Prune

2017-2021

Hort Innovation
Strategic levy investment

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

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

The prune SIP

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

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

Levy is payable on dried plums (prunes) that are produced in Australia and either sold by the producer or used by the producer in the production of other goods. The levy rate on prunes is $13 per tonne. Hort Innovation manages the prune levy funds that are directed to the investment in the prune R&D program. In 2015/16 total prune R&D levy receipts were approximately $52,000.

Hort Innovation has developed this SIP to assist in strategically investing the collected prune 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 prune industry's collective view of its R&D needs over the next five years (2017 to 2021). This plan has been developed in consultation with Australian prune levy payers through a short survey, direct consultation with levy payers, a workshop with Hort Innovation's prune industry SIAP and discussions at the Australian Prune Industry Association (APIA) annual conference in September 2016.

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*** and the documents referred to are listed in ***Appendix 4***.

The prune 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 prune SIAP constituency please visit Hort Innovation's website at www.horticulture.com.au.

Prune

STRATEGIC INVESTMENT PLAN 2017-2021 AT A GLANCE

POTENTIAL IMPACT OF THIS PLAN

$2.6 Million

Based on an estimated investment of $607,082 over the next five years.

OUTCOMES	STRATEGIES
Improve on-farm productivity and product quality so that Australia becomes a leading producer of high quality, nutritious fruit	Undertake R&D to deliver new technologies or refine existing ones to reduce cost of production, make production easier and/or improve quality
	Undertake or collate research that can be used by growers (and industry) to support product demand building activities
	Support new product development activities in conjunction with packing companies
Undertake R&D and extension to provide results which can be used by industry to support 'pre-competitive' activities to increase the demand for Australian prunes and improve producer profitability	Undertake or collate research that can be used by growers (and industry) to support product demand building activities
	Support new product development activities in conjunction with packing companies
Build skills, capacity and knowledge in the industry, both in existing and new industry participants, so that the capability exists to implement R&D outcomes and deliver the supply and quality improvements needed by the industry	Undertake industry development, communication and R&D adoption activities to enhance the skills of existing participants and encourage new entrants

Prune
STRATEGIC INVESTMENT PLAN 2017-2021 AT A GLANCE

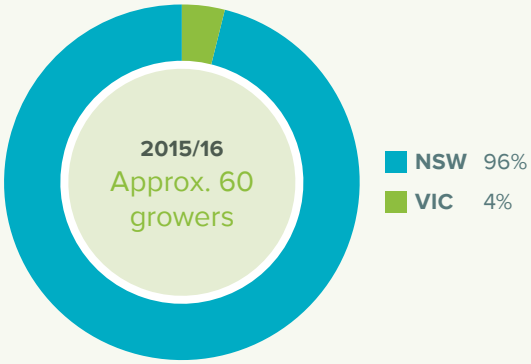
Major opportunities

- Pitted prunes are a rapidly increasing segment of the category
- Nutritional benefits – prunes are high in antioxidants and other compounds
- The wider dried fruit category is growing
- Greater understanding of premium market position of Australian prunes
- Technological advances from R&D such as reduced costs of dehydration and new varieties
- Centralised drying facilities.

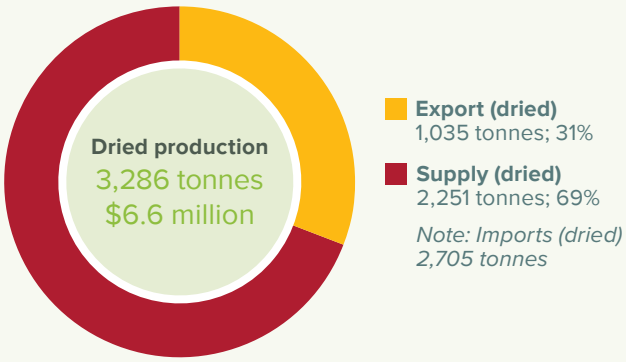
Major challenges

- Potential emergence of new diseases and pests such as *Varroa destructor* and plum pox virus (Sharka)
- Further imports – especially other bigger producers seeking to offload product during times of overproduction
- Underproduction in Australia means that packers need to import prunes to supplement supplies
- Climate change/variability negatively impacting production
- Low grower confidence due to droughts and variable prices
- High costs of production (including energy prices, compliance costs, wages, fertiliser)
- Difficult to attract new entrants to the industry.

Industry size and production distribution



Prunes supply chain and value 2015/16



SECTION ONE

Context

The Australian prune industry

Production volume, value and yields

Prune production in Australia is quite volatile, depending on seasonal conditions and plantings. Over the last decade, Australian production has averaged 2,780 tonnes and varied between lows of roughly 1,500 and a high of 4,000 tonnes (***Figure 1***).[1] The vast bulk of production now comes from the Murrumbidgee Irrigation Area in New South Wales, with small amounts from Young and South Australia.

Farm-gate prune prices vary depending on grade out of the delivery, but averaged approximately $1,900 per tonne in 2015 and $2,200 in 2016.

In 2016, Angas Park, a leading Australian prune processor advised[2] that in relation to the 2016 crop:

- Production was down 30 per cent on the 2015 crop. As production was well down in 2016, imported Chilean prunes were required to maintain supply for both retail and industrial markets
- Compliance to moisture specifications was very good
- Grade out at 70 per cent pittable size was up from 50 per cent in 2015, but lower than the 'normal' 80+ per cent
- Smaller prunes (lower than 100 count) are being exported to markets at clearance margins, as juicing is not currently a viable use in Australia
- Overall prune quality was very good.

Since 2012, pittable prune requirements to meet Australian demand have regularly outstripped pittable prune supply as shown by Angas Park data in ***Figure 2***.

From an international perspective, Australia is a small but high-quality producer. Some key statistics for the international prune industry include:[3]

- World production averages around 250,000 tonnes
- Over the last 20 years, California production has reduced from approximately 150,000 to 100,000 tonnes
- Over the same period, Chilean production has increased from 30,000 to 80,000 tonnes, while French production has averaged approximately 50,000 tonnes.

From an international perspective, Australia is a small but high-quality producer.

1 APIA (2016). Industry data
2 Angas Park (2016). Grant Leyden presentation to APIA conference. Griffith, NSW
3 International Prune Association (2015), World Prune Conference, *World Prune Production Statistical Update* Italy, May

Figure 1: Australian production (grade weight) *(Source: APIA (2016). Industry data)*

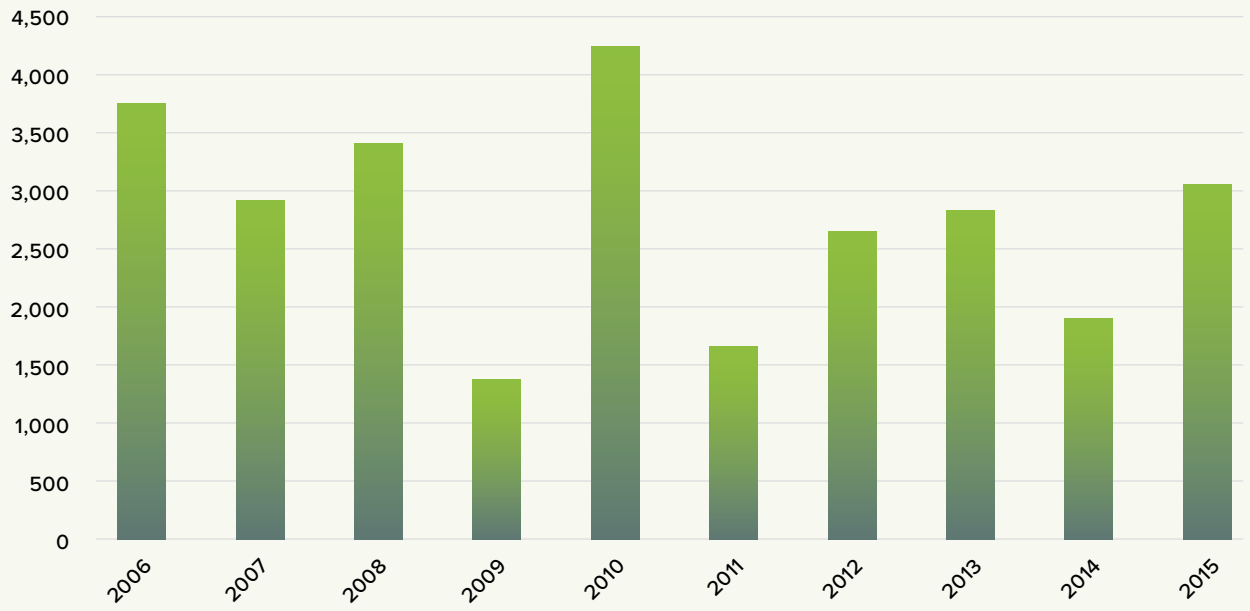


Figure 2: Angas Park data on crop size, pittable requirements and pittable actual *(Source: Angas Park)*

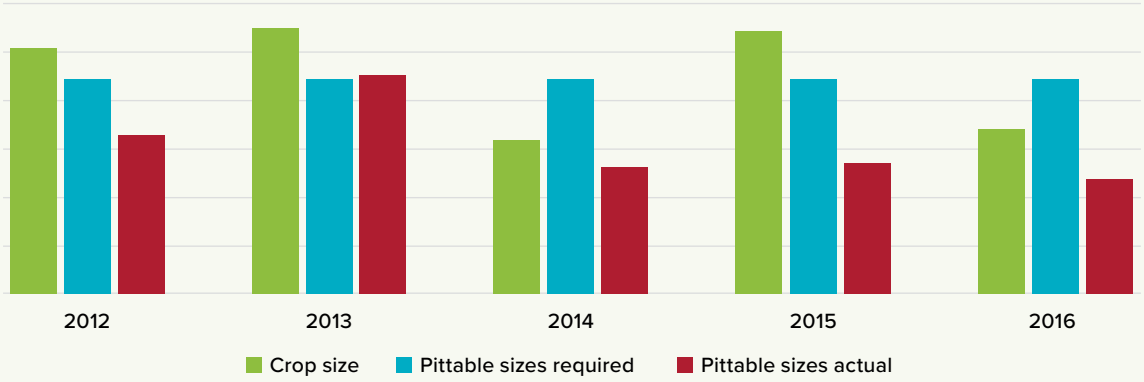


Figure 3: Exports of Australian prunes *(Source: Hort Innovation (2016), IHS Global Trade Atlas data)*

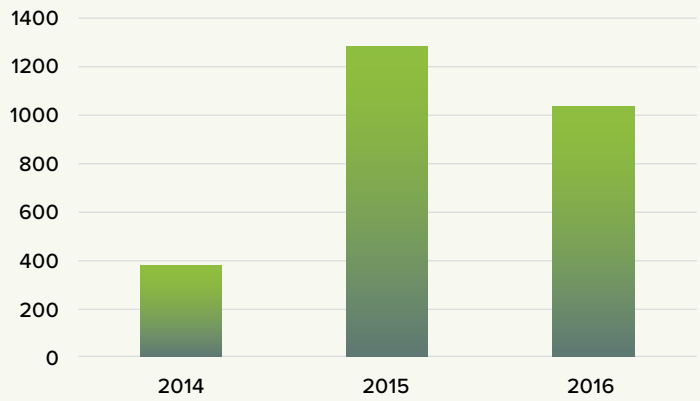
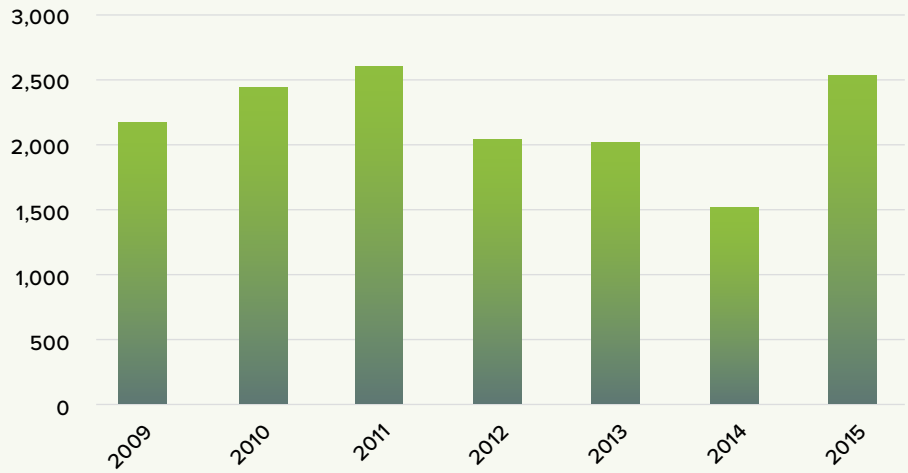


Figure 4: Imports of prunes to Australia



Exports

Over the last two seasons, the level of exports from Australia has grown considerably compared to 2014 (***Figure 3***). Much of this growth has been driven by demand from the United States and more recently China.[4]

Imports

Australia has consistently imported around 2,000 tonnes per year (***Figure 4***), predominately from Chile and the United States.[5]

Prices for imported prunes have increased considerably over the period (***Figure 5***).[6]

Over the last two seasons, the level of exports from Australia has grown considerably compared to 2014. Much of this growth has been driven by demand from the United States and more recently China.

4 Hort Innovation (2016), IHS Global Trade Atlas data
5 APIA (2016). Industry data, derived from ABS
6 APIA (2016). Industry data, derived from ABS

Figure 5: Import prices for prunes

Demand

The International Prune Association reported at its 2015 conference that:[7]

- The world prune orchard is now stabilised
- The conjunction of cumulated low stocks and low crops boosted prices in 2014
- In 2015 stabilisation of supply was softening prices after 2014 speculative ascent
- Stabilised production should stave off any risk of new structural crisis for seven to 10 years.

In Australia, demand from key retailers has reduced by approximately 750 tonnes (or approximately 15 per cent) over the last decade as shown in ***Figure 6***. A part of this fall appears to have been related to price.

Over the last three years, retail prices have increased (***Figure 7***).[8]

Per capita consumption in Australia is estimated to be 0.14 kilograms per person per year.[9] In 2016, Australian prune purchasers have been characterised as follows:[10]

- Approximately 13.7 per cent of all Australian households purchase prunes, which is a decline from 15.6 per cent in 2014
- Senior couples and independent singles are the segments that buy the largest volume of prunes
  - **Independent single – single person household, younger than 35 years of age**
  - **Senior couple – two or more people, no children under the age of 17 years, head of house aged over 60 years**
- 52.8 per cent of prune buyers only buy one time per year
- Medium income shoppers ($45,000 to $90,000) are now the most significant income demographic buying prunes.

In Australia, demand from key retailers has reduced by approximately 750 tonnes (or approximately 15 per cent) over the last decade. A part of this fall appears to have been related to price.

7 International Prune Association (2015), World Prune Conference, *World Prune Production Statistical Update* Italy, May
8 Angas Park (2016)
9 Pers. Comms (2016). P. Chidzey, Australian Prune Industry Association
10 Angas Park (2015). Presentation to APIA conference

Figure 6: Australian grocery demand

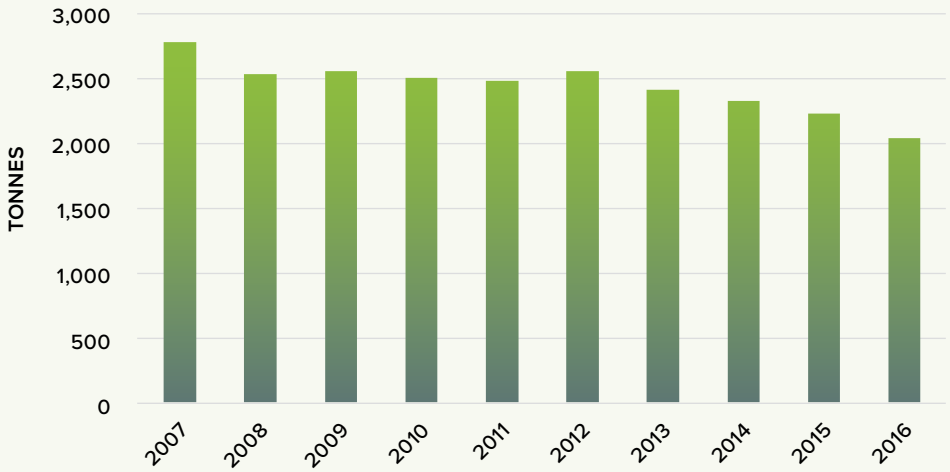
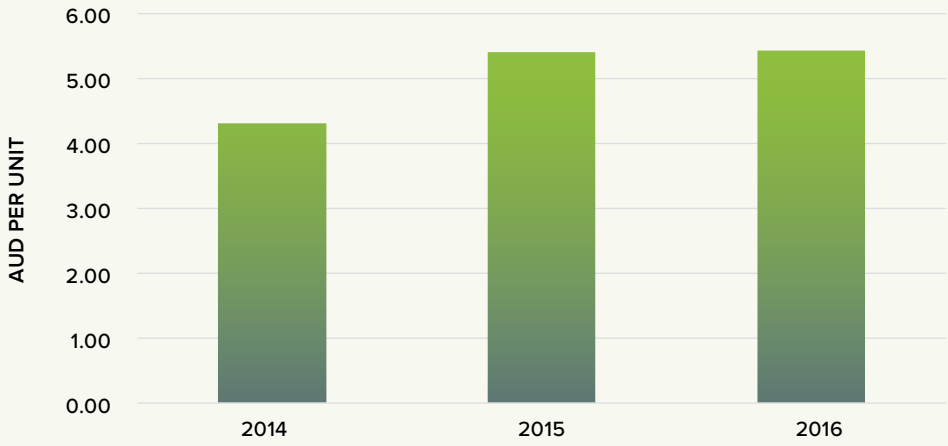


Figure 7: Australian grocery prices



Operating environment

An analysis of the industry's strengths, weaknesses, opportunities and threats (SWOT) was undertaken during the prune industry SIAP consultation. The following key themes were identified.

The prune industry	
Strengths	• Packer rationalisation/amalgamation to build competitiveness • Australia's 'clean and green' image • Producers are becoming larger and more efficient • Unified industry and an active peak body • Low disease status of the Australian industry • Nutritional benefits • Ease of storage • Industry strongly supports and is actively engaged in R&D.
Weaknesses	• Climatic conditions have questioned the viability of dry land production • Low grower confidence due to droughts and variable prices • High costs of production (including energy prices, compliance costs, wages, fertiliser) • Supermarket dominance reducing opportunities to increase price • Imports, sometimes at lower cost than Australian product • Difficult to attract new entrants to the industry.
Opportunities	• For the industry to look beyond traditional product ranges and seek to value-add • Pitted prunes are a rapidly increasing segment of the category • Nutritional benefits – prunes are high in antioxidants and other compounds • The wider dried fruit category is growing • Greater understanding of premium market position of Australian prunes • Technological advances from R&D such as reduced costs of dehydration and new varieties • Centralised drying facilities • Export markets.
Threats	• Potential emergence of new diseases and pests such as *Varroa destructor* and plum pox virus (Sharka) • Further imports – especially other bigger producers seeking to offload product during times of overproduction • Further dominance of a small number of retail outlets • Underproduction in Australia means that packers need to import prunes to supplement supplies • Climate change/variability negatively impacting production.

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SECTION TWO

Prune industry outcomes

Industry outcomes

The aspiration of the prune industry is to become a world-class industry producing safe, clean, healthy food for domestic and international consumers.

Overall, this SIP seeks to reinvigorate the Australian prune industry and ensure its viability and sustainability by using world's best practice production and packaging methods whilst protecting the environment to offer the consumer high quality products on domestic and export markets.

The industry consultation process used to help develop this SIP identified three key outcomes – improving on-farm productivity and quality; activities to support demand building; and building skills, capacity and knowledge within the industry. It is noteworthy that the ability to attract new industry participants to the prune industry (part of Outcome 3) will be greatly influenced by the level of industry profitability – clearly related to the success of Outcomes 1 and 2.

OUTCOME 1

Improved on-farm productivity, sustainability and product quality

The Australian prune industry needs to reach a critical mass – perhaps double its current supply base – over the next decade to make it competitive with other foods and with imported prunes. This will not happen unless prune growing becomes a more attractive enterprise to current and new participants: less laborious; more profitable; and less risky. More consistent supply of product is crucial to ensure continuity of processing infrastructure and market positioning for the medium term.

At the same time, the industry needs to decrease its cost of production and increase its product quality. Improved quality specifically relates to increasing the proportion of pittable graded prunes that are currently in limited supply for the domestic market. Prune processors are unable to access sufficient Australian prunes to satisfy the domestic market. As a result they are compelled to import product (primarily from Chile) devaluing their desire to brand and market high quality Australian product.

A further key driver for this outcome is the need to develop and extend new production systems and varieties to increase productivity, guard against the effects of an increasingly variable climate, and the need to spread harvest time so as to reduce the pressure on harvesting capacity and processing availability given it is unlikely that the huge infrastructure capabilities as seen in California are expected to be available in Australia.

OUTCOME 1 ***(continued)***

Improved on-farm productivity, sustainability and product quality

In summary, important opportunities to support this outcome include the conduct of R&D and extension to:

- Evaluate new prune varieties and rootstock
- Increase product quality by increasing the proportion of pittable fruit and ensure consistency of supply through application of best practice
- Reduce the costs associated with drying and processing, including examination of the business case for a centralised drying facility
- Increase productivity and decrease the cost of production through the adoption of best practice and application of new technology
- Ensure that biosecurity remains a pillar of the industry so that Australia retains its low disease status
- Provide new approaches to manage an increasingly more variable climate.

OUTCOME 2

Undertake R&D and extension to provide results which can be used by industry to support 'pre-competitive' activities to increase the demand for Australian prunes and improve producer profitability

Prunes have a strong position as a health food, and this can be built upon with further clarification of its benefits to an increasingly health conscious consumer. At the same time, it is known that the current demographic for prune consumption is narrow. There is a strong desire to broaden the appeal of prunes for their flavour and culinary flexibility that may be enhanced by identifying and developing new uses for prunes. While exports have only recently recommenced, there are export opportunities for Australian prunes that build upon our good quality but most importantly the 'clean and green' image of Australian products.

Domestic marketing of the Australian prune crop is primarily through two companies, each with its own branding, promotion and market development investments. Market focussed R&D investment therefore needs to be pre-competitive – supporting all processor/marketer companies equally – and targeted, so that it adds value to normal competitive market activity.

In summary, important opportunities to support this outcome include the conduct of R&D and extension to:

- Identify and develop new uses for prunes to increase consumption through the engagement of a new generation of prune eaters
- Improve understanding of Australian consumer views on the Australian product
- Improve promotion of Australian product by commercial sector
- Maintain Australia's 'clean and green' reputation and position the Australian product for export market success.

OUTCOME 3

Build skills, capacity and knowledge in the industry, both in existing and new industry participants, so that the capability exists to implement R&D outcomes and deliver the supply and quality improvements needed by the industry

It is difficult to retain existing participants in the industry, much less to attract a new generation of willing participants to the prune industry, partly for the reasons outlined under Outcome 1 (laboriousness, risk, variability, low profitability). To address these issues, new R&D outcomes are critically important but so too is the development of industry participants' capabilities to adopt innovations.

Skill enhancements, both horticultural and business based, along with enhanced confidence (and resources) to adopt new techniques and technologies are crucial to a vibrant prune industry. This outcome has been identified as a particularly high priority for the industry, especially as it seeks to reinvigorate itself.

In summary, important opportunities to support this include industry development programs to:

- Undertake an efficient, effective and appropriate extension strategy for the Australian prune industry
- Increase the focus of the industry on high quality prune production through increased knowledge of quality assurance procedures, research and development and innovation
- Invigorate existing industry participants to enhance their skills to better address prune industry challenges and opportunities
- Encourage a new generation of highly skilled and enthused participants by positioning prunes as a technologically advanced industry
- Offer employment opportunities such as cadetships.

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SECTION THREE

Prune industry priorities

Industry investment priorities

The following industry investment priorities (strategies) have been identified by industry as those most likely to provide industry benefits, especially given the limited budgets that are available for prune industry research, development and adoption activities. Possible deliverables are also listed.

The overall deliverables (key performance indicators) from this plan are that by 2021 (compared to 2016) the Australian prune industry will have:

- Almost doubled in area under production
- Achieved a trend average of greater than 80 per cent pittable fruit
- Developed one new product or distinct market opportunity for prunes
- Achieved an increase in grower satisfaction with the industry.

OUTCOME 1 – Improve on-farm productivity and product quality so that Australia becomes a leading producer of high quality, nutritious fruit	
STRATEGIES	**POSSIBLE DELIVERABLES**
Undertake R&D to deliver new technologies or refine existing ones to reduce cost of production, make production easier and/or improve quality	• Develop drying systems that are cheaper and/or produce a superior or differentiated product • Evaluate varieties (domestic and international) that provide superior production and/or an extended harvest window • Improved quality via an increased percentage of pittable fruit • Prepare a business case for a centralised drying facilities • Review and trial, where appropriate, R&D outcomes from other industries that may assist prune growers • Undertake cost of production benchmarking within Australian production systems and with other horticultural producers.

OUTCOME 2 – Undertake R&D and extension to provide results which can be used by industry to support 'pre-competitive' activities to increase the demand for Australian prunes and improve producer profitability	
STRATEGIES	**POSSIBLE DELIVERABLES**
Undertake or collate research that can be used by growers (and industry) to support product demand building activities	• Review and compile technical data to underpin the marketing proposition(s) of Australian prunes domestically and internationally, including consumer perceptions • Commission market research to support and expand the market positioning of Australian prunes.
Support new product development activities in conjunction with packing companies	• Review (and potentially partner with) other horticultural industries and/or prune industries in other countries to identify potential new prune products, especially using smaller fruit • Commission market research (in retail and food service sectors) on new prune products.

OUTCOME 3 – Build skills, capacity and knowledge in the industry, both in existing and new industry participants, so that the capability exists to implement R&D outcomes and deliver the supply and quality improvements needed by the industry	
STRATEGIES	**POSSIBLE DELIVERABLES**
Undertake industry development, communication and R&D adoption activities to enhance the skills of existing participants and encourage new entrants	• Undertake industry development and extension activities that demonstrate new technologies and practices such as improved drying and improved varieties • Develop and distribute newsletters, fact sheets, research reports and other written materials that support information sharing and capacity development.

Aligning to Hort Innovation investment priorities

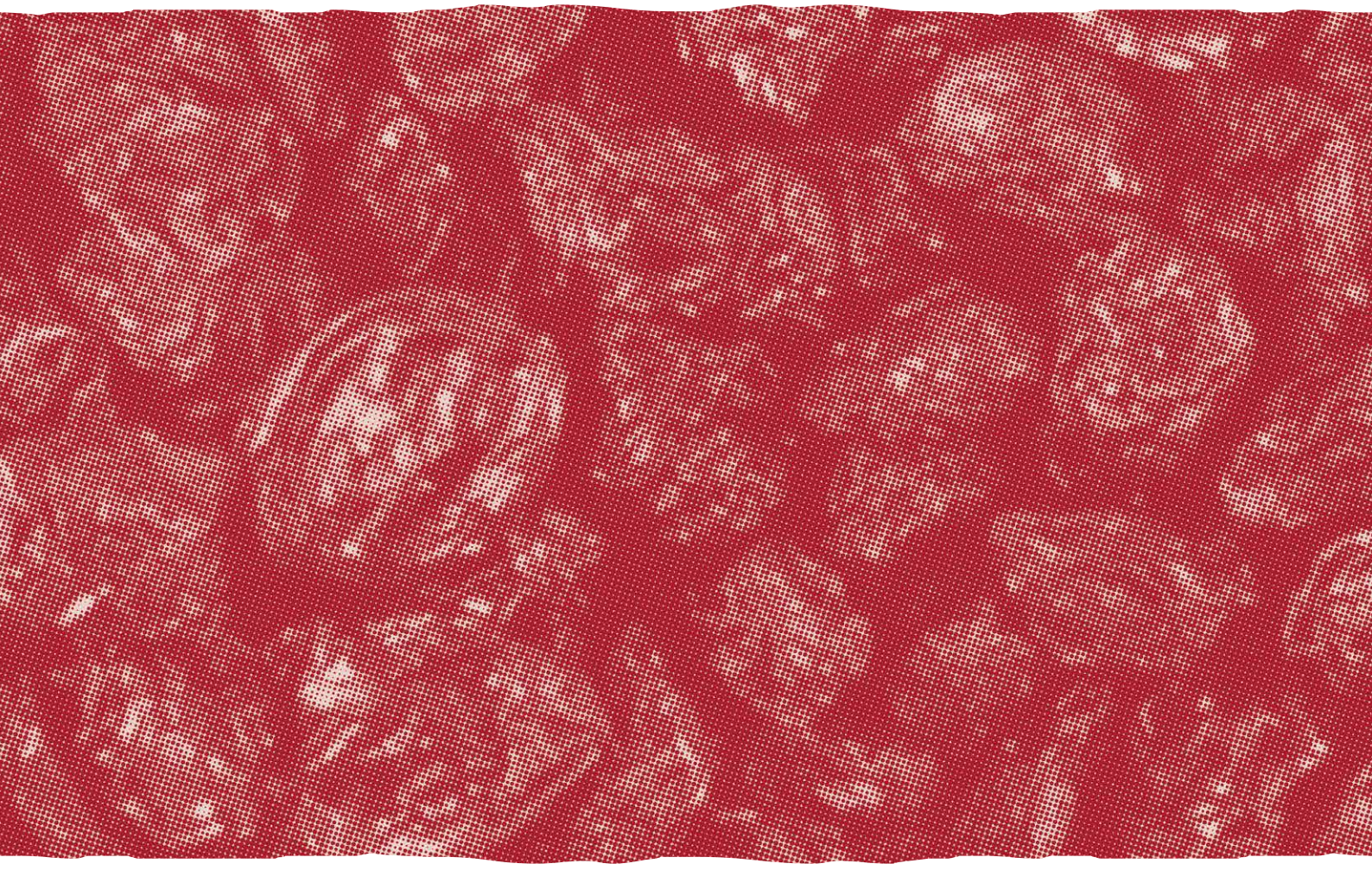
In establishing investment priorities, Hort Innovation analysed both historical and current levy and co-investment portfolios and priorities. From this analysis we identified 11 cross-sectoral investment themes. We consolidated these themes further and considered their alignment with the Australian Government's Rural RD&E Priorities and National Science and Research Priorities, to arrive at five investment priorities outlined in ***Figure 8***. ***Figure 8*** also shows how each cross-sectoral investment theme relates to the five investment priorities.

Figure 8: Hort Innovation's investment priorities

The alignment of prune SIP outcomes to the Hort Innovation investment priorities and as a consequence the Australian Government's Rural RD&E Priorities and National Science and Research Priorities is shown in ***Table 1***.

Table 1: Alignment of prune SIP outcomes to the Hort Innovation investment priorities

Hort Innovation investment priorities	Prune SIP outcomes
Support Industry efficiency and sustainability	Improve on-farm profitability and product quality so that Australia becomes a leading producer of high quality, nutritious fruit
Improve productivity of the supply chain	
Grow the horticulture value chain capacity	Build skills, capacity and knowledge in the industry, both in existing and new industry participants, so that the capability exists to implement R&D outcomes and deliver the supply and quality improvements needed by the industry
Drive long-term domestic and export growth	Undertake R&D and extension to provide results which can be used by industry to support 'pre-competitive' activities to increase the demand for Australian prunes and improve producer profitability
Lead strategically to enhance the development of the Australian horticulture industry through operational excellence	Enabler



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SECTION FOUR

Prune industry monitoring and evaluation

Prune SIP monitoring, evaluation and reporting

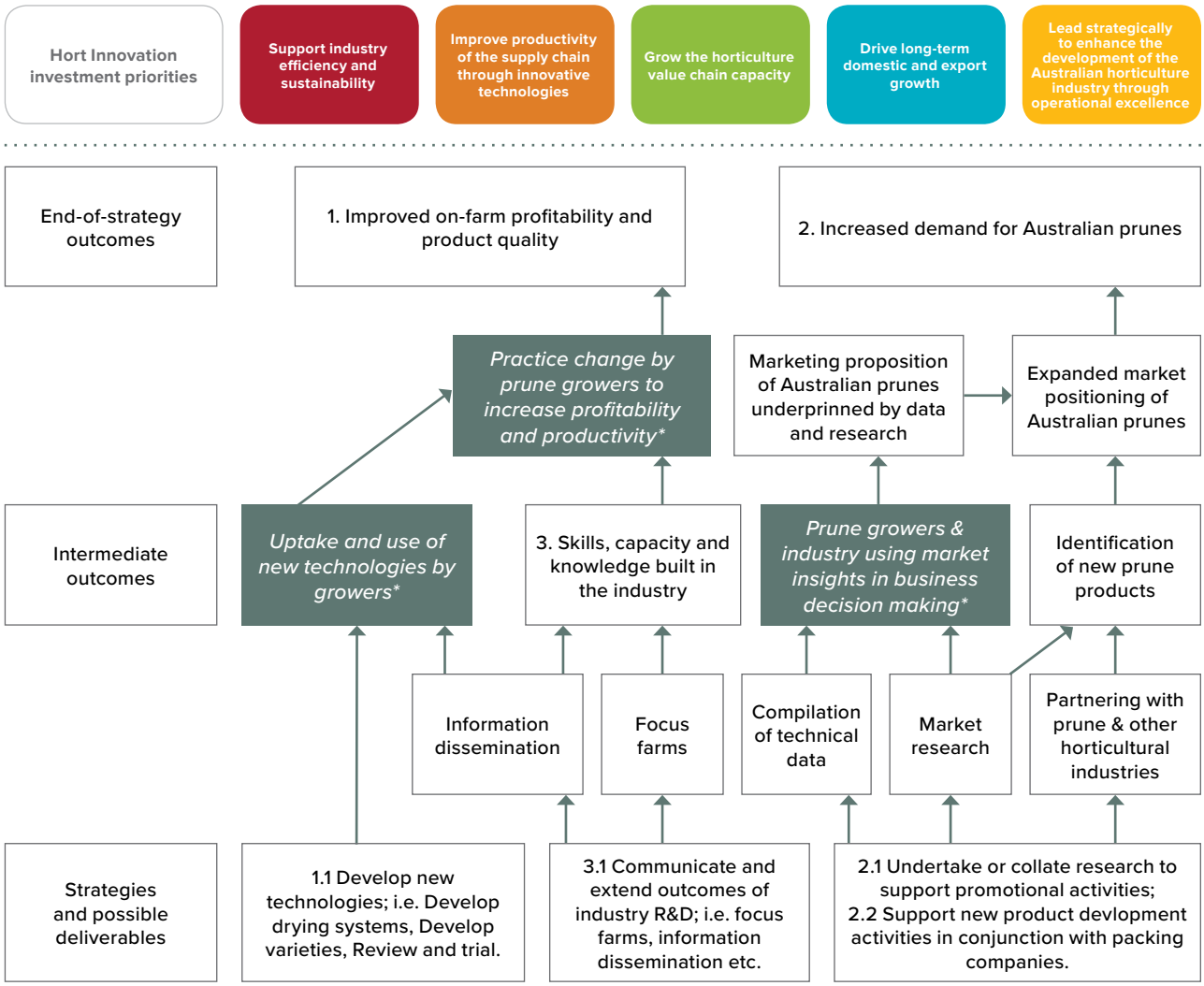
A SIP program logic and monitoring and evaluation (M&E) plan has been developed for the prune SIP. These are informed by the Hort Innovation Organisational Evaluation Framework. The logic maps a series of expected consequences of SIP investment. The M&E plan shows the performance measures that will be 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 Strategic Investment Advisory Panel 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.

Prune SIP logic

An indicative prune SIP program logic is shown in ***Figure 9***. 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 9: Prune SIP logic



Prune SIP M&E plan

The prune M&E plan is shown in ***Table 2***. The table includes key performance indicators (KPIs) and data collection methods both at a macro/industry (trend) level and at more specific SIP level/s.

Table 2: Monitoring and evaluation plan for the prune SIP

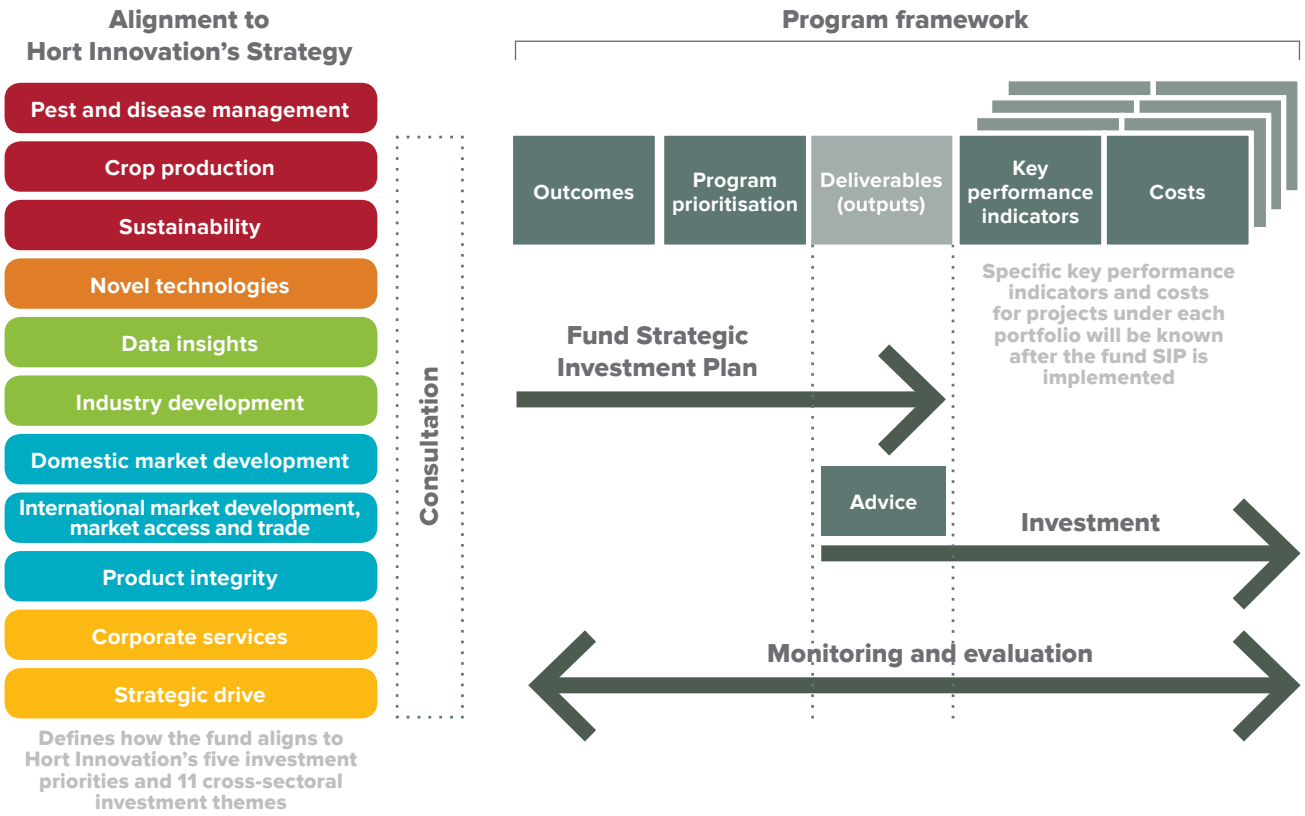
Outcome	Strategies	KPIs	Data collection methods and sources
OUTCOME 1: Improve on-farm productivity and product quality so that Australia becomes a leading producer of high quality, nutritious fruit	Undertake R&D to deliver new technologies or refine existing ones to reduce cost of production, make production easier and/or improve quality	• Availability of new or improved drying approaches that reduce costs or improve product • Varieties/rootstock evaluated (existing domestic and international) and adopted by industry (number of growers/per cent of production) • Increased focus on high quality prune production via quality assurance program adopted by 80 per cent of producers • Business case for a centralised drying facility completed and disseminated • Reduced cost of production as a result of grower adoption of new technologies or best practices	• Industry/project reports • Grower surveys • Industry reports from processors on percentage of pittable fruit • Benchmarking studies
OUTCOME 2: Undertake R&D and extension to provide results which can be used by industry to support 'pre-competitive' activities to increase the demand for Australian prunes and improve producer profitability	Undertake or collate research that can be used by growers (and industry) to support product demand building activities Support new product development activities in conjunction with packing companies	• Develop new use(s) for prunes • Availability of market research to identify new market opportunities • Reach and use of market insights within industry • Number of partnerships developed (domestic and international) to pursue new market opportunities	• Reports on new product(s) • New market/consumer opportunity reports and data • Grower survey to assess use of market insights by growers • Partnerships and resultant sales and consumption data • Benefits and value add opportunities
OUTCOME 3: Build skills, capacity and knowledge in the industry, both in existing and new industry participants, so that the capability exists to implement R&D outcomes and deliver the supply and quality improvements needed by the industry	Undertake industry development, communication and R&D adoption activities to enhance the skills of existing participants and encourage new entrants	• Quality assurance/best management practice manuals available/number of growers using manual • Increased grower satisfaction with prune growing as a career • Changes in knowledge, attitudes, skills and aspirations (KASA) as a result of industry extension • Technical articles on industry issues and development, presented in industry magazine (number per quarter) and in e-news (number per month)/reach of technical articles • Regular knowledge transfer events such as grower forums and field days (number of events/number of growers and industry stakeholders in attendance)	• Manual availability and uptake data • Grower satisfaction survey • Grower KASA and practice change survey and satisfaction with industry development activities more broadly • Communications records • Knowledge transfer event records

Reporting

The program framework in ***Figure 10*** 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 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 10: Hort Innovation's program framework



SECTION FIVE

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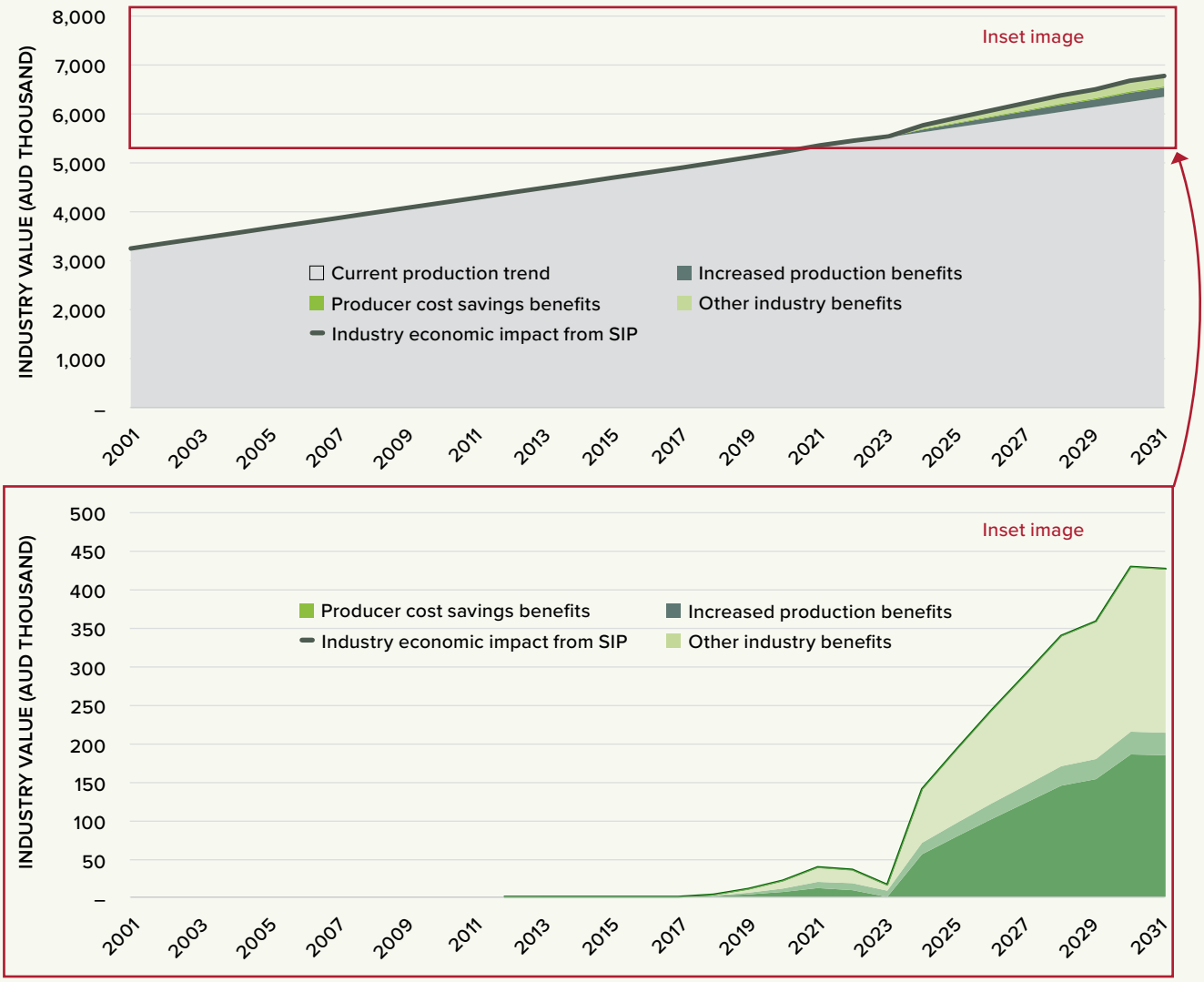
Impact assessment

Figure 11: Economic benefit from investment in the SIP



Impact assessment

An independent assessment of the potential economic impacts from investment into the prune SIP indicated a positive return on investment for the industry (***Figure 11***). The anticipated investment of $607,082 over the next five years in R&D and extension activities is expected to generate $2.55 million in net benefits for the industry, representing a benefit cost ratio of 4.20 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.

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

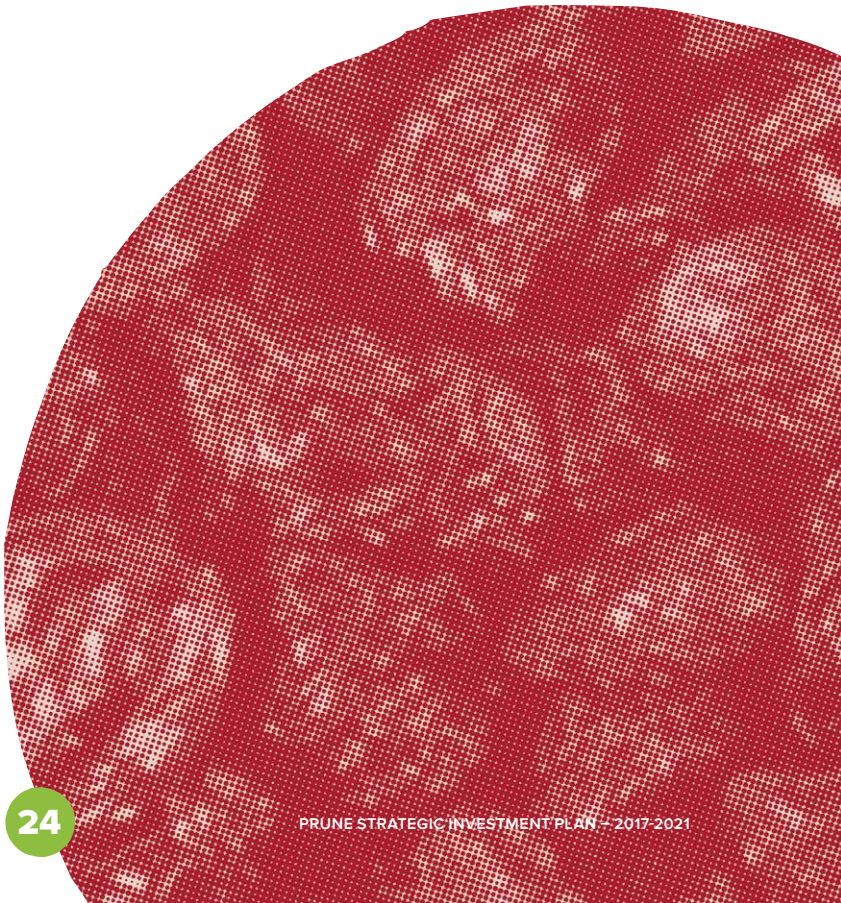
Outcome	Expected deliverables	Anticipated SIP investment (over five years)	Net economic benefits (over 15 years)	Benefit cost ratio
Improve on-farm profitability and product quality	Drying systems that are cheaper and/or produce a superior or differentiated product	$202,361	$586,951	2.90
Increase demand for Australian prunes	New prune products for production in Australia	$202,361	$1,068,303	5.28
Build skills, capacity and knowledge in the industry	Communications and demonstrations to build industry capacity	$202,361	$893,054	4.41

The quantified impacts associated with the first outcome include: cost savings for farmers from improvements in the drying process; increases in production from improvements in production efficiency; and price premiums on new plums such as plums with high antioxidants that can be dried.

The quantified impacts from the second objective include: domestic and international market expansion from the introduction of new products and the associated price premiums. This area offers significant opportunity for the industry and will deliver substantial economic impact, particularly if it extends to exports.

The quantified impacts from the third objective include: cost savings and production increases for farmers from the implementation of new technologies and practices showcased at demonstrations and from knowledge disseminated in newsletters, fact sheets, research reports and written material.

This area offers significant opportunity for the industry and will deliver substantial economic impact, particularly if it extends to exports.



SECTION SIX

6 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.

This section highlights any unique or specific risks that may impact on the implementation and outcomes of the SIP. It does not cover industry risks that in part are considered in the SWOT. Where such risks are identified, mitigation strategies are listed for consideration.

Risk	Mitigation strategy
Available funds may limit ability to achieve desired outcomes	• Only undertake activities with greatest potential • Do not over-promise SIP likely impact • Leverage co-investment with other horticultural industries
Some of the outcomes desired by industry are more focussed on marketing yet there is no marketing levy to support such activities	• Identify any R&D and extension activities that can be funded via the prune levy which will help underpin industry marketing activities
Lack of Australian production not meeting demand	• Do not over-promise the likely impact of the SIP • Communicate SIP externalities that influence production levels

APPENDIX 1: Process to develop this plan

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

- Review of previous strategic plan and numerous reference documents (domestic and international)
- Preparation of electronic industry survey and communication to industry players to encourage completion
- Preparation of prune industry SIP discussion paper
- Attendance at prune annual conference
- SIP focus session at prune SIAP meeting
- Synthesis and development of draft SIP, including analysis of potential industry impact and M&E plan
- Draft SIP sent to SIAP and subsequent feedback via teleconference
- Circulation of revised SIP to SIAP and industry more broadly for final feedback
- Revision of draft SIP to final version.

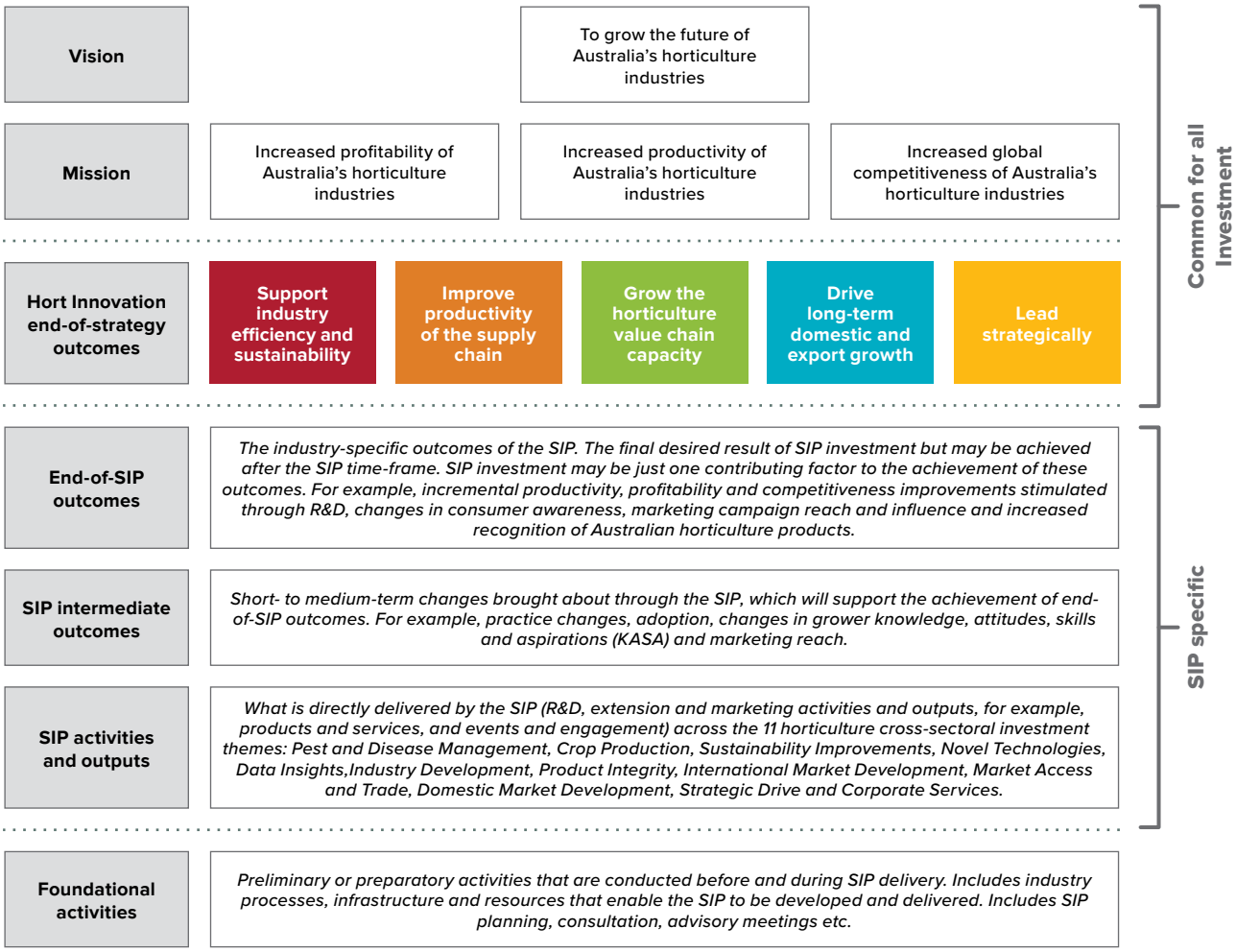
APPENDIX 2: People consulted

The following individuals were consulted during the development of this SIP (and their assistance is gratefully acknowledged).

Peter Calabria*	Yenda Producers Co-operative	NSW
Thomas Cheung*	Sunbeam Foods	Vic
Phil Chidgzey*	Dried Fruits Australia	Vic
Peter Cremasco*	PA and E Cremasco	NSW
Grant Delves*	A and G Delves	NSW
Jeff Granger*	JC Granger and Sons	NSW
Bruce Gowrie-Smith*	Goman Farming	NSW
David Swain*	Sunbeam Foods	Vic
Malcolm Taylor*	Agropraisals	Vic
Michael Zalunardo	D&G Zalunardo	NSW
Ann Furner	AL Furner	NSW

* SIAP member

Appendix 3: Logic hierarchy



APPENDIX 4: Reference documents

Angas Park (2015). Presentation to APIA Conference

Australian Prune Industry Association (2008). *Aus Prunes Strategic Plan 2008-2012*

Australian Prune Industry Association (2016). *Australian prune industry statistics*

Australian Prune Industry Association (2016). *Dried grape imports – Industry data*, derived from ABS

California Department of Food and Agriculture (2016). *2016 California Dried Plum (Prune) Forecast*

Freshlogic (2016). *2014/15 Australian Horticulture Statistics Handbook*

Hort Innovation (2015). *Dried Prune R&D Levy Fund, Project Summary 2014/15*

Hort Innovation (2016). *Dried Prune Australian Export Statistics* – GTA data

Hort Innovation (2016). *Dried Prune R&D Levy Fund, Project Summary July 2015 – June 2016*

Hort Innovation (2016). *Dried Prune R&D Levy Fund, Financials for SIAP*

International Prune Association (2015), World Prune Conference, *World Prune Production Statistical Update* Italy, May

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