

Citrus

Strategic Investment Plan

2022-2026



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EXECUTIVE SUMMARY

The overarching strategic intent of this Strategic Investment Plan (SIP) is to drive profitability by focusing on innovations for more efficient production of consistent quality citrus for existing markets, underpinned by robust industry biosecurity.

The citrus SIP 2022-2026 provides a roadmap to guide Hort Innovation's investment of citrus industry levies and Australian Government contributions, ensuring investment decisions are aligned with industry priorities.

The Australian citrus industry situation in 2019/20 is described on **page 4** with further information provided in **Appendix 1**. The Australian citrus industry is one of Australia's largest horticulture industries, with commercial production in five states and one territory. The industry is still expanding in Australia and currently has 27,000 hectares planted to citrus. In 2019/20, 284,667 tonnes were exported, 276,744 tonnes were sent to the domestic fresh market and 206,522 tonnes were sent to processing. Production has grown year-on-year since 2012/13 at an average annual growth rate of 12%.

The strategic intent of the citrus SIP provides a summary of how the citrus industry will drive change over the life of the SIP, which will ultimately come about by innovations that will improve orchard and production efficiencies, equip growers with the tools to produce consistent quality citrus for export and domestic markets and increase industry profitability.

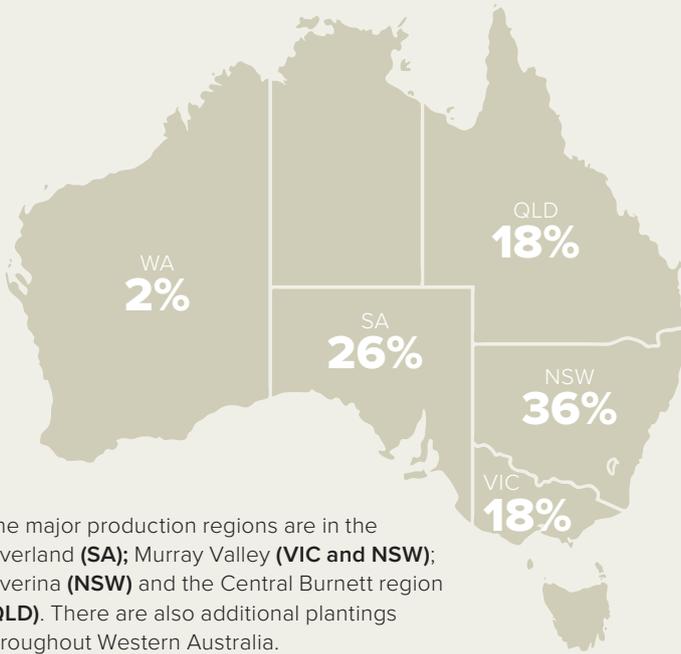
The financial estimates give an indicative overview of the funding availability for the period of FY2022-FY2026. Currently the research and development (R&D) and marketing funds have capacity for further investments, however careful prioritisation on R&D investments will be required.

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 citrus industry. Protecting the production base continues to be the industry's top priority, with particular focus on biosecurity systems including surveillance, preparedness, diagnostic capability and capacity. Market optimisation will focus on maintaining access to domestic and international markets including technical market access and market maintenance.

The key performance indicators (KPIs) detail how the impact of each strategy will be measured, for example, improving industry preparedness, responsiveness and resilience to biosecurity threats including plant material by maintaining and tracking the implementation of an industry biosecurity plan.



PRODUCTION REGIONS:



The major production regions are in the Riverland (SA); Murray Valley (VIC and NSW); Riverina (NSW) and the Central Burnett region (QLD). There are also additional plantings throughout Western Australia.

PRODUCTION WINDOW:



Year-round

NUMBER OF GROWERS:



1,500

PRODUCTION BREAKDOWN:



511,345t of oranges	71,432t of lemons/limes
172,934t of mandarins	12,055t of grapefruit

PRODUCTION VOLUMES:



767,766
tonnes

in 2019/20

FARMGATE VALUE OF PRODUCT:



\$942.4
million

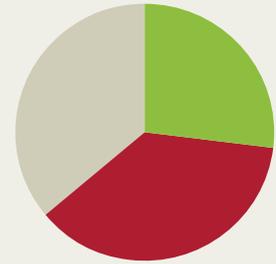
in 2019/20

PER CAPITA CONSUMPTION:

11.7 kg

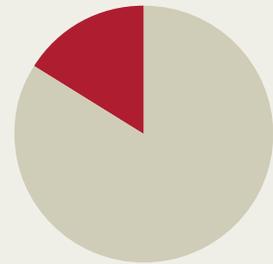


FRESH EXPORT/
FRESH DOMESTIC/PROCESSING:



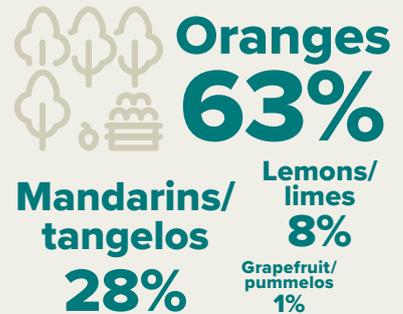
Processing (juice) 27%
Fresh export 37% Fresh domestic 36%

DOMESTIC RETAIL VS
FOODSERVICE:



Retail 84% Foodservice 16%

VARIETIES:



GROWTH TRENDS:

SINCE 2012/13...



Since 2012/13: volume increase of 213,806 tonnes (39%); value increase of \$515.4 million (121%), Export value increase of 171%

THE CITRUS STRATEGIC INVESTMENT PLAN

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

Hort Innovation has led the process for preparing the refresh of the citrus 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 SIP, and environmental scanning to identify emergent trends and issues that could impact on industry profitability and sustainability.

Hort Innovation has developed this SIP to strategically invest citrus R&D and marketing levy funds into the priority areas identified and agreed by the almond industry.

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 citrus industry 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 citrus 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 the citrus Strategic Investment Advisory Panel (SIAP), IRBs and other key stakeholders.

Producers in the citrus industry 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 R&D, marketing, biosecurity and residue testing programs.

Levy is payable on citrus that is produced in Australia and either sold by the producer or used by the producer in the production of other goods. The R&D levy is set at \$3.20 per tonne for oranges or other citrus in bulk, 6.4 cents per box for oranges or other citrus not in bulk. The marketing levy set at 75 cents per tonne for oranges in bulk and 1.5 cents per box for oranges not in bulk.

Hort Innovation manages the citrus levy funds proportion directed to R&D while separately Plant Health Australia (PHA) manages a levy set at 30 cents for oranges in bulk, 0.6 cents per box for oranges not in bulk, and 30 cents per tonne for other citrus in and 0.6 cents per box for oranges not in bulk.

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

This plan represents the Australian citrus industry's collective view of its R&D and marketing needs over the next five years (2022-2026). The plan has leveraged the learning and achievements from the past plan and been developed in consultation with Australian citrus levy payers, combined with analysis of the previous SIP and synthesis of various strategic documents. **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 citrus SIP. Importantly, a portion of these funds is already committed, as the industry has current multi-year projects for R&D and marketing activities. In addition, the levy income from year to year will vary due to changes in seasonal and market conditions.

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 citrus SIP over the life of the SIP

	2022 \$	2023 \$	2024 \$	2025 \$	2026 \$
R&D					
Balance end FY2021	1,403,530				
Estimated levy funds (growers)	2,200,000	2,200,000	2,250,000	2,250,000	2,250,000
Australian Government contribution	2,699,256	2,518,786	2,422,856	2,125,650	2,472,834
Current investments	4,443,119	4,207,349	4,142,158	2,230,370	1,728,221
New investments	200,000	100,000	–	1,400,000	2,500,000
Total project investments	4,643,119	4,307,349	4,142,158	3,630,370	4,228,221
CCR	750,000	700,000	675,000	590,000	605,000
Projected end balance	800,000	360,000	85,000	90,000	50,000
MARKETING					
Balance end FY2021	674,119				
Estimated levy funds (growers)	380,000	380,000	380,000	380,000	380,000
Current investments	412,000	12,000	12,000	12,000	12,000
New investments	–	400,000	400,000	400,000	350,000
Total project investments	412,000	412,000	412,000	412,000	362,000
CCR	87,503	87,460	77,146	77,146	66,832
Projected end balance	510,000	350,000	190,000	85,000	35,000

Disclaimer: All figures are indicative only and may change depending on actual income and expenditure.

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





CITRUS INDUSTRY OUTCOMES

The overarching strategic intent of this SIP is to drive profitability by focusing on innovations for more efficient production of consistent quality citrus for existing markets, underpinned by robust industry biosecurity.

Industry outcomes

Outcome statements as identified and prioritised by the citrus industry have been prepared under four key outcome areas: protect the production base; market optimisation; communication, extension and capability; and business insights.

OUTCOME 1: Protect the production base

Protect the production base to maintain local and international competitiveness and viability of supply.

Protecting the production base will be supported through improvements to production efficiencies which will drive profitability outcomes, 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:

- Protecting the production base through robust biosecurity systems, which will include surveillance, preparedness, diagnostic capability and capacity, robust traceability systems and nursery accreditation
- Sustainable growing systems that maximise water and labor-use efficiency
- Ensuring access to superior scion and rootstock varieties for efficient production that matches consumer quality expectations
- Maintenance of international competitiveness through quality and postharvest management
- Proactively monitoring potential crop protection regulatory threats and having access to a broader suite of effective, socially acceptable, and environmentally sound crop protection solutions.

“The important function of the SIP is to ensure that the investment decisions align with citrus industry priorities.”

OUTCOME 2: Market optimisation

Contribute to demand generation and market optimisation, driving growth across domestic and international markets.

Market optimisation will support industry to expand into existing and future domestic and international markets. Market optimisation is supported by increased consumer knowledge, attitudes and purchase intent to drive growth.

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

- Maintain access to domestic and international markets – technical market access, market maintenance and diversification – focusing on portraying high-quality product
- Identify and prioritise export and domestic market niches where there is demand and growth potential for competitive supply of quality Australian citrus
- Develop strong relationships across the supply chain with a shared goal to grow the category
- Support product positioning with consistent quality, evidence of beneficial product health attributes (particularly for juice) and responsible industry production practices
- Broaden consumer awareness so that citrus products are more top of mind and purchased more frequently.

OUTCOME 3: Communication, extension and capability

Enhance adoption of R&D outcomes through effective communications, extension and capability initiatives.

Assist industry to enhance the awareness and adoption of R&D and best management practices (BMPs) that build capability and innovation across the industry supply chains.

The strategic intent of the outcome is to enhance awareness and improve adoption of R&D outcomes through effective communications and improved extension processes (managing 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) and practice for grower/industry profitability and sustainability through adoption of best practice and innovating
- Effective communications targeting growers, supply chain stakeholders, media and governments that result in industry, regional communities and networks being well informed in relation to industry initiatives and achievements
- Improved networks and cross-industry collaboration to increase on-farm use of R&D outputs to build a stronger, more resilient industry
- Proactive strategic and evidence-based decision-making in businesses and for industry on investment, priorities and risk management
- Development of leadership skills, capacity building and training initiatives, and support for targeted industry conferences, workshops and events.

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: protect the production base; market optimisation; and communication, 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, access to 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.

CITRUS 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 industry 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 levy 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: Protect the production base

The Australian citrus industry has increased profitability, efficiency and sustainability by protecting the production base through innovative R&D, biosecurity preparedness and responsiveness, sustainable BMPs and superior varieties.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Improve industry preparedness, responsiveness and resilience to biosecurity threats including plant material, including contingency plans against exotic threats, diagnostic capacity, strong post-entry quarantine capacity, a register of nurseries, and budwood traceability systems	<ul style="list-style-type: none"> Centrally coordinated biosecurity R&D that minimises duplication and maximises value for money. Improved surveillance and diagnostic tools for high-priority citrus pests Maintenance of high-health budwood material Improved traceability systems for better responsiveness to incursions, and ensuring confidence in the supply chain Preparedness for the greatest threat to citrus production in Australia – huanglongbing (HLB; <i>Candidatus Liberibacter asiaticus</i>) and its psyllid vectors – including greater understanding of new scion/rootstock-resistant combinations
2. Improve access to new scion and rootstock varieties with superior performance through breeding and by evaluating varieties from global programs, including identification of new rootstocks suitable for automation and high-density production systems	<ul style="list-style-type: none"> Availability of new genetics suited to Australian conditions that give growers a competitive advantage Genetics to support the development of automation-enabled production systems to provide superior product attributes to consumers
3. 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
4. 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
5. Develop new mandarin varieties with superior consumer attributes	<ul style="list-style-type: none"> Availability of new mandarin varieties with superior product quality traits (easy-to-peel, seedless, brix) to increase consumer demand

Continued >>

OUTCOME 1: Protect the production base

The Australian citrus industry has increased profitability, efficiency and sustainability by protecting the production base through innovative R&D, biosecurity preparedness and responsiveness, sustainable BMPs and superior varieties.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
6. Monitor and manage food safety risks to maintain consumer confidence in Australian citrus	<ul style="list-style-type: none"> Sustained market access and trade growth
7. Develop postharvest practices and guidelines to ensure quality product reaches consumers	<ul style="list-style-type: none"> Improved quality and increased consumer demand
8. Increase knowledge of automation and use of technology, including improved orchard systems to allow for automation of production practices for fresh and juicing	<ul style="list-style-type: none"> Opportunities to explore mechanisation of tasks to reduce labour inputs – pack shed and on-farm and for water-use efficiency
9. Develop and optimise a whole-systems approach to integrated pest and disease management (IPDM)	<ul style="list-style-type: none"> Reduction in crop loss by using sustainable pest and disease management practices
10. 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

OUTCOME 2: Market optimisation

Market optimisation supports the Australian citrus industry to develop and diversify existing and future domestic and international markets.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Maintain and improve technical market access for high-value export markets	<ul style="list-style-type: none"> Maintained and/or improved access for diversified export markets including Japan and the USA
2. Retain and diversify markets by increasing business-to-business engagement in new and emerging markets	<ul style="list-style-type: none"> Trusted relationships with trading partners and deeper understanding of demand requirements Capitalisation on new opportunities such as the Indonesia Australia Comprehensive Economic Partnership Agreement (IA-CEPA)
3. Increase international consumer awareness and preference of fresh, quality Australian citrus through improving knowledge, attitudes and purchase intent	<ul style="list-style-type: none"> Stronger consumer demand for Australian citrus in export markets
4. Increase domestic consumer demand for Australian citrus through improving knowledge, attitudes and purchase intent	<ul style="list-style-type: none"> Stronger consumer demand for Australian citrus in domestic markets



OUTCOME 3: Communication, extension and capability

The Australian citrus industry has enhanced adoption of R&D and marketing outcomes through effective communication and extension initiatives.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Deliver communication and extension programs to create positive change in the areas of biosecurity preparedness, varieties that meet consumer demand, sustainable production, pest and disease management, and export protocols and markets	<ul style="list-style-type: none"> A progression in KASA for grower/industry profitability and sustainability through use of best practice and innovating (e.g., sustainability, consistent quality, export capability)
2. Strengthen industry leadership through initiatives and training (e.g., succession planning in research and industry) including development of leadership skills, capacity building and training initiatives, and supporting targeted industry conferences, workshops and events	<ul style="list-style-type: none"> Evidence of proactive strategic and evidence-based decision-making in business and for industry on investment, priorities and risk management
3. Provide opportunities for business engagement between industry, across industry members and relevant stakeholders	<ul style="list-style-type: none"> Improved networks and cross-industry collaboration that increase efficiencies and use of R&D outputs to build a stronger, more resilient industry
4. Increase industry access to online export training material and mechanisms for business-to-business engagement	<ul style="list-style-type: none"> Improved online and/or in-market networks

OUTCOME 4: Business insights

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

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Use trade data to guide ongoing export development opportunities*	<ul style="list-style-type: none"> Increased knowledge of potential markets Positioning of strategic markets
2. Use production forecasts (via tree census) to support market planning in domestic and export markets, including industry benchmarking	<ul style="list-style-type: none"> Optimisation of industry resource allocation towards profitable markets
3. Undertake ongoing market intelligence work to understand consumer preferences and the global competitive landscape	<ul style="list-style-type: none"> Product quality and attributes meet the demand of consumers by market
4. 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

* 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.





CITRUS SIP MONITORING AND EVALUATION

The citrus 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.

Citrus SIP Monitoring and Evaluation Framework

The citrus SIP M&E Framework is shown below. The table 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
Protect the production base		
<p>Outcome 1: The Australian citrus industry has increased profitability, efficiency, and sustainability by protecting the production base through innovative R&D, biosecurity preparedness and responsiveness, sustainable BMPs and superior varieties.</p>	<p>1. Improve industry preparedness, responsiveness and resilience to biosecurity threats including plant material, including contingency plans against exotic threats, diagnostic capacity, strong post-entry quarantine capacity, a register of nurseries, and budwood traceability systems</p>	<ul style="list-style-type: none"> • Maintenance/tracking of the implementation of an industry biosecurity plan • Development of risk analyses of high-priority pests including entry pathways, establishment and spread potential • Improvement in diagnostics for high-priority plant pests including the development of rapid and point-of-need diagnostic tests • Development of scalable, statistically sound surveillance and monitoring methods for high-priority citrus pests (e.g., fruit fly, psyllids and multi-pest surveillance to maximise effort) • Improved industry responsiveness to biosecurity incursions through better traceability systems (e.g., budwood, nursery stock)

Continued >>

OUTCOME	STRATEGIES	KPIs
<p>Outcome 1: (continued) The Australian citrus industry has increased profitability, efficiency, and sustainability by protecting the production base through innovative R&D, biosecurity preparedness and responsiveness, sustainable BMPs and superior varieties.</p>	<p>2. Improve access to new scion and rootstock varieties with superior performance through breeding and by evaluating varieties from global programs, including identification of new rootstocks suitable for automation and high-density production systems</p>	<ul style="list-style-type: none"> • Availability and access to new citrus scion and rootstock varieties that have been developed for Australian conditions for grower adoption • New knowledge for growers on the performance of citrus scion and rootstock varieties under Australian conditions to support adoption • New knowledge for growers on the potential of native Australian lime genetics to address threats like HLB
	<p>3. Prioritise the major crop protection gaps through a SARP*</p>	<ul style="list-style-type: none"> • Coordinated industry priority setting with a clear outlook of gaps and risks in existing pest control options • Industry priority needs are published and shared with stakeholders, including registrants
	<p>4. 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*</p>	<ul style="list-style-type: none"> • Data to support applications to the APVMA and the establishment of Maximum Residue Limits (MRLs)
	<p>5. Develop new mandarin varieties with superior attributes to appeal to consumers</p>	<ul style="list-style-type: none"> • Availability of new mandarin varieties with superior product quality traits (e.g., easy-to-peel, seedless, brix) that appeal to consumers • New knowledge on fruit quality attributes of new mandarin varieties to support grower adoption
	<p>6. Monitor and manage food safety risks to maintain consumer confidence in Australian citrus</p>	<ul style="list-style-type: none"> • Identification and mapping of microbial food safety risks in the supply chain enabling controls to be put in place to mitigate food safety incidents • Increased knowledge of the potential survival of foodborne pathogens on citrus fruit • Food safety practices in the supply chain are benchmarked and practice change is monitored
	<p>7. Develop postharvest practices and guidelines to ensure quality product reaches consumers</p>	<ul style="list-style-type: none"> • Development of postharvest best practice guides to enable consistent delivery of high-quality citrus • Development of postharvest best practice for the harvest, handling, processing, storage of Australian citrus

Continued >>

OUTCOME	STRATEGIES	KPIs
<p>Outcome 1: (continued) The Australian citrus industry has increased profitability, efficiency, and sustainability by protecting the production base through innovative R&D, biosecurity preparedness and responsiveness, sustainable BMPs and superior varieties.</p>	<p>8. Increase knowledge of automation and use of technology, including improved orchard systems to allow for automation of production practices for fresh and juicing</p>	<ul style="list-style-type: none"> • Development of orchard systems that are compatible with automation and technology solutions in collaboration with growers • Packhouse operations are modified to integrate automation and technology solutions (e.g., case studies to learn and not duplicate efforts)
	<p>9. Develop and optimise a whole-systems approach to IPDM</p>	<ul style="list-style-type: none"> • Adoption of whole-systems IPDM strategies that reduce crop losses and enable sustainable management of pests and diseases
	<p>10. 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*</p>	<ul style="list-style-type: none"> • Regulatory Risk Assessments maintained
<p>Market optimisation</p>		
<p>Outcome 2: Market optimisation supports the Australian citrus industry to develop and diversify existing and future domestic and international markets.</p>	<p>1. Maintain and improve technical market access for high-value export markets</p>	<ul style="list-style-type: none"> • Technical access is supported for selected export markets (Philippines and Vietnam) • Availability of new mandarin varieties with superior fruit quality attributes for grower adoption • Generation of datasets and/or supporting information that underpin market access ambitions, including novel technologies
	<p>2. Retain and diversify markets by increasing business-to-business engagement in new and emerging markets</p>	<ul style="list-style-type: none"> • New submissions to the International Market Access Assessment Panel (IMAAP)
	<p>3. Increase international consumer awareness and preference of fresh, quality Australian citrus through improving knowledge, attitudes and purchase intent</p>	<ul style="list-style-type: none"> • Increased awareness of Australian citrus • Positive influence on international consumer preference
	<p>4. Increase domestic consumer demand for Australian citrus through improving knowledge, attitudes and purchase intent</p>	<ul style="list-style-type: none"> • Positive influence on domestic consumer preference • Positive shifts in brand tracking



OUTCOME	STRATEGIES	KPIs
Communication, extension and capability		
<p>Outcome 3: The Australian citrus industry has enhanced adoption of R&D and marketing outcomes through effective communication and extension initiatives.</p>	<p>1. Deliver communication and extension programs to create positive change in the areas of biosecurity preparedness, varieties that meet consumer demand, sustainable production, pest and disease management, and export protocols and markets</p>	<ul style="list-style-type: none"> Establishment of a baseline and then increased share of industry (ha) with positive change in KASA, practice change and implementation concerning targeted high priority areas (e.g., biosecurity preparedness, varieties meeting consumer demands, sustainable production, pest and disease management and export protocols and markets)
	<p>2. Strengthen industry leadership through initiatives and training (e.g., succession planning in research and industry) including development of leadership skills, capacity building and training initiatives, and supporting targeted industry conferences, workshops and events</p>	<ul style="list-style-type: none"> Increased participation in industry leadership and training initiatives
	<p>3. Provide opportunities for business engagement between industry, across industry members and relevant stakeholders</p>	<ul style="list-style-type: none"> Demonstrated growth in cooperation within industry and across industries leading to business and industry innovations (e.g., automation, traceability of plant stock)
	<p>4. Increase industry access to online export training material and mechanisms for business-to-business engagement</p>	<ul style="list-style-type: none"> Support for exporters to build networks online and/or in market which facilitates the growth in numbers of growers exporting and export markets
Business insights		
<p>Outcome 4: The Australian citrus industry is more profitable through informed decision-making using consumer knowledge and tracking, trade data, benchmarking and production statistics and forecasting and independent reviews.</p>	<p>1. Use trade data to guide ongoing export development opportunities*</p>	<ul style="list-style-type: none"> Trade data is maintained and data outputs are supplied to meet stakeholder needs
	<p>2. Use production forecasts (via tree census) to support market planning in domestic and export markets, including industry benchmarking</p>	<ul style="list-style-type: none"> Availability of production forecasts Evidence that production forecasts support marketing and production decisions
	<p>3. Undertake ongoing market intelligence work to understand consumer preferences and the global competitive landscape</p>	<ul style="list-style-type: none"> Global competitive landscape defined to inform market engagement
	<p>4. Increase industry alignment with quality and brand-positioning opportunities driven by consumer insights*</p>	<ul style="list-style-type: none"> Delivery of a consumer insights strategy Evidence that consumer insights inform market engagement domestically and internationally (e.g., case studies)

* 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 citrus 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 citrus SIP is the roadmap that will guide Hort Innovation’s oversight and management of the citrus industry’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 RD&E, marketing and 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 citrus industry include:

- International market access and demand
- Opportunities to support export markets
- Export supply chain pathways (new way of doing business)
- Quality monitoring and capacity building across the 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.

Strategic science and research focus

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



Table 2. Citrus research priorities

Citrus Australia Limited priorities	Citrus South Australia priorities	WA Citrus priorities	AFPA strategic priority areas
Market development Biosecurity Communications and networks Informed industry	Biosecurity and fruit fly management Cost of compliance for growers Grower training and capacity building Technology and innovation for growers	Reducing risk to businesses, orchards and supply chain from plant health threats and other crises Access to premium export market for Western Australian fruit Improving profitability by reducing impact of environment on quality of fruit Demonstrating and accessing best practice information for Western Australian growers in regional areas and for all citrus categories related to production, business and leadership RD&E for supporting timely information and proactive engagement with supply chain and government on factors that increase costs or reduce returns to growers	Sustainability (climate change, water, packaging and shelf life) Trade (market access, industry capability development, technical exchange with export markets) Biosecurity (managing pest and disease, Integrated Pest Management (IPM) and 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 citrus industry investment program, NSW Department of Primary Industries (NSW DPI) and Department of Agriculture and Fisheries, Queensland (DAFQ), were engaged during the development of this SIP to ensure consideration and strategic alignment of priorities for the citrus industry. 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

NSW DPI and DAFQ priorities	Rural RD&E for Profit priorities	Australian Government Science and Research priorities
New and improved genetics	Advanced technology	Food
Improved quality and pack out	Biosecurity	Soil and water
Biosecurity – awareness and preparedness	Soil, water and managing natural resources	Advanced manufacturing
Postharvest handling	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 citrus industry. 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 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 citrus 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 citrus SIAP, which is 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 SIAP can be found on the Hort Innovation website [here](#), and the AIP will be published on the same page 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 to invest in specific impact areas to drive innovation and sustainability initiatives.

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

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

Partnering with Hort Frontiers on these areas would provide the citrus 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**).

FIGURE 1. Four key pillars of the Australian-grown Horticulture Sustainability Framework



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 examples of citrus SIP strategies showing how the industry is already aligning to the framework.

TABLE 4. Citrus SIP strategy examples showing how the industry is already aligning to the Australian-grown Horticulture Sustainability Framework

STRATEGY	IMPACT	SUSTAINABILITY GOAL
Develop and optimise a whole-systems approach to IPDM	<ul style="list-style-type: none"> Reduction in crop loss by using sustainable pest and disease management practices 	Planet & Resources
Strengthen industry leadership through initiatives and training (e.g., succession planning in research and industry) including development of leadership skills, capacity building and training initiatives, and supporting targeted industry conferences, workshops and events	<ul style="list-style-type: none"> Evidence of proactive strategic and evidence-based decision-making in business and for industry on investment, priorities and risk management 	People & Enterprise

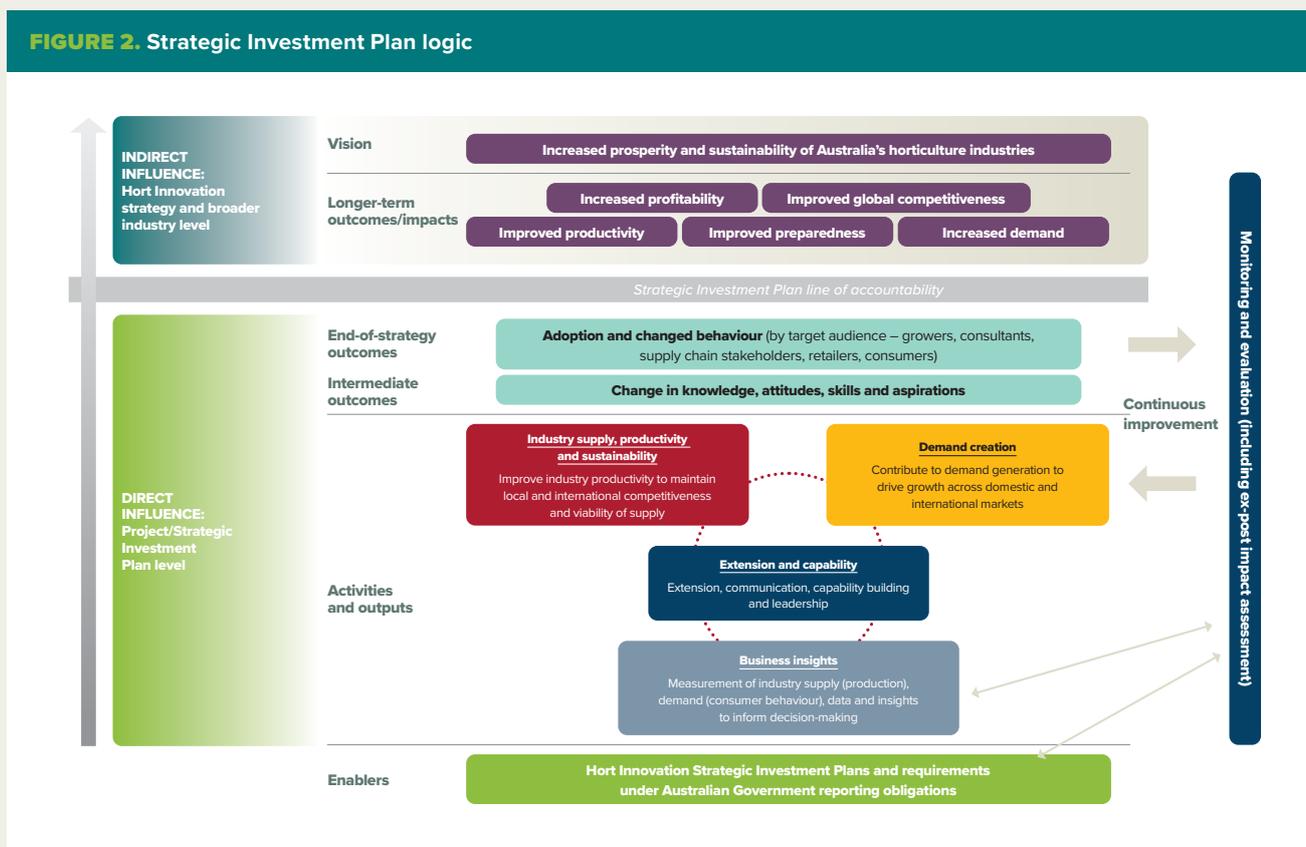


HORT INNOVATION



Strategic Investment Plan logic

The SIP logic (**Figure 2**) identifies how investment activities and outputs (delivered through each SIP outcome area) will support changes in industry knowledge, skills, attitudes, and aspirations, 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.



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 contributions 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

The Australian citrus industry is one of Australia's largest horticulture industries, with commercial production in five states and one territory. Citrus varieties include oranges, mandarins, lemons/limes and grapefruit/pummelos.

There are currently over 27,000 hectares planted to citrus in Australia. The number of orchards has increased by 19% and area planted by 21% since 2014. The average orchard size is 21 hectares, with 25% of orchards accounting for 72% of total citrus plantings. 18% of trees are currently non-bearing (0-4 years) and 23% are entering production (5-12 years), compared to only 9% of trees on the decline (more than 40-years old) showing the industry is still expanding.

For oranges, juicing is a key market, with 38% of production volume sent to this destination, more than is sent to the domestic fresh market. After processing, orange juice is stored as fresh juice or concentrate. Fresh orange juice sells at a premium compared to juice made from concentrate. Long-life and non-refrigerated juice products are mainly manufactured from imported frozen concentrate. There has been a decline in the fresh orange juice sector, and citrus growers are slowly moving away from growing Valencia oranges due to lower returns compared to higher returns for navel varieties.

Domestic consumers and drivers of demand

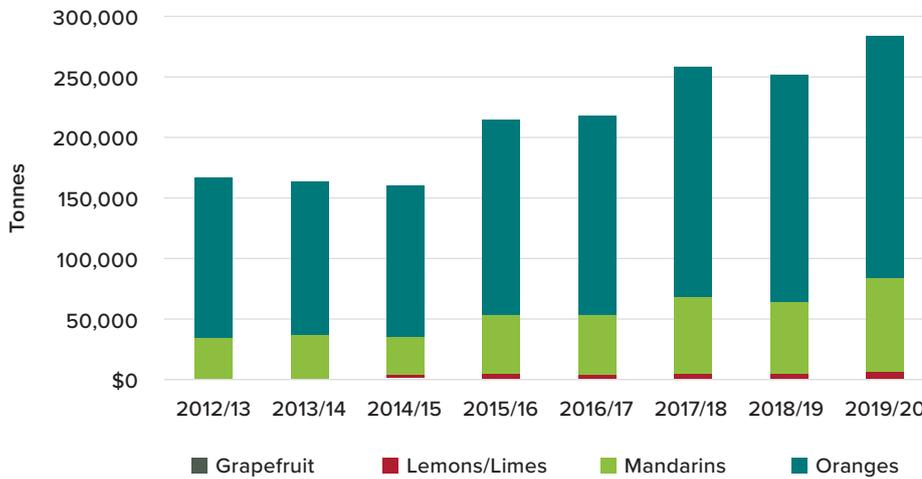
The industry follows a voluntary minimum national quality standard for oranges and mandarins. Development of the standards involved consumer research, commercial standards and industry consultation.

The major determinant of domestic market performance is the marketing programs of the major retail chains. The industry believes it has a good relationship with the major retail chains and believe it is a strength that should be maximised. Because of the importance of this market, Citrus Australia's Domestic Leadership Group drives the direction for the domestic citrus industry.



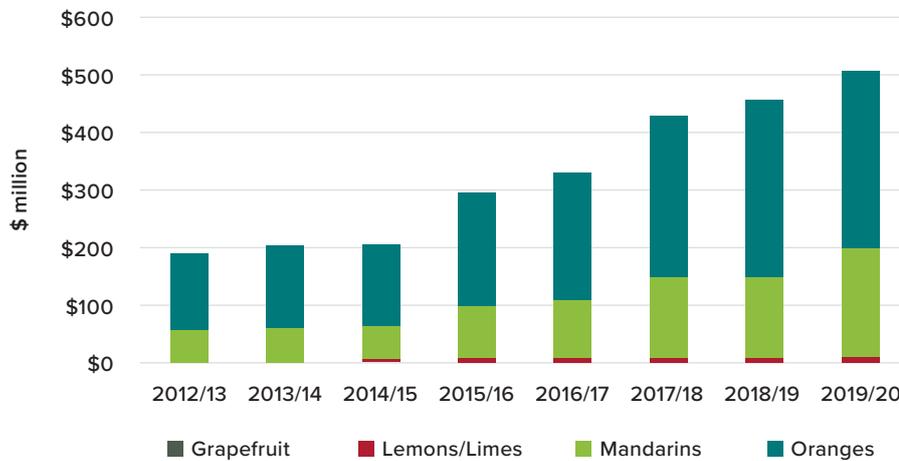
Export markets

FIGURE 3. Citrus export volumes, 2012/13 to 2019/20



Source: Australian Horticulture Statistics Handbook (2019/20)

FIGURE 4. Citrus export value, 2012/13 to 2019/20



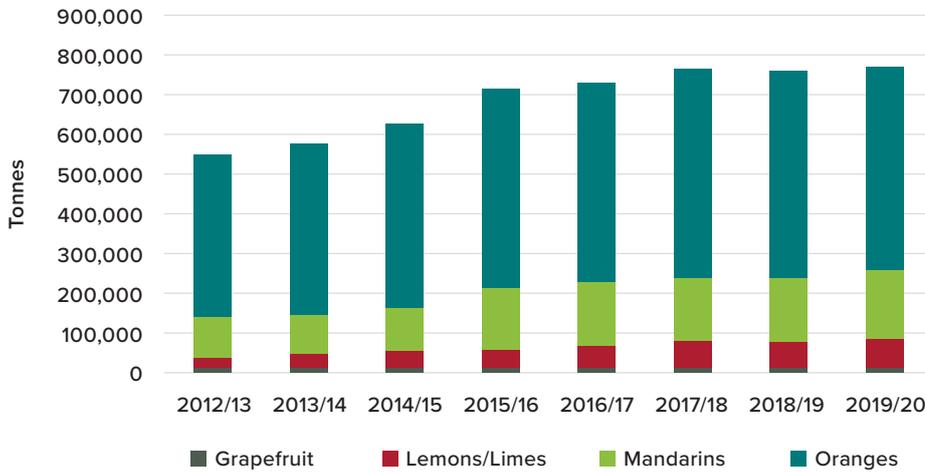
Source: Australian Horticulture Statistics Handbook (2019/20)

Exports have overtaken the domestic market as the major destination for citrus over the past five years. 284,667 tonnes were sent to export in 2019/20, compared to 276,744 tonnes to the domestic fresh market and 206,522 to processing (Figure 3). There have been significant increases in export value, to the point where table grape and almond are the only horticulture industries with higher export value. Export value has more than doubled since 2012/13 growing from \$188 million to \$509 million in 2019/20. This has mainly been driven by oranges in absolute terms, with export value growing by \$180 million. Mandarins have had greater percentage growth, however, more than tripling since 2012/13 and growing by 34% from 2018/19 to 2019/20 alone, showing that exports for this industry are still expanding considerably (Figure 4).

The largest export markets for mandarins by volume are China (32%), Thailand (17%), New Zealand (65%), Indonesia (6%) and Japan (6%). The largest export markets for oranges are China (23%), Japan (18%), Hong Kong (15%), Malaysia (6%) and Singapore (6%).

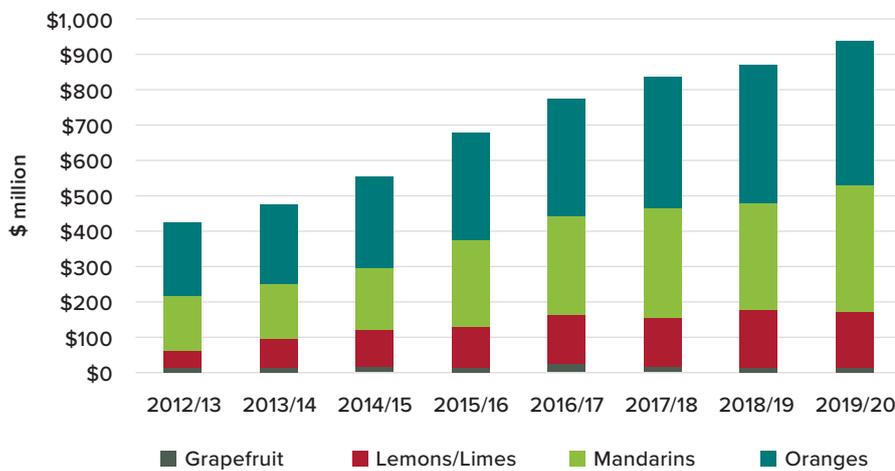
Industry production

FIGURE 5. Citrus production volume, 2012/13 to 2019/20



Source: Australian Horticulture Statistics Handbook (2019/20)

FIGURE 6. Citrus production value, 2012/13 to 2019/20



Source: Australian Horticulture Statistics Handbook (2019/20)

Citrus production has grown year-on-year for every year since 2012/13 at an average annual growth rate of 12.0%. This is one of the highest across all fruit categories, which is a great result for a relatively mature industry. Average annual growth rates over this period for each category are 16.6% for lemons/limes, 12.2% for mandarins, 10.9% for grapefruit and 10.4% for oranges (*Figure 5*).

This growth has been partly driven by greater production volumes, especially for lemons/limes. Production volumes have stabilised over the past three years, remaining at around 765,000 tonnes. This shows that a portion of growth has been price driven, especially over the past three years.

APPENDIX 2: Citrus 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 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 5 has been used to analyse the citrus industry's strengths, weaknesses, opportunities, and threats (SWOT). The SWOT tool assists the industry to build on what works, observe what is lacking, minimise risks, and take the greatest possible advantage of chances for success.

TABLE 5. Citrus SWOT analysis

The citrus industry	
Strengths	<ul style="list-style-type: none"> • Significant export markets and strong demand • Capability to produce premium export quality citrus that exceeds international competition capabilities • Strong brand (high-quality, sweetness, 'clean and green', safe) • Ability to work collaboratively with public (federal and state) and private organisations/agencies • Significant increase in the export focus of many growers • High-quality on-farm R&D • Excellent market information on production, varieties • Robust food safety systems and traceability standards • Good range of varieties • Strong mechanisms in place to monitor and address market access/maintenance issues including scientific documentation for protocol requirements • Widespread application of BMPs in key areas such as irrigation, pest management, nutrition and environmental management • Access to some key technical and marketing resources



The citrus industry	
Weaknesses	<ul style="list-style-type: none"> • Poor biosecurity attitudes and practices by some industry participants • Biosecurity preparedness is limited/low • High cost of audits • Lack of skilled labour at key times and high cost of labour • Potential for inaccurate crop estimates, adversely affecting harvest, transport and market supply planning, leading to loss of income • Only one quarantine facility servicing the Australian citrus industry • Competition in some cases between exporters and marketers • Complex and costly government compliance processes • Markets not recognising some Pest Free Areas (PFAs) • Harvest of fruit by some growers outside the correct maturity timeframes, which can often lead to consumer disappointment, especially at the start of the season • Slow resolution of market access issues • Not all regional jurisdictions have access to all markets • Protocols/MRLs that can be confusing, especially for growers • Lack of domestic nursery accreditation scheme • High cost of production • Limited industry data (e.g., industry benchmarks and export data)
Opportunities	<ul style="list-style-type: none"> • Increased demand for high quality product with high quality standards supporting well-known brands from Australia • Proximity to Asian markets • Maintaining current high-value markets and exploring emerging markets • Relative freedom from pests and diseases in some areas • Making greater use of technical and marketing resources • Moving toward ultra-low MRLs through BMP combinations • Health benefits of citrus • Export opportunities for fresh juice • Increase in fruit quality • Collective action (including via Hort Frontiers strategic partnership initiative) to better manage endemic pests, especially fruit fly • Improving the capacity of industry to meet strict market protocols • Co-investment to address challenges shared by other industries (e.g., automated systems driverless tractors, remote sensing for data-based decision making, biosecurity) • More students studying agriculture • Greater access to local skills



The citrus industry

Threats

- Loss of Australia's premium position in export markets as other countries improve quality
- Loss of premium markets due to political instability
- Increasingly protectionist policies in emerging markets
- Loss of markets due to biosecurity or MRL breaches
- Restrictions on crop protectants affect market access
- Substantial increase in value of the Australian dollar
- Increased production leading to oversupply
- Limited industry data on key metrics for businesses productivity and water use
- Industry uncertainty created over unclear government policy positions
- Impact on production and fruit quality from reduced access to water, and climate variability/climate change Increasing supply of imported citrus and other seasonal fruit (local or imported)
- Further loss of PFA status in some areas
- Regional exotic pests and diseases, such as gall wasp, island fly and fruit fly, and potential new incursions of national exotics pest and diseases such as HLB (and associated Asian citrus psyllid), oriental fruit fly and other exotic diseases
- Disease spread through budwood
- Increasingly high labour and compliance costs
- Further restrictions on access to skilled and unskilled labour
- Reduced accuracy of tree census and crop estimates
- Reducing scientific expertise in pest/disease/physiology
- Lack of skilled, experienced industry representatives participating in industry forums/committees
- Under-resourced peak industry body
- Water and power insecurity



APPENDIX 3: People consulted

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

NAME	INDUSTRY ROLE	REGION
Mark Doecke	Chair, Citrus SA; Grower	South Australia
David Arnold	Grower	South Australia
Anthony Fulwood	Grower	South Australia
Maria Costi	Packer	South Australia
Stuart Andrew	Grower	South Australia
Kerrie Robertson	Citrus SA	South Australia
Francy Asher	Executive Officer, Citrus SA	South Australia
Debbie Caarmano	Grower	Queensland
Anthony Carusi	Grower	Queensland
Con Iacutone	Grower	Queensland
Oscar Bugno	Grower	Queensland
Ray Courtice	Grower	Queensland
Wim Van Niekerk	Grower	Queensland
Gina Galati	Grower	Queensland
Cris Bryant	Grower; Packer; Exporter	Queensland
Allen Jenkin	Grower; Packer; Exporter	Queensland
Matthew Benham	Grower; Packer	Queensland
Brian Gallagher	Grower	Queensland
Megan McDonald	Citrus Monitoring Services	Queensland
Malcolm Smith	Breeder	Queensland
Andrew Creek	Researcher	New South Wales
Justin Davidson	Grower; Juicer	New South Wales
Vito Mancini	Grower; Packer; Exporter	New South Wales
Marcus Diaco	Researcher	New South Wales
Richard Byllaardt	Grower; Chair – Grower Director, Citrus Australia Limited	New South Wales, Victoria, Queensland, Northern Territory
Robert Hoddle	Exporter; Citrus Australia Limited	New South Wales
Frank Mercuri	Grower	New South Wales
Mara Milner	Citrus Australia Limited	Victoria
David Stevens	Grower	Victoria
Darren Minter	Grower	Victoria
Justin Lane,	Grower; Packer; Exporter	Victoria
Danny Thornton	Agronomy services	Victoria

Continued >>

NAME	INDUSTRY ROLE	REGION
David Lyell	Grower	Victoria
Ben Dring	Grower	South Australia
Nicole Zerveas	Citrus Australia Limited	Victoria
Alison McGregor	Citrus Australia Limited	Victoria
Stephen Cooke	Citrus Australia Limited	Victoria
Jeff Milne	Citrus Australia Limited	Victoria
Megan MacDonald	Grower; Packer; Citrus Monitoring Services	Queensland
Greg Fraser	Independent Director, Citrus Australia Limited	Australia Capital Territory
Ben Cant	Deputy Chair – Grower Director, Citrus Australia Limited; Grower	South Australia
Michael Littore	Trader, Juicer	Victoria
Emma Robinson	Grower	Queensland
Richard Permewan	Exporter	Victoria
Cameron Davine Nutrano	Grower; Exporter	Victoria
Iain Evans	Independent Director, Citrus Australia Limited	South Australia
Alvin Zhang	Packer; Exporter	Victoria
Bindi Pressler	Grower; Packer; Exporter	Queensland
Darryll Lowe	Packer	Queensland
Marcus Scott	Trader; Juicer	Victoria
Antonella Banno Nutrano	Grower; Packer; Exporter	Victoria
Brian Bowey	Marketer	South Australia
Richard Eckersley	Grower; Packer	Western Australia
Joseph Ling	Grower	Western Australia
Daniel Ying	Grower	Western Australia
Shane Kay	Grower Director, Citrus Australia Limited; Grower; Packer	Western Australia
Andrew Pergoliti	Grower; Packer	Western Australia
Bronwyn Walsh	Citrus WA	Western Australia
Nathan Hancock	Chief Executive Officer, Citrus Australia Limited	Victoria
David Daniels	Citrus Australia Limited	Victoria
Steve Burdette	Grower; Packer; Exporter	Queensland
Tim Herrmann	Researcher	New South Wales
Malcolm Smith	Researcher	Queensland
David Monks	Researcher	New South Wales
Tahir Khurshid	Researcher	New South Wales

Continued >>

NAME	INDUSTRY ROLE	REGION
Wayne Parr	Grower	Queensland
Nerida Donovan	Researcher	New South Wales
Steven Falivene	Researcher	New South Wales
Jianhua Mo	Researcher	New South Wales
Andrew Miles	Grower; Packer; Exporter	Queensland
Diane Fry	Grower	Western Australia
Alison MacGregor	Researcher	Victoria
Megan MacDonald	Grower; Exporter	Queensland
Robert Sjollega	Grower	New South Wales
Raymond Courtice	Grower	Queensland
Cristian Bryant	Grower	Queensland
Andrew Harty	Grower	South Australia
Tahir Khurshid	Researcher	New South Wales
John Golding	Researcher	New South Wales
Ben Haslett	Grower	South Australia
Noelene Swain	Marketer	Western Australia
Cristian Bryant	Grower	Queensland
Danny Thornton	Reseller	Victoria
Josefine Pettersson	Australian Organic Limited	Queensland
Geoffrey Jordon	Grower	Western Australia



APPENDIX 4: Reference material

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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
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFQ	Department of Agriculture and Fisheries, Queensland
FY	financial year
GI	glycemic index
HLB	huanglongbing
IA-CEPA	Indonesia Australia Comprehensive Economic Partnership Agreement
IMAAP	International Market Access Assessment Panel
IPDM	integrated disease and 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	NSW 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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