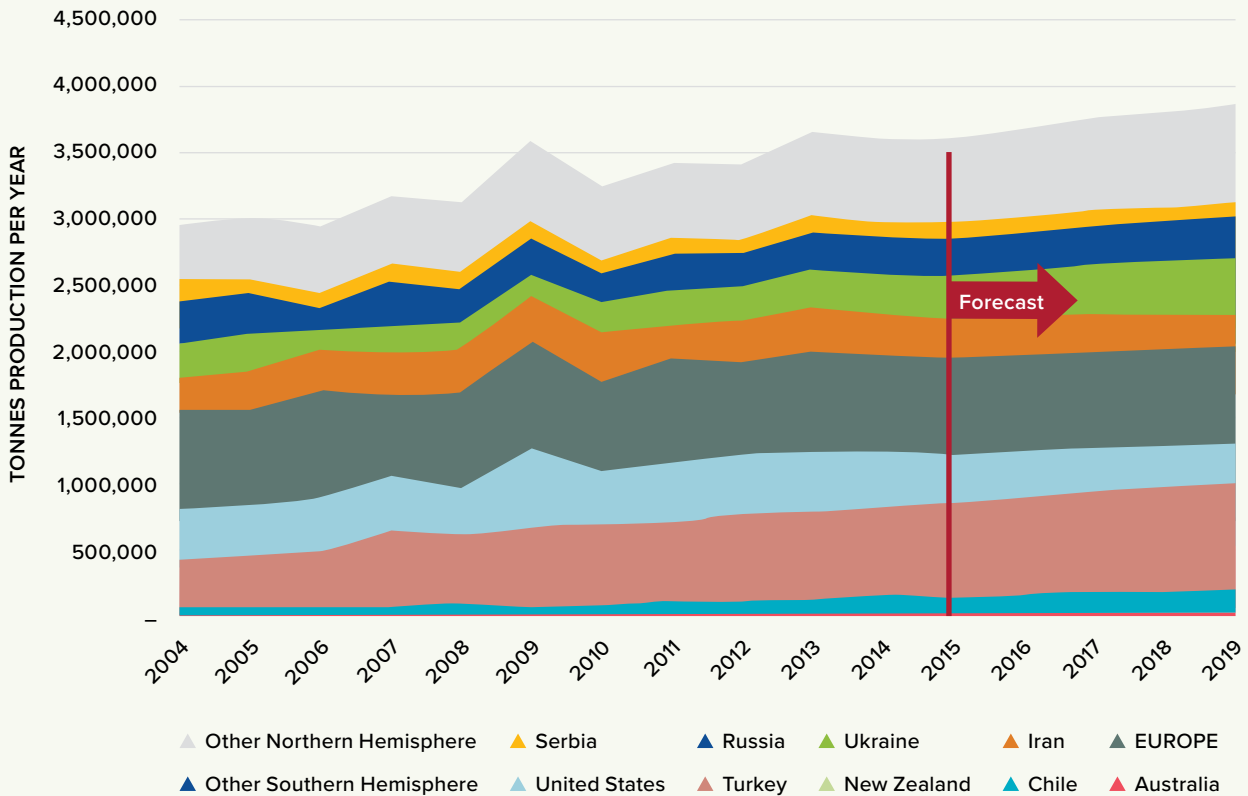
¹ Australian Horticulture Statistics Handbook 2014/15

² Australian Cherry Strategic Investment Plan, 2012-2017

³ ABS data, FAOSTAT, Cherry Growers Australia, Fresh intelligence analysis, 2016

⁴ ABS data, Fresh Intelligence analysis, 2016

Figure 1: Global cherry production by producer country (Source: FAOSTAT, Fresh Intelligence analysis, 2016)



Putting the Australian industry into context

By way of context, **Figure 1** indicates the historic and forecast global production outlook for cherries. A key point illustrated in this data is that the southern hemisphere production (mostly Chile) is only a fraction of the size of the northern hemisphere. In fact, the output from Australia and New Zealand is so small that it is not visible in the diagram. **Figure 2** breaks down the southern hemisphere competitor set in more detail, so that Australia’s position in the market can be more clearly interpreted. Even within the southern hemisphere competitor set, Australia is only a very small player, meaning that the Australian industry is not influential on global market trends. The other point to note is that global production is growing relatively slowly, yet **Figure 2** forecasts a strong rate of growth for Chile.

... southern hemisphere production (mostly Chile) is only a fraction of the size of the northern hemisphere.

Figure 2 isolates the southern hemisphere competitor set, reinforcing the point that, compared to Chile alone, Australia is a very small player. **Figure 2** provides further context to the competitive threat posed by Chile whose production is growing strongly, relative to other global producer countries. Chile produces in the same seasonal window as Australia. Neither New Zealand nor South Africa pose the same level of threat because their climates are not as suited to cherries.

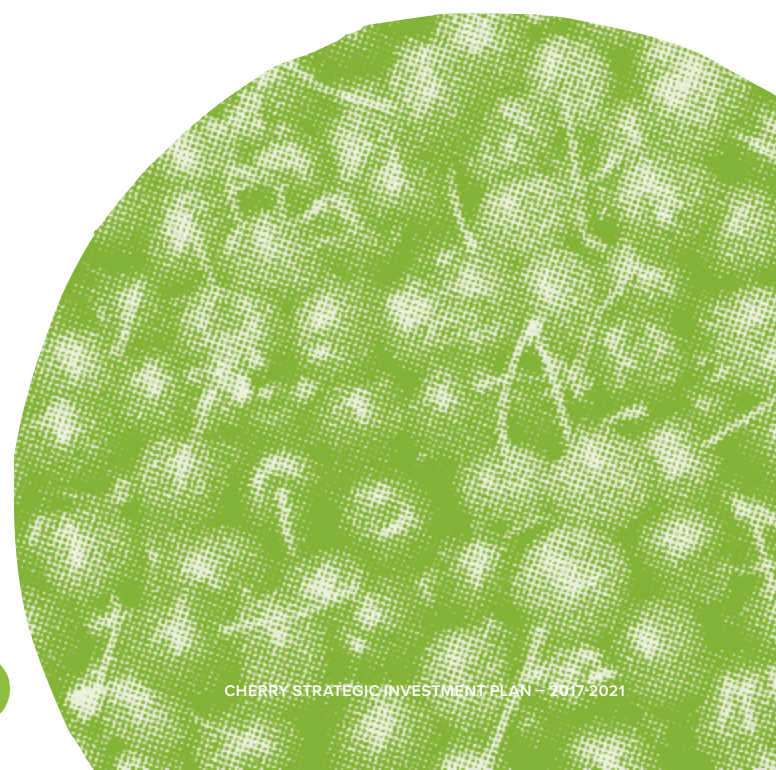
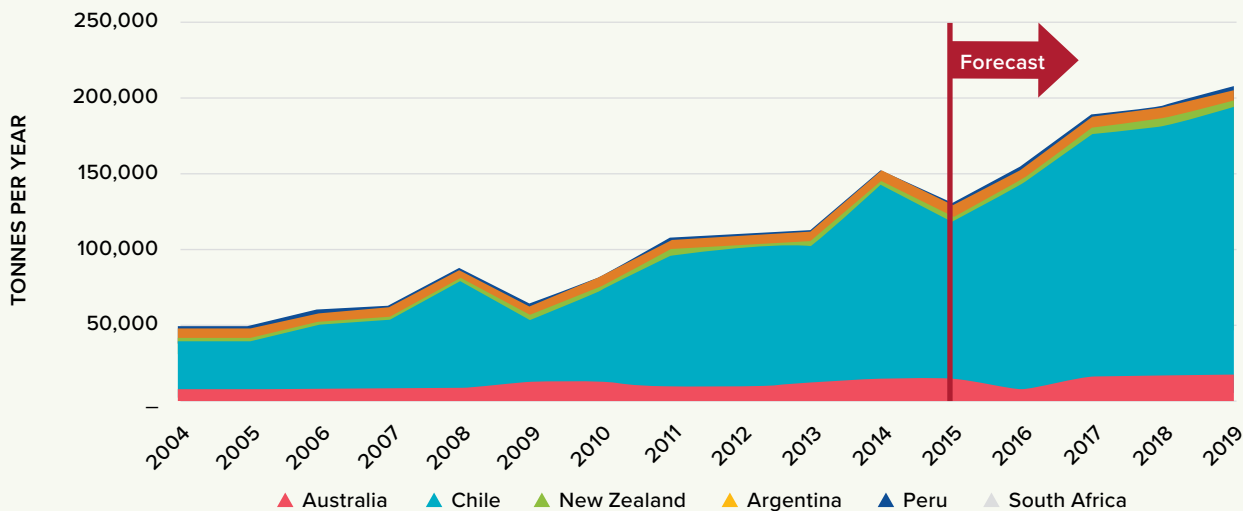


Figure 2: Souther hemisphere cherry production and estimated forecast 2004 to 2019

(Source: FAOSTAT, Fresh Intelligence analysis, 2016)



Cherry production overview

Industry data presented in the *Australian Horticulture Statistics Handbook 2014/15* confirms that Australian production volume is growing at six per cent per annum, yet as already noted, the number of trees have decreased by seven per cent since 2013. Notwithstanding seasonal variations, this indicates that a steady increase in yield due to the replanting of orchards with better performing varieties. Furthermore, an increasing number of orchards are now being covered with rain protection, hail mesh and bird netting, and these contribute to fewer losses.

There are a number of factors influencing production timing and volumes:

- Different varieties have different maturity times so growers select early, mid and late varieties to spread the harvest window and mitigate risks associated with rain damage at harvest

- Fruit grown in warmer areas matures much earlier than the higher, cooler regions.

The combination of different varieties and production regions gives a supply of Australian produce from mid October through to late February as indicated in *Table 2*. From June to September, the market is supplied by product from the United States.

Production levels can be significantly impacted by climatic conditions. Wind or frost during flowering can severely reduce the harvested crop. The effect of rain during harvest is one of the largest challenges for the industry as it can have a detrimental impact on production volume and fruit quality. The impact of temperature, chill factor and micro-climatic impacts on tree physiology, flower initiation and fruit set are also critical in a climate change context.

Table 2: Cherry seasonality by state (Source: *Australian Horticulture Statistics Handbook 2014/15*)

State	2014/15 tonnes	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Victoria	4,599					Medium	High	High	Medium				
New South Wales	4,551				Low	High	High	Medium					
Tasmania	4,034							High	Medium				
South Australia	2,561				Low	High	High	Medium					
Western Australia	148					Low	Medium	High	Low				
Queensland	54				Low	Medium	High	High	Low				
Imports	2,598	High										Medium	High

Availability High Medium Low None

Cherry production by state (2014)

Australian cherries are produced in six states – New South Wales, Victoria and Tasmania are the three largest producers, and South Australia is the fourth. There has been a rapid expansion in plantings and there is a strong export focus from the four states. Western Australia and Queensland are relatively small producers and primarily service local markets.

Table 3 provides estimates of the production by state, split by the number of enterprises and the estimated number of hectares. It is important to note that current data on production is sparse and of questionable accuracy.

Table 3: Production by state

(Source: Australian Cherry Strategic Investment Plan, 2012-2017)

State	Number of enterprises	Number of hectares (estimate)	Production (tonnes)
New South Wales	108	800	4,407
Victoria	95	800	4,500
Tasmania	76	560	4,000
South Australia	118	590	2,500
Western Australia	70	70	500
Queensland	18	20-25	36
Total	485	2,845	15,943

Due to seasonal influences, yields of early maturing cherries tend to fluctuate more and are often lower than late maturing varieties. Early varieties do, however, command a premium market price.

There is a large number of varieties grown across the industry. Characteristics such as yield, fruit size, time of harvest and resistance to cracking are considered. Industry confirms that poorer performing varieties are being replaced as buyers demand improved quality and longer shelf life.

Yields

Despite an exhaustive search, meaningful data on yields in the cherry industry is not available – this is a significant gap that is discussed later in this SIP. A straightforward calculation based on the industry information on production and the estimated areas per state (refer to **Table 3**), provides an average yield estimate of 5.6 tonnes per hectare. However, this overall national average masks significant differences between states with Tasmania and Western Australia significantly higher at average yields of 7.1 tonnes per hectare and South Australia lower at 4.2 tonnes per hectare.

There are a number of factors that influence yield including:

1. Planting density
2. Variety
3. Soil quality
4. Climatic conditions, especially chill factor
5. Weather events
6. Crop protection, such as rain cover and bird mesh.

There is also significant variation from season to season due to the biennial bearing tendency of some varieties and local weather conditions during the season. The industry consultation suggested that, on average, yields per hectare were generally poor in Australia relative to overseas production.

Cost of production and profitability

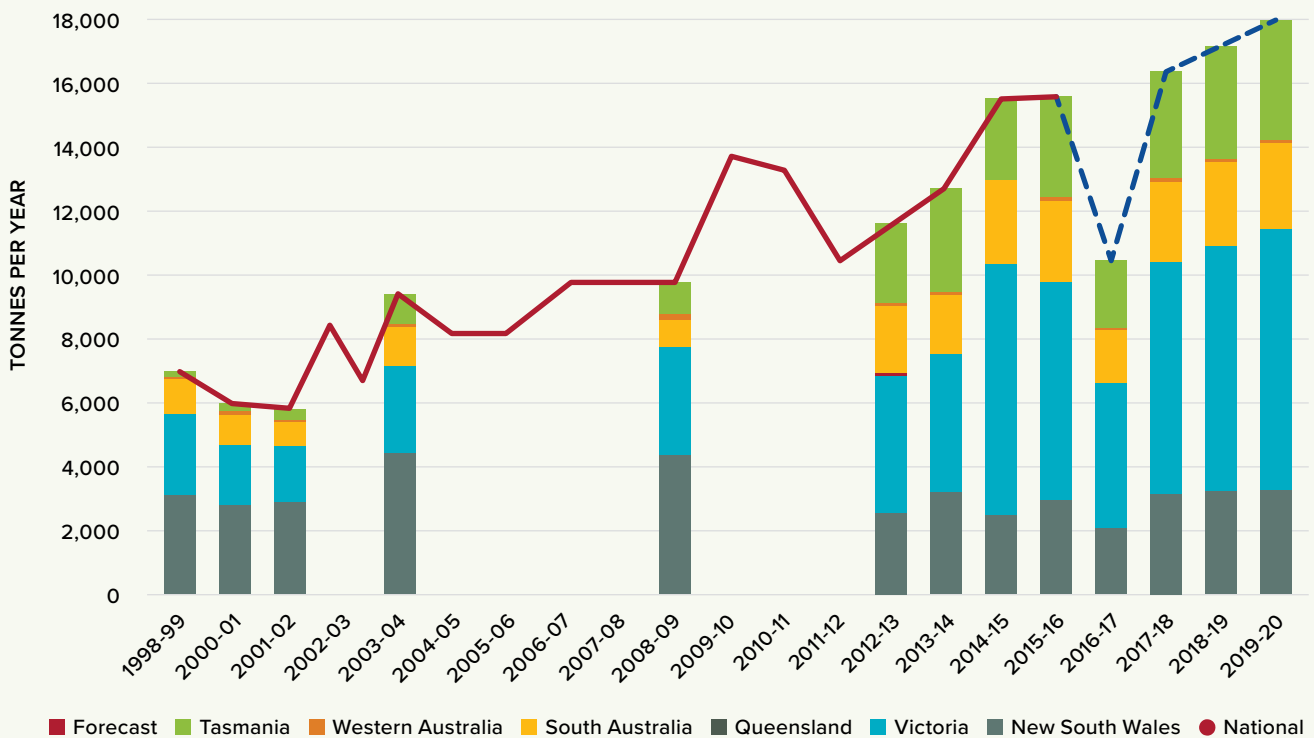
Despite an exhaustive search, data on cherry production and profitability was not available to support this industry analysis. This is recognised as a major information gap, which needs to be rectified during the life of this SIP. The data is important to provide industry with a profitability benchmark and inform their investment decisions. Given this, the best option is to substitute learnings from other tree crop industries, like apple, with similar cost components. Comprehensive benchmarking in apple indicates that Australia ranks amongst the highest cost of production in the world, and this is also likely to be the case with cherry. There are a number of reasons for this, including, Australia has a lower average yield in apple, but the most significant cost difference is likely to be the high labour costs incurred in Australian horticulture. Cherries are more labour intensive than apples, particularly with picking, pruning and grading/packing.

Australia's high award and penalty rates are seriously eroding profitability and global competitiveness in the cherry industry, as well as most other horticultural industries. Apart from labour cost, there are also issues around labour availability (especially given the political uncertainty around 417 and 457 visas) and skill levels. Consequently, the SIP needs to include programs that address labour challenges.

There are other parallels that can be drawn between cherry and other tree crop industries that have more robust data. Studies have shown that the cost of production and packing have risen exponentially in the past five years, whereas prices and returns have been relatively flat. In particular, electricity costs have increased significantly impacting pack house costs. The bottom line is that industry profitability has fallen. Again, this issue needs to be addressed in the SIP by supporting projects that increase returns whilst reducing input costs, principally by increasing yields of first grade fruit. It is particularly important that the industry supports projects to gain a better understanding of costs and profitability.

Figure 3: Australian cherry production by state and national – selected years

(Source: ABS data, FAOSTAT, Cherry Growers Australia, Fresh intelligence analysis, 2016)



Future production forecasts

Figure 3 indicates historic production levels up to 2014/15 and forecasts to 2020. The forecasts are based on the best available data on plantings and tree maturity from the ABS in 2015. There are apparent, significant gaps in the available historic data.

The data indicates that production in Tasmania and Victoria has been increasing steadily on the back of new plantings and improved marketable yields, whereas New South Wales has declined and Western Australia output has remained steady. The situation in South Australia is believed to be trending towards growth, albeit on a smaller scale than Tasmania and Victoria. South Australia will have significant opportunity for growth should the Adelaide Hills PFA initiative be successful.

It is important to note that the forecasts do not take into account future plantings. Industry indicates that there are significant new plantings in Tasmania in particular, as well as in Victoria and the Riverland of South Australia. Furthermore, much of the new orchard replantings are based on dense planting formats. Industry intelligence is that the nurseries providing the young trees have advanced orders well in excess of their capacity to supply for at least the next two years.

The industry has indicated that the 2016/17 crop will be substantially lower due to recent storms and wet conditions with the estimated harvest likely to be significantly reduced.

Table 4: Indicative cherry prices 2015/16

(Source: Sydney Market Reporting Service, 2015–2016)

	Price per kilogram	Sydney price per five kilogram carton	Import CIF
October 2015	\$13.00	\$65.00	
November 2015	\$5.64	\$28.21	
December 2015	\$5.40	\$27.00	
January 2016	\$7.54	\$37.70	
February 2016	\$10.43	\$52.13	
March 2016			
April 2016			
May 2016	\$23.00	\$115.00	\$12.58
June 2016	\$17.80	\$89.00	\$7.36
July 2016	\$14.60	\$73.00	\$7.33

Note: Boxes shaded green are imported product

Figure 4: Fresh cherries supply chain – year ending June 2015 (Source: Australian Horticulture Statistics Handbook 2014/15)

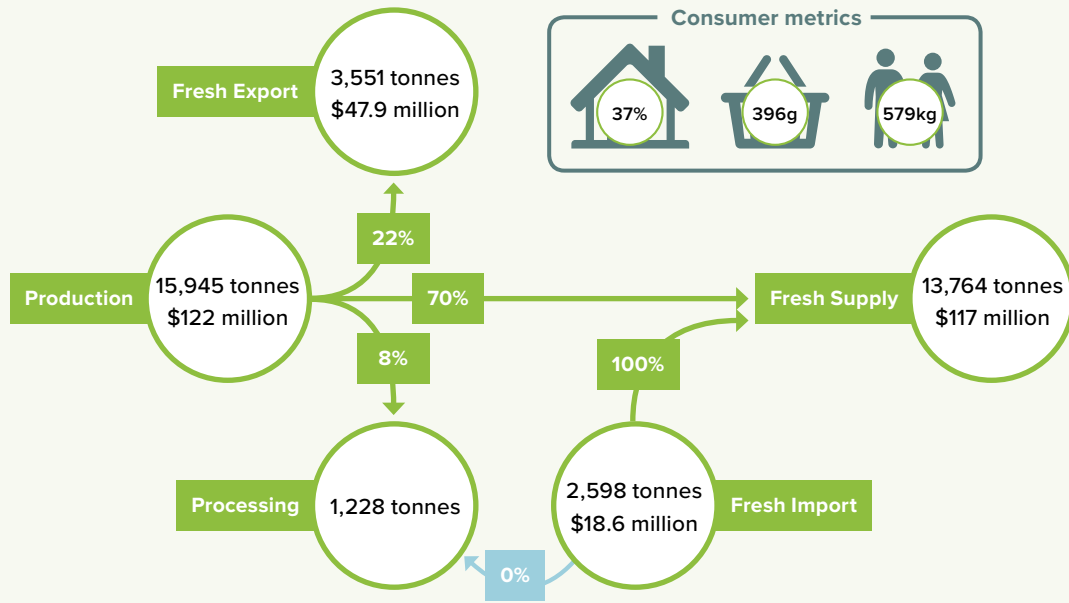
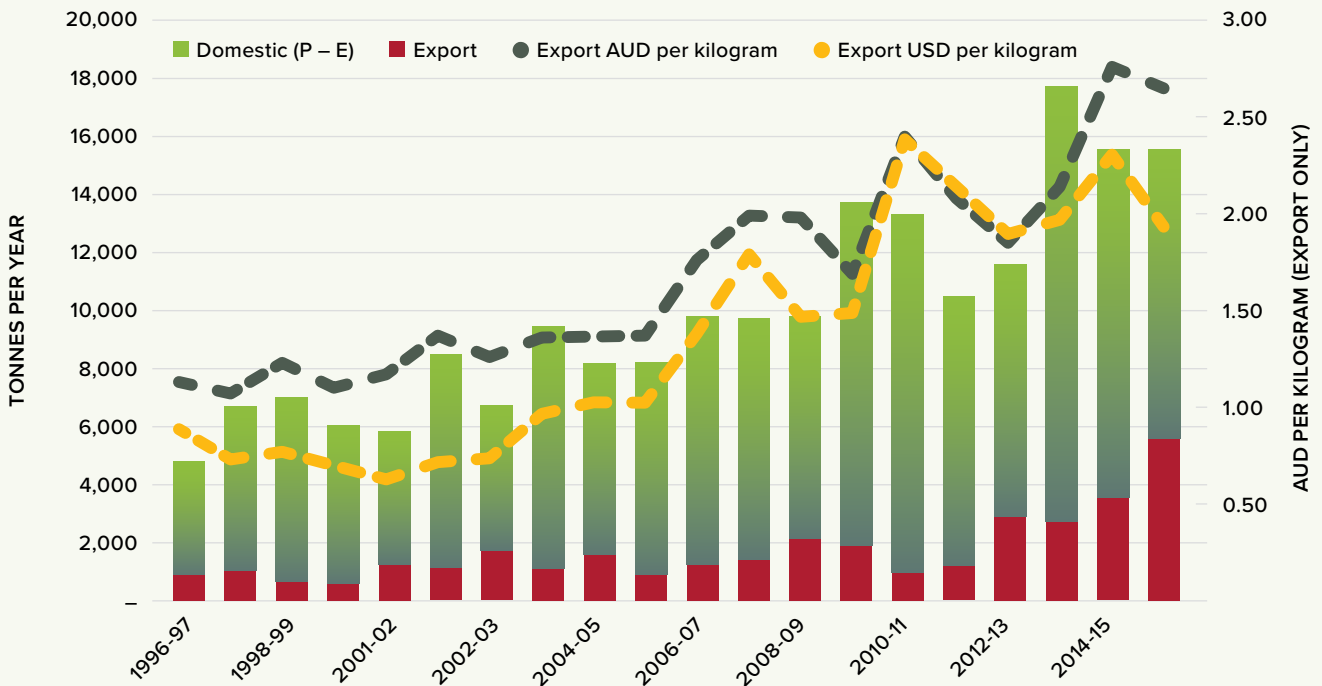


Figure 5: Australian cherry dispersal trends 1996/97 to 2014/15 (Source: ABS data; Fresh Intelligence analysis, 2016)



Cherry supply chain

Of the 15,945 tonnes of cherries produced in the 2015 season it is estimated that 70 per cent was sold in fresh form in the domestic market, 22 per cent exported and eight per cent used for processing (Note: Recent data on processing uses is unavailable – suggested are: preserves, juice and pulp). The domestic market also received 2,598 tonnes of imported fruit, mostly from the United States during Australia’s counter season as well as small quantities from New Zealand.

Australian cherry production and dispersal

Figure 5 provides a similar picture indicating that, although exports have grown strongly since 2012/13, the domestic market is the dominant channel. Interestingly, the dollar per kilogram returns from exports have grown steadily, whereas domestic returns are reported by industry to have fallen and have certainly not kept up with production costs increases.

Sales by channel

The following survey information is the best available indicator of fruit dispersal. It should be interpreted as indicative only as it is based on a survey response about where consumers purchased their cherries and is not an accurate channel breakdown.

Table 5: Purchase outlet choice of regular cherry buyers, 2014

(Source: Sprout Research, 2013/14 Cherry Industry Summary Report, 2014)

Place of purchase	Proportion
Supermarket	35%
Independent retailer	21%
Farmers market	10%
Farm-gate	7% in 2013 (data n/a 2014)
Other	4%

Only 35 per cent of respondents purchased cherries at supermarkets, which is a relatively low proportion compared to other fruit. The consultation for this SIP indicated that supermarkets are not able to elevate the perception of cherries as being a high value, special occasion fruit as they are for example in Asia. Because supermarkets treat cherries as any other short season fruit commodity such as mostly selling loose fruit without strong packaging or provenance messages, they have reached a price ceiling, particularly at the later part of the national season when Tasmanian fruit can achieve a premium in export markets.

The data in **Table 5** indicates that 10 per cent of respondents purchased cherries at farmers markets and a significant number purchase at farm-gate (seven per cent in 2013).

Almost certainly a proportion of the 'other' fruit is being sold through food service channels, much of which would be supplied through the independent retailer/provedore channel or direct from orchards. Without accurate channel data it is impossible to verify the exact channel dispersal across the full cherry harvest.

The industry consultation confirmed that increasingly, large and small cherry businesses alike are generating significant high margin income from tourism related activities, such activities include:

- Farm-gate sales (which are increasingly including formal cafés, entertainment and year round retail outlets)
- Income from value-added goods sold at farm-gate outlets, for example jams, beverages, café desserts, frozen fruit, ice-creams
- Farm tours and farm stays
- Farmers markets

- Fund raising projects
- Self pick activity
- Servicing In-bound tour operators.

Many cherry growing operations are located in picturesque tourist regions close to capital cities such as Yarra Valley, Murrindindi, Perth Hills and Adelaide Hills. Cherry blossom time is also becoming an attraction for Asian tourists in particular, who are then looking to buy the value-added cherry products during the off-season. A number of orchards have targeted this channel by investing in café and retail infrastructure in order to diversify their revenue sources and maximise off-season sales opportunities. Value-adding local, second grade fruit has been lucrative for some and the other advantage of direct sales is that the grower can retain the retail margin.

The industry consultation indicated that because growth in this channel has accelerated relatively recently, tourism skills are very weak across the industry and that more could be done to leverage this potentially high margin opportunity. Tasmanian cherry growers have used their state-based marketing co-investment funds (traditionally \$5,000) to support their annual Farm Gate Trail document, but marketing is only part of the need in developing this channel. The South Australian Government has also supported the production of a farm-gate tour guide (\$5,000).

Tourism Research Australia (TRA) has measured the recent growth in Australian agritourism and subsequently state and local government tourism bodies are targeting this market opportunity in their strategies because of its potential to create regional employment. The TRA research indicates that farm visits by both domestic and international tourists have grown by nine per cent and 11 per cent respectively between 2011 and 2016⁵. In a November 2016 web article, economic analysts Deloitte made the claim that, "*In some regions, the economic value of agritourism is likely to be bigger than the value of the primary produce.*" (www2.deloitte.com, 2016). Feedback from the industry consultation suggests that this could apply to cherry growing regions such as the Yarra Valley and Adelaide Hills where significant investment is occurring.

Domestic market consumer behaviour

As noted, the domestic market appears to be under-performing relative to its potential. Given that the domestic market accounts for 70 per cent of fresh cherry sales (as indicated in **Diagram 5**), this justifies some investment in the SIP. The industry consumer research indicates that only around one third of households purchase cherries and the majority of those purchase only once per year. Around 37 per cent of households purchase cherries with an average purchase per shopping trip of 396 grams and with indicative per capita consumption of 579 grams per annum.⁶ Although,

⁵ Tourism Research Australia, International and National Visitor Surveys, 2016

⁶ Australian Horticulture Statistics Handbook 2014/15

the majority of households only buy cherries once a year (44 per cent), Nielsen Homescan data indicates there is a surprising percentage of total buyers who buy cherries more than five times a year (nearly 15 per cent).⁷

The following summary points can be made from the Nielsen Homescan data:

- The largest cohort of cherry buyers are 'Light buyers', with the vast majority of consumers only buying once a year. 'Heavy buyers' purchase three or more occasions per year
- Christmas is the most important time of year for a cherry consumer with most households who purchase cherries buying in the four weeks leading up to Christmas
- Despite the price fluctuations throughout the season, heavy buyers are largely unaffected by price. However, light and medium buyers are more likely to purchase when prices are below \$12 per kilogram
- Households with heavy cherry consumption are more likely to be independent singles and senior couples.

A 2014 quantitative study by Sprout Research, *2013/14 Cherry Industry Summary Report* commissioned by Hort Innovation, highlights the following consumer purchase patterns:⁸

- 52 per cent of buyers surveyed did not purchase at all during the cherry season. Price was cited as the main reason for non-purchase (45 per cent), 34 per cent did not like cherries and 33 per cent did not consider purchasing cherries
- In 73 per cent of cases, cherries were an impulse purchase and for 27 per cent of respondents, a planned purchase
- 45 per cent of buyers purchased less than 500 grams and the same percentage 500 to 1000 grams. Only six per cent purchased more than one kilogram
- 'Price' and 'quality' were the dominant purchase drivers amongst those surveyed, although attractiveness of display and country of origin were secondary purchase factors
- The competitor set for cherries includes other stone fruits, berries and grapes
- The perceived health benefits of cherries noted by survey respondents included the following: essential nutrients, super food loaded with antioxidants, low glycaemic index measure and a natural source of melatonin.

This consumer research highlights the fact that cherries compete strongly against other summer season fruits and that there is a highly level of price sensitivity within a large cohort of consumers.

Consultation with the major supermarkets in preparing this SIP confirmed that Australian consumers had reached a price ceiling with Tasmanian cherries particularly and domestic supermarkets were no longer able to match the prices being paid in export markets. With the low harvest volume in the 2016 season, the consumer price ceiling will be tested further.

The supermarket buyers interviewed for this SIP indicated that currently, domestic sales slump immediately after Christmas. There would appear to be an opportunity to elevate the profitability of cherries by repositioning them in the domestic market as a new year gift tradition during the summer holiday season in the same way that Australian lamb has been heavily promoted as an Australia Day occasion product.

Given the predominance of impulse purchases as indicated, fruit quality and shelf presentation are likely to be critically important and therefore in-store category management must play an important role in the marketing strategy as suggested in this SIP.

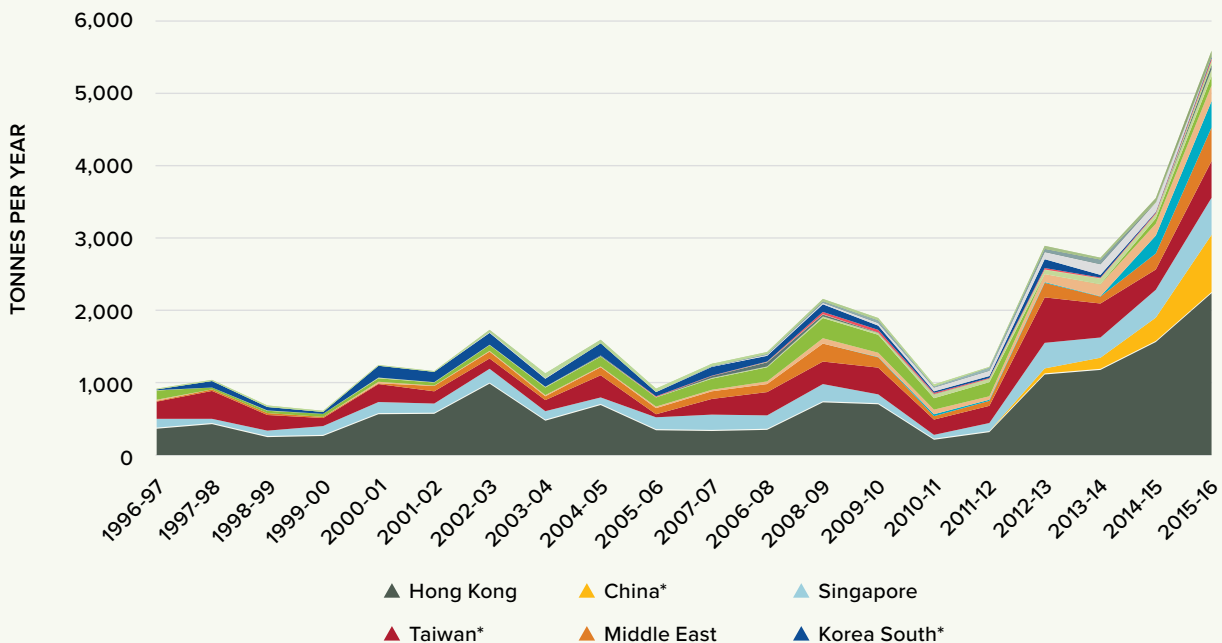
Australia's trade in cherries

As already noted, Australia is a very small player in the world cherry market, with less than one per cent of world production and less than 0.2 per cent of world exports in 2011⁹. Until recently, Australia has traditionally been a net importer of fresh cherries, with the majority of fruit coming from the United States in the Australian counter-season. In recent years, exports have increased and this balance of trade has shifted. For the year ending June 2015, Australia imported 2,598 tonnes of fresh cherries and exported 3,551 tonnes¹⁰.

Exports across the board have increased exponentially over recent years, partially because of the improved exchange rate but largely because Tasmanian fruit achieved airfreight market access into mainland China in 2014. Exports into markets other than China are sensitive to the exchange rate.

It is debatable whether the counter-seasonal imports from the United States are harmful or beneficial to demand for Australian cherries. One point of view is that the counter season availability takes away the seasonal 'wow' factor of cherries and the variable quality (due to time in transit) may harm consumer perceptions of cherries. The other argument is that the United States product maintains consumer awareness of cherries at a time when they are not competing with local product. While there is not a great deal that the SIP can do to respond to imports, it is important to understand their impact in the marketing context.

7 Hort Innovation calculation based in part on Nielsen Homescan service for the Cherry category (client defined) for the week ending 19 March 2016 for the Australia market. Copyright ©2016, The Nielsen Company
 8 *2013/14 Cherry Industry Summary Report*, Sprout Research, 2014, commissioned by Horticulture Innovation
 9 Horticulture Australia and Cherry Growers Australia Inc. *Australian Cherry Strategic Investment Plan 2012-2017*
 10 Horticulture Innovation Australia. *Australian Horticulture Statistics Handbook 2014/15*

Figure 6: Fresh cherry exports by market 1997 to 2016 [20 years] (Source: ABS data via GTA; Fresh Intelligence analysis, 2016)

Exports

As illustrated in **Figure 6**, Australia exported 5,597 tonnes of cherries in the 2015/16 season. This tonnage was valued at \$75.9 million¹¹. Exports have grown slowly and steadily up until the 2012/13 season when they increased dramatically. Again, this increase was driven by the demand from China and the favourable exchange rate. Since 2014 exports have accelerated further once airfreight market access was gained for Tasmanian fruit. Despite the granting of airfreight market access to Mainland China, industry reports that there are still larger quantities of cherries being exported to Hong Kong. Counterfeit fruit remains an issue and could damage perceptions of Australian quality and brands. Some industry members are taking independent action to address this through QR codes and other strategies.

Other significant export markets for cherries are Taiwan, Singapore, South Korea and the Middle East.

Tasmania and Victoria are the dominant exporting states for cherries followed by New South Wales (**Figure 8**). Tasmania has enjoyed strong growth since gaining airfreight market access into China in 2014, whereas the other states have recorded relatively flat exports.

Figure 6 highlights the critical importance of gaining airfreight market access into China. Without the Chinese trade, exports would have been much flatter with obvious implications for domestic returns.

Figure 7 amplifies the importance of the North Asian region, particularly for Tasmania where China, South Korea and Taiwan are the dominant markets. **Figure 7** also reflects the fact that Australia had a small, but profitable, market into Russia, which was lost when the trade embargo was introduced (August 2014). The prospects of this market opening up in the foreseeable future are remote.

Tasmania and Victoria are the dominant exporting states for cherries followed by New South Wales. Tasmania has enjoyed strong growth since gaining airfreight market access into China in 2014, whereas the other states have recorded relatively flat exports.

¹¹ Source: ABS data via GTA; Fresh Intelligence analysis, commissioned for this SIP, 2016

Figure 7: National cherry export by region 2004 to 2016 (Source: ABS data via GTA; Fresh Intelligence analysis, 2016)

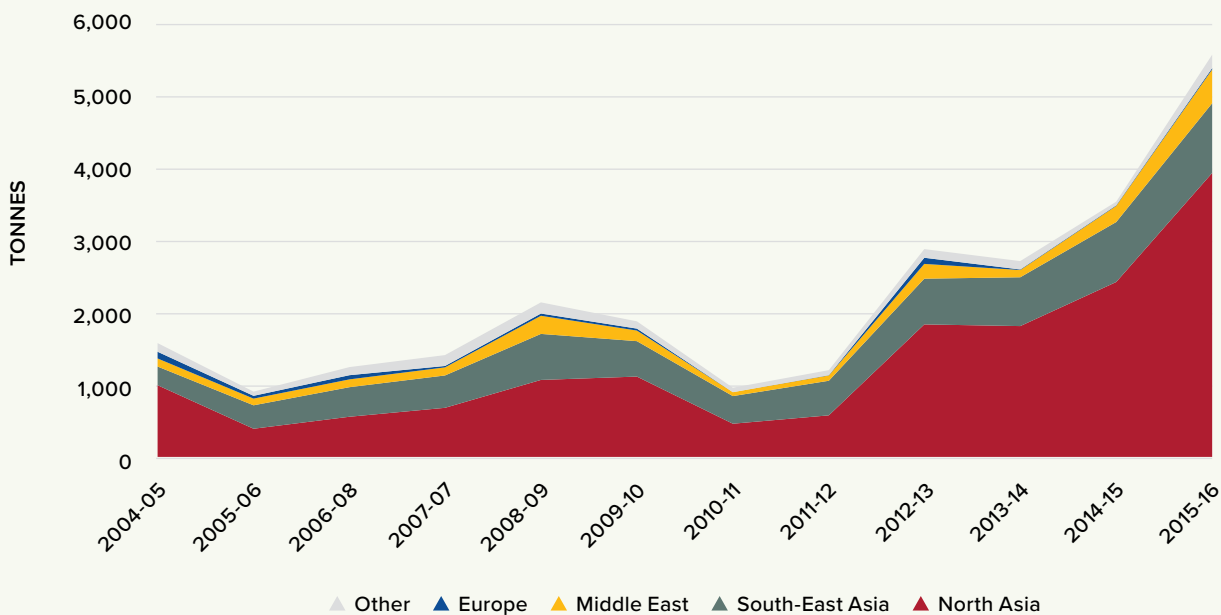
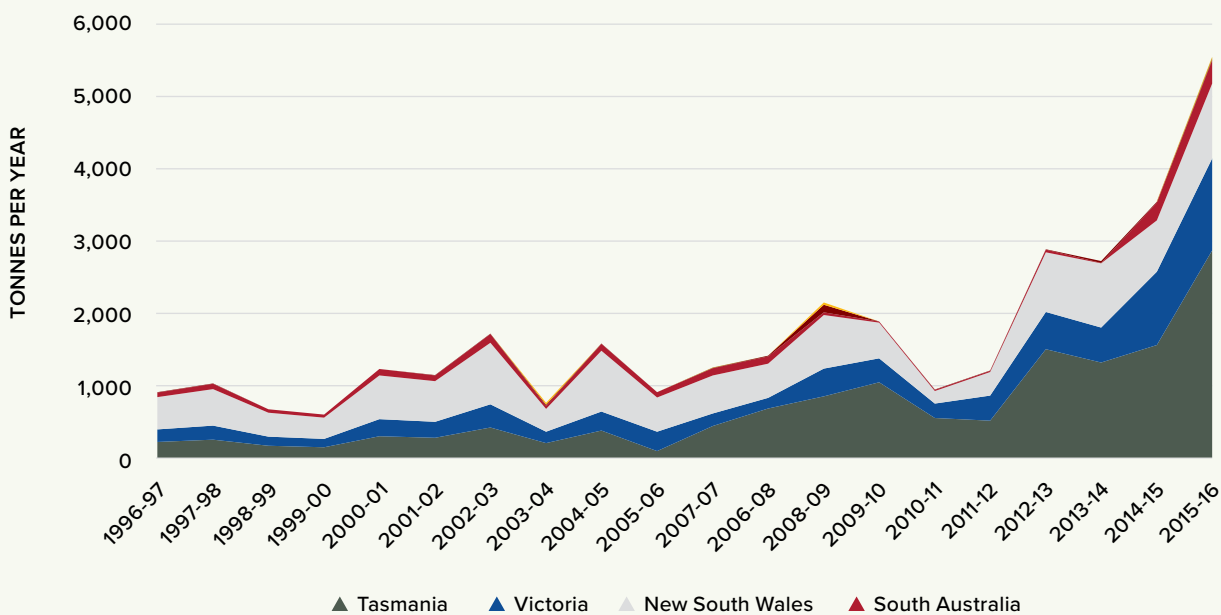
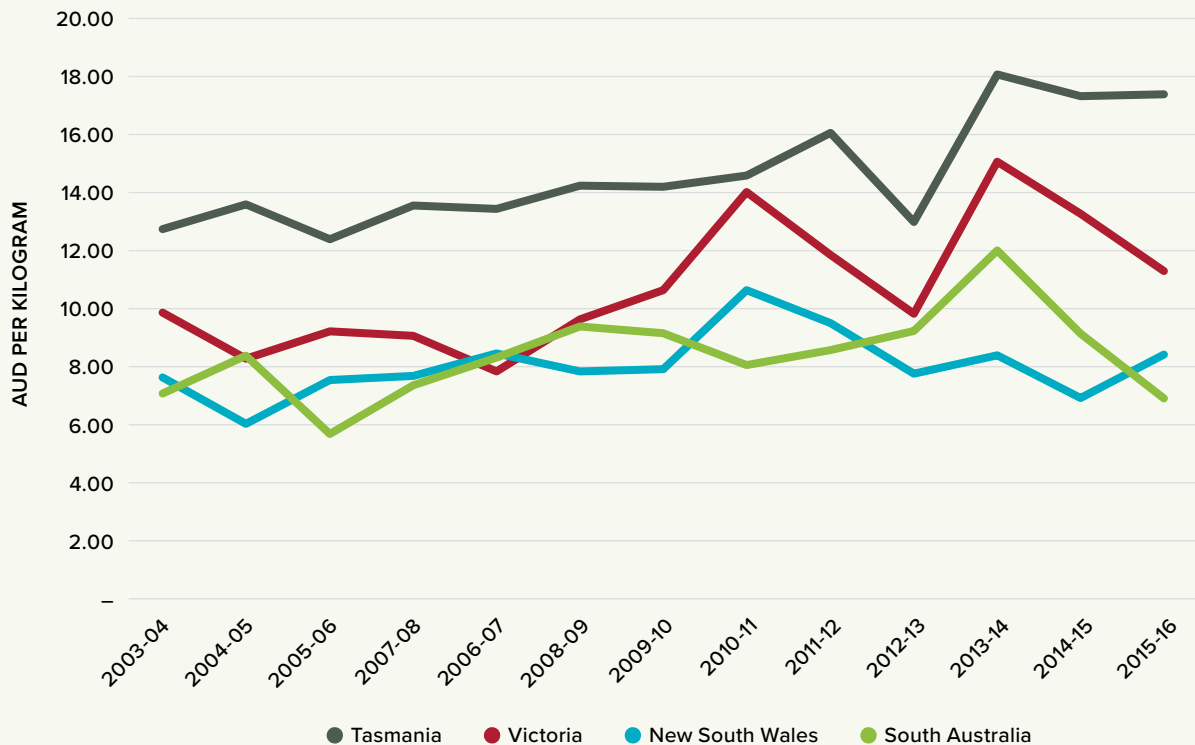


Figure 8: Fresh cherry exports by state 1997 to 2016 (Source: Fresh Intelligence commissioned for this SIP, 2016)



A more detailed breakdown of export destinations for the 2015/16 season is included in **Appendix 3**. Not surprisingly, it shows that Tasmanian exports were heavily oriented towards regulated markets whereas the other states were mostly exporting to the more competitive and price sensitive unregulated markets. Victorian and New South Wales exports were heavily focused on the lower value South-East Asian and Middle Eastern markets. New South Wales growers exported some product into China by sea with cold treatment.

Figure 9 indicates the average returns Free On Board (FOB) (refer to International Commercial Terms) achieved for exports by state. Again this graph highlights the attractiveness of the China market, which in 2014/15 season peaked at \$18 per kilogram, whereas the mainland states that do not have air access achieved a significantly lower average return. Part of this difference may be explained by the fact that Tasmania achieved premium pricing in markets such as China.

Figure 9: Recorded prices for exports (Free On Board – AUD) by state 2004 to 2016*(Source: Fresh Intelligence commissioned for this SIP, 2015)*

Cherry export forecasts

The cherry industry has ambitious plans to exponentially increase exports as indicated in **Figure 10**. These plans are based on a market-by-market assessment of the opportunities. The industry forecasts that exports will grow to 12,000 tonnes by 2020/21, which represents a 340 per cent increase over the 2015 levels. This equates to a 16.5 per cent year-on-year growth over a five year period. Industry reports that the bulk of this development is occurring in Tasmania and Victoria. The assumptions underpinning these forecasts are unclear in the industry reporting, but the consultation suggests that it is based on the expectation of gaining workable market access protocols into regulated markets, together with strong growth in the open markets.

Critical success factors for export

The achievement of industry's ambitious export growth targets will be dependent on a number of critical factors, the key ones being:

1. The achievement of workable market access protocols into the regulated markets, particularly in the North Asian region. Realistically for Australia, given the strong competition from Chile (which is a lower cost producing country), workable protocols means airfreight access
2. The ability to increase production volumes of export grade fruit to the levels indicated in the forecasts to service these markets (note that export grade fruit is often a higher quality than domestic quality as it has to withstand transit time)

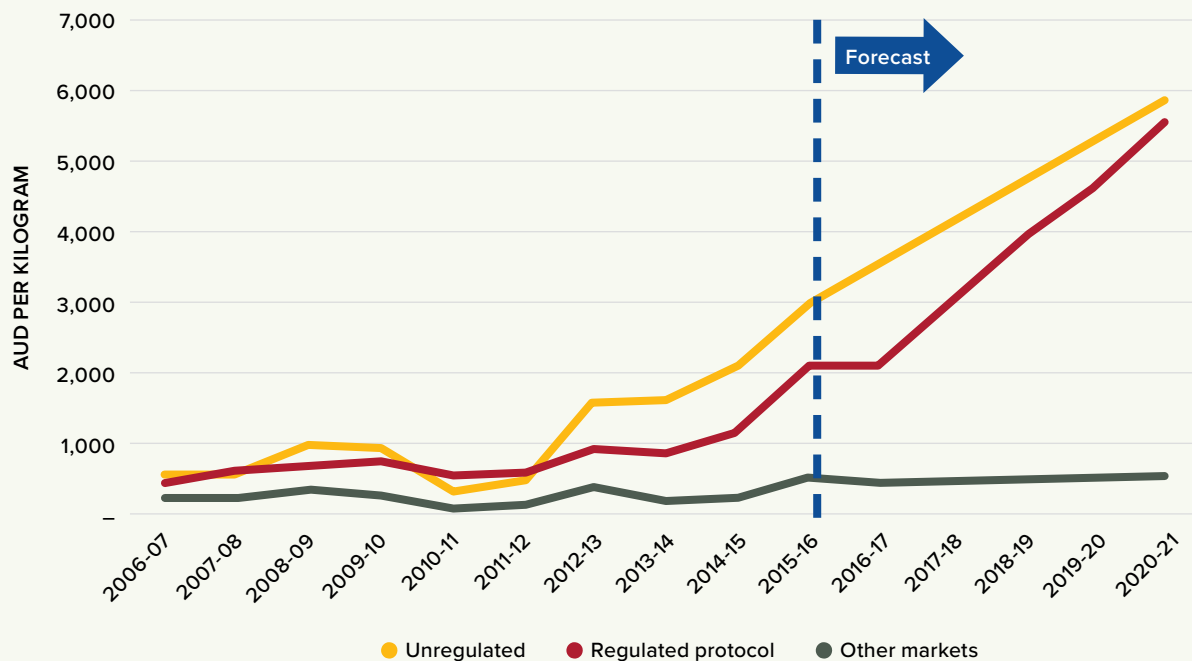
3. The Australian dollar staying in a favourable range, which in principle means 0.75 US dollars or lower
4. The ability to grow the varieties and produce products and packaging that meet the expectations and preferences of the consumers in each target market
5. The ability to cut (or at the very least control) the cost of production
6. A balanced and holistic export market development program
7. An export strategy with market diversity
8. The capital and business stability needed to trade in the riskier export marketplace
9. A significant ramping up of export readiness and capability across the industry.

Threats to achieving export growth

The achievement of the volumes indicated in the forecasts could be derailed by a number of factors including:

- The lack of progress with market access negotiations for mainland operations
- The appreciation of the Australian dollar to uneconomic levels
- Stronger competition from other southern hemisphere countries

Figure 10: Export forecast summary 2016/17 to 2020/21 (Sources: Global Trade Atlas based on ABS data to 2015/16; Cherry Industry Export Plan 2016; Fresh Intelligence analysis. Cited in Australian Cherry Industry: Export Development Forecast, Fresh Intelligence Consulting, 2016)



- The advantage that Chile will now have with airfreight access
- A serious pest or disease outbreak
- Unfavourable weather conditions in the face of climate change
- Product of poor quality damaging the Australian cherry brand
- A serious food safety breach particularly around MRLs
- The abrupt closure of a key market for political reasons
- Alternative channel imports or counterfeit products erode the premium being achieved for directly sourced products and damage the Australian brand.

To the extent possible, the SIP needs to do what it can to mitigate these export risks.

The previous analysis has highlighted the critical importance of achieving workable market access protocols for the mainland growers. Realistically, this means achieving workable protocols that will allow fruit to be exported by air within a few days of harvest. Onshore cold treatment is considered by the industry to be on the whole unworkable.

Data gaps

After an exhaustive interrogation of the accessible data bases followed up with enquiry with industry, the authors have identified some significant data shortcomings, which have compromised the situation analysis. In particular, the following significant gaps are highlighted:

1. Accuracy of the current and future production capacity, including hectares planted, age of trees and yields
2. Detailed information on cost of production, business profitability and profit drivers
3. Dispersal data by market channel.

Environmental scan

The purpose of the environmental scan is to identify the factors in the external operating environment that could impact the industry in terms of both opportunities and risks. The analysis is based on a PESTEL framework that systematically reviews the external market forces through the following lenses:

- Political
- Economic
- Social
- Technological
- Environmental
- Legal.

Political impacts

FACTOR	IMPLICATIONS	RISK/OPPORTUNITY
1. Domestic regulation		
Backpacker tax	Potential impact on casual labour supply	<i>Higher labour costs</i>
Review of horticulture award	Increased penalty rates	<i>Higher labour costs</i>
Introduction of tax on high sugar foods	Increased demand for fruit and other naturally sweet foods	<i>Marketing opportunity</i>
2. Global geopolitics		
South China Sea tension	Disruption to world trade resulting in displaced product exported to receptive markets	<i>Disruption to trade/ changed global trading patterns</i>
Rising political force of China	As the world's largest economy, China's sphere of influence is growing	
Brexit	Depreciation of English pound	
United States election results	Growing protectionism in trade	
Russia remains on the outer	Opportunities for Australia are unlikely to unfold in the medium term under the current regime	

Economic impacts

FACTOR	IMPLICATIONS	RISK/OPPORTUNITY
1. Domestic economy delicately balanced		
High levels of household debt	Reduction in consumer spending on impulse lines	<i>Reduced purchase of discretionary items such as cherries</i>
Increasing current account deficit	Strong likelihood that Australia's AAA credit rating will be downgraded	<i>Erosion of industry profitability at every level of the supply chain</i>
Housing market bubble	Shift to lower value products	<i>Downward pressure on the AUD</i>
Economy not responding to low interest rates	If central banks change strategy and increase interest rates, the cost of borrowing will increase and credit become harder to secure	
Heavy reliance on Chinese economy	Downturn will impact on economy	
2. Rising costs		
Rising costs of doing business	Difficult to pass on price increases in current environment	<i>Reduced profitability and viability of farming businesses</i>
3. US economy is recovering		
Employment rate rising	USD likely to appreciate	<i>AUD likely to depreciate again which will deter United States imports</i>
GDP growth improving	Increased local demand	<i>Less exports</i>
Increased business confidence	Greater investment in capacity	<i>Depreciation of AUD</i>
4. European economy		
Brexit	English pound is weakening	<i>Increased landed price of Australian cherries to the United Kingdom</i>
Major economies in Europe delicately balanced	Further devaluation of Euro against AUD	<i>Potential to reopen counter seasonal markets in Europe if access can be obtained</i>
5. The Asian century		
Growing geopolitical influence of China	Issues in the South China sea may escalate in the short term	<i>Disruption to trade at short notice</i>
Growing middle class across Asia	A greater proportion of income is being spent on luxury food as	<i>Growing demand for premium fruit</i>
Growing Asian tourism	Australia's agritourism offer is in demand	<i>Opportunities for income diversification for growers in tourist friendly areas</i>
6. Food deflation		
<p>Food prices have declined in real terms in most categories:</p> <ul style="list-style-type: none"> • Global oversupply • Supermarket power • Impact of cheap imports • Growth of private label 	Returns to food companies at every level of the supply chain are not keeping up with cost, causing declining profitability	<i>Downward pressure on domestic cherry prices</i>

7. Supermarket dynamic		
Dominance of Coles and Woolworths is under threat from Aldi, Costco and new entrants	Aggressive price war	<i>Increased downward pressure on selling prices</i> <i>New opportunities in Aldi and Costco</i>
Growth of private label	Erosion of brand loyalty and brand power	<i>Increased imports</i> <i>Less brand loyalty</i>
Rising trading terms	Supermarkets apply fast moving consumer goods (FMCG) trading terms to fresh suppliers	<i>Increased margin pressure on bigger producers</i>
8. Concentration among global agribusiness supply/ technology companies		
Recent merger and acquisitions: <ul style="list-style-type: none"> • Bayer and Monsanto • Dow and DuPont • China National Chem Corp and Syngenta 	Inputs and technology will become more expensive and availability more restricted Shift from chemicals to genetics to control pest and disease	<i>Higher import costs</i> <i>Australia may get secondary access to latest technology</i>
9. Sea freight rationalisation		
Overcapacity in global sea freight has led to bankruptcy amongst shipping companies such as Hanjin	Rationalisation within the sea freight sector Increased shipping costs	<i>Increased freight costs will deter imports</i> <i>Exports less competitive</i>

Social impacts

FACTOR	IMPLICATIONS	RISK/OPPORTUNITY
1. Social licence		
Changed community attitudes empowered by social media are demanding more accountability from corporate Australia	Greater accountability required in: <ul style="list-style-type: none"> • Use of chemicals • Labour practices • Workplace safety • Food miles • Environmental sustainability 	<i>Adverse social media reaction can be potentially extremely damaging</i>
2. Provenance		
Consumers are interested in where their food comes from: Where was it grown/where was it made/who made it and how?	Pressure for more detailed food labelling on provenance Pressure for increased whole-of-chain traceability, particularly in light of fresh food safety scares Growth of organics	<i>Added cost and regulation burden</i> <i>Increased support for locally grown</i>

3. Declining national health		
<p>Australia is in the middle of a health epidemic:</p> <ul style="list-style-type: none"> • Obesity • Type 2 diabetes • Cardiovascular disease • Increased cancer rates 	<p>Increasing pressure by governments to change lifestyle and eating habits because of the spiralling health costs</p>	<p><i>Could provide opportunity for cherries based on nutritional claims around weight reduction and cholesterol reduction</i></p>
<p>Growing concern around sugar and fructose</p>	<p>Reduced consumption of processed snack foods</p> <p>High fructose levels in fruit could come under the spotlight</p>	<p><i>On balance will probably favour consumption of cherries as a seasonal snack</i></p>
<p>Increased interest in functional foods</p>	<p>Cherries rate well in cholesterol lowering and anti-aging properties</p>	<p><i>To market the functional properties of cherries in value-added products</i></p>

Technological impacts

FACTOR	IMPLICATIONS	RISK/OPPORTUNITY
1. Emerging technologies		
<p>Game changing technologies:</p> <ul style="list-style-type: none"> • Sensing • Big data • Robotics/Automation • Drones • Radio frequency identification (RFID) • Near infrared spectroscopy (NIR) • Smart packaging 	<p>Will drive efficiency and speed of change</p>	<p><i>Opportunity for Australia to improve its global competitiveness by reducing labour cost or increasing productivity and yield</i></p> <p><i>Failure to keep up with technology will increase import threat</i></p>
2. Disruptive technologies		
<p>IT is allowing the entry of disruptive technologies:</p> <ul style="list-style-type: none"> • Smartphone connectivity • Direct-to-consumer and B2B 	<p>Disruption to traditional business models</p> <p>Increased competition</p> <p>Regulators cannot keep up with the pace of change</p>	<p><i>Increased competition</i></p> <p><i>Greater scrutiny and accountability</i></p>

Environmental impacts

FACTOR	IMPLICATIONS	RISK/OPPORTUNITY
1. Climate change		
Less reliable rainfall	More reliance on water market	<i>Higher cost of water and pumping</i>
Higher temperatures	More harvest failures Changed pest and disease profile	<i>Higher risk of pest and disease issues Need for heat resistant varieties</i>
More extreme weather events	More catastrophic harvest failures	<i>Increase in isolated summer storms with heavy rain/hail/wind could result in harvest damage</i>
2. Water cost and availability		
Impacts of climate change: <ul style="list-style-type: none"> • Less run-off • Environmental water buy-backs • Lowering of underground water table • Declining water quality • Stricter Capital Market Authority (CMA) regulations 	Restricted water availability Higher cost of water	<i>Risk of tree loss during severe drought Reduced yields</i>

Legal impacts

FACTOR	IMPLICATIONS	RISK/OPPORTUNITY
1. Increased red tape		
Increased red tape and compliance burden: <ul style="list-style-type: none"> • Increasing public pressure • Political correctness • Social accountability 	Increased cost of doing business	<i>Threat to viability of marginal agribusinesses Reduces Australia's competitiveness</i>
2. Food labelling regulations		
Tighter food labelling and consumer protection regulations	Stricter regulations and accountability on food labelling from government	<i>The trend towards more packaged fruit sales will mean pack-houses may consolidate as some cannot afford the capital to invest in packaging</i>

Strategic risk

The following strategic risks to industry have been identified, together with the required R&D response.

STRATEGIC RISK FACTOR	R&D RESPONSE
Increased Qfly and Medfly outbreaks	<ul style="list-style-type: none"> Monitor and response plan
Short- and long-term risks associated with climate change	<ul style="list-style-type: none"> Improve farm management skills Address through variety selection
Appreciation of the Australian dollar	<ul style="list-style-type: none"> Reduce costs
Disruption to trade with China	<ul style="list-style-type: none"> Develop export strategy based on market diversification
Loss of growers due to unprofitability	<ul style="list-style-type: none"> Improve global competitiveness
Food safety incident around MRLs	<ul style="list-style-type: none"> Monitoring and chemical management systems
Biosecurity incursion	<ul style="list-style-type: none"> Monitoring program Risk plan

Operating environment

The cherry industry SWOT analysis	
Strengths	<ul style="list-style-type: none"> The ability to produce high quality cherries Some state-of-the-art packing facilities Geographic spread extends the length of the season Close proximity and good connectivity to Asian growth markets with a southern hemisphere seasonal advantage Recognised pest free and Fruit fly free areas (Tasmania and Riverland, South Australia) Global reputation for safe food with integrity in supply chain
Weaknesses	<ul style="list-style-type: none"> Higher input costs relative to competing countries, particularly in labour Lack of workable market access into the higher returning markets for mainland fruit Limited number of businesses with the scale, resources and expertise to be viable exporters and the general lack of an export culture Lack of industry cohesiveness and engagement Quality and consistency of export packaging
Opportunities	<ul style="list-style-type: none"> To take advantage of the growing demand from the Asian markets Improve price competitiveness driven by the recent signing of FTAs in China, South Korea and Japan The potential to leverage Australia's horticultural levy system to grow skills To de-commoditise and reposition cherries in the domestic market as a luxury item, for example, New Year gift giving
Threats	<ul style="list-style-type: none"> More frequent and damaging adverse climatic events due to climate change Global oversupply and dumping in the Australian market eroding prices Appreciation of the Australian dollar which impact on price competitiveness in the more price sensitive markets Increasing competition from other Southern hemisphere producers particularly Chile Abrupt disruption to the China market and deterioration of market access conditions in key markets Food safety, particularly with respect to MRLs Chilean air freight access to China.

Performance issues

Following a process of filtering the previous strategic analysis and findings from the industry consultation, the following factors have been identified as being the most critical performance issues or so-called 'burning issues' facing the cherry industry:

1. Production (both in Tasmania and on the mainland) is on a growth trajectory that is likely to exceed demand
2. Declining industry profitability because selling prices are not keeping up with the cost of production
3. The need to drive profitable export demand in key markets where there is market access to relieve the likely oversupply in the domestic market
4. The increasing competitive set during the peak season because of Chile's growth and performance
5. The need for strong professional and business skills to face the challenges ahead
6. The domestic market is oversupplied during the peak of the season, which is depressing prices
7. The need to gain workable market access protocols for mainland growers
8. The lack of accurate intelligence relating to current and future supply and demand
9. The lack of industry cohesion and a shared view on issues of critical importance to future industry prosperity
10. The pivotal issue of labour availability, cost and skill levels
11. The consultation suggests that inconsistent fruit quality is impacting the consumer eating experience and consequently profitability at every level of the supply chain
12. The need to maintain global competitiveness by continually reducing costs to prepare for times of higher exchange rates.

2

SECTION TWO

Cherry industry outcomes

Industry outcomes

For reasons explained in the previous analysis, the strategic imperative of the R&D investment needs to be on aligning production capabilities and capacity with new market opportunities. Therefore, the intent of this SIP and its outcomes is to create a profitable cherry industry through servicing a greater diversity of markets and channels with appropriately targeted products.

The SIP is structured around four outcomes, which directly respond to the strategic need identified in the list of performance issues.

OUTCOME 1

Increase the unit value of fruit sold onto the domestic market to improve industry economic sustainability

- With the forecast increase in production over the next few years and the relative flatness of the domestic market, there is a very high possibility that unless there is an effective intervention, prices on the domestic market will decline further to the point of negative returns for many businesses. Prices are particularly weak immediately after Christmas. An effective domestic marketing strategy is therefore needed to drive demand right through peak harvest. While cherries are considered a luxury fruit (often a gift) in Asian cultures (domestic Asian communities included), for many Australians they are just another fruit. There is a marketing opportunity to reposition cherries as a luxury fruit and create a new year gift tradition on the domestic market to extend the season.
- Given that supermarkets are the largest domestic channel, it is important to work closely with them on category management to ensure effective merchandising of consistently high quality fruit during the peak season to maximise the impulse purchase factor and ensure the consumer is receiving consistently high quality fruit. Through promotional activities, supermarkets have the ability to move excess seasonal stock very quickly.
- Cherries lend themselves to direct-to-consumer channels including 'you pick', roadside stalls, on-farm cafes or retail outlets, farmers markets and on-line. More emphasis is needed on building industry capability around these channels as they present an opportunity to maximise margin, diversify income sources and spread cash flow in a highly seasonal industry. The growth of alternative channels such as agritourism cannot be ignored in view of growing international tourism to Australia. The wine industry has successfully diversified into this channel during times of low grape prices. However, success in this channel requires completely new skill sets for the industry.
- In some seasons there are large quantities of fruit unsuitable to be sold as first grade. More profitable market outlets are needed for this product. Investment in development of new products and marketing opportunities is therefore an important priority.
- There is some evidence to indicate that the consistency of the quality of cherries at the point of sale is limiting purchase in the domestic market. It is therefore important to get a better understanding of the causes and develop a whole of supply chain improvement strategy. There is a view that retailing loose fruit is a key contributor to quality so packaging R&D could play a role in this.
- There is resistance from some in the industry to invest in packaging capability, yet this presents an opportunity to value-add and reduce shrinkage in the supply chain, which is ultimately a cost to the grower. Skills in the industry are mixed in packaging and understanding selling messages, for both export and domestic markets.

OUTCOME 2

Export markets have grown in volume to leverage the forecast increase in production over the next five years

- Realistically the domestic market cannot absorb the forecast increase in production over the next five years, without seriously depressing prices and eroding industry profitability. It is therefore essential to take advantage of the growing demand for cherries in nearby export markets.
- The biggest barrier (particularly for the mainland) to building exports currently is the lack of workable market access protocols, particularly to the more profitable North-East Asian markets. The SIP needs to include elements to ensure that the scientific evidence required to validate the preferred market access pathway is conducted in a timely manner.
- It is essential that the industry develop an integrated, holistic, balanced export market development strategy, beyond just gaining market access. This must include export capability building, supply chain development, promotion and marketing and effective market intelligence.
- An online export registration program of the type currently used by the citrus industry would streamline the current process and save cost.
- It is particularly important that the market development strategy provides a balance across multiple export markets to diversify risk.
- Industry needs to remain vigilant around pest and disease issues and biosecurity management as part of a market access improvement strategy.

OUTCOME 3

Reduce costs at every level of the supply chain to improve global competitiveness

- Australia has a significantly higher cost of production relative to other southern hemisphere competitors, largely because of labour costs, but also input costs. Continued focus therefore needs to be given to identifying opportunities to reduce cost. In respect to labour cost reduction, the SIP is limited in how it can respond to this issue. In addition to R&D investment in mechanisation, capability building in leadership and HR skill is required.
- Robotics and automation provide only one means of reducing labour costs. Although there are prototypes in advanced stages of development, these are some way off being commercially viable. Investment is therefore required to further develop these labour saving technologies. There is an opportunity to leverage the Hort Innovation investment in the automation program at the University of Sydney by developing a cherry specific research module. It is also important that the industry prepares itself for automation particularly through appropriate orchard planting.
- The industry consultation has identified that there is scope to improve productivity through more effective extension activity. In particular, there is a need to leverage world's best practice from the larger cherry growing countries. The Future Orchards® program, which has been highly successful in improving the productivity in the apple and pear industry, provides a useful extension model to follow. Many cherry growers who also grow apples are familiar with this program and are keen to see a similar extension program for cherries.
- Cost effective pest and disease management will remain important areas of cost control.
- Improved understanding of global best practice in raincover would benefit many in the industry who are contemplating this large investment to improve fruit quality.
- A whole-of-supply chain view will be critical to achieving cost reductions as savings will need to be made in every aspect of cherry production and marketing to make up for the cost disadvantage relative to global competitors.

OUTCOME 4

A culture of continuous improvement has been embedded, improving industry professionalism and profitability

- With the forecast increase in production in other southern hemisphere countries, (especially Chile) it is important that the Australian industry improves its international competitiveness and at the very least, keeps up with the gains made by competitors. The industry cannot rely on Australia's proximity to markets to be competitive in the longer term.
- The analysis presented in the context section of this plan has identified a lack of accurate information about production, both on current and future plantings and yields, etc. This data gap is compromising sound decision-making within the industry and needs to be rectified by the introduction of an effective production and forecasting model.
- Another major gap identified is a lack of a business management skills including a comprehensive understanding of supply chains, cost reduction, marketing, business profitability and the profit drivers within cherry production and packing business operations. Research is needed to better understand costs and profitability to drive improved decision-making and change. Benchmarking studies have been proven as an effective industry change management tool in other agrifood industries.
- With the growing sophistication in the business environment, plus the fact that the Australian cherry industry will progressively become export-oriented, it is important to nurture the leadership potential of young and up-and-coming talented people within industry, supporting and mentoring them to participate in available global management development programs and overseas study tours (some of which are covered in Pool 2).
- The industry consultation also identified the need for skill and career development in areas such as: orchard and pack house management, export, marketing, HACCP systems and traceability, supply chain management and other professional skills. In larger corporate businesses the need for these skills is at the 'new manager' level while in family businesses it could be with the next generation family members. This could be achieved by delivery of specialised study modules and short-course residential programs. These could be run across all temperate fruit industries to better leverage all horticultural levies.

3

SECTION THREE

Cherry industry priorities

Industry investment priorities

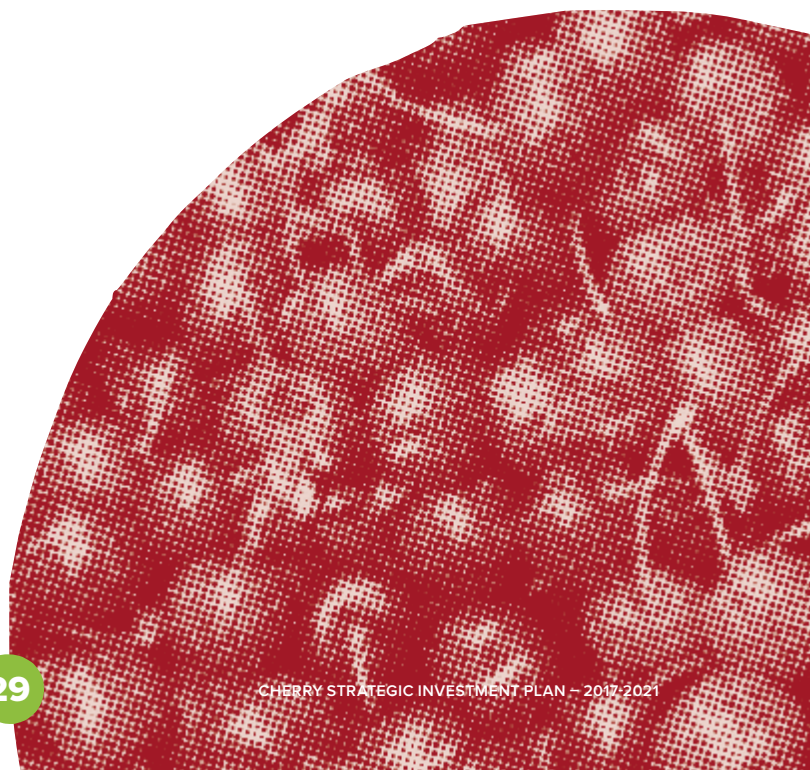
Strategies and possible deliverables associated with each industry outcome are provided in this section. The ability to deliver on all the articulated strategies (and investments) will be determined by the ability of the statutory levy to provide the resources to do so.

OUTCOME 1 – Increase the unit value of fruit sold onto the domestic market to improve industry economic sustainability	
STRATEGIES	POSSIBLE DELIVERABLES
1.1 Develop a domestic marketing strategy focused on extending the seasonal demand into the new year and repositioning cherries as a luxury and gift fruit	Marketing strategy
1.2 Engage with supermarkets to improve category management	Category management plan with major supermarkets
1.3 Conduct R&D and industry training on packaging technology and messaging	Project on packaging development and training
1.4 Scope out opportunities to develop profitable markets for secondary quality fruit for value-adding	Food technologist study on options for value-added products
1.5 Improve marketable yield while still delivering on consumer eating experience	Global literature search on health claims
1.6 Initiate program to identify nutritional attributes of cherries to support marketable health claims	Industry capability building project on agritourism
1.7 Build industry capability in agritourism and other direct-to-consumer marketing models	

OUTCOME 2 – Grow export markets to leverage the forecast increase in production over the next five years	
STRATEGIES	POSSIBLE DELIVERABLES
2.1 Develop a five year integrated export market development plan	Export development plan
2.2 Gain industry agreement on the workable market access protocols into priority markets and complete required business cases (airfreight protocols is a priority)	Market access priority business cases
2.3 Build export readiness and capability	Electronic export registration
2.4 Introduce electronic export registration system	
2.5 Establish effective market intelligence channels in target export markets	
2.6 Support wider Qfly agenda across all horticultural industries and state governments	

OUTCOME 3 – Reduce costs at every level of the supply chain to improve global competitiveness	
STRATEGIES	POSSIBLE DELIVERABLES
3.1 Link in with the University of Sydney automation/robotics program to develop cherry specific technology	Active technology project
3.2 Manage pest and disease challenges/ risk through maintaining biosecurity manual and on-arm practise	Priority list of pest and disease issues
3.3 Improve soil health to maximise yield	Extension program
3.4 Elevate orchard management skills by introducing a low cost local 'orchard improvement group' program with benchmarking component	Pack house improvement program
3.5 Investigate opportunities to improve pack house efficiency	Biosecurity manual is up to date
3.6 Facilitate industry adoption of improved cultivars and rootstocks	Future Orchards® style program implemented
3.7 Equip industry to understand and respond to impact of environmental change on both production and marketing	

OUTCOME 4 – A culture of continuous improvement has been embedded, improving industry professionalism and profitability	
STRATEGIES	POSSIBLE DELIVERABLES
4.1 Introduce a production and harvest forecasting system	Production forecasting system
4.2 Introduce business basics program with short courses specifically tailored to orchard businesses and supply chains (cross-funded with other temperate fruit industries)	Business basics program
4.3 Encourage and mentor young industry leaders to apply for travel scholarships, for example Nuffield Scholarships, and grants for overseas study/observation	Next generation global study program
4.4 Promote and encourage industry attendance at Hort Innovation Global Masterclass course in horticultural business (Pool 2)	Professional development program
4.5 Drive industry awareness of the need for food safety, traceability and product integrity systems	Food safety awareness action
4.6 Introduce voluntary grading standards for export and domestic markets	Grading standards documentation



Aligning to Hort Innovation investment priorities

In establishing investment priorities, Hort Innovation analysed both historical and current levy and co-investment portfolios and priorities. From this analysis we identified eleven cross-sectoral investment themes. We consolidated these themes further and considered their alignment with the Australian Government’s Rural RD&E Priorities and National Science and Research Priorities, to arrive at five investment priorities outlined in *Figure 11*. *Figure 11* also shows how each cross-sectoral investment theme relates to the five investment priorities.

Figure 11: Hort Innovation’s investment priorities



Alignment of cherry SIP outcomes to the Hort Innovation investment priorities and as a consequence the Australian Government’s Rural RD&E Priorities and National Science and Research Priorities is shown in *Table 6*.

Table 6: Alignment of cherry SIP outcomes to the Hort Innovation investment priorities

Hort Innovation investment priorities	Cherry SIP outcomes
Support Industry efficiency and sustainability	Outcome 1: Increase the unit value of fruit sold onto the domestic market to improve industry economic sustainability
Improve productivity of the supply chain	Outcome 3: Reduce costs at every level of the supply chain to improve global competitiveness
Grow the horticulture value chain capacity	Outcome 4: A culture of continuous improvement has been embedded, improving industry professionalism and profitability
Drive long-term domestic and export growth	Outcome 2: Grow export markets to leverage the forecast increase in production over the next five years
Lead strategically to enhance the development of the Australian horticulture industry through operational excellence	Enabler

4

SECTION FOUR

Cherry industry monitoring and evaluation

Cherry SIP monitoring, evaluation and reporting

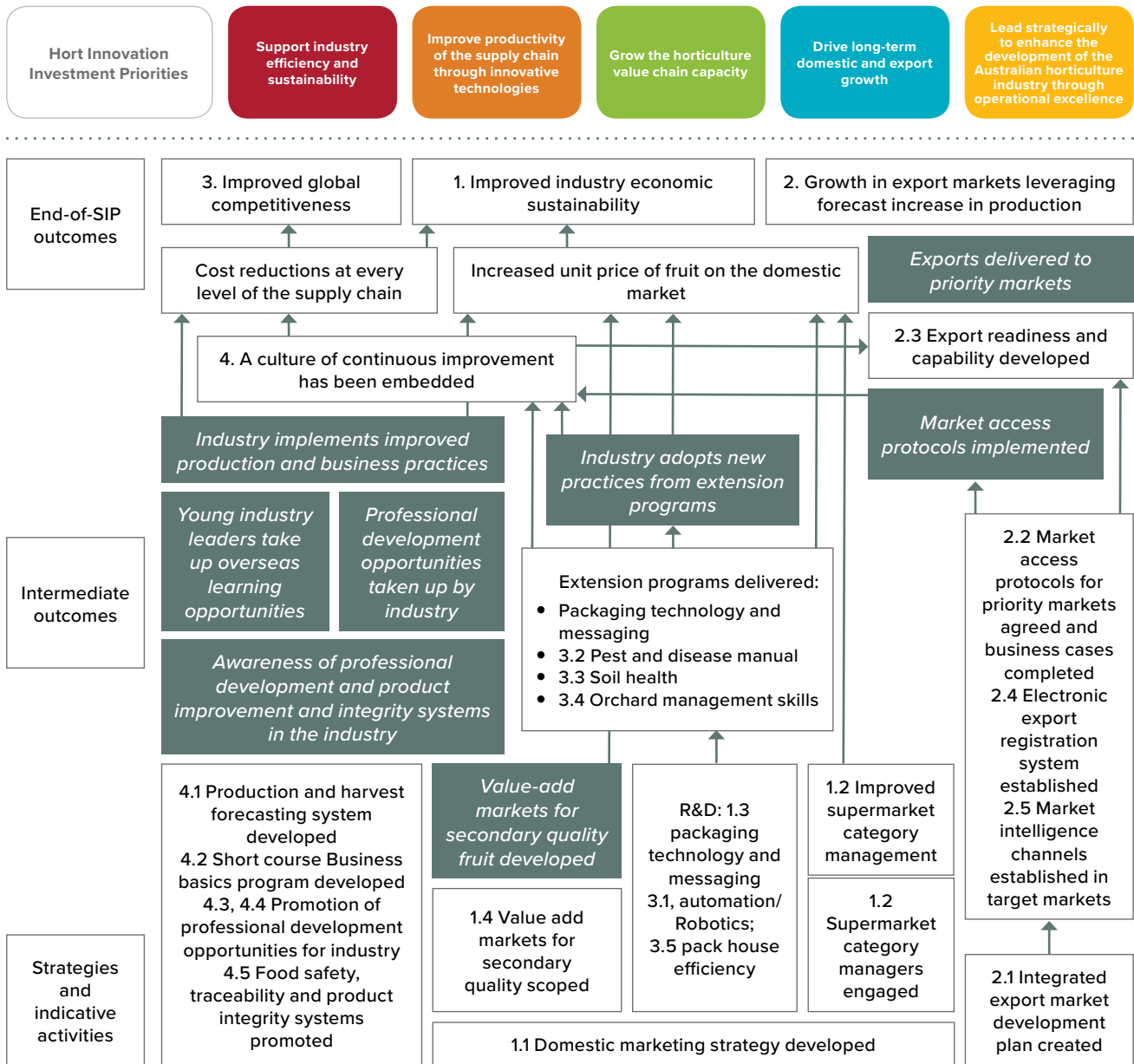
A SIP program logic and monitoring and evaluation (M&E) plan has been developed for the cherry SIP. These are informed by the Hort Innovation Organisational Evaluation Framework. The logic maps a series of expected consequences of SIP investment. The M&E plan shows the performance measures that will be measured to demonstrate progress against the SIP and what data will be collected. Progress against the SIP will be reported in Hort Innovation publications and at industry SIAP meetings.

The SIP outcomes and strategies will be used to inform investments in individual projects to deliver on the SIP. The results of M&E will be used to reflect on the results of investments and in decision-making. Hort Innovation will facilitate the regular review of SIPs to ensure they remain relevant to industry.

Cherry SIP logic

An indicative cherry SIP program logic is shown in **Figure 12**. The logic is based on the Hort Innovation SIP logic hierarchy (**Appendix 4**). The shaded boxes are not fully explicit in the strategy but necessary conditions for the achievement of expected outcomes.

Figure 12: Cherry SIP Logic



Cherry SIP M&E plan

The cherry M&E plan is shown in **Table 7**. The table includes key performance indicators (KPIs) and data collection methods both at a macro/industry (trend) level and at more specific SIP level/s.

Table 7. Monitoring and evaluation plan for the cherry SIP

Outcomes	Strategies	KPIs	Data collection methods and sources
OUTCOME 1: Increase the unit value of fruit sold onto the domestic market to improve industry economic sustainability profitability	1.1 Develop a domestic marketing strategy focused on extending the seasonal demand into the new year and repositioning cherries as a luxury and gift fruit	<ul style="list-style-type: none"> • An average seasonal domestic price of \$10 per kilogram on marketable fruit by 2021 • An increase in domestic consumption over the local season to 15,000 tonnes by 2021 • Domestic marketing strategy developed and implemented • Evidence of engagement with supermarket category managers • Evidence of increased sales • R&D outputs on packaging technology and messaging • No. of industry attending packaging technology and messaging training 	<ul style="list-style-type: none"> • Market price reports • ABS data • Project records • Training events records and feedback • Retail and consumer insights data • Project records
	1.2 Engage with supermarkets to improve category management		
	1.3 Conduct R&D and industry training on packaging technology and messaging		
	1.4 Scope out opportunities to develop profitable markets for secondary quality fruit for value-adding		
	1.5 Improve marketable yield while still delivering on consumer eating experience		
	1.6 Initiate program to identify nutritional attributes of cherries to support marketable health claims		
	1.7 Build industry capability in agritourism and other direct-to-consumer marketing models		
OUTCOME 2: Grow export markets to leverage the forecast increase in production over the next five years	2.1 Develop a five year integrated export market development plan	<ul style="list-style-type: none"> • An increase in exports to 12,000 tonnes by 2021 • New market protocols achieved for mainland fruit by 2018 • Electronic export registration in place by December 2018 • Evidence of export market development plan implementation • Evidence of an increase in export readiness 	<ul style="list-style-type: none"> • ABS and GTA data • DAWR approval • Project records • Industry surveys
	2.2 Gain industry agreement on the workable market access protocols into priority markets and complete required business cases (airfreight protocols is a priority)		
	2.3 Build export readiness and capability		
	2.4 Introduce electronic export registration system		
	2.5 Establish effective market intelligence channels in target export markets		
	2.6 Support wider Qfly agenda across all horticultural industries and state governments		

SECTION 4: CHERRY INDUSTRY MONITORING AND EVALUATION

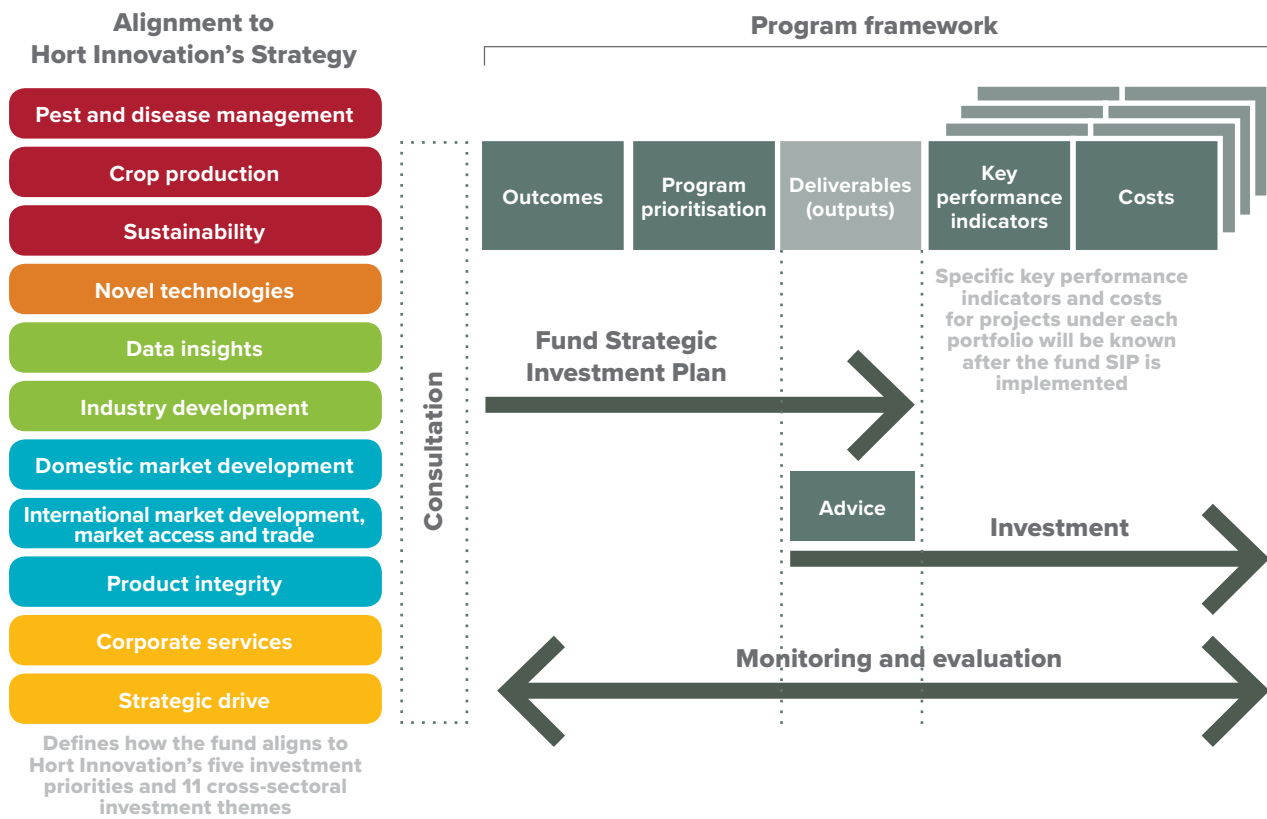
Outcomes	Strategies	KPIs	Data collection methods and sources
OUTCOME 3: Reduce costs at every level of the supply chain to improve global competitiveness	3.1 Link in with the University of Sydney automation/robotics program to develop cherry specific technology	<ul style="list-style-type: none"> • Biosecurity manual updated annually • Majority of benchmarking/ orchard improvement group participants show a cost reduction by first 12 months of operation • Industry replanting benchmarks of five to 10 per cent achieved • Evidence of change in soil health knowledge 	<ul style="list-style-type: none"> • R&D Project records • Benchmarking data • Industry survey
	3.2 Manage pest and disease challenges/ risk through maintaining biosecurity manual and on-arm practice		
	3.3 Improve soil health to maximise yield		
	3.4 Elevate orchard management skills by introducing a low cost local 'orchard improvement group' program with benchmarking component		
	3.5 Investigate opportunities to improve pack house efficiency		
	3.6 Facilitate industry adoption of improved cultivars and rootstocks		
	3.7 Equip industry to understand and respond to impact of environmental change on both production and marketing		
OUTCOME 4: Drive a culture of continuous improvement to improve industry professionalism and profitability	4.1 Introduce a production and harvest forecasting system	<ul style="list-style-type: none"> • Successful introduction of forecasting program • First business basics program course delivered by December 2018 • Food safety communications strategy in place by June 2017 • Grading standards approach agreed 	<ul style="list-style-type: none"> • Forecasting data • Training course participant data and feedback surveys • Project records
	4.2 Introduce business basics program with short courses specifically tailored to orchard businesses and supply chains (cross-funded with other temperate fruit industries)		
	4.3 Encourage and mentor young industry leaders to apply for travel scholarships (e.g. Nuffield) and grants for overseas study/ observation		
	4.4 Promote and encourage industry attendance at Hort Innovation Global Masterclass course in horticultural business (Pool 2)		
	4.5 Drive industry awareness of the need for food safety, traceability and product integrity systems		
	4.6 Introduce voluntary grading standards for export and domestic markets		

Reporting

The Program Framework is the mechanism that links Hort Innovation’s strategy and investment priorities to the investment process through the industry SIP. SIPs assist Hort Innovation to prioritise and implement the specific industry R&D, extension and marketing programs.

Hort Innovation will use dynamic reporting against our monitoring and evaluation framework to report on investment progress. The contribution of investments to each industry outcome will be reported regularly, including through industry Annual Reports, Hort Innovation’s Annual Report and Hort Innovation’s Annual Operating Plan.

Figure 13: Hort Innovation’s program framework

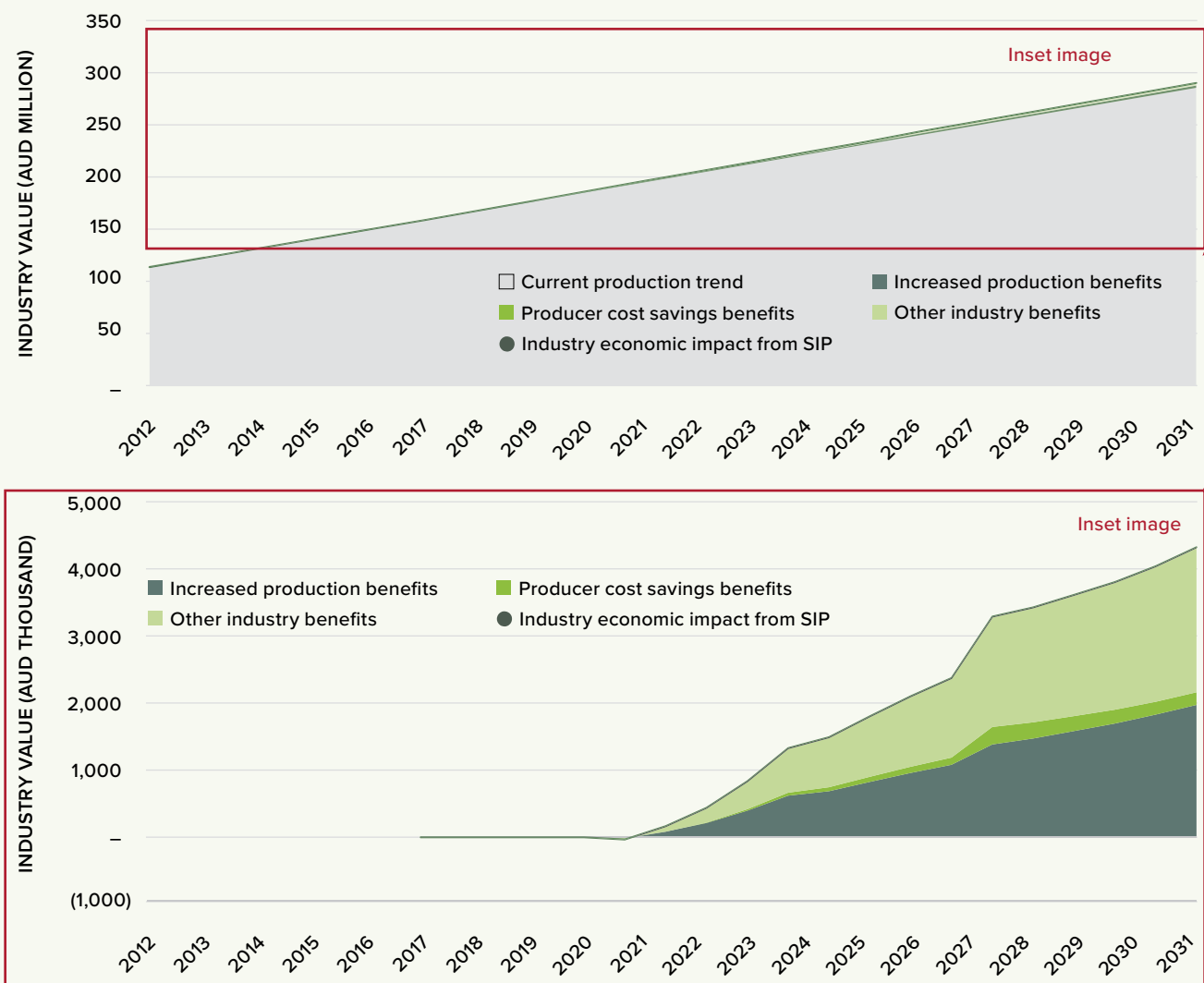


5

SECTION FIVE

Impact assessment

Figure 14: Economic benefit from investment in the SIP



An independent assessment of the potential economic impacts from investment into the cherry SIP indicated a positive return on investment for the industry (Figure 14). The anticipated investment of \$8.43 million over the next five years in R&D, extension and marketing activities is expected to generate \$35.12 million in net benefits for the industry, representing a benefit cost ratio of 4.16 times to growers and service providers along the value chain.

The assessment draws from a wide range of available data sources, and projects economic impacts over a 15-year period starting from 2016/2017. A five per cent discount rate has been applied and all values are adjusted for inflation and presented in 2016/2017 dollar terms. The assessment takes a highly conservative approach and the presented figures have been adjusted to account for risks associated with achieving research outputs, expected adoption and impacts.

The table below provides a summary of the assessed impacts for each outcome identified in the SIP, the anticipated deliverables, net economic benefits and benefit cost ratio.

Outcome	Expected deliverables <i>Refer Section 3 for further details</i>	Anticipated SIP investment (over five years)	Net benefits (over 15 years)	Benefit cost ratio
Increase the unit value of fruit sold onto the domestic market to improve industry economic sustainability	<ul style="list-style-type: none"> Marketing strategy Category management plan with major supermarkets Project on packaging development and training Food technologist study on options for value added products Global literature search on health claims Industry capability building project on agritourism 	\$1,265,040	\$3,351,104	2.65
Grow export markets to leverage the forecast increase in production over the next five years	<ul style="list-style-type: none"> Export development plan Market access priority business cases Electronic export registration 	\$2,951,761	\$8,466,803	2.87
Reduce costs at every level of the supply chain to improve global competitiveness	<ul style="list-style-type: none"> Active technology project Priority list of pest and disease issues Extension program Pack house improvement program Biosecurity manual is up to date Future Orchards® style program implemented 	\$2,951,761	\$19,519,576	6.61
A culture of continuous improvement has been embedded, improving industry professionalism and profitability	<ul style="list-style-type: none"> Production forecasting system Business basics program Next generation global study program Professional development program Food safety awareness action 	\$1,265,040	\$3,779,530	2.99

The quantified impacts associated with Outcome 1 include:

- Market expansion and price premiums from improved marketing for the industry and category management by the major supermarkets such as Coles and Woolworths
- Market expansion and price premiums from improved packaging to reposition cherries as a luxury fruit and new value added products for the industry
- Market expansion from diversification into agritourism such as farm tours for families and school children.

The quantified impacts from Outcome 2 include:

- Market expansion and price premiums by improving market access through the development and use of industry export development plans, market access priority business cases and an electronic export registration
- Increase in domestic prices due to the reduction of local supply which balances out the supply and demand in Australia.

The quantified impacts from Outcome 3 include:

- The reduction of production costs from improved robotics and mechanisation technologies on the farm and in the pack house
- Increased production yields and reductions in production costs from the implementation of best practices on the farm through a Future Orchards® style program

- Increased production yields from implementation of plant physiology and high density systems on the farm
- Reductions in crop losses and increases in yield due to improvements in IPDM
- Reductions in biosecurity impacts for the industry due to a greater capacity for industry to identify and manage biosecurity threats.

The quantified impacts from Outcome 4 include:

- Market expansion, price premiums reductions in production cost from improvements in grower business skills and knowledge of overseas production processes
- Reductions in impacts from health and safety issues for the industry from greater grower awareness and implementation of food safety practices on the farm.

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SECTION SIX

Risk management

The purpose of this risk section is to highlight any unique or specific risks that qualify the SIP. This is not intended to be an exhaustive risk review of the industry risks which in part are considered in the SWOT. This is also not reflective of the general investment risks which will be considered in the project investment process.

No significant or specific risks were found that may qualify this SIP, however, there is a risk of a lost opportunity to leverage industry R&D funds more effectively, if this SIP is not effectively aligned with the SIPs for other temperate fruits where opportunities exist.

**APPENDIX 1:
Consultation and validation**

The process for the development of the cherry SIP was as follows:

1. A presentation was prepared to outline a suggested approach to the SIP advisory panel for ‘SIAP’ and to stimulate discussion on the key external factors impacting the industry
2. A workshop was held with the SIAP to seek advice on the desired project approach and consultation reach
3. Interviews were conducted with the various key stakeholders
4. Discussion groups or interviews were held with growers in each of the key growing regions
5. A draft SIP was prepared for consideration by the SIAP
6. SIAP members provided additional feedback to the draft SIP.

In addition to consultation with the cherry SIAP and informal discussions with industry members at the two industry conferences, the following groups and individuals were consulted. Their assistance is gratefully acknowledged:

Grower discussion groups	
SA Discussion Group (29.07.16)	TAS Discussion Group (03.08.16)
Andrew Flavell	Andrew Scott
Tony Hannaford (SIAP member)	John Evans
Nick Noske	Andrew Griggs
David Leonard	Andrew Smith
Ian Sparnon	Ryan Hankin
Kym Green	Scott Price
Simon Cornish	Chris Knapek
Grant Wotton	
Garry Beaton	
John Caldicott	

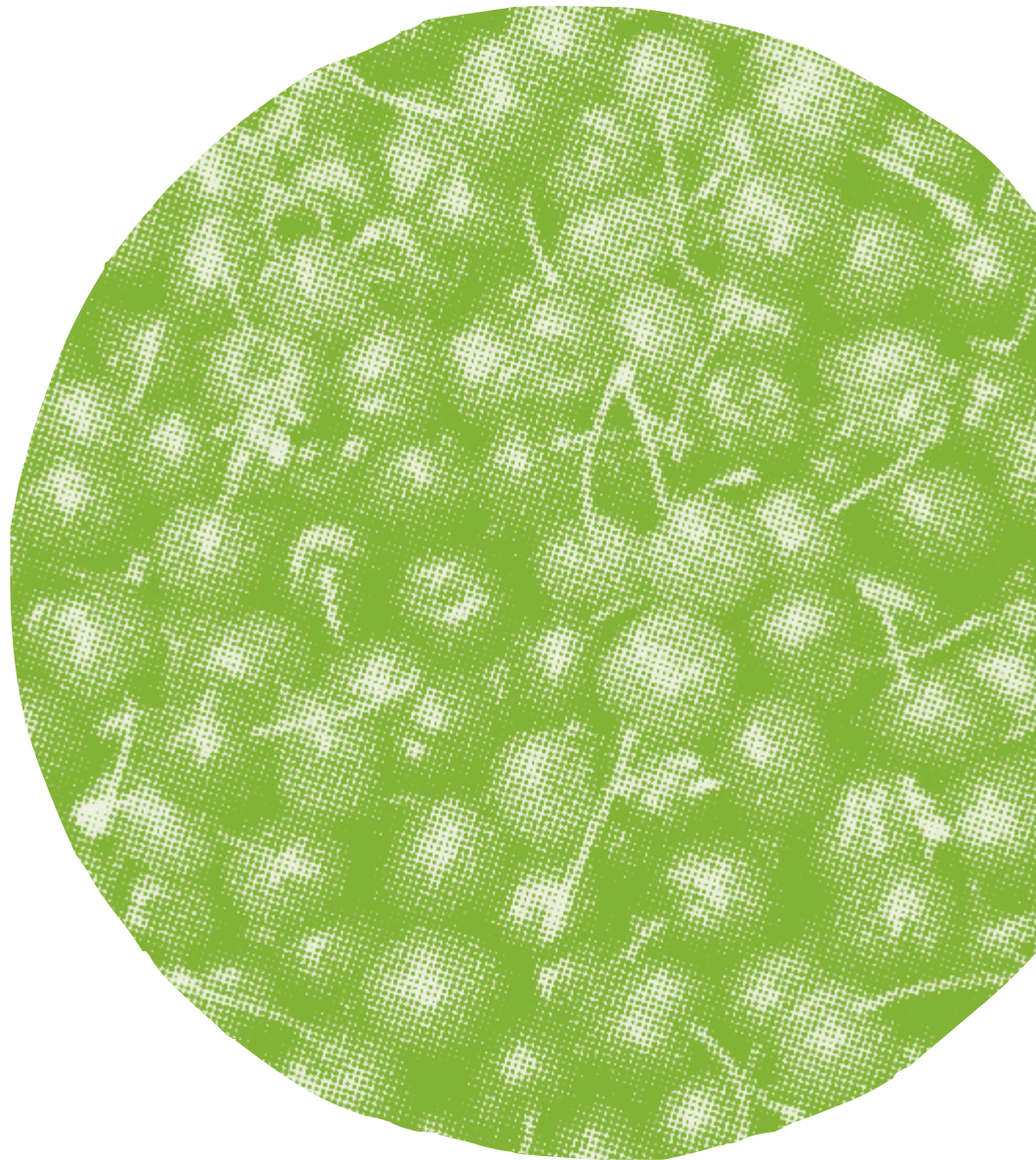
Grower discussion groups	
VIC Discussion Group (10.08.16)	NSW Orange Discussion Group (22.08.16)
Alison Jones	Peter West
Chris Turnbull	Bernard and Fiona Hall (SIAP member)
Michael Rouget (SIAP member)	Ian Pearce
Steve Chapman (SIAP member)	Michael Curial
John Learmonth	Myles Parker
Michael Auman	Guy Gaeter
Tim Jones	Troy Williams
	Ross Pearce

NSW Young Discussion Group (23.08.16)
(Organised by Tom Eastlake)

Other	
Kathy Grozotis	Cherry Lane Fields (WA)
Bei Hau	Cole Valley Orchards (TAS)
Justin Miller	TAS
Bradley Ashlin	Calthorpe (TAS)
Phil Pyke	Fruit Growers Tasmania
Heidi Parkes	DAF
Luke Osborne	DAWR
Lyall Grieve	DAWR
James Allan	DAWR
Jenny Vandemeeberg	AusTrade
Lucy Gregg (SIAP member)	Reid Fruits
Hugh Molloy	CGA
Tom Eastlake	President, CGA
Pam Pace	Aldi
Mark Spees	Hort Innovation
Claire Tindale-Penning	Hort Innovation
Baden Ribbon	Hansen Orchards
Nic Hansen (SIAP member)	Cherries Tasmania Orchard
And others	

APPENDIX 2:
References

Title	Author
Australian Bureau of Statistics, 2015/16	
<i>Australian Cherry Strategic Investment Plan, 2012-2017</i>	Cherry Growers Australia HAL
<i>Australian Horticulture Statistics Handbook 2014/15</i>	Hort Innovation
Cherry industry analysis commissioned for this SIP from various sources	Fresh Intelligence
Nielsen Homescan Data	Nielsen, Commissioned by Hort Innovation
<i>2013/14 Cherry Industry Summary Report, 2014</i>	Sprout Research

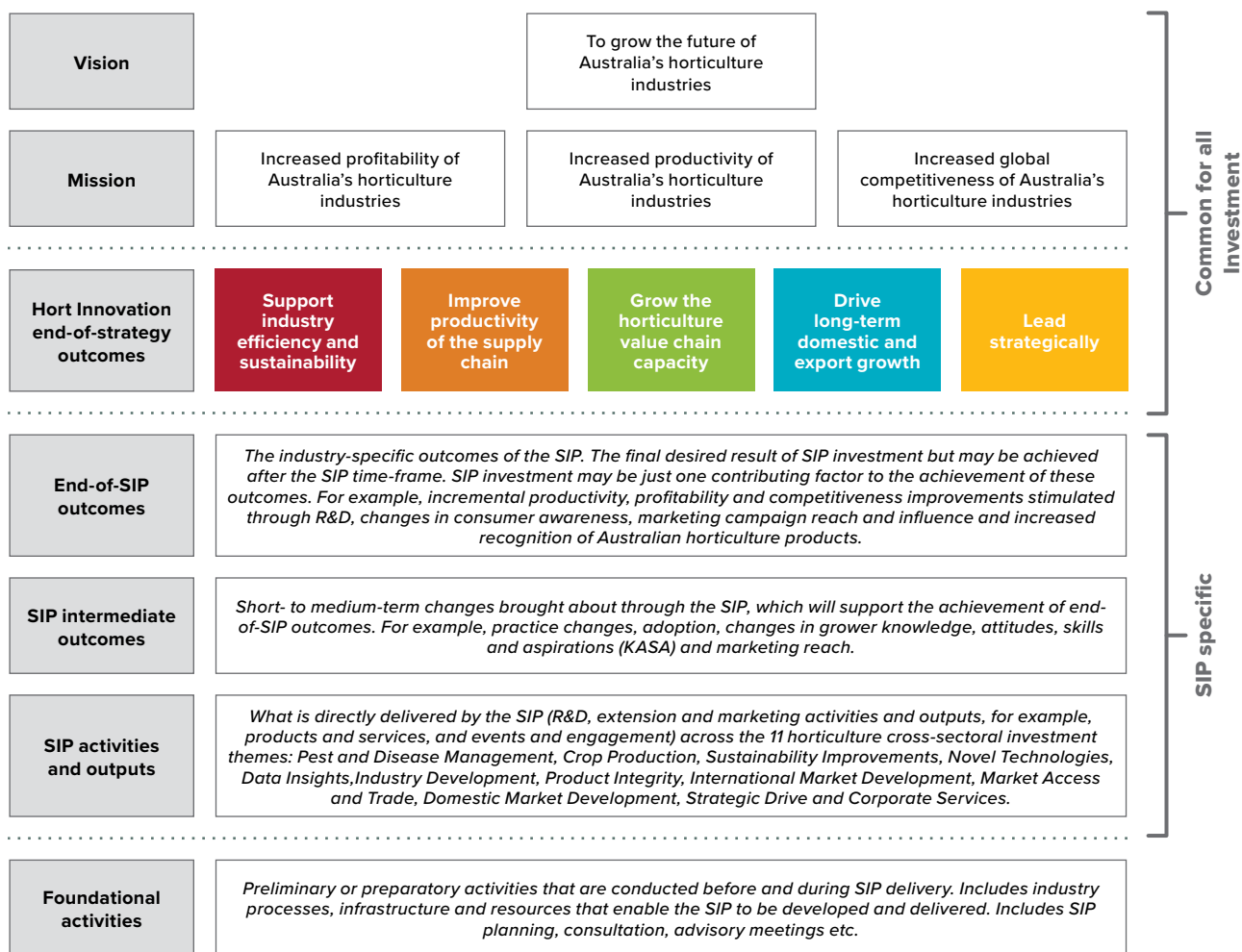


APPENDIX 3: Trade data by state

Table 8: Australian cherry exports by state 12 months to 2016 (Source: ABS data via GTA, Fresh Intelligence analysis, 2016)

Market	Tasmania	Victoria	New South Wales	South Australia	Queensland	All other	National	Share
	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes	Per cent
Hong Kong	672.6	616.9	672.9	244.4	6.9	33.6	2,247.2	40.2%
Singapore	121.8	212.1	130.3	48.5	3.5	2.7	518.8	9.3%
Malaysia	81.8	82.7	43.6	5.2	2.5	1.2	217.0	3.9%
Unregulated markets	876.2	911.7	846.7	298.1	12.8	37.5	2,983.0	53.3%
Share of unregulated	29.49%	30.6%	28.4%	10.0%	0.4%	1.3%	100%	
Share of total	30.5%	71.8%	81.3%	91.9%	75.6%	51.8%	53.3%	
China	732.2	1.2	57.6	–	–	–	791.0	14.1%
Taiwan	502.0	6.0	–	–	–	–	508.0	9.1%
South Korea	365.1	–	–	–	–	–	365.1	6.5%
Indonesia	73.0	15.1	7.3	–	–	–	95.4	1.7%
Thailand	128.9	–	–	–	–	–	128.9	2.3%
United States	63.5	–	–	–	–	–	63.5	1.1%
Japan	36.1	–	–	–	–	–	36.1	0.6%
Canada	4.2	27.2	1.5	22.1	0.4	–	55.4	1.0%
India	20.6	7.1	9.5	–	–	–	37.3	0.7%
Philippines	8.7	–	–	–	–	–	8.7	0.2%
Vietnam	–	0.2	–	–	–	–	0.2	0.0%
Regulated protocol	1,934.2	56.8	76.0	22.1	0.4	–	2,089.5	37.3%
Share of protocol	92.6%	2.7%	3.6%	1.1%	0.0%	–	100%	
Share of total	67.3%	4.5%	7.3%	6.8%	2.4%	–	37.3%	
United Arab Emirates	52.4	146.7	56.8	3.9	0.9	27.9	288.5	5.2%
Saudi Arabia	–	65.1	32.5	–	–	0.7	98.3	1.8%
Kuwait	0.9	41.9	3.8	–	–	–	46.6	0.8%
Qatar	0.5	15.4	3.1	0.2	0.1	0.0	19.3	0.3%
Myanmar	3.8	2.5	5.0	–	–	6.3	17.7	0.3%
United Kingdom	–	4.0	2.6	–	–	–	6.6	0.1%
Italy	2.3	4.2	–	–	–	–	6.5	0.1%
Oman	–	6.2	0.7	–	–	–	7.0	0.1%
New Caledonia	0.3	2.7	3.4	–	–	–	6.4	0.1%
Bahrain	–	6.7	1.3	–	–	–	8.1	0.1%
Lebanon	0.2	0.6	7.9	–	0.4	–	9.1	0.2%
France	–	2.5	–	–	–	–	2.5	<0.05%
Chile	1.2	–	–	–	–	–	1.2	<0.05%
Switzerland	–	–	1.1	–	–	–	1.1	<0.05%
Cambodia	–	1.3	–	–	–	–	1.3	<0.05%
Bangladesh	–	1.1	–	–	–	–	1.1	<0.05%
Brunei Darussalam	–	–	–	–	1.1	–	1.1	<0.05%
Papua New Guinea	–	0.1	–	–	0.9	–	1.1	<0.05%
Fiji	–	0.3	–	–	0.2	–	0.5	<0.05%
All other	61.5	301.5	118.3	4.1	3.5	34.9	523.8	9.4%
Share of other	11.7%	57.6%	22.6%	0.8%	0.7%	6.7%	100%	
Share of total	2.1%	23.7%	11.4%	1.3%	20.6%	48.2%	9.4%	
TOTAL (tonnes)	2,872	1,270	1,041	324	17	72	5,597	100%
State share of exports	51.3%	22.7%	18.6%	5.8%	0.3%	1.3%	100%	

APPENDIX 4:
Logic hierarchy



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