Raspberry and blackberry

STRATEGIC INVESTMENT PLAN



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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.

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 industry to produce a strategic plan for investment of levies in industry 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 of preparing this 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 this SIP, especially raspberry and blackberry growers.

The raspberry and blackberry SIP

Producers in the raspberry and blackberry industry pay levies to the Department of Agriculture and Water Resources (DAWR), which 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 research and development (R&D), marketing, biosecurity and residue testing programs.

Levy is payable on raspberries, blackberries and hybrid brambles that are produced in Australia and either sold by the producer or used by the producer in the production of other goods.

The raspberry and blackberry industry collects statutory levy funds for R&D and marketing activities. The levy rate on fruit is currently 12 cents per kilogram¹, which represents an R&D levy of 10 cents per kilogram and a marketing levy of 2 cents per kilogram. In 2015/16, total raspberry and blackberry levy receipts were approximately \$444,000: \$370,000 of R&D levies and \$74,000 of marketing levies.

Hort Innovation has developed this SIP to assist in strategically investing the collected raspberry and blackberry levy funds in the priority areas identified and agreed by the 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 raspberry and blackberry industry's collective view of its R&D and marketing needs over the next five years (2017 to 2021). It has been developed in consultation with levy payers through a synthesis of desktop research, and interviews with growers and value chain firms. See *Appendix 1* for a full list of these industry consultations, and *Appendix 3* for the main documents reviewed in preparing this SIP.

The raspberry and blackberry Strategic Investment Advisory Panel (SIAP) has responsibility for providing strategic investment advice to Hort Innovation. Hort Innovation and the panel will both be guided by the strategic investment priorities identified within this plan. For more information on the raspberry and blackberry SIAP constituency please visit Hort Innovation's website at www.horticulture.com.au.

¹ Department of Agriculture and Water Resources (2016), 'Rubus levy Information', http://www.agriculture.gov.au/ag-farm-food/levies/rates/Rubus.



POTENTIAL IMPACT OF THIS PLAN



Based on an estimated investment of \$3.7 million over the next five years.

OUTCOMES

By 2021, domestic per capita consumption of fresh Australian raspberries will increase by at least 40 per cent, supported by positive consumer perceptions of product value

STRATEGIES

Establish and monitor consumer perceptions and expectations towards fresh Australian raspberries and blackberries

Promote the health benefits and value associated with eating raspberries and blackberries

Provide timely information on industry production, forecasts and markets

Manage risks to the Australian industry's reputation as a reliable supplier of superior quality, safe products

By 2021, exports of Australian raspberries exceed five per cent of national production by volume, in selected markets with a capacity and willingness to pay a premium for quality fruit

Develop a raspberry export strategy during 2017 by working with potential exporting businesses

Develop and extend resource material required by businesses to enter and develop exports with existing markets

Establish technical market access for new markets identified as priorities in the export strategy

OUTCOMES

By 2021, the industry will increase farm productivity (marketable yield per hectare) by an average 10 per cent

STRATEGIES

Facilitate availability of superior blackberry varieties that match consumer expectations

Protect the high biosecurity status of the raspberry and blackberry industry

Establish the main constraints and influences for increasing raspberry and blackberry industry productivity

Inform growers on the emerging options, risks and opportunities afforded by protected cropping systems

By 2021, at least 90 per cent of growers and other firms involved in raspberry and blackberry value chains will be directly engaged with and value national industry services Develop an informed and cohesive industry through direct two-way communications with raspberry and blackberry businesses across Australia

Provide timely information on industry production, forecasts and markets

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Raspberry and blackberry strategic investment plan 2017-2021 at a glance

Major opportunities

- Increase in supply provides capacity to meet demand in counter seasonal export markets
- Increasing consumer demand for safe, clean food
- Increase in community association of natural foods with good health
- Major retailers seeking security of supply
- Value chain desire for strategic industry engagement to develop markets
- Consumer demand for consistent quality fruit, including look, colour and taste
- Move towards Integrated pest management and reduced inputs for production
- Availability of technology to improve productivity at all stages of value chain
- Availability of new blackberry varieties in Australia to meet consumer needs.

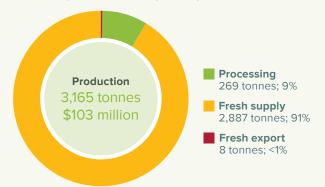
Major challenges

- Sustained rapid increase in domestic production could impact on grower prices
- Biosecurity risks to plant health status, especially spotted wing Drosophila
- Competition from other fruits and snack food products
- Reduced ease of access and higher cost for labour
- Consumer expectation for assurances with product integrity and sustainability
- Climate change and variability in growing conditions
- Domestic-focused industry with limited export experience
- High costs of production relative to overseas competitors, especially for labour
- Variable productivity across Australian growers and relative to overseas growers
- Lack of reliable, current time series data and information on raspberry and blackberry production and market trends
- Declining access to chemicals needed for optimal production
- Dependence on importation of new and proven raspberry and blackberry plant genetics.

Industry size and production distribution



Raspberry and blackberry supply chain and value 2014/15





SECTION ONE

Context

The Australian raspberry and blackberry industry

The Australian raspberry and blackberry industry has had a strategic plan in place since 2014 that provided direction for investment in raspberry and blackberry R&D and marketing. Since that plan was published, the industry has experienced significant growth and it became necessary to develop and publish a new plan in response.

Products

Australian raspberry and blackberry (species of the *rubus* genus) production is dominated by raspberries, which accounted for 90 per cent of fresh production for the year ending June, 2015. Blackberries accounted for nine per cent of fresh production, with other rubus varieties such as silvanberries, boysenberries and loganberries equating to about one per cent of production.²

The main volume of raspberry supply for the domestic market is from imported frozen berries. In the year ending June 2015, Australia imported 12,311 tonnes of frozen berries. By comparison, the total local production of fresh raspberries was 3,165 tonnes for the same period.³

Industry production growth

The main growing season is November to May (summer and autumn), with the greatest volume produced from December to April. However, fresh berries are now available year-round, with crops being increasingly grown undercover and more production being established across multiple states. The capacity to provide year-round supply has helped the industry to develop sustained retail sales growth through national supermarket chains.

Production volumes have increased rapidly, rising from 2,167 tonnes (\$70.6 million) in 2013 to 3,165 tonnes (\$103.4 million) in 2015. This equates to a 46 per cent increase in the volume of berry production over the last three years and has supported strong year-on-year sales growth and per capita consumption.

The rapid increase in production has seen a significant shift in the structure of the industry, from smaller businesses based mostly in the Yarra Valley in Victoria, towards larger corporate plantings in diverse locations around Australia.

Figure 1: Industry production 2013 to 20144

Year ending June	2013	2014	2015		
	Value	Value	%YoY	Value	%YoY
Production (tonnes)	2,167	2,469	+14%	3,165	+28%
Production (AUD million)	70.6	78.5	+11%	103.4	+32%
Fresh supply wholesale value (AUD million)	82.2	91.3	+11%	123.4	+35%
Consumption per capita (kilogram supply)	0.08	0.09	+12%	0.12	+29%

Horticulture Innovation Australia (2016), '2014/15 Australian Horticulture Statistics Handbook: Fruit', "Berries- Rubus Berries", page 78

³ Ibi

⁴ Horticulture Innovation Australia (2016), '2014/15 Australian Horticulture Statistics Handbook: Fruit', "Berries- Rubus Berries", page 77.

⁵ Ibid

Figure 2: Map showing major raspberry and blackberry production areas⁷



There are approximately 120 growers producing raspberry and blackberry crops across all states except the Northern Territory, with negligible amounts in Western Australia.⁶

The majority of berries are produced in the southern states of Australia, particularly in the Dandenong Ranges and Yarra Valley regions of Victoria, Corindi in New South Wales and the Northern Midland region in Tasmania. Other production areas in Queensland, South Australia and Western Australia extend seasons for year-round supply.

Domestic consumption and demand

Raspberry and blackberry production is focused on meeting demand for fresh produce sales in the higher-margin domestic retail market. Here, most fruit is sold in 125 gram punnets, which is one of the smallest pre-packs available in the Australian fresh retail market. The use of a small portion size has reduced retail waste, and potentially attracted more consumers to try the fruit.

Approximately 80 per cent of fresh raspberries are sold through the domestic retail channel, with 76 per cent of that volume sold through supermarkets, and 24 per cent through markets in capital cities to fruiterers and providores. Smaller quantities of fruit are also sold through 'pick your own' enterprises.

Establishing a year-round supply of raspberries and blackberries through the use of new growing techniques and different cropping locations, along with increasing on-farm productivity and production volumes, have underpinned rapid growth in domestic consumption. In the medium- and longer-term, it will become more important for commercial raspberry breeding programs to improve fruit flavour so that consumer demand can be sustained.¹⁰

For the year ending June 2015, the total value of Australian raspberry and blackberry production was \$103.4 million, with the wholesale value of fresh berries being \$123.4 million.¹¹ Approximately 5,368 tonnes of raspberries (or 82 per cent of total domestic supply) was consumed in a processed or frozen form, of which almost all (5,104 tonnes) were sourced from imports. Frozen berries retail at a lower cost, are easily stored and used in a variety of meal situations, from smoothies to dessert toppings to ingredients for baked goods.

While consumption has risen steadily in line with increasing production, only around 16 per cent of Australian households purchased fresh raspberries and blackberries in 2016. The average purchase was 138 grams per shopping trip. This suggests that there is significant scope to increase the category in the short- to medium-term.

⁶ Horticulture Innovation Australia, 'Find information, publications, industry contacts and more on the Raspberry and Blackberry industry', http://horticulture.com.au/grower-focus/Raspberry-and-Blackberry

Horticulture Innovation Australia (2016), '2014/15 Australian Horticulture Statistics Handbook: Fruit', "Berries-Rubus Berries", page 77.

Nielsen Homescan Data

⁹ RMCG (2014), 'RB13005 Raspberries and Blackberries Australia Inc: Strategic Investment Plan 2014 – 2019', page 9.

¹⁰ FreshFruitPortal.com (2016), 'Raspberries at "critical juncture" says Driscoll's exec', http://www.freshfruitportal.com/news/2016/11/02/Raspberries-at-critical-juncture-says-driscolls-

¹¹ Horticulture Innovation Australia (2016), '2014/15 Australian Horticulture Statistics Handbook: Fruit', "Berries- Rubus Berries", page 76.

¹² Ibid

Consumer research¹³ confirms that the major challenges facing the raspberry and blackberry industry are:

- Raspberries and blackberries are not readily recalled in purchase situations, so there is a challenge to make consumers think of these fruits more often (before going shopping and while in-store)
- Consumer perceptions of raspberries and blackberries are positive, but they are perceived as expensive. Therefore, the challenge is to strengthen positive associations and perceptions, and promote the value of the products.

Important implications of this consumer research¹⁴ are that the types of strategies that will be important for expanding demand and consumption include:

- Defining an occasion(s) where raspberries and blackberries are to be consumed
- · Promoting the health attributes of the berries.

Overall, the available evidence supports a positive outlook with significant opportunities to further increase demand and consumption of raspberries and blackberries in the domestic market.

Competing or complementary products

The current consumer market research is inadequate to establish the products that are direct competitors for raspberries and blackberries at retail. There is a perception with some industry businesses that other staple fruits, such as apples, kiwifruit, mangoes and bananas may be competitors. However, consumer research carried out by Sprout Research as a preparation for the raspberry and blackberry marketing program revealed that they are largely an impulse purchase at retail, ¹⁶ which is consistent with the findings of more recent studies.

Other berry fruits such as strawberries and blueberries may also be considered as competing products. However, marketing mixed berries, such as raspberries, blackberries, strawberries, and blueberries together, is a strategy being used by marketers and retails to help to increase sales across the berry category. The implication is that rather than being viewed as competing products, complementary marketing and sales initiatives across the berry category as a whole, are an area of potential opportunity. The berry category has grown rapidly to become the highest value fruit sector in Australia.

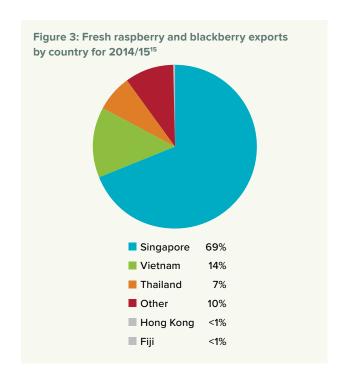
International trade

Due to the highly perishable nature of the fruit, there is limited international trade of fresh raspberries and blackberries. Instead, most exports and imports are processed and frozen products. Chile is the primary source of processed raspberry imports into Australia, accounting for 53 per cent of the total processed imports, followed by China with 20 per cent. For the year ending June 2015, 12,311 tonnes of frozen raspberries and blackberries were imported, while 73 tonnes were exported.¹⁷

Frozen imported berries were the source of Hepatitis A infections in Australia during 2015, which saw a national recall of products. ¹⁸ Events of this nature often reinforce consumer preference for fresh Australian produce, at least in the short-term.

Fresh rubus imports to Australia are currently prohibited for quarantine reasons, so therefore there is no competition from imported fresh raspberries and blackberries in the domestic market.

Australian exports of fresh raspberries and blackberries are very limited. For the year ending June 2015, total exports of fresh raspberries and blackberries amounted to eight tonnes, of which 69 per cent were shipped to Singapore.



¹³ Edentify (2016), 'Raspberry and Blackberry Research'.

¹⁴ Ibid

¹⁵ Horticulture Innovation Australia (2016), '2014/15 Australian Horticulture Statistics Handbook: Fruit', "Berries- Rubus Berries", page 80.

¹⁶ RMCG (2014), 'RB13005 Raspberries and Blackberries Australia Inc: Strategic Investment Plan 2014 – 2019', page 9.

¹⁷ Horticulture Innovation Australia (2016), '2014/15 Australian Horticulture Statistics Handbook: Fruit', "Berries- Rubus Berries", page 81.

Food Standards Australia New Zealand (2015), 'Nanna's brand frozen berries (Mixed Berries and Raspberries)', http://www.foodstandards.gov.au/industry/foodrecalls/recalls/Pages/Nanna's-Mixed-Berries.aspx.

Productivity and competitiveness

Traditionally, raspberries and blackberries have been grown in outdoor fields. However, there has been a substantial increase in undercover and hydroponic production. This trend is likely to continue, with a recent industry-funded project conducted by NSW Department of Primary Industries (NSW DPI) indicating that many growers are considering shifting to tunnel and other protected cropping and hydroponic production systems in the next five years.¹⁹

These new production systems help to protect raspberry and blackberry crops from adverse weather conditions, while simultaneously, allowing improved productivity and consistency of fruit quality.

As production levels are increasing and production methods are moving towards covered systems, grower interest in R&D that relates to the new production methods will likely increase. In particular, the smaller growing enterprises may need to access information that they do not currently have in this area.

Australia does not have a public rubus breeding program, therefore, improved varieties are sourced from commercial suppliers overseas. These varieties are not specifically bred for Australian conditions and evaluation in Australia may be needed to optimise plant performance in particular regions. With blackberries, access to international varieties is constrained by the need to meet import protocols that prevent introduction of potential weed species.

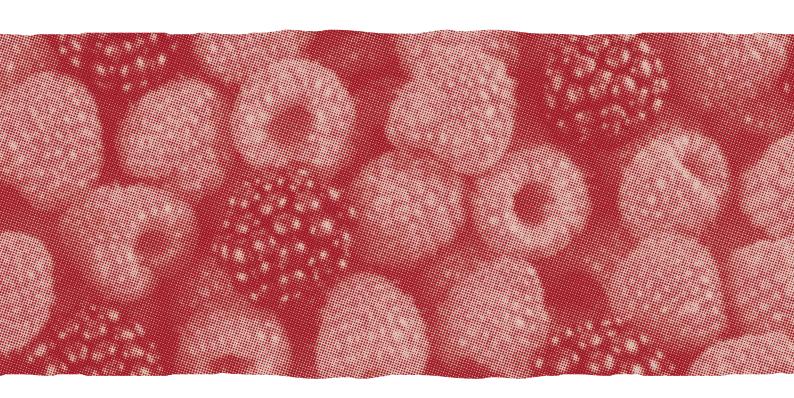
Industry information and knowledge

With an annual farm-gate value of \$103 million, and growing rapidly, the raspberry and blackberry industry is an important Australian horticulture industry. Ensuring access to current and reliable data and information describing the size and characteristics of the industry and the various markets for its products and trends with consumers will be very important. For example:

- Industry production and trends such as: time series data on the number of producers; volumes produced regionally and nationally; productivity
- Markets trends and intelligence such as: volume and value of sales to retail, food service and exports; competitor trends
- Consumer insights such as: evidence of changing patterns of demand and consumption for domestic consumers.

The availability and access to such baseline information is fundamental for good decision-making at the industry level and for value chain businesses.

The raspberry and blackberry industry structure is changing rapidly, with a high and growing proportion of national production coming from a few large businesses that operate across multiple production sites. These large businesses represent the bulk of fresh domestic supply. Smaller businesses remain important and may have different needs, for example, with market information and access to technical advice, and require tailoring of information products.



¹⁹ RMCG (2014), 'RB13005 Raspberries and Blackberries Australia Inc: Strategic Investment Plan 2014 – 2019', page 12.

Operating environment

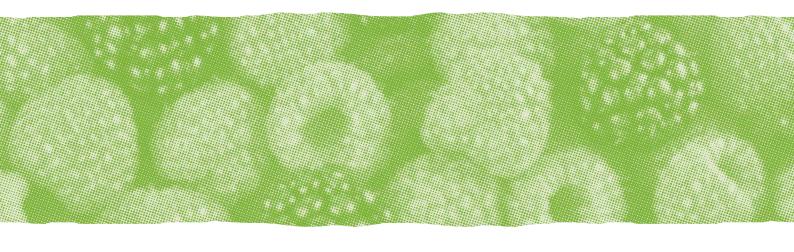
The raspberry and blackberry industry

Strengths

- Geographic proximity to growing consumer markets in Asia
- Rising industry awareness and strategic interest in developing exports
- Diversity of production regions enable reliable supply all year around
- Australian raspberry products regarded as high-quality and safe by Australian and overseas consumers
- High production standards across value chains
- Industry reputation for environmentally sustainable production
- Health authorities consider fruit as important to good health
- Growing domestic demand for fresh raspberries and blackberries
- R&D levy funds available for production and consumer research
- Marketing levy funds available for marketing and promotion
- Growers are important to the value chain
- Efficient value chains and distribution systems to reliably provide quality fruit
- High biosecurity status precludes importation of fresh raspberries and blackberries
- Large-scale investment in modern production systems with sophisticated plant management
- Significant growth in protected cropping systems increases reliability of supply and quality.

Threats

- Limited or no technical access to high value export markets
- Domestic-focused industry with limited export experience
- Concentration of sales with two domestic supermarket chains
- High costs of production relative to overseas competitors, especially for labour
- Variable productivity across Australian growers and relative to overseas growers
- Limited awareness about Australian raspberries and blackberries in international markets
- Limited transport and handling options due to perishable nature of raspberries and blackberries
- Production vulnerability and costly impact of climatic variability
- Limited objective evidence of raspberry and blackberry industry environmental performance
- Lack of reliable, current time series data and information on raspberry and blackberry production and market trends
- Declining access to chemicals needed for optimal production
- Increasing need to improve taste and flavour for raspberry fruit
- Dependence on importation of new and proven raspberry and blackberry plant genetics.



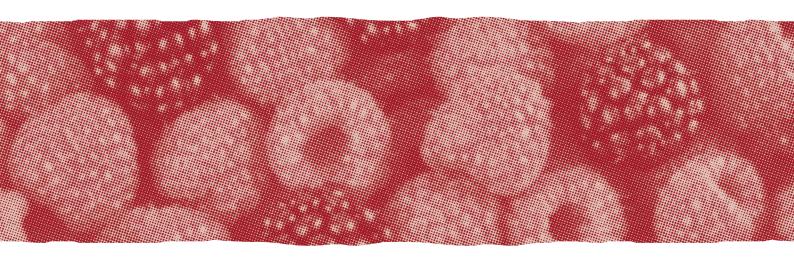
The raspberry and blackberry industry

Opportunities

- Increase in supply provides capacity to meet demand in counter seasonal export markets
- Improve technical access to existing and new export markets
- · Consumers increasingly engaging with products and businesses online and in social media
- Increasing consumer demand for safe, clean food
- Increase in community association of natural foods with good health
- Consumer awareness/expectation of environmentally sustainable production
- Major retailers seeking security of supply
- Value chain desire for strategic industry engagement to develop markets
- Consumer demand for consistent quality fruit, including look, colour and taste
- Encourage consumers to associate raspberry and blackberry consumption with particular meal occasion(s)
- Promote the consumption of fresh produce rather than imported frozen berries
- Move towards Integrated pest management and reduced inputs for production
- Development of new regions such as in Tasmania for raspberry and blackberry production to bolster year-round supply
- Overlap of raspberry and blackberry consumers and value chains with other berry industries
- Availability of technology to improve productivity at all stages of value chain
- Improve national industry cohesion and capacity to strategically manage relationships, issues, and communications
- Availability of new blackberry varieties in Australia to meet consumer needs.

Threats

- Sustained rapid increase in domestic production could impact on grower prices
- Biosecurity risks to plant health status, especially spotted wing Drosophila
- Competition from other fruits and snack food products
- Supermarkets eroding supplier brands
- Reduced ease of access and higher cost for labour
- Consumer expectation for assurances with product integrity and sustainability
- Product and industry reputational damage from instances of poor environmental or product quality performance
- Climate change and variability in growing conditions.





SECTION TWO

Raspberry and blackberry industry outcomes

Industry outcomes

The industry outcomes are framed against the strategy relevant to each industry for the next five years. These can be summarised as:

- For the raspberry industry, the strategy is to expand the consumer market and increase the consumer demand for fresh raspberries domestically, while positioning for export in selected markets
- For the blackberry industry, the strategy is to access new varieties and increase production of fresh, consistently high quality
 fruit for the domestic retail market.

OUTCOME 1

By 2021, domestic per capita consumption of fresh Australian raspberries will increase by at least 40 per cent, supported by positive consumer perceptions of product value

Expanding production to meet underlying domestic consumer demand continues to translate into rising per capita consumption of raspberries. The strategic intent is to sustain prices and margins as production continues to expand. It means investing to:

- Broaden consumer awareness so that raspberries are more top-of-mind and purchased more frequently
- Reinforce and promote the value and health benefits of fresh raspberries.

Returns to growers are heavily dependent on a vibrant domestic retail market for fresh raspberries. Future industry success in the domestic market will involve:

- Developing and maintaining an in-depth understanding of consumers and the product attributes each consumer segment values most
- Sharing of current market knowledge and insights across the value chain to inform business decisions and the close alignment of fruit supply, quality and other attributes with consumer demand.

OUTCOME 2

By 2021, exports of Australian raspberries exceed five per cent of national production by volume, in selected markets with a capacity and willingness to pay a premium for quality fruit

The strategic intent of this outcome is to diversify into selected export markets for fresh raspberries as a means of reducing the industry's dependency on the domestic market, especially during seasonal production peaks.

Achieving this outcome will involve preparing an export strategy that identifies and prioritises export markets where there is a willingness and capacity to pay a premium for quality Australian raspberries.

OUTCOME 3

By 2021, the industry will increase farm productivity (marketable yield per hectare) by an average 10 per cent

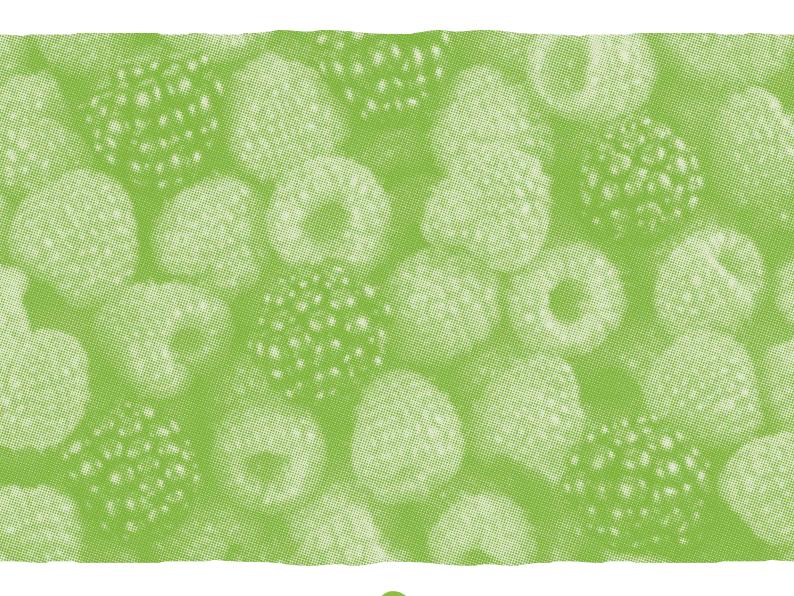
The strategic intent of this outcome is to identify, document and promote production practices that are proven to optimise returns and reduce risk to growers. Achieving the outcome will involve:

- The use of technology and information to reduce labour costs and the other costs that are associated with the supply of consistently high quality raspberries and blackberries that meet consumer demand
- Accessing new varieties, which is a high priority for the blackberry industry so that it can expand production to meet consumer demand
- Continuing the trend towards the use of protected cropping systems to reduce the impacts of climate variability and increase product consistency.

OUTCOME 4

By 2021, at least 90 per cent of growers and other firms involved in raspberry and blackberry value chains will be directly engaged with and value national industry services

The strategic intent of this outcome is to build the capability for collection, analysis and the dissemination of information to inform business decisions and meet consumer demand. As the industry is consolidating and production is increasing, it will be vital to implement information systems and national services. These will help ensure the effective implementation of the programs that lead to high performance of the industry.





SECTION THREE

Raspberry and blackberry industry priorities

Industry investment priorities

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.

OUTCOME 1 – By 2021, domestic per capita consumption of fresh Australian raspberries will increase by at least 40 per cent, supported by positive consumer perceptions of product value

40 per cent, supported by positive consumer perceptions of product value		
STRATEGIES	POSSIBLE DELIVERABLES	
Establish and monitor consumer perceptions and expectations towards fresh Australian raspberries and blackberries	Regular consumer insight reports that assist business decisions by growers and other value chain firms	
Promote the health benefits and value associated with eating raspberries and blackberries	Marketing and promotional material developed and distributed via multiple channels to target raspberry and blackberry consumers – including use of online and social media	
Provide timely information on industry production, forecasts and markets	Weekly and monthly statistics on national and state production and trends	
Manage risks to the Australian industry's reputation as a reliable supplier of superior quality, safe products	National industry crisis management plan developed with priority risk areas identified and agreed, and with tailored response plans in place	

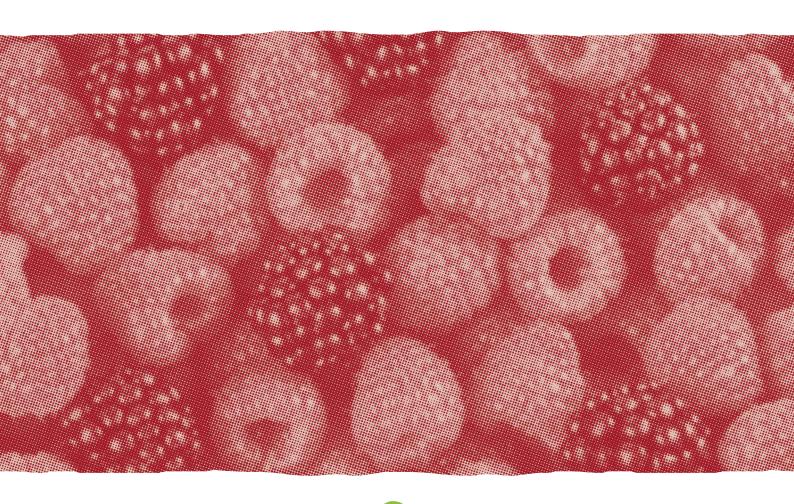
OUTCOME 2 – By 2021, exports of Australian raspberries exceed five percent of national production by volume, in selected markets with a capacity and willingness to pay a premium for quality fruit

STRATEGIES	POSSIBLE DELIVERABLES
Develop a raspberry export strategy during 2017 by working with potential exporting businesses	An export strategy that is valued by raspberry businesses
Develop and extend resource material required by businesses to enter and develop exports with existing markets	An export manual and production guide for meeting the market requirements for priority countries where Australia has market access
Establish technical market access for new markets identified as priorities in the export strategy	Trusted relationships with other horticultural industries and the Australian Government Technical information that informs and influences decisions to allow market access for Australia

OUTCOME 3 – By 2021, the industry will increase farm productivity (marketable yield per hectare) by an average 10 per cent		
STRATEGIES	POSSIBLE DELIVERABLES	
Facilitate availability of superior blackberry varieties that match consumer expectations	Information and advice is available to growers for meeting requirements to access new varieties from overseas	
Protect the high biosecurity status of the raspberry and blackberry industry	Plans and management tools are in place to mitigate high risk biosecurity threats, such as spotted wing Drosophila	
Establish the main constraints and influences for increasing raspberry and blackberry industry productivity	Tailored plans to address the key productivity constraints impacting on the majority of growers and the majority of production – including communication and extension	
Inform growers on the emerging options, risks and opportunities afforded by protected cropping systems	Reporting annually on the types of systems being adopted and trends with the proportion of national production through protected cropping with potential to explore co-investment opportunities through the Hort Innovation Pool 2 program	

Effective industry engagement, flows of information and trusted relationships are all critical for a cohesive industry and for implementation of the SIP. As such, an up-to-date national database of raspberry and blackberry growers and value chain firms will be maintained as a mechanism for Hort Innovation to facilitate two-way flows of information and communications with growers and value chain firms. These information flows are vital to inform timely decision-making and to support behavioural change.

Effective industry engagement, flows of information and trusted relationships are all critical for a cohesive industry...



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 11 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 4*. *Figure 4* also shows how each cross-sectoral investment theme relates to the five investment priorities.

Figure 4: Hort Innovation's investment priorities



The alignment of raspberry and blackberry 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 1*.

Table 1: Alignment of raspberry and blackberry SIP outcomes to the Hort Innovation investment priorities

Hort Innovation investment priorities	Raspberry and blackberry SIP outcomes
Support Industry efficiency and sustainability	By 2021, the industry will increase farm productivity (marketable yield per hectare) by an average 10 per cent
Improve productivity of the supply chain	
Grow the horticulture value chain capacity	By 2021, at least 90 per cent of growers and other firms involved in raspberry and blackberry value chains will be directly engaged with and value national industry services.
Drive long-term domestic and export growth	By 2021, domestic per capita consumption of fresh Australian raspberries will increase by at least 40 per cent, supported by positive consumer perceptions of product value.
Lead strategically to enhance the development of the Australian horticulture industry through operational excellence	Enabler



SECTION FOUR

Raspberry and blackberry industry monitoring and evaluation

Raspberry and blackberry SIP monitoring, evaluation and reporting

A SIP program logic and monitoring and evaluation (M&E) plan has been developed for the raspberry and blackberry 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.

Raspberry and blackberry SIP logic

An indicative raspberry and blackberry SIP program logic is shown on page 17 in *Figure 5*. The logic is based on the Hort Innovation SIP logic hierarchy (*Appendix 2*). The shaded boxes are not fully explicit in the strategy but necessary conditions for the achievement of expected outcomes.

Hort Innovation will facilitate the regular review of SIPs to ensure they remain relevant to industry.

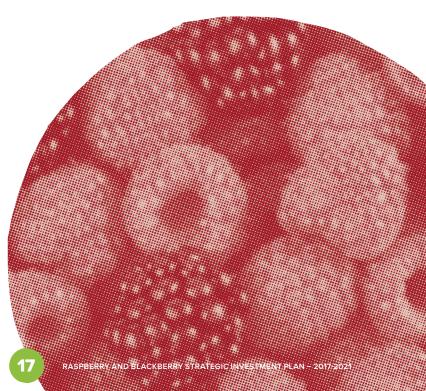
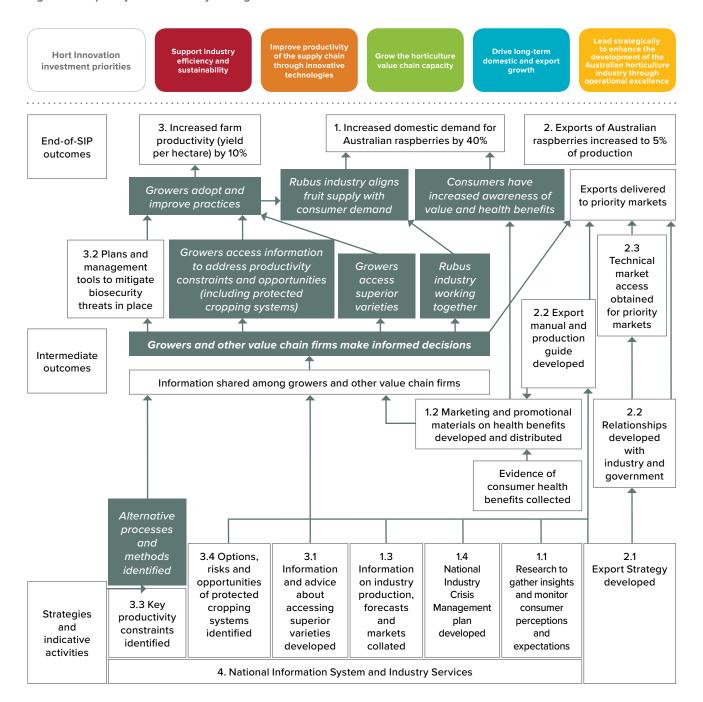
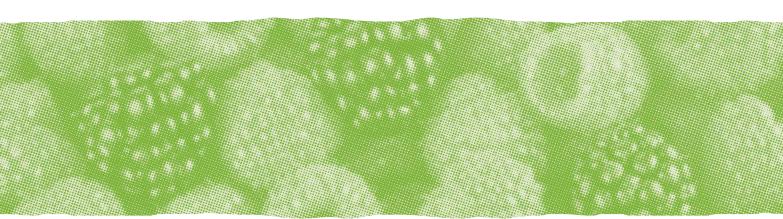


Figure 5: Raspberry and blackberry SIP logic





Raspberry and blackberry SIP M&E plan

The raspberry and blackberry M&E plan is shown in *Table 2*. 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 2: Monitoring and evaluation plan for the raspberry and blackberry SIP

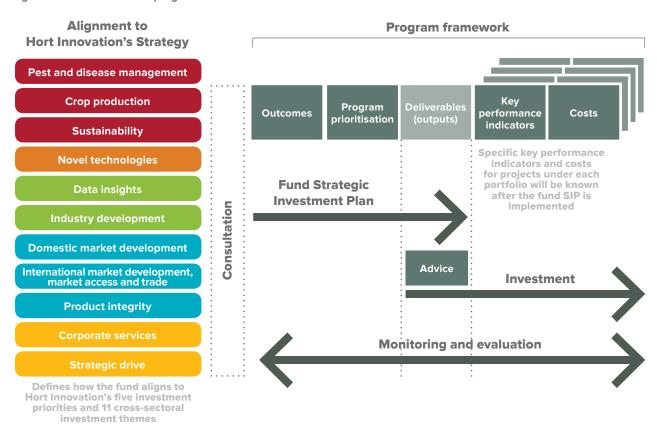
Outcome	Strategies	KPIs	Data collection methods and sources
OUTCOME 1: By 2021, domestic per capita consumption of fresh Australian raspberries will increase by at least 40 per cent, supported by positive consumer perceptions of product value Establish and monitor consumer perceptions and expectations towards fresh Australian raspberries and blackberries Promote the health benefits and value associated with eating raspberries and blackberries Provide timely information on industry production volume, forecasts and markets Manage risks to the Australian industry's reputation as a reliable supplier of superior quality, safe products	 Quarterly reports on sales volume through major retailers with price tracking and consumer purchase frequency Majority of grower businesses and 	Retail and consumer behaviour/attitudinal data Grower surveys	
	value associated with eating	businesses responsible for majority of national production are aware of consumer research findings • Evidence of consumer health benefits available • Evidence of changed grower and value chain practices to align with consumer research findings	Desktop researchGrower surveyIndustry workshop/s
	industry production volume,		
	industry's reputation as a reliable supplier of superior quality, safe	 Evidence of grower awareness and satisfaction with information on national production volumes Agreed industry crisis management plan in place 	
OUTCOME 2: By 2021, exports of Australian raspberries exceed five percent of national production by volume, in selected markets with a capacity and willingness to pay a premium for quality fruit	Develop a raspberry export strategy during 2017 by working directly with current/potential exporting businesses	Raspberry export strategy developed with input and validation by export ready businesses Export manual and production guide for meeting the market requirements of priority countries is completed and supported by exporters Plans to achieve technical access in the three highest priority markets are agreed and implementation commenced Export protocols established with priority markets	 ABS/GTA export statistics Grower and exporter survey Exporter/grower workshop DAWR
	Develop and extend resource material required by businesses to enter and develop exports with existing markets		
	Establish technical market access for new markets identified as priorities in the export strategy		
OUTCOME 3: By 2021, the industry will increase farm productivity (marketable yield per hectare) by an average 10 per cent	Facilitate availability of superior blackberry varieties that match consumer expectations	Review the technical barriers to importation of blackberry varieties through a scientific study	 Research across industry, regulators and the literature Research evidence Grower survey
	Protect the high biosecurity status of the raspberry and blackberry industry	 Plans and management tools are in place to mitigate high risk biosecurity threats, including spotted wing Drosophila Agreed high priorities for R&D investment and extension to increase productivity confirmed with growers Growers choosing to invest in protected 	
	Establish the main constraints and influences for increasing raspberry and blackberry industry productivity		
	Inform growers on the emerging options, risks and opportunities afforded by protected cropping systems	cropping are satisfied with R&D available on growing techniques for these systems	

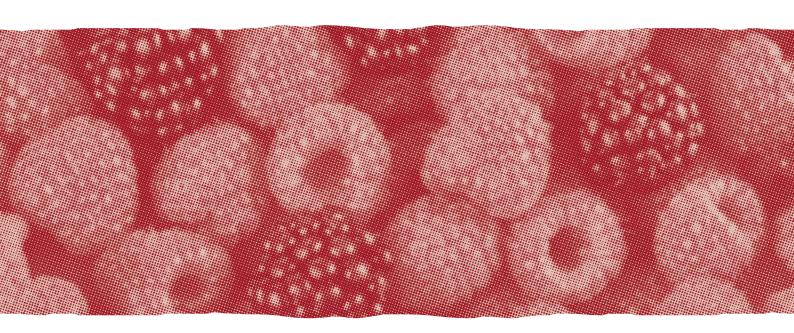
Reporting

The program framework in *Figure 6* 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 6: Hort Innovation's program framework



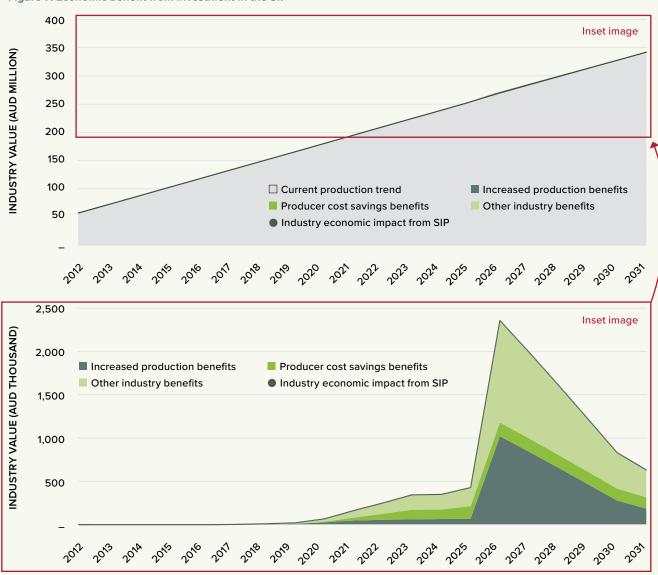


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SECTION FIVE

Impact assessment

Figure 7: Economic benefit from investment in the SIP



An independent assessment of the potential economic impacts from investment into the raspberry and blackberry SIP indicated a positive return on investment for the industry (*Figure 7*). The anticipated investment of \$3.69 million over the next five years in R&D, extension and marketing activities is expected to generate \$10.18 million in net benefits for the industry, representing a benefit cost ratio of 2.76 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.

Table 3 provides a summary of the assessed impacts for each outcome identified in the SIP, the anticipated deliverables, net economic benefits and benefit cost ratio.

Table 3: Summary of assessed impacts for each raspberry and blackberry SIP outcome

Outcome	Expected deliverables	Anticipated SIP Investment investment (over five years)	Net benefits (over 15 years)	Benefit cost ratio
Increase consumption of Australian raspberries and blackberries	Consumers insight reports, marketing and promotional material, weekly and monthly industry statistics, crisis management plan	\$1,476,475	\$5,834,918	3.95
Increase exports of Australian raspberries and blackberries	Export strategies for rubus businesses, export manual and production guide, technical market access	\$922,797	\$1,669,350	1.81
Increase farm productivity	Accessing new overseas varieties, biosecurity plan and tools, plans to address production constraints, protected cropping systems	\$1,291,915	\$2,670,879	2.07
Underlying capability: Engage stakeholders along value chain	Database of value chain stakeholders, statistics on national and state production trends	Cost integrated into Outcomes 1 to 3	Benefits calculated in Outcomes 1 to 3	Not applicable

The quantified impacts associated with Outcome 1 include:

- Market expansion from an increase in domestic consumption of raspberries and blackberries per capita from better understanding of consumer needs and efficiency across the supply chain
- Price premiums from consumer awareness and positive perceptions of product value for raspberries and blackberries
- Reduced impacts from industry crises such as the Hepatitis A incident with frozen berries which could diminish consumer confidence and significantly reduce the value of the industry.

The quantified impacts from Outcome 2 include:

- Market expansion from building on current export markets such as Singapore and Vietnam and entry into new export markets particularly in the Asian region
- Price premiums received from the export markets services which would need to be for high value products to offset the high production costs in Australia
- 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:

- Yield improvements and market expansion from the importation overseas varieties which have better producer and/or consumer related characteristics
- Reductions in crop losses and increases in yield due to better biosecurity management and mitigation of high risk biosecurity threats such as the spotted wing Drosophila
- Reductions of production inputs and increases in yield from the implementation of new technologies on the farm including new protected cropping technologies.

The quantified impacts from Outcome 4 include:

Improvements in the benefits generated from Outcomes
1 to 3 due to a greater capacity to support research and
development, industry adoption and implementation
with a collaborative industry approach comprising of
strawberry, raspberry, blackberry and blueberry. The
benefits in Outcome 4 are integrated into Outcomes 1 to 3
as part of their overall return on investment.

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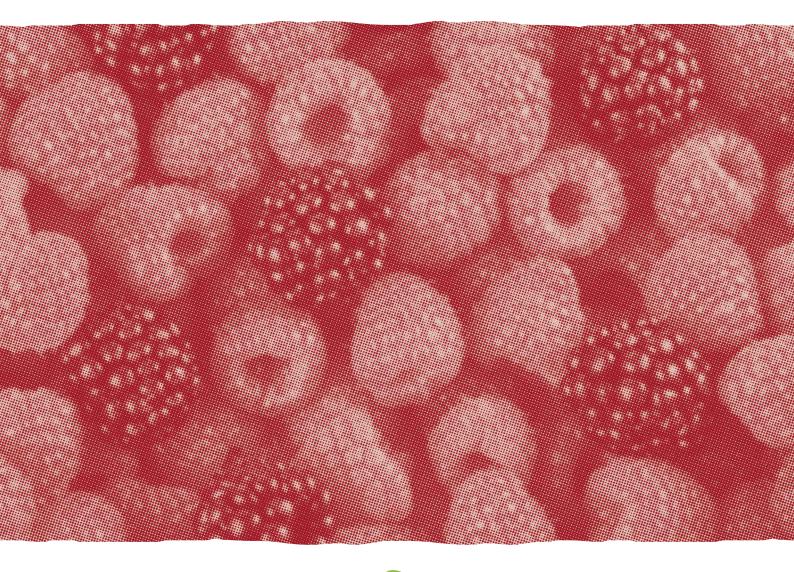
SECTION SIX

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.

Major upcoming risks for the raspberry and blackberry industry are:

Export access negotiations – achieving technical access
to export markets is often a complex and very lengthy
process. Success is very dependent on the markets
prioritised, the nature of the technical issues, the priorities
of the importing country and progress of government to
government negotiations.



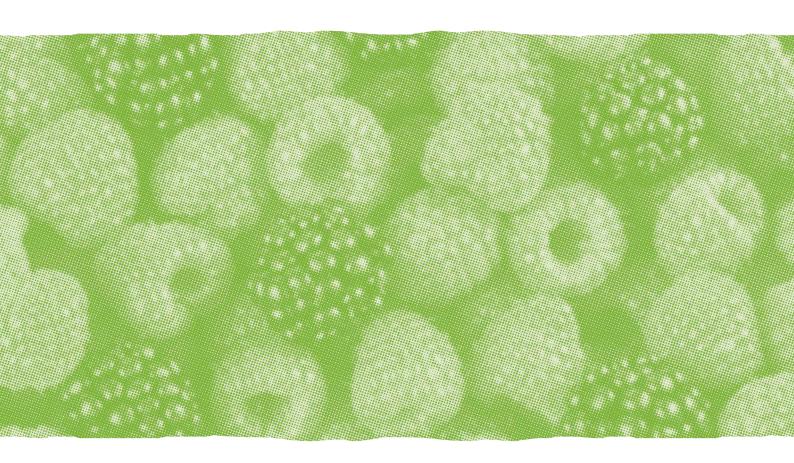
APPENDIX 1:Consultation and validation

The following people are acknowledged for their contribution to the raspberry and blackberry SIP process.

Name	Organisation
Ryan Brightwell	-
Mark Conroy	Driscolls Australia
Peter Chapman	Mantly
Steve Chapman	Chappies
Anthony Corone	Indulge Raspberries
Jim Corone	Indulge Raspberries
Jon Gleeson	Driscolls Australia
Greg Jarman	Costa
Chris Manders	Wandin Yallock Farms
Tim Manders	Wandin Yallock Farms
Jeff Matthews	YV Fresh
Albert Meeuwissen	Nerrigundah Berries
Phil Rowe	Sunny Creek Organic Berry Farm

A draft version of this SIP was presented to the raspberry and blackberry SIAP on Monday, November 28, 2016 at Melbourne Airport. The following people attended this meeting:

Name	Organisation
Jason Schmidt	Costa
Jeff Mathews	YV Fresh
Jon Gleeson	Driscolls Australia
Kate Sutherland	Burlington Berries
Nic Hansen	Total Turf Care
Jim Corone	Indulge Raspberries
Richard McGruddy	Red Hill Berries
Nicholas Miall	Perfection Fresh
Phil Rowe	Sunny Creek Organic Berry Farm
Brad Mills	Hort Innovation
Stuart Burgess	Hort Innovation
Brian Ramsay	Inovact Consulting



Vision

Mission

Increased profitability of Australia's horticulture industries

To grow the future of Australia's horticulture industries

Increased productivity of Australia's horticulture industries

Increased global competitiveness of Australia's horticulture industries

Hort Innovation end-of-strategy outcomes

Support industry efficiency and sustainability

Improve productivity of the supply

......

Drive long-term domestic and export growth

End-of-SIP outcomes

The industry-specific outcomes of the SIP. The final desired result of SIP investment but may be achieved after the SIP time-frame. SIP investment may be just one contributing factor to the achievement of these outcomes. For example, incremental productivity, profitability and competitiveness improvements stimulated through R&D, changes in consumer awareness, marketing campaign reach and influence and increased recognition of Australian horticulture products.

SIP intermediate outcomes

Short- to medium-term changes brought about through the SIP, which will support the achievement of endof-SIP outcomes. For example, practice changes, adoption, changes in grower knowledge, attitudes, skills and aspirations (KASA) and marketing reach.

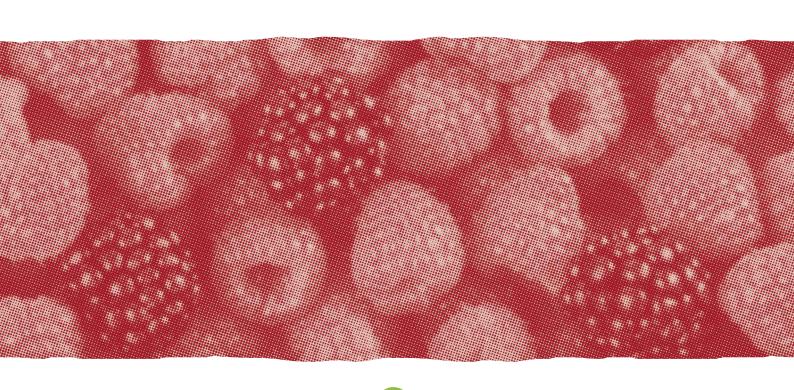
SIP activities and outputs

What is directly delivered by the SIP (R&D, extension and marketing activities and outputs, for example, products and services, and events and engagement) across the 11 horticulture cross-sectoral investment themes: Pest and Disease Management, Crop Production, Sustainability Improvements, Novel Technologies, ${\it Data\ Insights, Industry\ Development,\ Product\ Integrity,\ International\ Market\ Development,\ Market\ Access}$

Foundational activities

Preliminary or preparatory activities that are conducted before and during SIP delivery. Includes industry processes, infrastructure and resources that enable the SIP to be developed and delivered. Includes SIP planning, consultation, advisory meetings etc.





SIP specific

APPENDIX 3: Reference documents

Department of Agriculture and Water Resources (2016), Rubus levy Information, http://www.agriculture.gov.au/agfarm-food/levies/rates/Rubus

Edentify (2016), Raspberry and Blackberry Research

Food Standards Australia New Zealand (2015), *Nanna's brand frozen berries (Mixed Berries and Raspberries)*, http://www.foodstandards.gov.au/industry/foodrecalls/recalls/Pages/Nanna's-Mixed-Berries.aspx

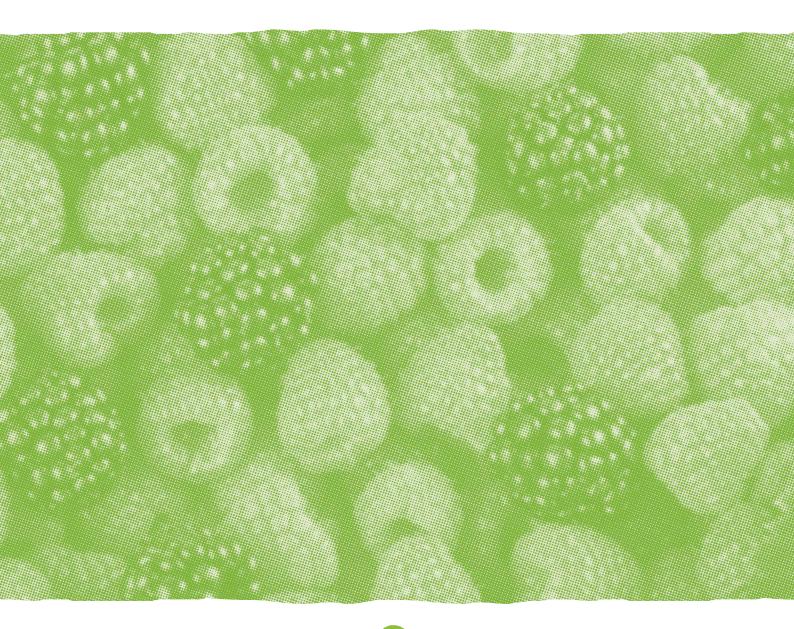
FreshFruitPortal.com (2016), Raspberries at "critical juncture" says Driscoll's exec, http://www.freshfruitportal.com/news/2016/11/02/Raspberries-at-critical-juncture-says-driscolls-exec/?utm_source=Freshfruitportal.com&utm_campaign=c74bb4cd49-EMAIL_
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Horticulture Innovation Australia (2016), 2014/15 Australian Horticulture Statistics Handbook: Fruit, "Berries- Rubus Berries", pages 76 – 81

Nielsen Homescan Data

RMCG (2014), RB13005 Raspberries and Blackberries Australia Inc: Strategic Investment Plan 2014 – 2019, pages 9 – 12



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