

Berry

Strategic Investment Plan

2022-2026



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EXECUTIVE SUMMARY

The overarching strategic intent of this Strategic Investment Plan (SIP) is to grow the total value of the Australian berry sector by increasing demand for Australian berries in both domestic and new export markets with an emphasis on improved and consistent product quality.

The berry Strategic Investment Plan (SIP) 2022-2026 provides a roadmap to guide Hort Innovation's investment of the berry sector's levy and Australian Government contributions, ensuring investment decisions are aligned with priorities of the berry industries.

The berry SIP takes a collective approach, combining blueberry, raspberry and blackberry, and strawberry industries for investment efficiencies and to benefit from the similarities of the three industries, including:

- The consumer view that berries occupy the same niche within the retail sector – the so-called 'berry basket'
- The supply chains and growing entities are often combined
- Many of the export, biosecurity and chemical access issues are similar
- Industry representation is combined since the formation of Berries Australia.

It is recognised that each berry industry is structurally different to the others. These differences will be acknowledged and managed during the investment process so that all growers in each industry can benefit from the investment of their levy into research, development, extension, marketing and international trade.

The situation in 2019/20 for the Australian berry sector and each of its industries is described on **pages 4-7** and further information is provided in **Appendix 1**. The berry sector has continued to be one of the fastest growing and highest value horticultural sectors with a combined production value of \$1,040 million in 2020/21. Significant increases, especially in the blueberry, and raspberry and blackberry industries with growth to year-round supply from different supply regions, has been a major factor in this growth.

The trend towards healthy eating, the rise in popularity of fruit for 'snacking' purposes, the classification of blueberries as a 'superfood', and the versatility of berry products suggest both domestic and global berry consumption and the corresponding opportunity for Australian growers is positive. Growth will continue on the domestic market with an increasing strategic focus on future market growth through the development of export opportunities.

The strategic intent of the combined berry SIP provides a summary of how the berry industries will drive change over the life of the SIP. The key focus on increasing demand – both in the domestic and especially export markets with an emphasis on improved and consistent quality – will be the key drivers to the success of this plan.

The financial estimates give an indicative overview of the funding availability for the period of FY2022-FY2026. Given significant levy reserves in both the raspberry and blackberry, and strawberry funds and continued industry growth, there are opportunities to invest in key sector priorities over the life of the SIP.

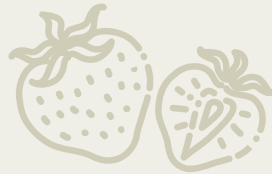
The four outcome areas of this SIP cover significant themes under which programs and investments will be focused. These are listed in priority order for the berry sector with demand creation for Australian berries the key priority, especially with the development of new export market opportunities. Improvements in industry supply, productivity and sustainability will also be a focus with particular emphasis on productivity and quality improvements in line with developing a long-term sustainability program for the industry.

The key performance indicators (KPIs) detail how the impact of each strategy will be measured, for example, prioritisation of market access protocols, increased growth in export market shares, control methods and strategies for key pests and diseases will ensure the strategic intent of the combined berry SIP is achieved.

THE AUSTRALIAN BERRY SECTOR:



Blueberry



Strawberry



Raspberry and blackberry

GROWTH TRENDS:

↑
EXPORTS
 2019/20
\$42 million
 (5,084t)

↑
EXPORTS
 2012/13
\$6 million
 (850t)



Increase in exports from **850 tonnes (\$6m)** in 2012/13 to **5,084 tonnes (\$42m)** in 2019/20

PRODUCTION VOLUMES:



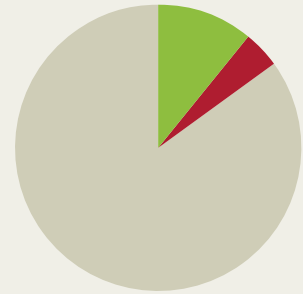
113,025 tonnes
 in 2019/20

FARMGATE VALUE:



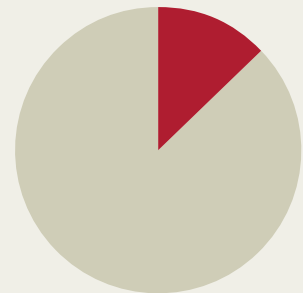
\$1,040 million
 in 2019/20

EXPORT/FRESH DOMESTIC/PROCESSING:



Processing 11% Export 4%
 Fresh domestic 85%

DOMESTIC RETAIL VS FOODSERVICE:



Retail 87% Foodservice 13%

CONSUMPTION:



75%

of Australian households
PURCHASE
AUSTRALIAN BERRIES

PER CAPITA CONSUMPTION:

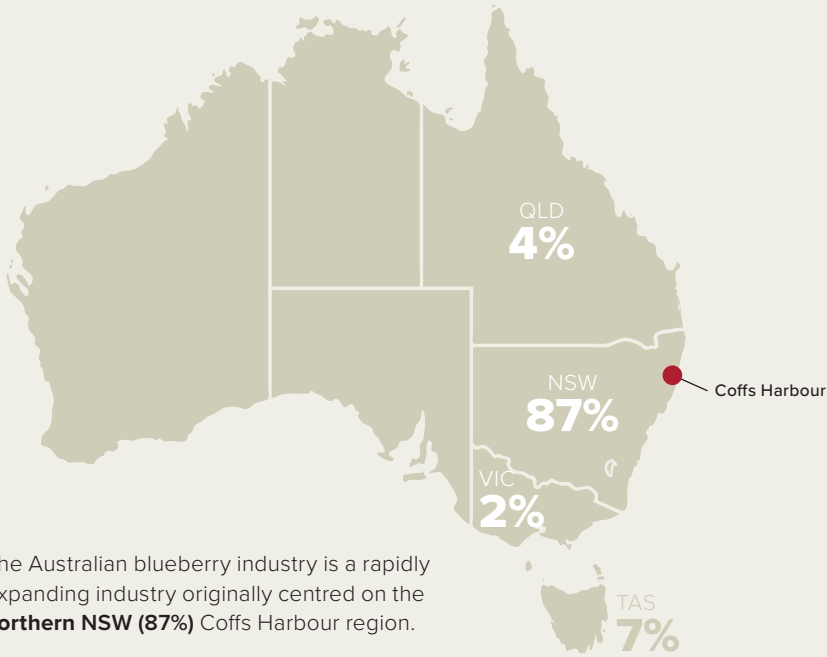
3.8 kg

in 2019/20



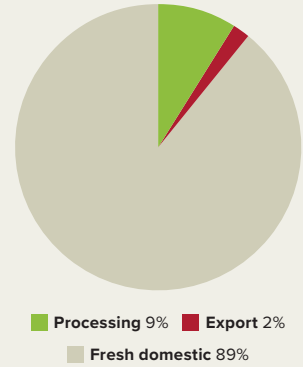
BLUEBERRY

BLUEBERRY PRODUCTION REGIONS:

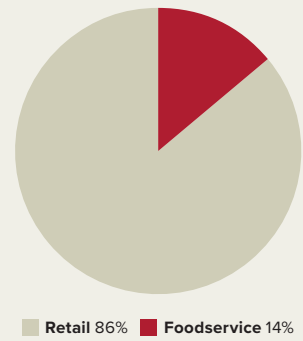


The Australian blueberry industry is a rapidly expanding industry originally centred on the northern NSW (87%) Coffs Harbour region.

EXPORT/FRESH DOMESTIC/ PROCESSING:



DOMESTIC RETAIL VS FOODSERVICE:



PRODUCTION WINDOW:



Year-round

NUMBER OF BLUEBERRY GROWERS:



300

PER CAPITA CONSUMPTION:



0.78 kg

PRODUCTION VOLUMES:



20,783 tonnes

in 2019/20

FARMGATE VALUE OF PRODUCT:



\$389.6 million

in 2019/20

GROWTH TRENDS:

VALUE +15%
YEAR-ON-YEAR

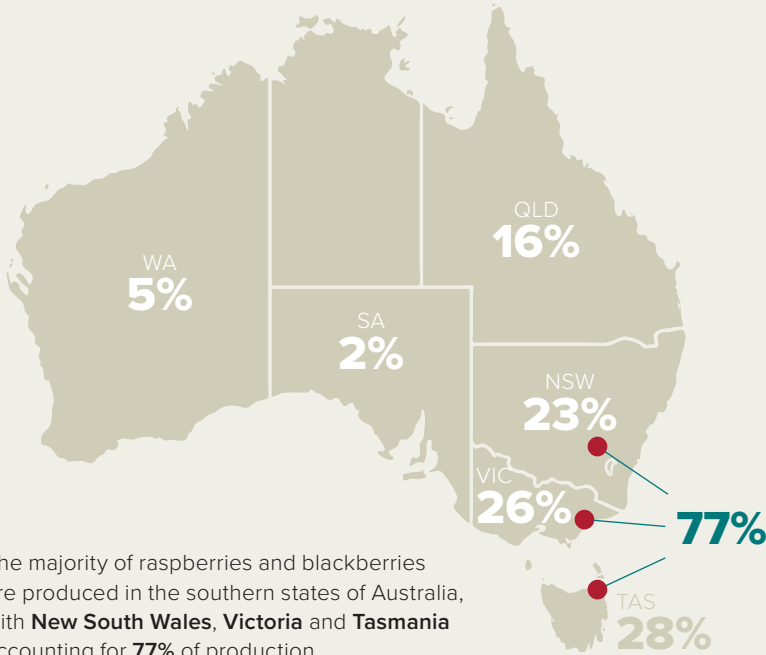
VOLUME +9%
YEAR-ON-YEAR



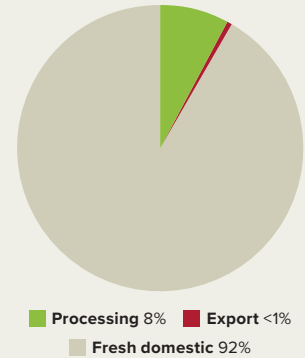
9% year-on-year increase in production volume and 15% increase in production value.

RASPBERRY AND BLACKBERRY

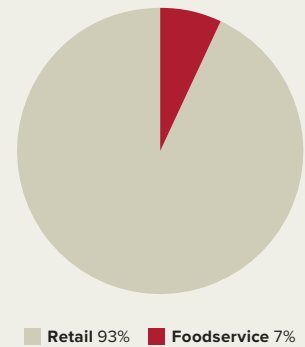
RASPBERRY AND BLACKBERRY PRODUCTION REGIONS:



EXPORT/FRESH DOMESTIC/PROCESSING:



DOMESTIC RETAIL VS FOODSERVICE:



PRODUCTION WINDOW:

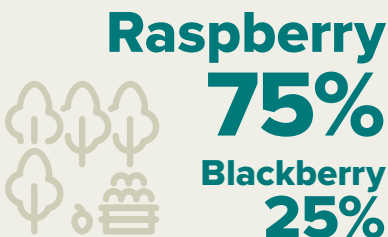


Year-round

NUMBER OF RASPBERRY AND BLACKBERRY GROWERS:



VARIETIES:



PRODUCTION VOLUMES:



9,932 tonnes

in 2019/20

FARMGATE VALUE OF PRODUCT:



PER CAPITA CONSUMPTION:

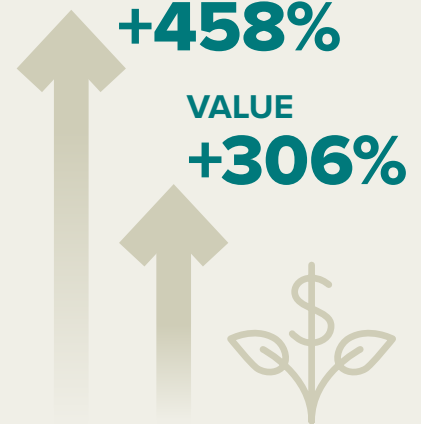


GROWTH TRENDS:

SINCE 2012/13...

VOLUME +458%

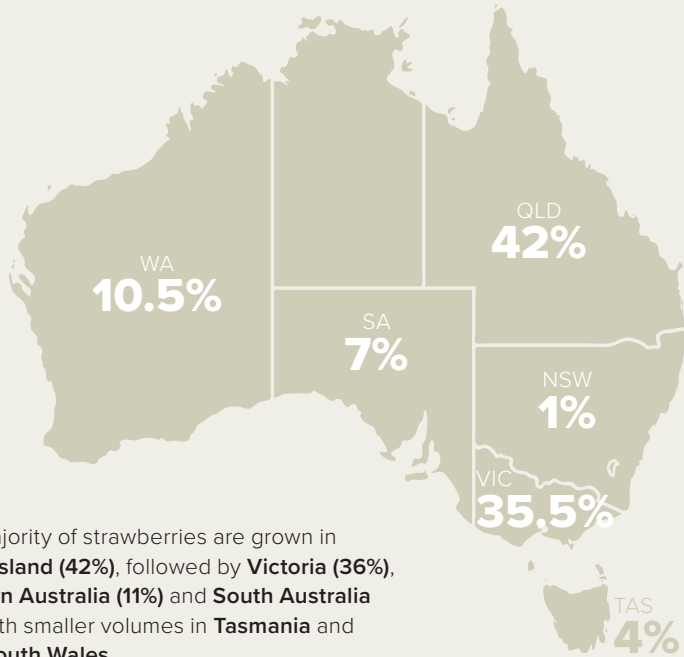
VALUE +306%



Growth of **7,765 tonnes (458%)** and **\$145.9 million (306%)** since 2012/13.

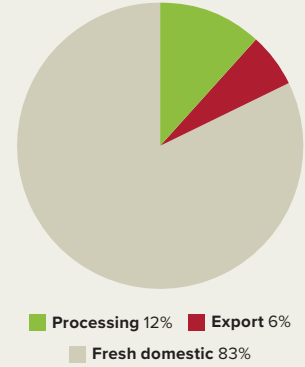
STRAWBERRY

STRAWBERRY PRODUCTION REGIONS:

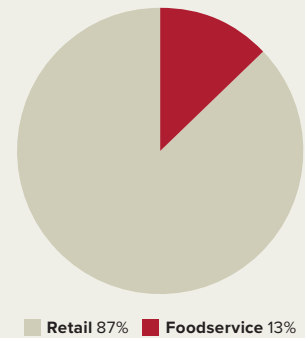


The majority of strawberries are grown in Queensland (42%), followed by Victoria (36%), Western Australia (11%) and South Australia (7%) with smaller volumes in Tasmania and New South Wales.

EXPORT/FRESH DOMESTIC/ PROCESSING:



DOMESTIC RETAIL VS FOODSERVICE:



PRODUCTION WINDOW:



Year-round

NUMBER OF STRAWBERRY GROWERS:



200

PER CAPITA CONSUMPTION:



2.6 kg

PRODUCTION VOLUMES:



82,310 tonnes

in 2019/20

FARMGATE VALUE OF PRODUCT:



\$435 million

in 2019/20

GROWTH TRENDS:



SINCE 2012/13...
EXPORT VOLUME
+494%



494% growth in exports, increasing from 788 tonnes in 2012/13 to **4,678 tonnes in 2019/20**.

THE BERRY STRATEGIC INVESTMENT PLAN

The berry SIP is the roadmap that will guide Hort Innovation's oversight and management of the berry sector's investment programs. It lays the foundation for decision-making in investments and represents the balanced interest the whole sector. The important function of this SIP is to ensure that the investment decisions align with the berry sector's priorities.

Hort Innovation has led the process for preparing the refresh of the berry SIPs and combining them into one combined SIP, listening and engaging with levy payers and key stakeholders including Industry Representative Bodies (IRBs) and expertise available through advisory mechanisms and delivery partners. The refresh process involved consultation with and input from a wide range of levy payers, objective analysis of performance and learning from the previous SIPs, as well as environmental scanning to identify emergent trends and issues that could impact on industry profitability and sustainability.

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

The whole-of-company approach taken by Hort Innovation to produce this SIP has harnessed existing external and internal knowledge, learning, partnerships and relationships. The output is a tailored plan with which the berry sector can be confident of its strategic intent, including visibility on how investment impacts will be identified. Specific investments to address the SIP strategies and align with industry strategic priorities will be outlined in detail via the berry Annual Investment Plan (AIP). The AIP will be published each year over the lifespan of the SIP and detail the investments that will be prioritised based on potential industry impact, as well as the availability of levy funds. Hort Innovation will advise industry stakeholders when the AIP has been published via established communication channels each year. The AIP will be developed with input from each of the berry Strategic Investment Panels (SIAPs), IRBs and other key stakeholders

Raspberry, blackberry and strawberry producers pay levies to the Department of Agriculture, Water and the Environment, 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 **strawberries** that are produced in Australia and either sold by the producer or used by the producer in the production of other goods. The R&D levy rate on strawberries is set at \$7.87 per 1000 runners. The strawberry industry does not have a marketing levy.

Levy is payable on **raspberries and blackberries** that are produced in Australia and either sold by the producer or used by the producer in the production of other goods. The R&D levy rate is set at 10 cents per kilogram whilst the marketing levy is set at 2 cents per kilogram. It is likely that the industry will reduce both the R&D levy significantly and remove the marketing levy – an industry vote on this is likely to occur during the first year of the SIP.

The **blueberry** industry has a voluntary levy of which a proportion (currently set at 2.2 cents per kilogram) is allocated to a collective industry fund (CIF). These funds attract Australian Government contributions for investment in industry R&D programs that are managed by Hort Innovation.

Hort Innovation has developed this SIP for the berry sector to strategically invest the collected berry levy funds into the priority areas identified and agreed by the berry sector.

This SIP represents the Australian berry sector's collective view of its R&D and marketing needs over the next five years (2022-2026). Learning, achievements and analysis of the previous SIPs, consultation with Australian berry levy payers, and synthesis of various strategic documents have been incorporated into the development of this SIP. **Appendix 3** acknowledges the people who were consulted in the preparation and validation of this SIP. Statistics and data within this publication are sourced from the Australian Horticulture Statistic Handbook 2019/20 and other documents unless stated otherwise and are listed in **Appendix 4**. A list of acronyms used within the document is available in **Appendix 5**.

Financial estimates

The annual revenue from levy income and Australian Government contributions for eligible R&D set the overall budget parameters for the berry SIP. Importantly, a portion of these funds is already committed, as the industry has current multi-year projects for R&D and raspberry and blackberry marketing activities. In addition, the levy income from year to year will vary due to changes in seasonal and market conditions. The closing balance for the raspberry and blackberry R&D program will need to reduce further than forecast over the period of the SIP.

The indicative financial estimates used for the purposes of developing this SIP are presented in **Table 1** below. These figures are regularly reviewed to reflect the latest information and statistics for the industry and any changes in investment priority. Further details will be available in the AIP each year.

TABLE 1. Indicative financial estimates for the berry SIP over the life of the SIP

	2022 \$	2023 \$	2024 \$	2025 \$	2026 \$
BLUEBERRY R&D					
Balance end FY2021	32,175				
Estimated levy funds (growers)	275,000	275,000	275,000	275,000	275,000
Australian Government contribution	282,187	284,362	318,519	306,467	300,412
Current investments	480,000	283,700	241,800	71,300	61,000
New investments	–	200,000	300,000	450,000	450,000
Total project investments	480,000	483,700	541,800	521,300	511,000
CCR	84,374	85,024	95,237	91,634	89,823
Projected end balance	21,200	25,500	10,000	5,400	6,000
RASPBERRY AND BLACKBERRY R&D					
Balance end FY2021	3,310,116				
Estimated levy funds (growers)	1,240,000	360,000	378,000	415,800	457,380
Australian Government contribution	956,446	906,504	929,152	929,152	918,699
Current investments	647,000	561,000	200,000	100,000	82,000
New investments	1,000,000	1,000,000	1,400,000	1,500,000	1,500,000
Total project investments	1,647,000	1,561,000	1,600,000	1,600,000	1,582,000
CCR	265,892	252,008	258,304	258,304	255,398
Projected end balance	3,600,000	3,070,000	2,520,000	2,000,000	1,560,000



	2022 \$	2023 \$	2024 \$	2025 \$	2026 \$
RASPBERRY AND BLACKBERRY MARKETING					
Balance end FY2021	143,281				
Estimated levy funds (growers)	200,000	–	–	–	–
Current investments	281,027	–	–	–	–
New investments	–	–	–	–	–
Total project investments	281,027	–	–	–	–
CCR	61,271	–	–	–	–
Projected end balance	–	–	–	–	–
STRAWBERRY R&D					
Balance end FY2021	1,652,757				
Estimated levy funds (growers)	750,000	750,000	750,000	800,000	800,000
Australian Government contribution	1,509,529	1,413,221	582,363	651,975	768,422
Current investments	2,076,390	2,260,740	881,664	301,397	101,685
New investments	500,000	150,000	100,000	800,000	1,200,000
Total project investments	2,576,390	2,410,740	981,664	1,101,397	1,301,685
CCR	422,668	395,702	163,062	182,553	215,158
Projected end balance	891,111	225,023	389,098	532,916	559,688

Balance end FY2021 – The closing balance of the fund as at 30 June 2021

Estimated levy funds – Net levy income/revenue that is generated and collected by levy revenue services (LRS)

Australian Government contribution – Amount of contribution from the Australian Government on R&D levy-funded expenditure

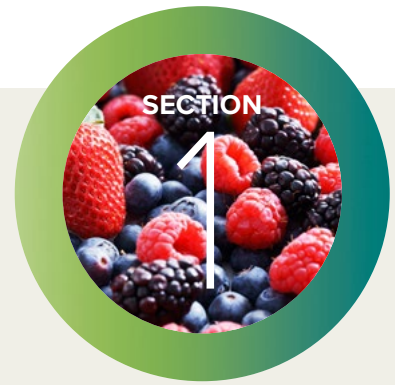
Current investments – Current estimated value of contracted projects

New investments – The estimated dollar value that is available for potential new investments for industry subject to industry advice

CCR – Corporate cost recovery: the cost to implement and manage R&D and marketing investment programs for each industry

Projected end balance – Forecast of the anticipated final position of the fund





BERRY SECTOR OUTCOMES

The overarching strategic intent of this SIP is to grow the total value of the Australian berry sector by increasing demand and returns for Australian berries in both domestic and new export markets with an emphasis on improved and consistent product quality.

Industry outcomes

Outcome statements as identified and prioritised by the berry industry have been prepared under four key outcome areas: demand creation; industry supply, productivity and sustainability; extension and capability; and business insights.

OUTCOME 1: Demand creation

Grow strong consumer demand in domestic and international markets to support farmgate grower returns.

The development of existing and future domestic and international markets will increase demand and returns for growers. Improved consumer knowledge and attitudes will encourage purchase intent, driving category volume growth.

The strategic intent of this outcome is to maintain and strengthen consumer demand at appropriate price points as the foundation for sustainable expansion of production and consumption in domestic and international markets. It means the industry is investing to:

- Ensure access to protocol and non-protocol markets through effective investment in market access and trade development activities and the underpinning R&D required to do this
- Identify and prioritise export and domestic market niches where there is demand and growth potential for competitive supply of quality Australian berries
- Broaden consumer awareness so that Australian berries are more top of mind and purchased more frequently
- Support product positioning with consistent quality, evidence of beneficial product health attributes and responsible industry production practices
- Develop strong relationships across the supply chain with a shared goal to grow the berry category.

Australian berry production has continued to increase over recent years due to an increasing diversity of production regions that enables year-round supply, which in turn drives increased demand. Increasing supply has also seen production peak during August-October 2020/21 (especially for blueberries and strawberries) with a need to increase returns to the industry through the development of new export markets and trade expansion.



OUTCOME 2: Industry supply, productivity and sustainability

Improve industry production efficiency (inputs/outputs) to maintain local and international competitiveness and viability of supply.

Productivity and profitability will be supported through improvements to production efficiencies while ensuring long-term sustainability outcomes.

The strategic intent of this outcome is to accelerate the application of production practices that optimise returns and reduce risk to growers. Achieving the outcome will involve:

- Accelerating widespread use of existing and new R&D findings and proven management practices that will help growers reduce costs associated with pests, weeds and diseases
- Developing sustainable growing systems that maximise resource efficiency and mitigate off-farm impacts
- Ensuring access to superior cultivars for efficient production that matches consumer quality expectations
- Securing pollination for industry through robust bee health, pest and disease mitigation and investigation of alternate pollinators
- Proactively monitoring potential crop protection regulatory threats and having access to a broader suite of effective, socially acceptable and environmentally sound crop protection solutions.

Berry production in Australia is becoming increasingly complex with a diversity of growing regions, production systems and new berry varieties. The need to manage this complexity to ensure the industry can supply consistent quality products to consumers is an ongoing challenge. Added to this is the need to manage an increasing range of risks including food safety, biosecurity, labour supply, climate change, and pest and disease management whilst also taking into consideration long-term sustainability issues.

OUTCOME 3: Extension and capability

Increase capability and innovative culture.

Increase capability and innovative culture will support industry cohesion to use the relevant investment outputs across the supply and demand initiatives to better manage risk and create positive change.

The strategic intent of this outcome is to enhance knowledge, relationships, systems and processes required to communicate effectively with internal and external stakeholders. Achieving the outcome will involve:

- A change in knowledge, attitude, skill, aspiration (KASA) using best practices and innovations to improve grower/industry profitability and sustainability
- Informing growers, supply chain, media and governments on industry initiatives and achievements as a vital part of regional communities and industry network cohesion
- Increasing on-farm use of R&D outcomes which will build a stronger, more resilient industry, in addition to improved networks and cross-industry collaboration
- Proactive strategic and evidence-based decision-making in businesses and for industry on Investment, priorities and risk management.

With the formation of Berries Australia over recent years, collaboration between the various berry industries has allowed the development of a combined berry industry communications and industry development program with representation across the various growing regions around Australia. Continuation of these programs and further development of other berry sector capacity building and leadership programs will assist the continued growth of the sector.



OUTCOME 4: Business insights

Measure industry supply (production) and demand (consumer behaviour) data and insights to inform decision-making.

Business insights will support the industry to remain aware of market and industry trends to drive informed decision-making.

The strategic intent of this outcome is to deliver data and insights which is foundational to achieving success in the other three outcome areas of demand creation; industry supply, productivity and sustainability; and extension and capability.

Achieving the outcome will involve reliable baseline data and analysis to provide insights and understand current and emerging trends. Key investments will support the provision of consumer knowledge and tracking, trade data, production statistics and forecasting and independent reviews to enable better decision-making process at industry level and individual businesses.

These investments underpin and are complementary to delivery of the other outcome areas.



“The important function of this SIP is to ensure that the investment decisions align with the berry sector’s priorities.”



BERRY INDUSTRY STRATEGIES

Strategies to address industry investment priorities

The tables below describe the strategies and identified impacts for each of the key outcome areas. The highest priority investments lay the foundation for the SIP and its implementation will require a balanced approach to ensure the sector has a high likelihood of success over the short (0-3 years), medium (3-5 years) and long term (5-10 years).

The ability to deliver on these strategies (and subsequent investments) will be determined by the ability of the statutory levies and the blueberry CIF to provide the resources to do so. Further resources and efficiencies may potentially become available through alternative funding sources by way of Hort Frontiers strategic partnership initiative, external grants and/or cross-industry initiatives.

OUTCOME 1: Demand creation

Demand creation supports the Australian berry industry to expand into existing and future domestic and international markets.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Increase domestic consumer demand for Australian berries through improving consumer knowledge, attitudes and purchase intent	<ul style="list-style-type: none"> Increased consumer demand for Australian berries
2. Increase industry access to export training materials and mechanisms for business-to-business engagement	<ul style="list-style-type: none"> Increased exports and improved grower awareness and skills for export
3. Pursue technical market access for the priority markets identified in the export strategic plan	<ul style="list-style-type: none"> Increased exports with access to priority markets Increased exports and grower capability
4. Develop resource material required by businesses to enter and develop exports with existing markets	<ul style="list-style-type: none"> Higher impact with market access and exports for the whole sector
5. Implement a market development program in priority export markets	<ul style="list-style-type: none"> Improved grower sales and profitability
6. Establish evidence of product health attributes and national industry practices (e.g., sustainability credentials)	<ul style="list-style-type: none"> Improved sector reputation for health and sustainability
7. Inform health care providers (HCPs) and other key influencers with current nutritional information and data about Australian berries	<ul style="list-style-type: none"> HCP's influence on consumers on the nutritional benefits of berries Increased consumer demand for Australian berries



OUTCOME 2: Industry supply, productivity and sustainability

The Australian berry industry has increased profitability, efficiency and sustainability through innovative R&D, uptake of new technologies, sustainable best management practices (BMPs) and varieties.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Ensure that superior strawberry varieties that match consumer expectations are available to growers across Australia and that BMP techniques are available to optimise returns to growers	<ul style="list-style-type: none"> • Availability of new high-performing, locally adapted strawberry varieties across all growing regions with superior productivity, product quality, disease resistance and overall profitability
2. Develop and optimise fit-for-purpose, sustainable pest and disease management strategies for berry production systems	<ul style="list-style-type: none"> • Improved sustainability, productivity and profitability through reduction in pest and disease impacts on crop production
3. Inform berry growers on the emerging options, risks and opportunities afforded by protected cropping systems	<ul style="list-style-type: none"> • Improved productivity, profitability and product quality
4. Review new postharvest and supply chain technologies available to the berry industry to maximise quality and profitability, including establishing quality standards and a methodology to measure and monitor when quality is below consumer expectations	<ul style="list-style-type: none"> • Improved quality that meets consumer demand
5. Manage risks to the Australian berry sector's reputation as a reliable supplier of superior quality, safe berry products including food safety and biosecurity, and social license by developing and implementing best practices in food safety and traceability to meet the emerging regulatory challenges	<ul style="list-style-type: none"> • Industry preparedness to manage impacts potential risks to growers • Industry maintains reputation as a reliable supplier of high-quality safe produce
6. Protect the biosecurity status of the Australian berry industry	<ul style="list-style-type: none"> • Minimised risks of biosecurity incursions
7. Develop a long-term sustainability program that includes a set of values, practices and communication activities that support a well-respected and sustainable berry industry (e.g., recycling of coir, plastics and water)	<ul style="list-style-type: none"> • Focused sustainability program with improved consumer sentiment for Australian berries and grower profitability
8. Review options to reduce the costs of labour in the berry industry through automation, mechanisation and/or robotic systems or improved management practices	<ul style="list-style-type: none"> • Improved labour efficiency, productivity and profitability
9. Enhance crop pollination and resilience through improved pollination security	<ul style="list-style-type: none"> • Maintained access to honey bees and alternate pollinators • Improved crop yields and quality through enhanced pollination
10. Support the availability of high-health strawberry runners to maintain productivity potential and farm biosecurity through the identification of barriers to the provision of high-health planting material; Develop quality standards for runner production and support uptake by industry	<ul style="list-style-type: none"> • Planting materials perform at their maximum potential • Increased productivity and profitability for growers
11. Prioritise the major crop protection gaps through a Strategic Agrichemical Review Process (SARP)*	<ul style="list-style-type: none"> • Available registered or permitted pesticides are evaluated for overall suitability against major disease, insect pests and weed threats. The SARP aims to identify potential future solutions where tools are unavailable or unsuitable

Continued >>

OUTCOME 2: Industry supply, productivity and sustainability

The Australian berry industry has increased profitability, efficiency and sustainability through innovative R&D, uptake of new technologies, sustainable BMPs and varieties.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
12. Provide regulatory support and co-ordination for crop protection regulatory activities with the potential to impact plant protection product access, both in Australia and internationally*	<ul style="list-style-type: none"> Regulatory Risk Assessments have informed proactive strategic priority setting to avoid pest management gaps in the event that access or use is negatively impacted.
13. Generate residue, efficacy and crop safety data to support applications to the Australian Pesticides and Veterinary Medicines Authority (APVMA) to gain, maintain or broaden access to priority uses for label registrations and/or minor use permits for crop protection needs*	<ul style="list-style-type: none"> Crop protection solutions meet industry priority needs as identified in the industry SARP or biosecurity plan

OUTCOME 3: Extension and capability

Improved capability and an innovative culture in the Australian berry industry maximises investments in productivity and demand.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Deliver extension and communication capabilities to support industry achievement of supply and demand priorities across berry industry segments, for both export and domestic markets	<ul style="list-style-type: none"> A change/progression in KASA and practice change for grower/industry profitability and sustainability through use of best practice and innovations Optimisation of the use of new varieties, pest and disease management, new technologies throughout the supply chain and quality programs
2. Provide opportunity for different levels of engagement between and across industries, across industry members and relevant stakeholders to innovate with, state-based Industry Development Officers (IDOs) and other extension initiatives	<ul style="list-style-type: none"> Strengthened networks between berry sectors and categories Effective sharing of information encourages an innovative culture
3. Strengthen industry leadership through initiatives and training for leadership at all stages of participant development	<ul style="list-style-type: none"> Proactive strategic and evidence-based decision-making in businesses and for industry on investment, priorities and risk and crisis management Develop industry capacity to engage meaningfully to determine industry priorities and take on industry leadership roles
4. Understand barriers to uptake of best practices including an understanding of the culturally and linguistically diverse (CALD) communities within the berry sector	<ul style="list-style-type: none"> Understanding of the barriers to uptake of best practices including an understanding of the CALD communities within the berry sector



OUTCOME 4: Business insights

The Australian berry industry is more profitable through informed decision-making using consumer knowledge and tracking, trade data, production statistics and forecasting, and independent reviews.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Increase industry alignment with quality and brand-positioning opportunities driven by consumer insights*	<ul style="list-style-type: none"> • Provision of business insights to deliver against demand, supply and extension outcomes
2. Use trade data to guide ongoing export development opportunities*	<ul style="list-style-type: none"> • Increased knowledge of potential markets • Positioning with priority markets
3. Use production forecasts to inform market planning in domestic and export markets	<ul style="list-style-type: none"> • Managed growth in exports

* Foundational investments provide data and information that underpin the delivery of other SIP outcome areas and will be aligned to this strategy. Foundational investment areas include:

- Consumer behavioural data
- Consumer usage and attitudes, and brand health tracking data
- Impact assessments
- Trade data
- Crop protectant data.





BERRY SIP MONITORING AND EVALUATION

The berry SIP Monitoring and Evaluation (M&E) Framework development has been informed by Hort Innovation’s Organisational Evaluation Framework.

Progress against the SIP will be reported in Hort Innovation publications and through industry communication channels. The SIP outcomes and strategies are used to inform KPIs that in turn drive the investments and individual projects to deliver on the SIP. Projects responsible for delivering the strategy aligned with each KPI will collect the data.

An M&E and reporting framework is shown below. The framework shows what will be measured to demonstrate progress against the SIP and how metrics will be tracked. Reporting on KPIs will be processed through various formal channels to inform industry and government investors of progress, performance, and impact. Data sources to support M&E will be identified and collected as part of the requirements for each levy investment.

Hort Innovation will facilitate the regular review of the SIP to ensure it remains relevant to industry.

Berry SIP Monitoring and Evaluation Framework

The berry SIP M&E Framework is shown below. It includes key performance KPIs and data collection methods both at a macro/ industry (trend) level and at more specific SIP strategic level/s.

OUTCOME	STRATEGIES	KPIs
Demand creation		
Outcome 1: Demand creation supports the Australian berry industry to expand into existing and future domestic and international markets.	1. Increase domestic consumer demand for Australian berries through improving consumer knowledge, attitudes and purchase intent	<ul style="list-style-type: none"> Positive influence on consumer preference based on consumer research Use of nutritional information to support consumer demand
	2. Increase industry access to export training materials and mechanisms for business-to-business engagement	<ul style="list-style-type: none"> Development of export market resource material and communications programs, and growth in market share Increase in number of industry participants accessing online materials
	3. Pursue technical market access for the priority markets identified in the berry export strategic plan	<ul style="list-style-type: none"> Identification of priority markets in the berry export strategic plan Completion and submission of International Market Access Assessment Panel (IMAAP) in line with industry priorities Achievement of market access for key protocol markets R&D undertaken to support market access applications
	4. Develop resource material required by businesses to enter and develop exports with existing markets	<ul style="list-style-type: none"> Industry-level resources to support market development are produced and updated, as required, over time

Continued >>

OUTCOME	STRATEGIES	KPIs
Demand creation		
Outcome 1: Demand creation supports the Australian berry industry to expand into existing and future domestic and international markets.	5. Implement a market development program in priority export markets	<ul style="list-style-type: none"> Increase in export volume and/or value relevant for each specific berry and/or export market
	6. Establish evidence of product health attributes and national industry practices (e.g., sustainability credentials)	<ul style="list-style-type: none"> Reference materials that clearly outline the health attributes and industry practices are available to growers and are accessed by other relevant customers and stakeholders
	7. Inform HCPs and other key influencers with current nutritional information and data about Australian berries	<ul style="list-style-type: none"> Increase in HCPs and influencers who have better knowledge and awareness of nutritional information and data resources about Australian berries Nutritional information, data and health attribute information about Australian berries used in both levy and non-levy marketing programs
Industry supply, productivity and sustainability		
Outcome 2: The Australian berry industry has increased profitability, efficiency and sustainability through innovative R&D, sustainable BMPs and varieties.	1. Ensure that superior strawberry varieties that match consumer expectations are available to growers across Australia and that BMP techniques are available to optimise returns to growers	<ul style="list-style-type: none"> Availability and access to new strawberry varieties that have been developed for Australian conditions (Mediterranean climate, temperate, sub-tropical growing regions) including protected cropping and table-top production systems Increased knowledge for growers on the performance of strawberry varieties Increased adoption by growers of superior strawberry varieties in all production regions and systems
	2. Develop and optimise fit-for-purpose, sustainable pest and disease management strategies for berry production systems	<ul style="list-style-type: none"> Integrated pest and disease management (IPDM) strategies and control methods for key pests and diseases of importance developed in collaboration with growers Increased uptake of integrated pest management (IPM) practices across Australia
	3. Inform berry growers on the emerging options, risks and opportunities afforded by protected cropping systems	<ul style="list-style-type: none"> Availability of resources on the benefits and costs of protected cropping for the berry industry Availability of resources on how to optimise protected cropping systems for berries
	4. Review new postharvest and supply chain technologies available to the berry industry to maximise quality and profitability, including establishing quality standards and a methodology to measure and monitor when quality is below consumer expectations	<ul style="list-style-type: none"> Quality monitoring program developed and evidence of wide industry adoption Increased grower knowledge on postharvest and supply chain technologies
	5. Manage risks to the Australian berry sector's reputation as a reliable supplier of superior quality, safe berry products including food safety and biosecurity, and social license by developing and implementing best practices in food safety and traceability to meet the emerging regulatory challenges	<ul style="list-style-type: none"> Availability of resources to support growers to identify and manage risk on farm Development of berry industry risk management plans with an increasing share of industry (ha) using them in their businesses

OUTCOME	STRATEGIES	KPIs
Industry supply, productivity and sustainability		
<p>Outcome 2: The Australian berry industry has increased profitability, efficiency and sustainability through innovative R&D, sustainable BMPs and varieties.</p>	6. Protect the biosecurity status of the Australian berry industry	<ul style="list-style-type: none"> Maintenance/tracking of the implementation of an industry biosecurity plan Resources available to support growers to implement best practice on-farm biosecurity
	7. Develop a long-term sustainability program that includes a set of values, practices and communication activities that support a well-respected and sustainable berry industry (e.g., recycling of coir, plastics and water)	<ul style="list-style-type: none"> Grower awareness of the berry sustainability program Uptake of best practice programs that are modified for berry industries such as Hort360 to deliver clear, measurable increases in sustainability outcomes Increased level of sustainability of the berry sector
	8. Review options to reduce the costs of labour in the berry industry through automation, mechanisation and/or robotic systems or improved management practices	<ul style="list-style-type: none"> Distribution of new knowledge on automation, mechanisation or robotic system options that are available for implementation by berry industries Increased knowledge and awareness of available technologies Increased uptake of suitable technologies
	9. Enhance crop pollination and resilience through improved pollination security	<ul style="list-style-type: none"> Evidence of sustainable pollinator health through surveillance data Resources available on pollination BMPs for different berry cropping systems
	10. Support the availability of high-health strawberry runners to maintain productivity potential and farm biosecurity through the identification of barriers to the provision of high-health planting material; Develop quality standards for runner production and support uptake by industry	<ul style="list-style-type: none"> High-health strawberry runners maintained for industry Absence or reductions in the spread of pests and diseases through runner production and supply
	11. Prioritise the major crop protection gaps through a SARP*	<ul style="list-style-type: none"> Coordinated industry priority-setting with a clear outlook of gaps and risks in existing pest, disease and weed control options Industry priority needs published and shared with stakeholders, including registrants
	12. Provide regulatory support and co-ordination for crop protection regulatory activities with the potential to impact plant protection product access, both in Australia and internationally*	<ul style="list-style-type: none"> Regulatory Risk Assessments maintained
	13. Generate residue, efficacy and crop safety data to support applications to the APVMA to gain, maintain or broaden access to priority uses for label registrations and/or minor use permits for crop protection needs*	<ul style="list-style-type: none"> Data to support applications to the APVMA and the establishment of MRLs

OUTCOME	STRATEGIES	KPIs
Extension and capability		
<p>Outcome 3: Improved capability and an innovative culture in the Australian berry industry maximises investments in productivity and demand.</p>	<p>1. Deliver extension and communication capabilities to support industry achievement of supply and demand priorities across berry industry segments, for both export and domestic markets</p>	<ul style="list-style-type: none"> Establishment of a baseline and then increased share of industry (in hectares) with positive change in KASA and practice and implementation of targeted high-priority areas (e.g., registering for export, export capability, consistent high quality runners) Establishment of a baseline and then increased share of industry (in hectares) that are implementing targeted high-priority areas
	<p>2. Provide opportunity for different levels of engagement between and across industries, across industry members and relevant stakeholders to innovate with, state-based IDOs and other extension initiatives</p>	<ul style="list-style-type: none"> Grower satisfaction with growth in cooperation within industry and across industries leading to business and industry innovations (i.e., survey data)
	<p>3. Strengthen industry leadership through initiatives and training for leadership at all stages of participant development</p>	<ul style="list-style-type: none"> Increased participation and satisfaction from industry leadership initiatives Increased engagement by young or female or ethnically diverse growers in industry representation
	<p>4. Understand barriers to uptake of best practices including an understanding of the CALD communities within the berry sector</p>	<ul style="list-style-type: none"> Resources available that outline how to best engage with CALD communities to enhance practice change Key resources translated into relevant languages
Business insights		
<p>Outcome 4: The Australian berry industry is more profitable through informed decision-making using consumer knowledge and tracking, trade data, production statistics and forecasting, and independent reviews.</p>	<p>1. Increase industry alignment with quality and brand-positioning opportunities driven by consumer insights*</p>	<ul style="list-style-type: none"> Provision of consumer insights data to industry to assist with levy and non-levy funded marketing programs Evidence that consumer insights inform strategic market engagement Availability of new consumer knowledge for growers
	<p>2. Use trade data to guide ongoing export development opportunities*</p>	<ul style="list-style-type: none"> Trade data maintained and data supplied to relevant stakeholders in a usable format
	<p>3. Use production forecasts to inform market planning in domestic and export markets</p>	<ul style="list-style-type: none"> Production forecasts incorporated into both export and domestic marketing plans

* Foundational investments provide data and information that underpin the delivery of other SIP outcome areas and will be aligned to this strategy. Foundational investment areas include:

- Consumer behavioural data
- Consumer usage and attitudes, and brand health tracking data
- Impact assessments
- Trade data
- Crop protectant data.

Reporting framework

Hort Innovation will use dynamic reporting aligned to the Organisational Evaluation Framework to report regularly on progress and performance. Reporting will be processed through formal channels to inform industry and government investors.

A review of investment performance against the respective industry outcome and/or strategy-level KPIs for the berry SIP will be completed annually as the primary reporting mechanism. The SIP performance report will provide:

- Evidence of progress towards achieving the industry-specific outcomes and strategies through an assessment of the KPIs identified in the SIP
- Evidence of progress towards cross-industry investment strategies and outcomes. It will involve Hort Innovation's whole-of-horticulture reporting obligations and corporate plan and involve annual reports and Hort Innovation's Annual Operating Plan.

SIP performance reports will also inform the Australian Government of progress towards achieving government priorities. In particular, reporting will support Hort Innovation to meet the Performance Principles and requirements contained in the [Deed of Agreement 2020-2030](#).



“The berry SIP is the roadmap that will guide Hort Innovation’s oversight and management of the berry sector’s investment programs.”



COLLABORATION AND CROSS-INDUSTRY INVESTMENT

Based on advice from industry throughout the engagement process, Hort Innovation understands that Australian horticulture industries have common issues, and in turn have identified prospective areas for collaboration and cross-industry or regional investment.

These opportunities have been included as strategies across multiple industry SIPs where relevant and required. By delivering targeted multi-industry collaboration in research, development and extension (RD&E), marketing and international trade, Hort Innovation aims to support more effective and efficient outcomes for growers and the wider horticulture sector. This includes driving investment through the Hort Frontiers strategic partnership initiative. Importantly, while this approach acknowledges there is value in solving issues across industries and regions, it does not reduce the importance of industry-specific initiatives.

Cross-industry/regional R&D opportunities identified for the berry sector include:

- International market access and demand
- Nutritional health benefits
- Leadership initiatives
- Workforce solutions
- Social research into barriers for uptake
- Chemical access/IPM
- Food safety and security
- Quality – freshness in supply chain.

Cross-industry areas of collaboration for demand driving outcomes provide the opportunity to advance the prosperity of the sector through gaining efficiencies in the delivery of the program and contributing to stronger overall outcomes. By collaborating as one sector to win the hearts and minds of the consumers, in addition to individual demand driving programs, there is the potential to enhance the total category value proposition, contributing to driving returns for Australian growers.

Areas of consideration for collaboration for demand-driving outcomes across the lifespan of the 2022-2026 SIP include:

- All-of-horticulture consumer marketing campaigns designed to drive awareness, consideration, and purchase behaviour change
- Communications to bring horticulture to top of mind (saliency) and reposition the benefits they provide to Australian and international consumers
- Retail partnerships to advance total category and shopper demand-driving programs
- A global brand platform to reinforce the unique selling proposition of Australian-grown horticultural produce and drive preference with international consumers.
- Improved production and sustainability through adoption of initiatives in advanced production systems, food safety, environmental stewardship (including water-use efficiency) and reliance on labour.

Strategic science and research focus

The berry SIP takes into consideration the research priorities of various industry stakeholders, including Berries Australia and the Australian Fresh Produce Alliance (AFPA), and acknowledges the representation of these organisations. In developing the strategies presented within the berry SIP, the strategic research areas that were considered are listed in **Table 2**.

TABLE 2. Berry research priorities

Sustainability (climate change, water, packaging and shelf life)
Trade (market access, industry capability development, technical exchange with export markets)
Biosecurity (managing pest and disease, IPM, chemistry)
Food safety (systems and technology)
Pollination (bees and flies, alternate pollinators, pollination in production systems)

Collaboration across the agriculture research community is also essential, including with organisations such as universities, private enterprise and state government agencies. Hort Innovation is a member of the National Horticulture Research Network (NHRN) together with other senior horticultural R&D representatives from state and Australian Government agricultural agencies. The NHRN is responsible for the development and implementation of the broader Horticulture RD&E Strategy under the National Primary Industries RD&E Framework.

During the engagement process, key delivery partners were contacted including lead agencies within the NHRN Framework as well as specific delivery partners for each industry. The lead agencies involved with the berry sector investment program, including Department of Agriculture and Fisheries, Queensland (DAFQ) and New South Wales Department of Primary Industries (NSW DPI) were engaged during the development of this SIP to ensure consideration and strategic alignment of priorities for the berry sector. In addition, priorities and opportunities identified within the strategic plans of national and state agencies and research organisations have been considered in the development of Hort Innovations SIPs where applicable.

TABLE 3. Government and key agency priorities

DAFQ and NSW DPI priorities	Rural RD&E for Profit priorities	Australian Government Science and Research priorities
Locally adapted varieties	Advanced technology	Food
IDPM, including in postharvest management	Biosecurity	Soil and water
Supply chain and quality	Soil, water and managing natural resources	Advanced manufacturing
Export development	Adoption of R&D	Environmental change
		Health

This SIP has been developed alongside the government and key agency priorities listed in **Table 3**, with consideration of issues faced by the berry industries. These strategic areas further emphasise the opportunity and importance of cross-industry and regional collaboration. All the priority areas are of importance to Australian horticulture, and these will play a role in driving the efficiency and effectiveness of investment across the horticulture sector.

Annual investment planning

Specific investments to address the SIP strategies and align with industry strategic priorities will be outlined in detail each year via the berry AIP. Investment decisions are guided by the SIP and prioritised based on potential industry impact, as well as the availability of levy funds each year. The AIP will be developed with input from the berry SIAPs, which are made up of growers and other industry representatives as well as IRBs and other key stakeholders. Wherever possible, investments will be aligned to form multi-industry projects to increase the efficiency of funding availability. Details of the blueberry SIAP can be found on the Hort Innovation website [here](#), details of the raspberry and blackberry SIAP can be found [here](#) and details of the strawberry SIAP can be found [here](#). The AIP will be published on the same pages each year.

Investment opportunities through Hort Frontiers

Innovation is key to the future success of Australian horticulture. The next evolution of the long-range, higher risk and transformational R&D that has the potential to make a significant impact will be possible through Hort Innovation's Hort Frontiers program strategic partnership initiative.

Hort Frontiers is a strategic partnership initiative that facilitates collaborative, cross-industry investments focused on the longer term and more complex themes identified as critical for Australian horticulture by 2030. The partnership framework is currently being established and will include a number of key investment themes for potential investment to guide the initiative and drive transformational R&D across horticulture. Key investment themes will include:

- Environmental sustainability (water, soil and climate)
- Pollination
- Green cities
- Biosecurity
- Health, nutrition and food safety
- Advanced production systems
- International markets
- Leadership
- Novel food and alternate uses (waste reduction).

The development of these areas for investment will benefit all of horticulture, with support from partners with aligned priorities to co-invest in deliverables identified that require alternative funds available outside the levy. Hort Frontiers is being developed to align with the Australian-grown Horticulture Sustainability Framework and invest in specific impact areas to drive innovation and sustainability initiative.

The berry sector views a number of these investment areas as opportunities for success into the future, including:

- International market access and development
- Environmental sustainability (water, soil and climate)
- Biosecurity
- Health, nutrition and food safety
- Advanced production systems
- Leadership
- New crop protection tools
- Food safety and traceability.

Partnering with Hort Frontiers on these areas would provide the berry industry with opportunities for access to world-class research, specialised project management teams and large-scale R&D.

Australian-grown Horticulture Sustainability Framework

Hort Innovation has developed the Australian-grown Horticulture Sustainability Framework report, aiming to strengthen the horticulture industry's sustainability to meet the changing expectations and needs of growers, consumers, the community, investors and governments. The report applies across the whole of Australian horticulture, including fruits, vegetables, nuts and nursery stock. Through widespread consultation with industry and external groups, proposed sustainability goals and indicators were identified and are detailed within the framework. The framework is aligned to the UN Sustainable Development Goals.

Four key pillars were identified in the framework (Figure 1).



The framework should be cross-referenced when undertaking prioritisation of investments. At the time of publication, Hort Innovation is working with industry groups regarding the overall responsibility for the framework, setting and reporting progress against the framework targets and performance measures.

View the Australian-grown Horticulture Sustainability Framework on the Hort Innovation website [here](#).

Table 4 provides an example of a berry SIP strategy showing how the industry is already aligning to the framework.

TABLE 4. A berry SIP strategy example showing how the sector is already aligning to the Australian-grown Horticulture Sustainability Framework

STRATEGY	IMPACT	SUSTAINABILITY GOAL
Develop a long-term sustainability program that includes a set of values, practices and communication activities that support a well-respected and sustainable berry industry (e.g., recycling of coir, plastics and water)	<ul style="list-style-type: none"> Focused sustainability program with improved consumer sentiment for Australian berries and grower profitability 	Planet & Resources

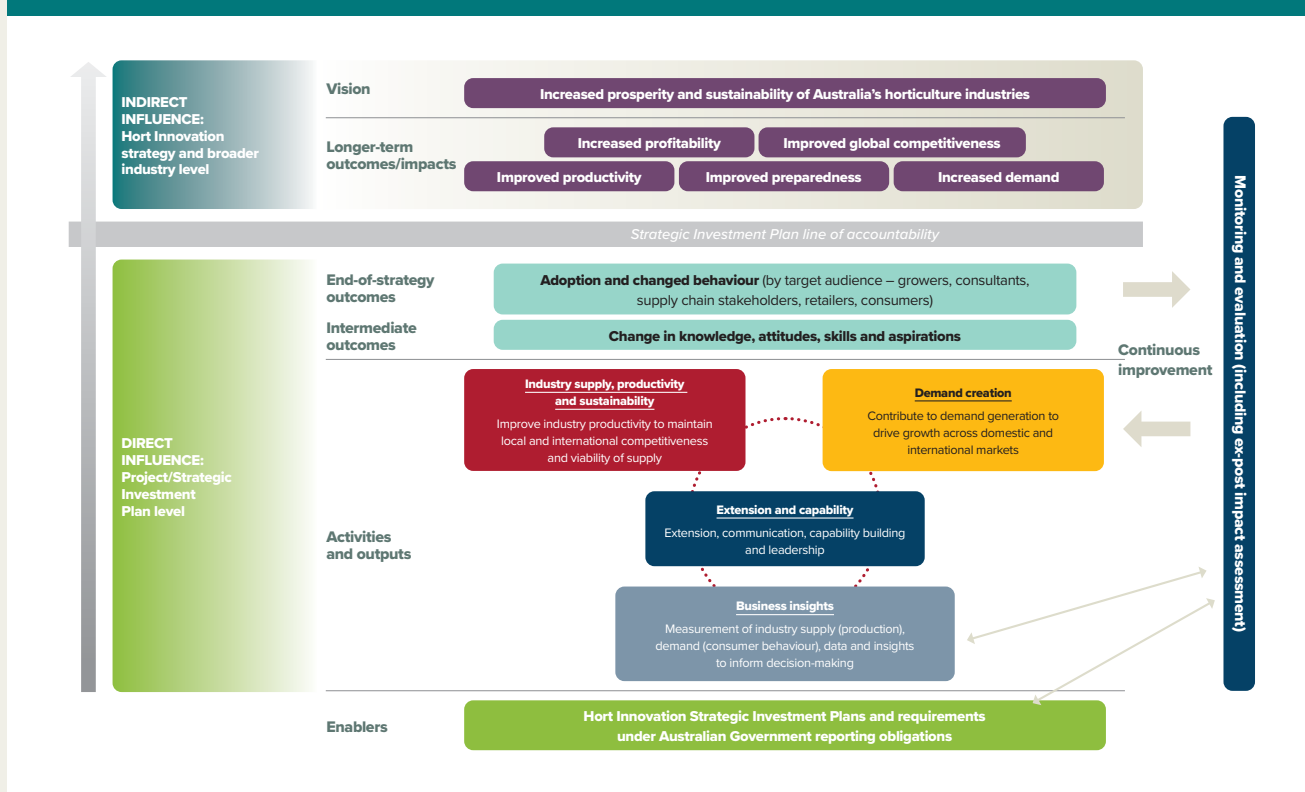
HORT INNOVATION



Strategic Investment Plan logic

The Strategic Investment Plan logic (**Figure 2**) identifies how investment activities and outputs (delivered through each SIP outcome area) will support changes in industry KASA, which drive adoption and behaviour change. Beyond the SIP, investment will contribute to driving longer-term impacts for the sector like increased preparedness, demand, productivity, global competitiveness and profitability. Realising these impacts will support Hort Innovation’s vision of increased prosperity and sustainability of Australia’s horticulture industries.

FIGURE 2. Strategic Investment Plan logic



Aligning to Hort Innovation investment priorities

Hort Innovation is committed to sustainable growth in horticulture, with the overarching aim of increasing the sector’s value to \$20 billion by 2030. We will do this through implementing the SIP and investments against the three core pillars, committed to:

1. Drive knowledge and innovation into horticulture industries
2. Deliver the highest value R&D, marketing and international trade investments across industries now and into the future
3. Enable activities that drive all strategic imperatives.

Hort Innovation is governed by a Deed of Agreement with the Australian Government, which allows for the transfer

and investment of levies and Australian Government contributions. As a Research and Development Corporation (RDC), Hort Innovation is able to leverage industry levy investments in RD&E with Government funds up to a value of 0.5% of the industry’s gross value of production. All investments made by Hort Innovation are thoroughly considered to ensure they contribute to the guiding performance principles:

- Productivity
- Profitability
- Preparedness for future opportunities and challenges
- Competitiveness
- Demand: demonstrates how productivity, preparedness and demand lead to profitability and competitiveness and sustainability.



APPENDICES

APPENDIX 1: Industry context

Industry supply chain

Berries are a high-value fruit sector with a broad production base across all Australian states. The berry sector comprises blueberries, raspberries and blackberries, and strawberries. There are approximately 620 berry growers in Australia (**Table 4**). It should be noted that many growers grow more than one type of berry. In addition to growers, the supply chain is supported by agronomists, consolidators, wholesalers, exporters and distributors. Most Australian berries are supplied for the fresh domestic market, with a small but growing export trade. Approximately 9% of berries are processed. The high proportion of fresh berries supplied to market in Australia contrasts to other countries where the processed product can be up to 40% of total production.

TABLE 4. Berry growers in Australia

COMMODITY	NUMBER OF GROWERS
Blueberries	300
Raspberries and blackberries	120
Strawberries	200
Total	620

Berry production is labour intensive, particularly at the harvest stage where all berries are still picked and packed by hand. The Australian berry industry is characterised by its high cost of labour compared to other major berry producing countries.

Traditionally, blueberries, and raspberries and blackberries have been grown in soil. However, there has been a substantial increase in undercover and hydroponic production, which can support increases in productivity, and consistent fruit quality. Most strawberries continue to be grown outdoors in fields. The rapid increase in production has largely been the result of larger corporate plantings in diverse locations around Australia, new varieties, improved production systems and stronger yields.

Domestic consumers and drivers of demand

The domestic fresh market is the most important channel for the Australian berry industries, which accounted for 89% of the total production volume in 2019/20. The domestic market has seen a significant rise in both production and consumption in recent years, supported by an increase in supply of high-quality product, particularly blueberries, raspberries and blackberries, combined with a growing recognition of the health benefits of consuming berries.

Consumer research completed for the rubus category in 2019 found that 73% of consumers had purchased fresh berries in the past three months (**Table 5**). Further, there were no significant differences in the demographic profile of those buying berries.

TABLE 5. Consumer purchase share of berries, 2019

COMMODITY	THREE-MONTHLY PURCHASE SHARE
Blueberries	44%
Blackberries	16%
Raspberries	32%
Strawberries	65%
Total	73%

The berry category was found to be separated by the level of perceived premium nature of the product. Strawberries are perceived as better value, while raspberries and blackberries are more exotic. In addition, berries were found to be particularly price sensitive, which was driven by their relatively high unit value.

Data obtained from Harvest to Home leveraging Nielsen Homescan data demonstrates that over the 12 months to April 2020, most berry products experienced strong growth at retail (**Table 6**).

TABLE 6. Household purchase sales growth, 12 months to April 2020

	SALES GROWTH	VOLUME GROWTH
Blueberries	6%	14%
Blackberries	92%	103%
Raspberries	6%	8%
Strawberries	4%	-1%

Export markets

Berry exports make up only 4% of total production by volume, compared to 13% for total horticulture and 20% for total fruit, showing that exports represent a significant opportunity for the berry industries. Exports only made up 1% of total production volume in 2012/13 so there has been growth in this area from a very small baseline. The value of exports was \$42 million in 2019/20, having increased from \$6 million since 2012/13. Berry exports are dominated by strawberries, which make up 92% of total exports by volume and 79% by value.

Australian berries are primarily exported to Asia, with exports also to Singapore, Thailand and Hong Kong and the Middle East.

Berry sector production

Combined berry production reached over \$1 billion in 2019/20, having increased from \$567 million in 2012/13 to \$1,041 million in 2019/20. This represents an average annual growth rate of 9%. Berries are the most valuable fruit category in Australia when measured by production value.

Berry production volume is dominated by strawberries, making up 73% of total production in 2019/20. This proportion has fallen from 89% in 2012/13, showing that berry production diversity has increased. Blueberries now make up 18% of total berry production, double that of raspberries and blackberries at 9%.

In terms of production value, strawberries are still the largest industry, but by a much smaller margin than production volume, reflecting the lower unit value compared with blueberries, raspberries and blackberries. Strawberries made up 63% in 2019/20 of total berry production value, decreasing to 42% in 2019/20. Blueberries on the other hand have increased from 24% to 37%, while raspberries and blackberries have increased from 9% to 21%. This trend will likely continue, underpinning a more balanced production volume between the three berry industries.

Berry production now occurs year-round, supported by increased plantings grown in protected settings which has served to extend traditional seasonal supply windows. Most production occurs over the spring period from September to November.



APPENDIX 2: Berry industry situation analysis

At the time of refreshing the SIP in 2021, the global coronavirus (COVID-19) pandemic continues to affect horticulture industries to varying degrees. Although the outcome and ultimate impact of the pandemic are unknown, areas of investment across horticulture that may be influenced over the period of this SIP include export and trade relationships, domestic and international demand, logistics and supply chain, labour supply – all having potential impacts on grower profitability.

Environmental, economic and social sustainability are vitally important to Australian horticultural growers and industries. Customers, consumers, and investors also seek information about the sustainability and ethics of how their food is produced. Sustainability is particularly crucial as topics such as climate variability, health and ethics continue to shape the social, environmental, and political landscape for agricultural industries. The impact of these issues may have influence on a whole range of investment areas for horticulture from production practices and land management, demand and reputation of products, quality expectations and cultural/community engagement.

Strengths, weaknesses, opportunities and threats

Table 7 has been used to analyse the berry sector's strengths, weaknesses, opportunities, and threats (SWOT). The SWOT tool assists the sector to build on what works, observe what is lacking, minimise risks, and take the greatest possible advantage of chances for success.

TABLE 7. Berry SWOT analysis

The berry sector	
Strengths	<ul style="list-style-type: none"> • Proximity to growing markets in Asia • Industry awareness and interest in developing exports, especially during periods of peak production from August to October (strawberry, blueberry) • Diversity of production regions enable plentiful supply year-round • Australian berries are regarded as high quality and 'safe' by Australian and overseas consumers • Growing domestic demand for fresh berries • Efficient supply chains and distribution systems to reliably provide quality fruit • Health authorities consider fruit as important to good health • Established domestic demand • R&D levy funds available for production and consumer research • Growers are important to the supply chain • Availability of new varieties from National Strawberry Varietal Improvement Program and overseas suppliers • Marketing funds available through different funding sources for the individual berry crops • Significant growth in protected cropping systems increases reliability of supply and quality • Investment in modern packing technology



The berry sector	
Weaknesses	<ul style="list-style-type: none"> • Limited or no technical access to high-value export markets • Domestic-focused industry with limited export experience • Concentration of buying power with two major domestic supermarket chains • High costs of production including labour relative to overseas competitors • Variable productivity across Australian growers and relative to overseas growers • Limited awareness about Australian berries in international markets • Production vulnerability to seasonal variation (drought, flood) • Limited transport and handling options due to perishable nature of raspberries and blackberries • Limited objective evidence of berry industry environmental performance • Lack of reliable, current time series data and information on berry production and market trends • Declining access to chemicals needed for optimal production • Variability in quality and shelf life leading to significant volume of wastage • Limited insights into specific consumer quality expectations • Increasing need to improve consistency of taste and flavour for berries
Opportunities	<ul style="list-style-type: none"> • 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 • Supermarkets 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 IPM and reduced inputs for production • Development of new regions and supply periods for berry production in Australia to bolster year-round supply • Overlap of consumers and supply chains within berry industries • Encourage consumers to associate berry consumption with meal occasion/s • High quality Australian varieties that can be commercialised in overseas growing regions that do not compete with Australian supply • Availability of new blackberry varieties in Australia to meet consumer needs • Promote the consumption of fresh produce rather than imported frozen berries • Wider trend towards branding of agriculture products to target specific market segments • Availability of technology to improve productivity at all stages of value chain • Develop a berry industry careers program to highlight the industry as an exciting career choice. This could include a school leaver mentoring program

The berry sector

Threats

- Continued increases in domestic production could oversupply domestic market and impact on prices
- Biosecurity risks to plant health status, especially spotted wing drosophila
- Competition from other fruits and snack food products
- Supermarkets eroding supplier brands
- Increasing labour costs and lack of availability of labour, especially with reduced ease of access and higher cost for overseas labour source
- High costs of production
- Consumer demand for assurance on product integrity and sustainability
- Reputational damage when media (and online activists) highlight poor environmental or product quality performance
- Climate change and variability in growing conditions
- Increasing number of pest and disease issues with traditional growing methods such as charcoal rot
- Well-resourced overseas competitors, with the ability to compete in export markets based on lower price (e.g., South America)
- Variable quality of product reducing consumer penetration



APPENDIX 3: People consulted

The following people are acknowledged for their contribution to the berry SIP development process.

NAME	INDUSTRY ROLE	REGION
Peter McPherson	Grower; Berries Australia	Coffs Harbour
Christian Parsons	Grower; Raspberries and Blackberries Australia	Coffs Harbour
Greg Murdoch	Grower; Blueberry SIAP	Coffs Harbour
Rob King	Grower	Coffs Harbour
Andrew Bell	Grower; PIB	Lismore
Kamaldeep Singh Clair	Grower; Blueberry SIAP	Lismore
Anthony Poiner	Grower; Australian Blueberry Growers' Association	Sydney
John Simonetta	Grower; Australian Blueberry Growers' Association	Sydney
Nick Miall	Grower; Blueberry SIAP	Sydney
Simon Dornauf	Grower; PIB	Northern Tasmania
Miffy Gilbert	Grower; PIB	Yarra Valley
Jamie Michael	Grower; PIB	Wanneroo
Jon Gleeson	Grower; Raspberry and blackberry SIAP; PIB	Melbourne
Tyler Scofield	Grower	Coffs Harbour
Neil Handasyde	Grower; Strawberry SIAP	Albany
Jeff Matthews	Marketer; Raspberry and blackberry SIAP	Yarra Valley
Luigi Coco	Grower; Strawberry SIAP	Sunshine Coast
Adrian Schultz	Grower; PIB	Sunshine Coast
Richard McGruddy	Grower; Raspberry and blackberry SIAP; PIB	Sunshine Coast
Luciano Corallo	Grower	Yarra Valley
Jim Ripepi	Grower	Yarra Valley
Kate Sutherland	Grower; Strawberry SIAP; PIB	Northern Tasmania
Malcolm Parker	Grower; Strawberry SIAP	Adelaide Hills
Rachel Mackenzie	Berries Australia Ltd	Brisbane
Melinda Simpson	Industry Development Officer, NSW	Lismore
Angela Atkinson	Industry Development Officer, VIC	Yarra Valley
Suzette Argent	Industry Development Officer, QLD	Sunshine Coast
Helen Newman	Industry Development Officer, WA	Perth
Ian Cover	Industry Development Officer, RB TAS (Acting Industry Development Officer)	Hobart
George Weda	Certified Strawberry Runner	Yarra Valley
Bernard Priestley	Victorian Strawberry Industry Certification Authority	
Ian Crook	Victorian Strawberry Industry Certification Authority	Yarra Valley

Continued >>

NAME	INDUSTRY ROLE	REGION
Scott Mattner	Victorian Strawberry Industry Certification Authority; Researcher	Yarra Valley
Clarissa Cincotta	Victorian Strawberry Growers Association; Grower	Yarra Valley
Dominic Spirli	Victorian Strawberry Growers Association; Grower; PIB	Yarra Valley
John Hassan	Victorian Strawberry Growers Association; Grower	Yarra Valley
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Mick Molluso	Victorian Strawberry Growers Association; Grower	Yarra Valley
Chloe Thomson	Victorian Strawberry Growers Association	Yarra Valley

APPENDIX 4: Reference material

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Horticulture Innovation Australia Limited, 2021, Australian-grown Horticulture Sustainability Framework



APPENDIX 5: List of acronyms

AFPA	Australian Fresh Produce Alliance
AIP	Annual Investment Plan
APVMA	Australian Pesticides and Veterinary Medicines Authority
BMP	best management practice
CALD	culturally and linguistically diverse
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFQ	Department of Agriculture and Fisheries, Queensland
FY	financial year
GI	glycemic index
HCP	health care professional
IDO	Industry Development Officer
IMAAP	International Market Access Assessment Panel
IPDM	integrated pest and disease management
IPM	integrated pest management
IRB	Industry Representative Body
KASA	knowledge, attitudes, skills and aspirations
KPI	key performance indicator
M&E	monitoring and evaluation
MRL	Maximum Residue Limit
NHRN	National Horticulture Research Network
NSW DPI	New South Wales Department of Primary Industries
PHA	Plant Health Australia
R&D	research and development
RDC	Research and Development Corporation
RD&E	research, development and extension
SARP	Strategic Agrichemical Review Process
SIAP	Strategic Investment Advisory Panel
SIP	Strategic Investment Plan
SWOT	strengths, weaknesses, opportunities and threats



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