Dried grape

STRATEGIC INVESTMENT PLAN

2017-2021

Hort Innovation
Strategic levy investment

DRIED GRAPE FUND

Content

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

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

The dried grape SIP

Producers in the dried grape 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 R&D, marketing, biosecurity and residue testing programs.

Levy is payable on dried grapes that are produced in Australia (dried fruits levy – dried vine fruits) and either sold by the producer (domestically or for export) or used by the producer in the production of other goods. The levy rate on dried grapes is $11 per tonne for R&D and $7 per tonne for marketing.

Hort Innovation manages the dried grape levy funds on behalf of the industry. In 2015/16, total dried grape levy receipts were approximately $310,000 being $165,000 in R&D levies and $145,00 in marketing levies.

Hort Innovation has developed this SIP to assist in strategically investing the collected dried grape 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 dried grape industry's collective view of its R&D and marketing needs over the next five years (2017 to 2021). This plan has been developed in consultation with the Australian dried grape levy payers through a synthesis of various workshops and discussions with the SIAP and industry more generally.

The process to develop this plan is fully described in ***Appendix 1***. The people consulted in the preparation of the plan are listed in ***Appendix 2***. The dried grape SIAP has responsibility for providing strategic investment advice to Hort Innovation. Both Hort Innovation and the panel will be guided by the strategic investment priorities identified within this plan. For more information on the dried grape SIAP constituency please visit Hort Innovation's website at www.horticulture.com.au.

Dried grape

STRATEGIC INVESTMENT PLAN 2017-2021 AT A GLANCE

POTENTIAL IMPACT OF THIS PLAN

$14. Million

Based on an estimated investment of $2.40 million over the next five years.

Major opportunities

- Increasing scale and vertical integration in the industry
- Closing the yield gap between high and low producers
- Applying precision agriculture to reduce variability within blocks
- Increasing mechanisation, especially of pruning, and other technologies to reduce labour requirements
- Adoption of self-desiccating varieties
- Growing consumption through promotion of health benefits
- Expansion of exports to Asian and Middle Eastern markets, leveraging Australia's 'clean and green' image.

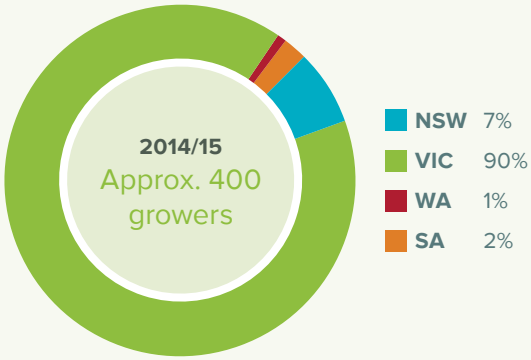
OUTCOMES	STRATEGIES
Increased demand for Australian product in high-value markets	Develop a domestic and export marketing strategy
	Undertake promotional activities as identified in the marketing strategy
	Undertake R&D or other activities as required to develop export markets
	Develop new or new uses for existing dried grape products
The volume of high quality dried fruit produced is increased to 20 to 30 kiloton for economies of scale and consistency of supply	Conduct a production and financial benchmarking study of dried grape production
	Breed new and/or commercialise available superior (especially self-desiccating) varieties, starting with a review of existing variety evaluation programs
	Undertake R&D to increase yield, increase quality and/or reduce cost of production (such as precision farming and mechanisation)
	Undertake R&D and related activities to minimise production risks (such as pests and diseases, climate change and labour)
The capacity of industry participants is increased	Extend the outcomes of past and new R&D to growers, drawing on deliverables from Outcomes 1 and 2 including the benchmarking study and new varieties
	Develop R&D and extension capability in the industry
	Develop personal skills of industry participants (leadership, resilience)

Dried grape
STRATEGIC INVESTMENT PLAN 2017-2021
AT A GLANCE

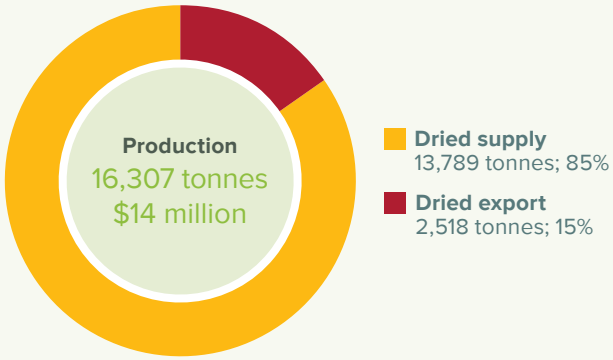
Major challenges

- Climate change and variability
- New, increasingly resistant, or uncontrolled pests and diseases
- More stringent pesticide regulations (especially in the European Union) and lack of alternative chemicals when restrictions apply
- Reduced supply due to enterprise shifts, for example, almonds
- Disappointing customers by failure to supply – particular problem with light-coloured fruit
- Increased competition from imports
- Reduced consumption due to health concerns over sugar
- Relatively low returns compared to competing enterprises
- Small industry size limits industry infrastructure (such as processing) and ability to reliably supply markets (unable to supply the domestic market), and reduces the industry's collective influence.

Industry size and production distribution



Dried grape supply chain and value 2014/15

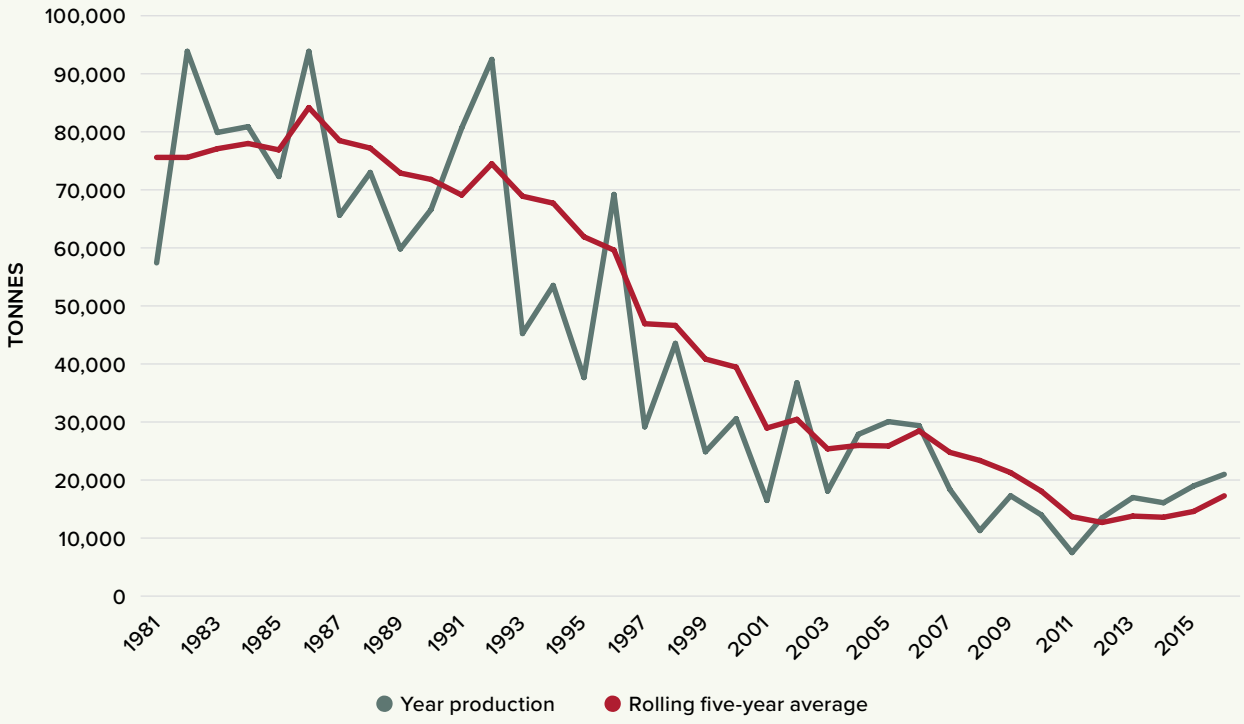


SECTION ONE

Context

The Australian dried grape industry

Figure 1: Australian dried grape production 1981 to 2016 [2015 and 2016 figures are estimates] *(Source: ADPF)*



Key statistics

The annual volume of Australian dried fruit production over the last 25 years is shown in ***Figure 1***. As the graph shows, production declined sharply over the period. In fact, the industry produced around 109,000 tonnes at its peak in 1964/65, with exports peaking at 72,600 tonnes in 1972/73. However, from about 2007, volumes appear to have plateaued and have started rising.

The overriding reason for the decline in industry production over the last 40 to 50 years has been poor relative profitability.

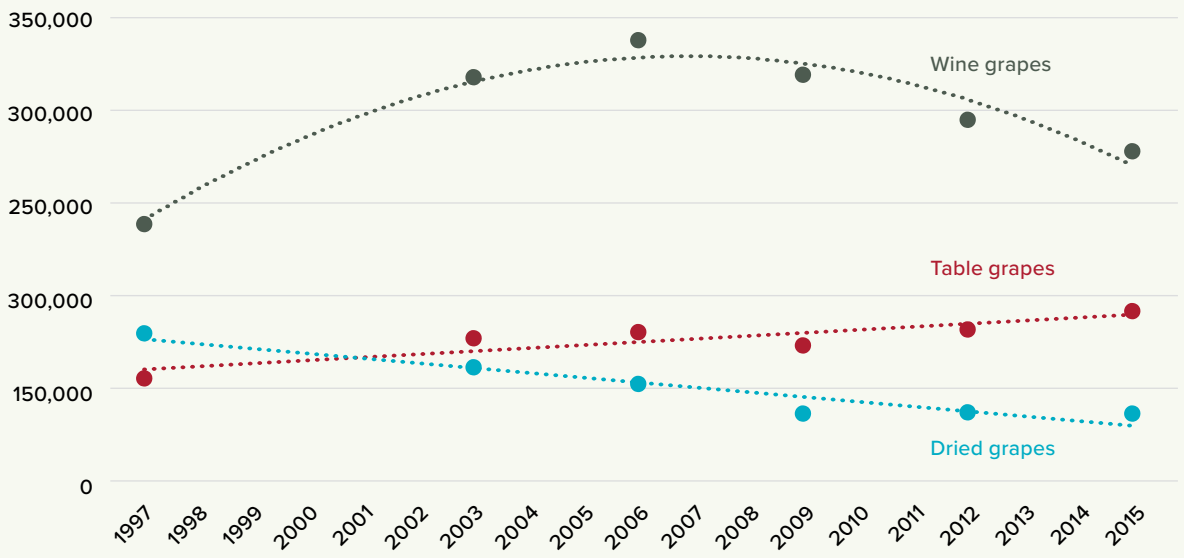
This, in turn, has been due to:

- Inconsistent production levels (sultana in particular is susceptible to poor seasonal conditions)
- Inadequate yields per hectare
- Relatively long time from planting to first crop
- Superior returns from, and greater ease of production of, wine grapes and table grapes[1].

The shift in production between dried, wine and table grapes in the Lower Murray-Darling region is shown in ***Figure 2***.

1 Australian Premium Dried Fruits (APDF) (2016)

Figure 2: Area planted to different grape types in the Lower Murray-Darling region 1991 to 2014 *(Source: SunRISE)*[2]



An investment guide and business case for the industry prepared for Dried Fruits Australia (DFA) by Street Ryan in 2014[3] identified a minimum annual industry production target of 30,000 tonnes but recommended a target of 40,000 tonnes to allow industry sustainability, flexibility and regeneration. If these figures are correct, current industry production of around 20,000 tonnes remains well below 'critical mass'.

The wholesale value of Australian dried grapes (comprising domestic production plus imports, less exports) was $74 million in 2014/15[4]. The price paid to growers in 2016 is around $1900 per tonne.

Production

Grapes to produce dried products are grown mainly in Victoria (90 per cent), New South Wales (seven per cent), South Australia (two per cent) and Western Australia (one per cent)[4]. Sunraysia, around Mildura and along the Murray and Darling Rivers is the major production area. The Riverland of South Australia and the north of Perth in Western Australia are also production areas. Production is mainly between December and April, peaking in January to March.

Due to the geographic concentration of the industry, production volumes can be dramatically affected by adverse climatic conditions. Total volume produced in 2010/11 was around half of the 2012/13 figure (approximately 7,500 tonnes[5]). The quality of the fruit can also be adversely affected by rain, pest damage and poor drying conditions.

Fruit is mainly trellis-dried, a method in which the fruit remains on the vine foliage (the older 'traditional' method involved picking and drying on racks). The canes are cut to separate the bulk of fruit bunches from the vine and sprayed with an emulsion of potassium carbonate and a refined vegetable oil. The drying emulsion alters the wax surface of the grape to allow moisture out of the fruit. Drying to around 16 per cent moisture content takes around three weeks. The fruit is then mechanically harvested, collected in large bins and finish dried in bin dehydrators.

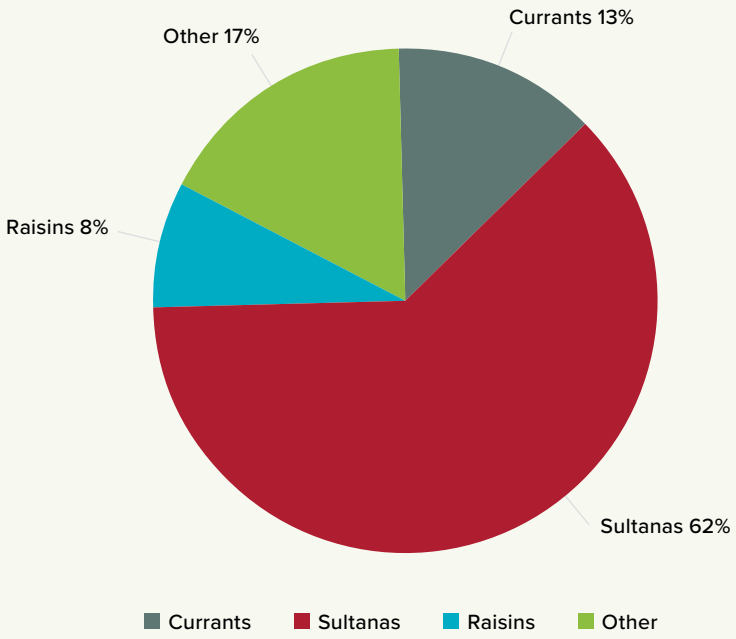
The yield for production of dried grapes from fresh grapes is typically 30 to 35 per cent. In 2014/15, 16,307 tonnes of dried product were produced from 46,590 tonnes of fresh grapes[4].

There are now estimated to be approximately 400 growers of grapes for dried product, compared to 1,270 in 1997[6]. Australian producers have arguably the best available technologies and production systems in the world. Labour for picking, and contractors, are typically the largest component of operating costs (34 per cent for top quartile producers in 2012)[7].

The varieties grown, and their share of production, are shown in ***Figure 3***. 'Other' varieties include sunmuscat, diamond muscat, flame seedless and sunglo. These varieties are newer and their share is increasing as new plantings start to produce fruit.

2 SunRISE Mapping & Research (2015), *Summary report: irrigated crops of the Lower Murray-Darling 1997 to 2015*
3 Street Ryan (2014), *Industry diversification and sustainability initiative: Investment guide and business case*
4 Hort Innovation (2016), *Australian Horticulture Statistics Handbook 2014/15*
5 ABARES estimate, from Street Ryan (2014). ABARES estimates do not line up precisely with Hort Stats Handbook figures and should be taken only as a guide
6 Australian Premium Dried Fruits (APDF) (2016)
7 *Dried Grapes Strategic Investment Plan 2012 to 2017* (August 2013)

Figure 3: Total receivals of various dried grape varieties *(Source: ADPF)*



Exports and imports

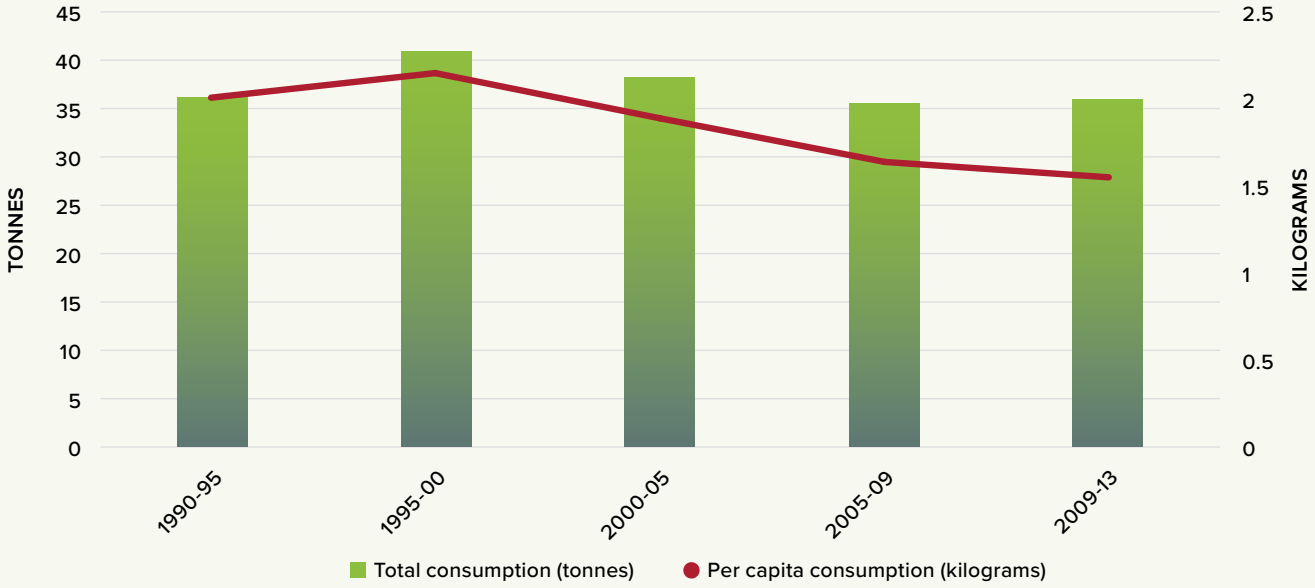
Table 1 shows that exports of dried grape products from Australia have greatly increased over the last three years – more than doubling in volume between 2012/13 to 2013/14 – but from a low base. In 2014/15, 2,518 tonnes of dried grapes (approximately 15 per cent of production) were exported for a total value of $10.3 million.

Table 1: Australian production, exports and imports of dried grapes 2012/13 to 2014/15 *(Source: Hort Innovation[4])*

	2012/13		2013/14		2014/15	
	Volume (tonnes)	Value ($ million)	Volume (tonnes)	Value ($ million)	Volume (tonnes)	Value ($ million)
Production	14,406	10.3	17,830	11.9	16,307	14.1
Exports	1,163	4.9	2,878	9.7	2,518	10.3
Imports	24,115	51.4	23,588	57.3	22,064	49.6

Imports of dried grapes first exceeded domestic production in the early 1990s. As shown in ***Table 1***, the volume of dried grape imports has outweighed domestic production by a factor of 30 to 70 per cent over the last three years.

Figure 4: Consumption of dried grapes in Australia 1990 to 2013 *(Source: Street Ryan[3])*



Demand

Per capita consumption of dried vine fruit in Australia has declined by about 0.5 kilograms (25 per cent) over the period since 1990. Even so, the consumption level is very high by world standards – three times that of other producing nations[8]. With the increase in the Australian population, total domestic consumption has not declined to the same extent (***Figure 4***).

Processing and marketing

Processing and marketing companies grade, clean and pack, as well as market and sell the product. There are three major processors and marketers of dried grapes in Australia, all of whom are based in the Sunraysia. They are:

- Sunbeam Foods
- Australian Premium Dried Fruits (APDF)
- Murray River Organics (MRO).

Sunbeam Foods is the largest of the organisations, and APDF and MRO are approximately equal size. MRO markets certified organic product. A minor proportion of the dried grape crop is processed by small private entities but the volume of product accounted for by these is not known with great accuracy.

Vertical integration in the industry is increasing, particularly with recent property purchases by MRO, which predominantly grows its own product. APDF is partially vertically integrated. Sunbeam Foods sources all its product from external suppliers. Where it is necessary to meet supply contracts, Sunbeam Foods imports product.

The concentration of marketing of almost the entire Australian dried grape crop through three companies, each with its own branding, promotion and market development investments, distinguishes dried grape from many other horticultural industries. Investment of the dried grape marketing levy needs to be pre-competitive (supporting all processor/marketer companies equally) and targeted so that it adds value to normal competitive market activity. Processors are also an important stakeholder in industry RD&E whether as customers for the product or growers in their own right.

Industry structure

The industry's peak body is Dried Fruits Australia (DFA) who are based in Mildura. DFA membership comprises growers as well as processors and marketers including the three major players.

8 *Dried Grapes Strategic Investment Plan 2012 to 2017* (August 2013)

Operating environment

The dried grape industry	
Strengths	• World-leading production and processing skills • Clean, green production systems • Strong and positive relationships between producers and processors • Geographic concentration of the industry, simplifying R&D and extension needs and increasing interaction between growers • R&D and marketing levies in place.
Weaknesses	• Relatively low returns compared to competing enterprises • Small industry size limits industry infrastructure (such as processing) and ability to reliably supply markets (unable to supply the domestic market), and reduces the industry's collective influence • Leakage of levy collection • Poor availability of data on industry size and demographics/trends (such as whether enterprises are expanding) • Geographic concentration of the industry creates heavy exposure to climatic risks • The requirement to cut canes makes production an unattractive enterprise option • Limited R&D and marketing budgets, and little ability to leverage overseas R&D outcomes because Australia already leads • Limited engagement between industry bodies and producers.
Opportunities	• Increasing scale and vertical integration in the industry • Closing the yield gap between high and low producers • New varieties or greater use of existing varieties (such as currants) to provide improved disease resistance • Applying precision agriculture to reduce variability within blocks • Increasing mechanisation, especially of pruning, and other technologies to reduce labour requirements • Adoption of self-desiccating varieties • Development of people (including industry leaders, growers, apprentices) • Creating an industry development position • Sharing R&D, marketing and operating activities and resources (such as workers) with other industries • Growing consumption through promotion of health benefits • Placing dried product in supermarket 'fresh' aisles • Collaboration with table grape industry, especially in marketing – sharing fresh product shelf space • Expansion of exports to Asian and Middle Eastern markets, leveraging Australia's 'clean and green' image.
Threats	• Climate change and variability • New, increasingly resistant, or uncontrolled pest and diseases • More stringent pesticide regulations (especially in the European Union) and lack of alternative chemicals when restrictions apply • Increasing bureaucracy and 'red tape' • Dwindling expertise in the industry, leading to inferior product quality • Poor quality product from table grape tailings • Reduced supply due to enterprise shifts, for example, almonds • Disappointing customers by failure to supply – particular problem with light-coloured fruit • Increased competition from imports • Increasing competition from fresh grapes being supplied year-round • Reduced consumption due to health concerns over sugar.

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SECTION TWO

Dried grape industry outcomes

Industry outcomes

Participants in the dried grape industry developed a vision of what the industry looks like in 2030 and worked back to identify desired outcomes over the life of the SIP.

By 2030, the industry will be a niche producer (by global standards) of high-quality (free-flowing, colour and size suited to the market segment) fruit into high-value markets. Production volumes will have increased to 40 kilotons, allowing the industry to supply its selected markets reliably, and all parts of the value chain will be profitable. Consumers will benefit from an expanded product range.

OUTCOME 1

Increased demand for Australian product in high-value markets

The Australian industry is a relatively high-cost producer of dried grapes. Australian product needs to earn a premium price for growers and processors to remain profitable. The premium can be readily justified by the high quality of the Australian product, including physical attributes (flavour, size, colour, freedom from foreign material) and less tangible features such as being 'clean and green' and supported by rigorous food safety standards. 'Brand Australia' is a valuable underpinning in these respects.

A strategy with clear identification of market segments and the potential of each, is required to determine where the industry should focus its marketing efforts. This strategy may focus on import replacement, exports or a combination of both to spread risk. Industry has identified that, in the medium- to long-term, growth will come from exports, but that opportunities also exist in the domestic market. The marketing strategy would need to clearly differentiate the respective roles of generic (pre-competitive) and corporate promotional activities.

The strategy may identify value in a health-based positioning. In that case, investment may be required to collate or promulgate scientific material to underpin this position.

Investments under this SIP towards delivering on this outcome may also include the development of new products and new uses for existing products.

OUTCOME 2

Increase the volume of high quality dried fruit produced

Increasing production is a high priority for the industry to increase the profitability of the entire value chain. Volumes are very low by historical standards. This compels processors to seek imported product to meet domestic demand, and limits their ability to market Australian product to domestic and overseas consumers because of concerns over continuity of supply.

Increasing the industry's volume of production will come from increased yields per unit of input and/or increased inputs (including area of land growing grapes for drying). Some producers are obtaining consistently high yields (15 tonnes per hectare is achievable), creating an opportunity to bring other growers to this level, as well as increasing the yield potential through new varieties, growing practices and technologies. Minimising the impacts of existing and emerging threats to yield and quality is also crucial. These include pests and diseases and climate change/variability.

There are opportunities to learn from other industries, such as table grapes and wine grapes, in working towards this outcome.

Optimising yield of high quality fruit per unit of input is an important means of reducing growers' cost of production on a per tonne basis, and therefore, increasing profitability. These parameters are only roughly understood at an industry level, so there is a need to gather benchmarking data to identify the opportunities for improvement and to enable monitoring of change over time.

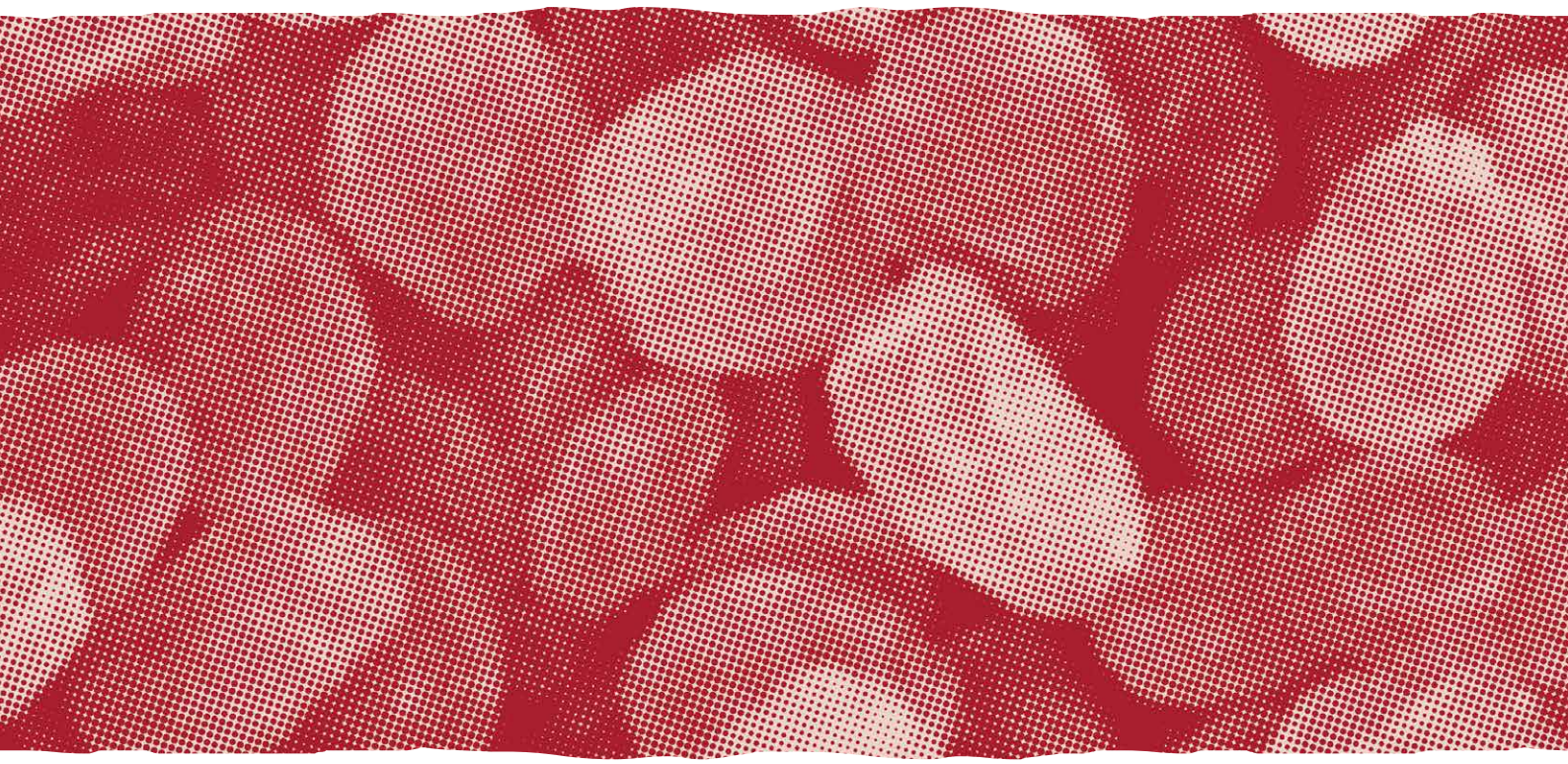
The area under production of grapes for drying will increase significantly only if this becomes a more attractive enterprise for participants. This means increasing profitability, largely a function of yield and price (see Outcome 1), reducing the laboriousness of growing grapes and minimising production risks.

OUTCOME 3

The capacity of industry participants is increased

The dried grape industry needs skilled, motivated participants to deliver against Outcomes 1 and 2, and therefore increased industry prosperity, to be realised. This includes existing participants and new entrants; growers, industry leaders, processors, consultants/advisers, researchers and other players in the value chain.

Investments made under this SIP will include projects aimed at increasing technical, business management and leadership skills, where analysis indicates that the most cost-effective outcomes can be achieved.



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SECTION THREE

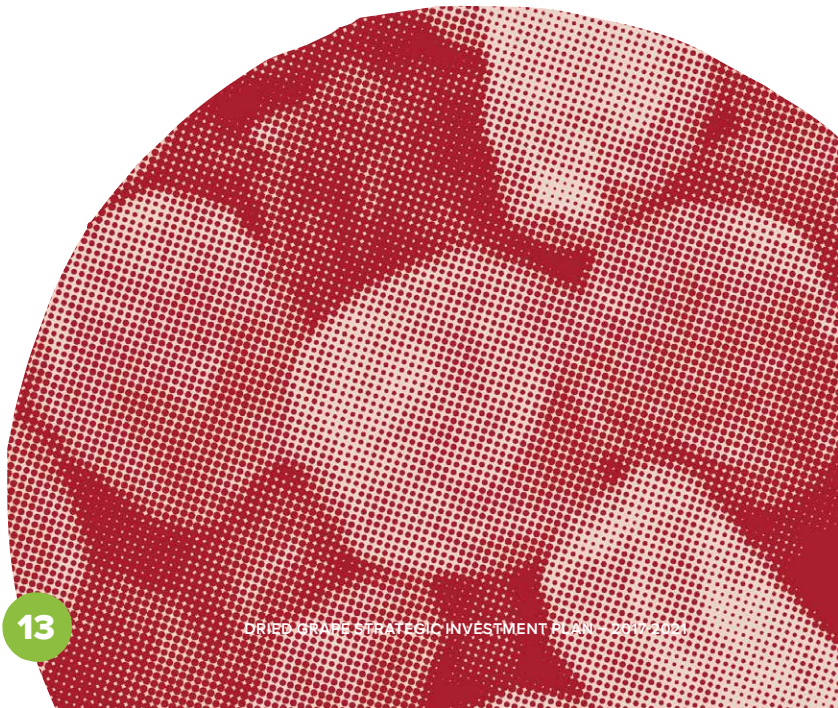
Dried grape industry priorities

Industry investment priorities

The following industry investment strategies have been developed to deliver against the three target outcomes. 'High' (H) or 'Medium' (M) priority deliverables have been identified under each strategy. The available budget will allow only a limited number of these deliverables to be pursued and these will preferentially be the high-priority ones, at least in the initial two to three years of the life of the SIP. Medium-priority deliverables are more likely to be supported where projects can be identified that offer highly favourable risk/reward profiles.

OUTCOME 1 – Increased demand for Australian product in high-value markets	
STRATEGIES	**POSSIBLE DELIVERABLES**
1.1 Develop a domestic and export marketing strategy	Marketing strategy (H)
1.2 Undertake promotional activities as identified in the marketing strategy	Generic promotional campaigns in key markets (H)
1.3 Undertake R&D or other activities as required to develop export markets	Opening of new markets or increased value of product sold into existing ones (M)
1.4 Develop new or new uses for existing dried grape products	New commercial products (M)

Medium-priority deliverables are more likely to be supported where projects can be identified that offer highly favourable risk/reward profiles.



OUTCOME 2 – Increase the volume of high quality dried fruit produced	
STRATEGIES	**POSSIBLE DELIVERABLES**
2.1 Conduct a production and financial benchmarking study of dried grape production	Industry data, with identification of gaps and opportunities (H)
2.2 Breed new and/or commercialise available superior (especially self-desiccating) varieties, starting with a review of existing variety evaluation programs	Review of variety evaluation programs and recommendations for future new variety development (H) New varieties offering commercial advantage (such as different product attributes and superior disease resistance) (H)
2.3 Undertake R&D to increase yield, increase quality and/or reduce cost of production (such as precision farming and mechanisation)	Innovations to improve profitability of dried grape farming systems (H)
2.4 Undertake R&D and related activities to minimise production risks (such as pests and diseases, climate change and labour)	Innovations to reduce production risks in dried grape farming systems (M)

OUTCOME 3 – The capacity of industry participants is increased	
STRATEGIES	**POSSIBLE DELIVERABLES**
3.1 Extend the outcomes of past and new R&D to growers, drawing on deliverables from Outcomes 1 and 2 including the benchmarking study and new varieties	Technical materials (electronic, hard copy) (M) Workshops and/or other extension activities (M)
3.2 Develop R&D and extension capability in the industry	Increased number of service providers involved in the dried grape industry (M)
3.3 Develop personal skills of industry participants (leadership, resilience)	Courses, mentoring or other personal development activities (M)

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 5***. ***Figure 5*** also shows how each cross-sectoral investment theme relates to the five investment priorities.

Figure 5: Hort Innovation's investment priorities

The alignment of dried grape 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 2***.

Table 2: Dried grape SIP outcomes alignment to the Hort Innovation investment priorities

Hort Innovation investment priorities	Dried grape SIP outcomes
Support Industry efficiency and sustainability	
Improve productivity of the supply chain	Increase the volume of high quality dried fruit produced
Grow the horticulture value chain capacity	The capacity of industry participants is increased
Drive long-term domestic and export growth	Increased demand for Australian product in high-value markets
Lead strategically to enhance the development of the Australian horticulture industry through operational excellence	Enabler

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SECTION FOUR

Dried grape industry monitoring and evaluation

Dried grape SIP monitoring, evaluation and reporting

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

Dried grape SIP logic

An indicative dried grape SIP program logic is shown in ***Figure 6***. The logic is based on the Hort Innovation SIP logic hierarchy (***Appendix 3***). The shaded boxes are not fully explicit in the SIP but necessary conditions for the achievement of expected outcomes.

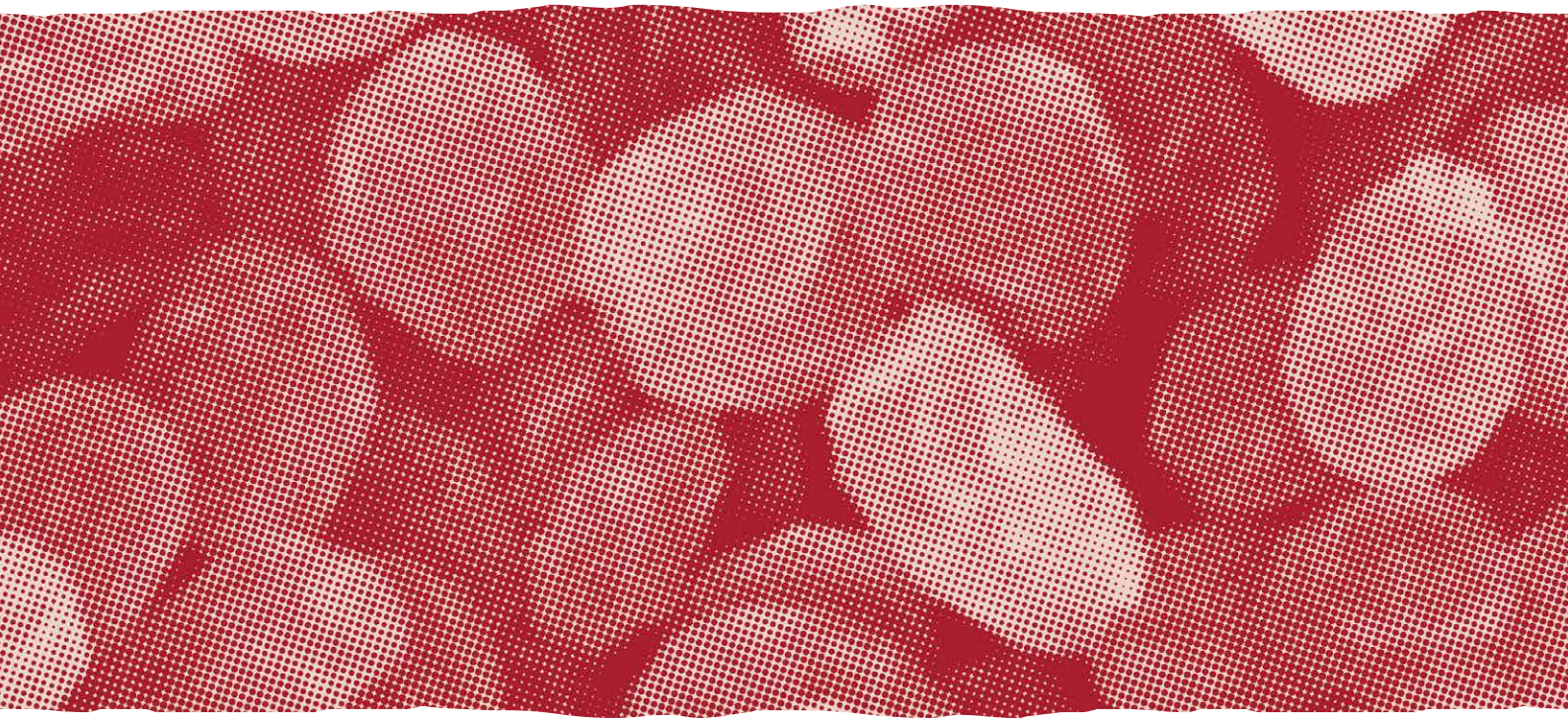
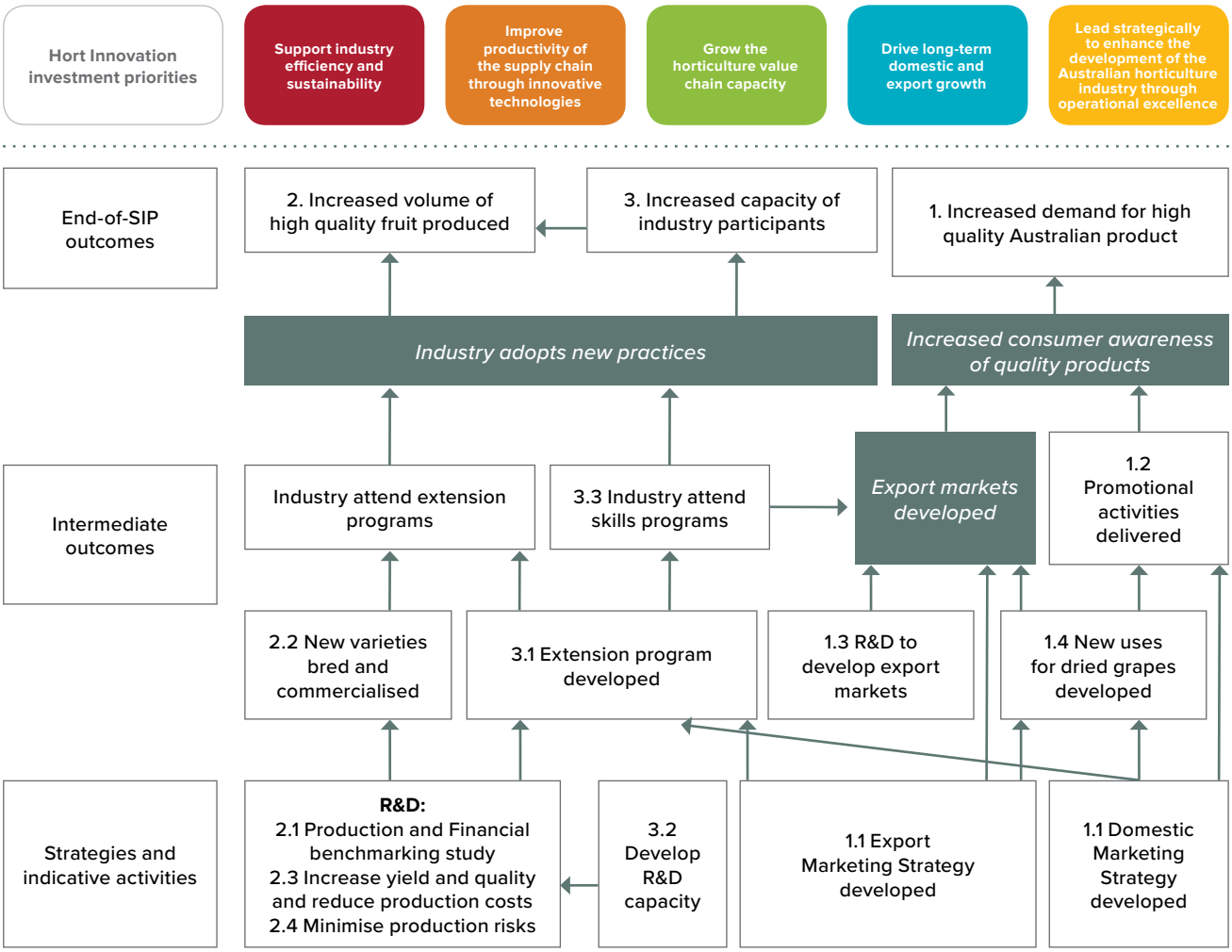


Figure 6: Dried grape SIP logic



Dried grape SIP M&E plan

The dried grape M&E plan is shown in ***Table 3***. 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 3: Monitoring and evaluation plan for the dried grape SIP

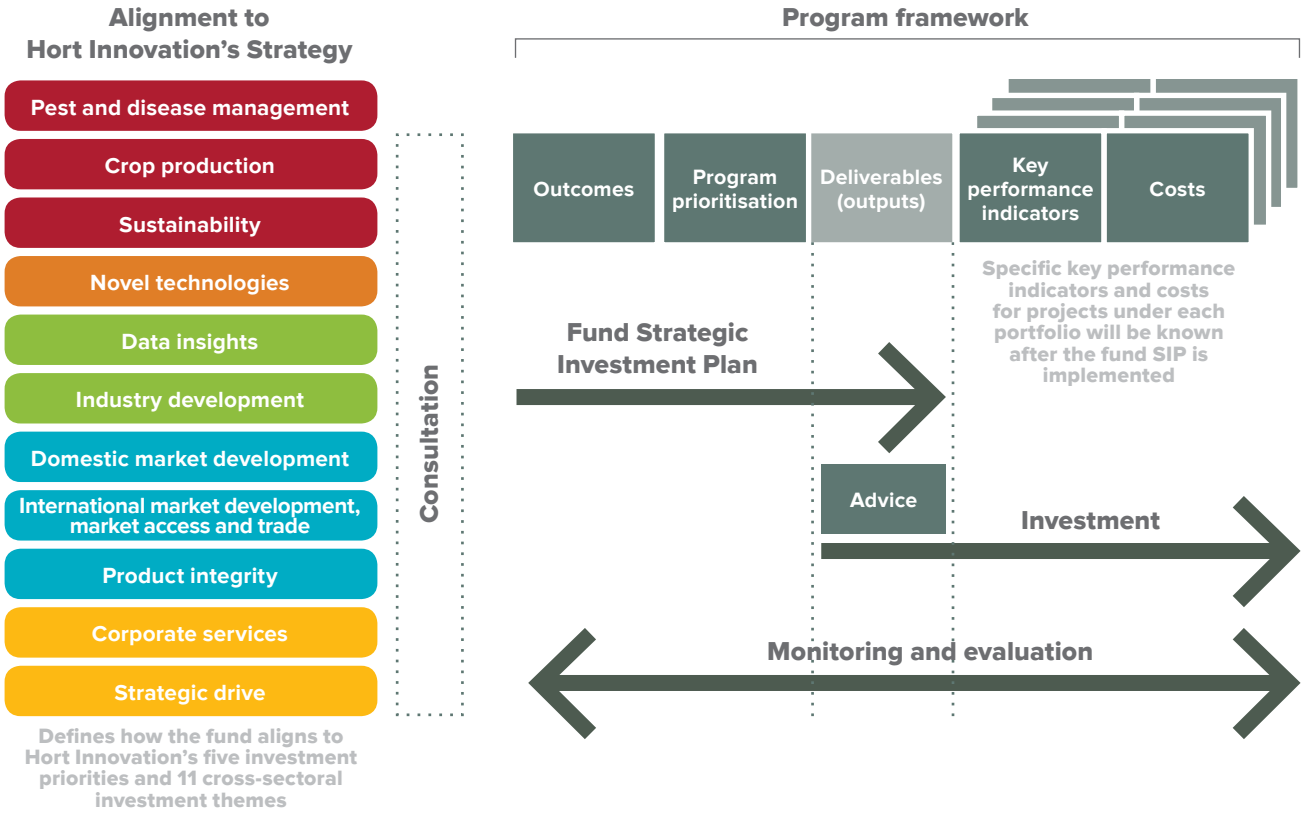
Outcome	Strategies	KPIs	Data collection methods and sources
OUTCOME 1: Increased demand for Australian product in high-value markets	1.1 Develop a domestic and export marketing strategy 1.2 Undertake promotional activities as identified in the marketing strategy 1.3 Undertake R&D or other activities as required to gain access to targeted export markets 1.4 Develop new or new uses for existing dried grape products	• Completed marketing strategy As per the SIP logic, there is an assumption that projects funded under this Outcome will contribute to: • Increase consumption from 1.50 to 1.75 kilograms per head • Increase average price above $1,900 per tonne • Evidence of promotional activities undertaken • Evidence of R&D undertaken	• Prices paid by processors • Consumer behaviour data • Research and Marketing project records • Export data
OUTCOME 2: Increase the volume of high quality dried fruit produced	2.1 Conduct a production and financial benchmarking study of dried grape production (and the rest of the value chain?) 2.2 Commercialise new varieties, starting with a review of existing variety evaluation programs 2.3 Undertake R&D to increase yield, increase quality and/or reduce cost of production (such as precision farming and mechanisation) 2.4 Undertake R&D and related activities to minimise production risks (such as pests and diseases and climate change)	• Increase average yield/hectare on farms implementing identified changes. Benchmarks to be developed from 2.1 As per the SIP logic, there is an assumption that projects funded under this Outcome will contribute to: • Increased average yield/hectare • Increased area of production • Increased industry volume of production to 20 to 30 kilotons • Reduced cost of production per unit input • Increased quality to 70 per cent sound fruit rolling average Note: unless otherwise specified, baseline figures and targets to be developed. • Evidence of research undertaken • Evidence that new varieties have been commercialised	• ABS data • Levy data • Benchmarking study • Research project records

Reporting

The program framework in ***Figure 7*** 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 7: Hort Innovation's program framework

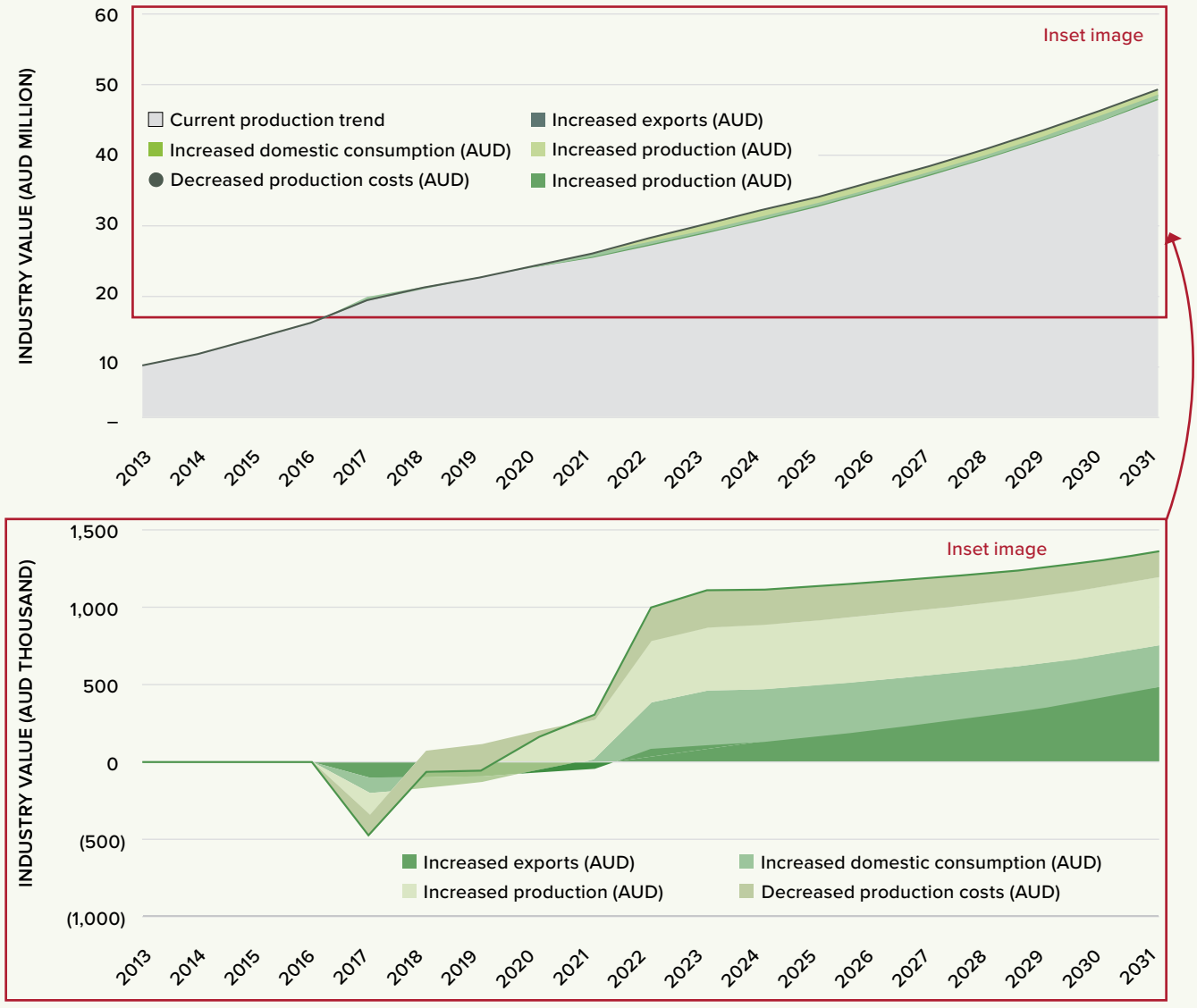


SECTION FIVE

5

Impact assessment

Figure 8: Economic benefit from investment in the SIP



An independent assessment of the potential economic impacts from investment into the dried grape SIP indicated a positive return on investment for the industry (***Figure 8***). The anticipated investment of $2.40 million over the next five years in R&D, extension and marketing activities is expected to generate $14.04 million in net benefits for the industry, representing a benefit cost ratio of 5.84 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 2016/17. A five per cent discount rate has been applied and all values are adjusted for inflation and presented in 2016/17 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 4 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 4: Summary of assessed impacts for each dried grape SIP outcome

Outcome	Expected deliverables	Anticipated SIP investment (over five years)	Net benefits (over 15 years)	Benefit cost ratio
Outcome 1: Increase exports of Australian dried grapes	Export marketing strategies, promotional campaigns in key markets; opening of new export markets.	$499,798	$2,631,047	5.26
Outcome 1: Increase domestic consumption of Australian dried grapes	Domestic marketing strategies to drive increased consumption per capita; promotional campaigns in key markets; opening of new markets.	$499,798	$3,415,264	6.83
Outcome 2: Increase productivity	Industry data; increased adoption of new dried grape varieties to increase premium products and yields.	$702,039	$5,706,726	8.13
Outcome 2: Decrease production costs	Innovations to improve profitability of dried grape farming systems.	$702,039	$2,283,492	3.25
Outcome 3: Underlying capability: Increase capability of industry participants	Technical materials, workshops and extension activities.	Cost integrated into Outcomes 1 and 2	Benefits calculated in Outcomes 1 and 2	Not applicable

The quantified impacts associated with Outcome 1 include:

- Increased exports to new and existing markets. This impact is split with Outcome 2 as it relies on increased production of high quality product
- Price premiums on exports due to consistent supply of high quality product
- Increased per capita consumption in the Australian market
- Price premiums have not been applied to the domestic market which is driven less by premium product.

The quantified impacts from Outcome 2 include:

- Yield improvements, contributed in part, from the development of new varieties that have better producer and/or consumer related characteristics
- Reduced production costs from increased mechanisation.

The impacts from Outcome 3:

- Training and extension activities contribute towards the benefits in Outcomes 1 and 2, and are part of their overall return on investment.

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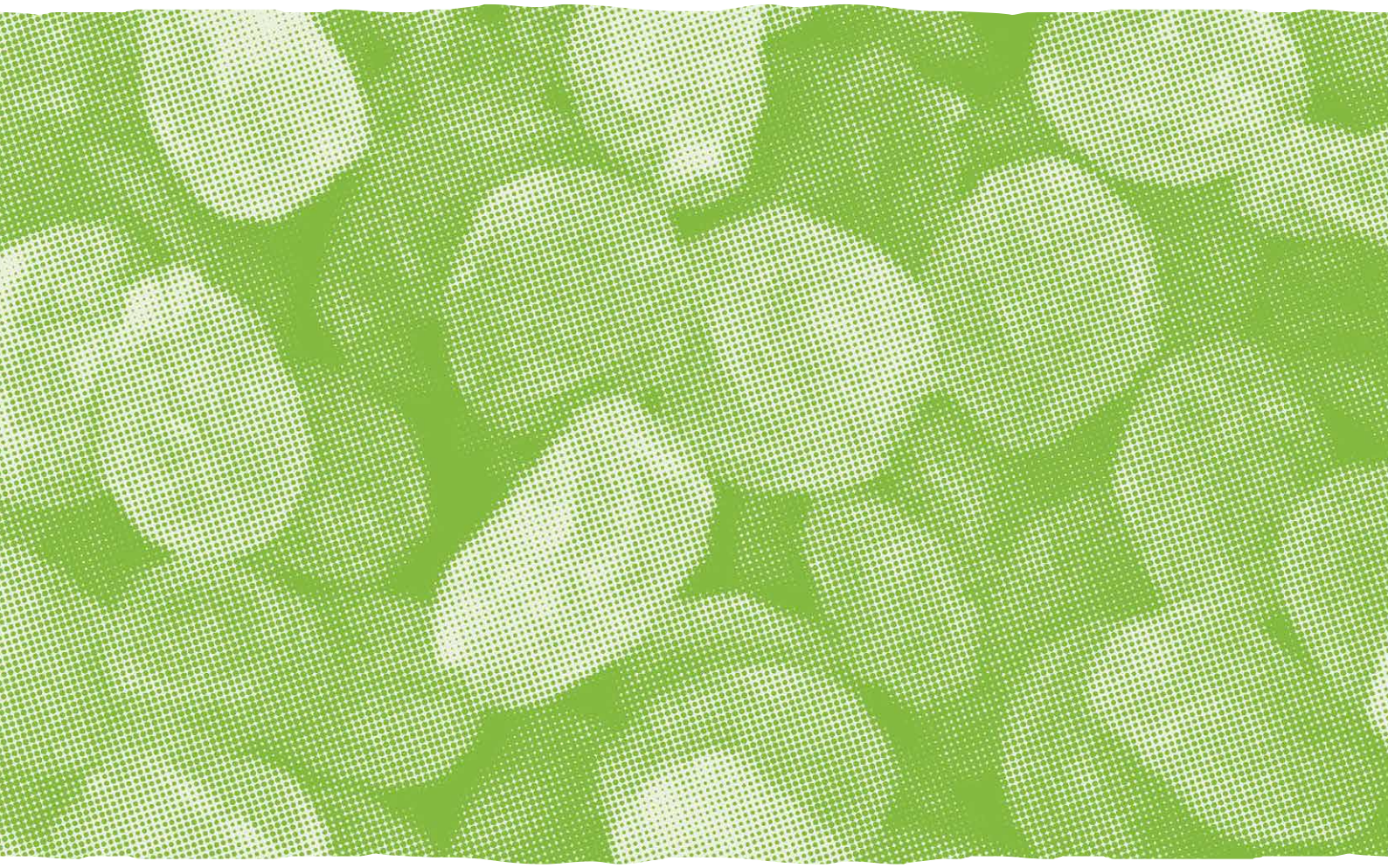
SECTION SIX

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.

The levy funds available for the delivery of this dried grape are limited. Only some of the deliverables flagged in the SIP can realistically be pursued, which may mean only partial realisation of the benefits foreshadowed by the SIP.

A specific risk to the dried grape industry is its geographic concentration and vulnerability to regional extreme weather conditions which may dramatically reduce production, as occurred in 2010/11. Such conditions may adversely impact growers' viability and their capacity to innovate. They also reduce the levy available for investment in RD&E and marketing.



APPENDIX 1: Process to develop this plan

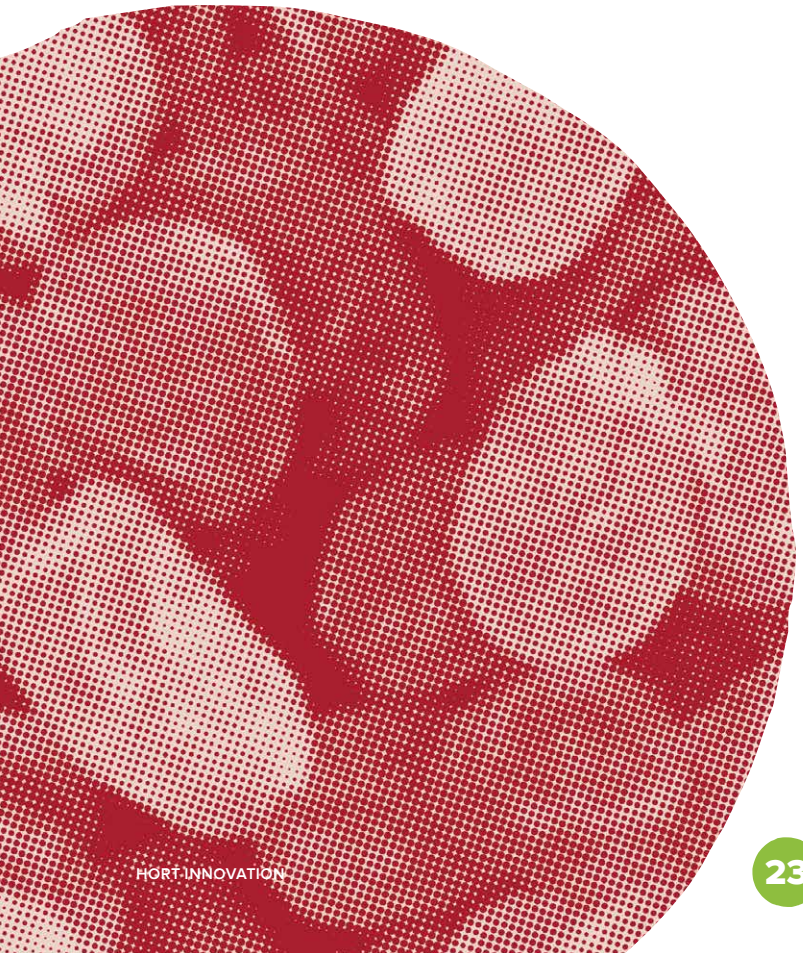
This plan was developed through the standard Hort Innovation SIP process. Specifically:

1. A background paper was prepared. This paper summarised the 'Context' material now included in the plan
2. A half-day workshop was held with the dried grape SIAP and other industry participants in Mildura on August 1, 2016. A total of 15 industry people, relevant Hort Innovation staff and the consultants took part in the workshop. The background paper was circulated to attendees in advance
3. Based on the workshop outcomes, and some further research and consultation, this first draft of the SIP was developed
4. Synthesis and development of draft SIP, including analysis of potential industry impact and M&E plan
5. Circulation of draft SIP to SIAP and subsequently industry more broadly for feedback
6. Revision of draft SIP to final version.

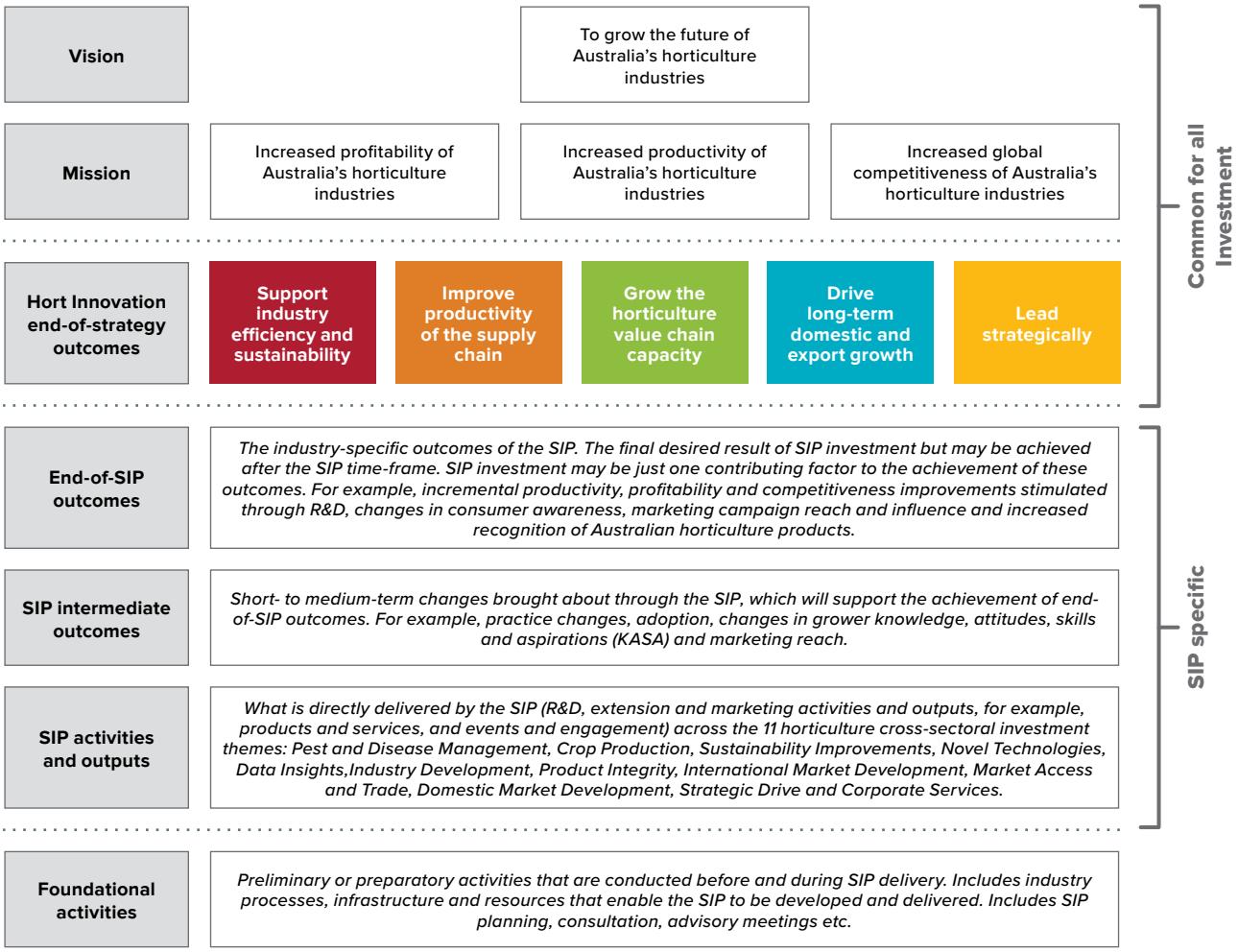
APPENDIX 2: Consultation and validation

The following individuals have been consulted to date in the development of this SIP (and their assistance is gratefully acknowledged).

Name	Organisation
Bill Avery	Grower/processor, SIAP member
Malcolm Bennett	Grower, SIAP member
Stephen Bennett	Grower, DFA board member
Thomas Cheung	Sunbeam Foods, SIAP member
Phil Chidgzey	DFA, SIAP member
Peter Clingeleffer	CSIRO
Jeremy Giddings	NSW DPI
Ashley Johnstone	Grower, SIAP member
Peter Jones	Grower, SIAP member
Mark King	Grower, DFA board member, SIAP member
Allan Long	Grower, SIAP member
Tony Martin	Grower, DFA board member
Mike Maynard	Australian Premium Dried Fruits
Ivan Shaw	Grower, DFA board member, SIAP member
Jenny Treeby	Grower, DFA board member
Michael Treeby	Grower, SIAP member



APPENDIX 3:
Logic hierarchy



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