

Turf

Strategic Investment Plan

2022-2026



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Any request or enquiry to use this publication should be addressed to:

Communications Manager
Hort Innovation
Level 7, 141 Walker Street
North Sydney NSW 2060
Australia

Email: communications@horticulture.com.au
Phone: 02 8295 2300



EXECUTIVE SUMMARY

The overarching strategic intent of this Strategic Investment Plan (SIP) is to improve the profitability, efficiency, and sustainability of the Australian turf industry through implementing sustainable best management practices (BMPs) and creating demand based on these sustainability credentials and benefits of turf products to Australian consumers.

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

The Australian turf industry situation in 2019/20 is described on **page 4** with further information provided in **Appendix 1**. Production occurs in all Australian states and territories, with the majority of production occurring in New South Wales and Queensland. Production is year-round with several different varieties being grown, and a production peak during the spring and summer months.

Over recent years, the Australian turf industry has faced various environmental extremes of drought, bushfires and more recently, floods that have impacted both turf growers and consumers. Additionally, the industry (like others) has been required to manage the significant impacts of COVID-19 on their businesses and personal lives. During COVID-19 pandemic, sales of turf products have increased significantly, mainly due to increased home improvement activity during lockdown – a welcome benefit to the industry.

Production area had stabilised over the past five years with approximately 3,800 hectares being planted in 2019/20, producing approximately 38.5 million square metres of turf. Production can be categorised by the major turf varieties of Couch (37%), Buffalo (32%) and Kikuyu (22%). Other minor varieties account for the balance of production (9%).

Maintaining and improving the increased demand for turf, together with continued improvements in industry sustainability and productivity, will be central features of this refreshed SIP and future investments on behalf of the turf industry.

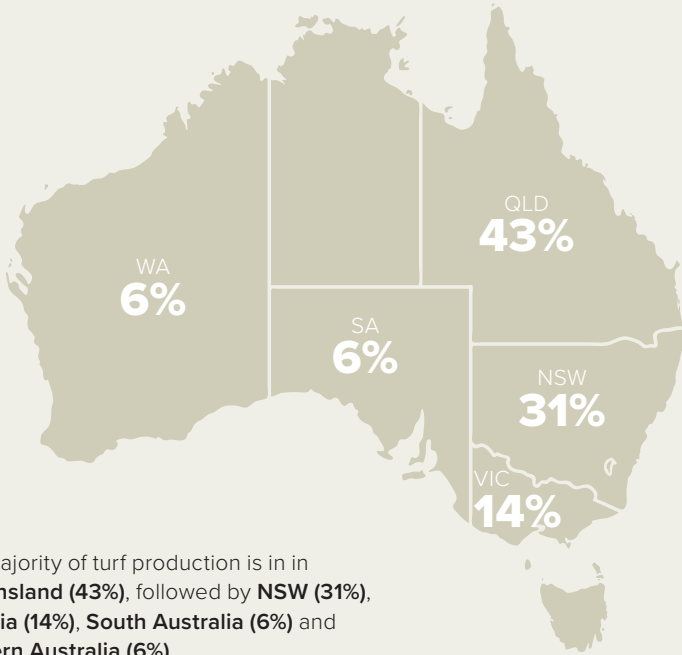
The financial estimates give an indicative overview of the funding availability for the period of FY2022-FY2026. Whilst a major portion of the available investment funds are currently allocated to key projects in the early years of the SIP, available funds for investment will increase over the life of the SIP as current projects conclude.

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 turf industry: there is an emphasis on increasing turf demand; production practices that optimise returns and reduce the risk to growers, especially with respect to pest and disease management; water-use efficiency; and crisis management. These key project areas will be fundamental drivers of this SIP.

The key performance indicators (KPIs) detail how the impact of each strategy will be measured, for example, increased customer awareness of urban environment benefits of turf, and the implementation of a crisis management plan will ensure the strategic intent of the turf SIP is achieved.



PRODUCTION REGIONS:



The majority of turf production is in Queensland (43%), followed by NSW (31%), Victoria (14%), South Australia (6%) and Western Australia (6%).

VARIETIES:



Couch & hybrids

37%

Buffalo

32%

Kikuyu

22%

Minor varieties incl. zoysia, paspalum, blue couch

9%

PRODUCTION WINDOW:



Year-round

with production peaking in the spring and summer months.

PRODUCTION VOLUMES:



38.5 million
SQUARE METRES

in 2019/20

EXPORT/DOMESTIC:



100%
DOMESTIC

NUMBER OF GROWERS:



190

FARMGATE VALUE OF PRODUCT:



\$280.2 million

in 2019/20

THE TURF STRATEGIC INVESTMENT PLAN

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

Hort Innovation has led the process for preparing the refresh of the turf 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 and input from a wide range of levy payers, objective analysis of performance and learning from the previous SIP, as well as environmental scanning to identify emergent trends and issues that could impact on future industry profitability and sustainability.

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

The whole-of-company approach taken by Hort Innovation to produce this SIP has harnessed existing external and internal knowledge, learning, partnerships and relationships. The output is a tailored plan with which the turf 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 turf 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 turf Strategic Investment Advisory Panel (SIAP), IRBs and other key stakeholders.

Producers in the turf 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 research and development (R&D), marketing, biosecurity and residue testing programs.

Levy is payable on Australian-produced turf, either sold by the producer or used by the producer in the production of other goods. The R&D levy is set at 1.2 cents per square metre. The marketing levy is set at 0.3 cents per square metre.

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

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



Financial estimates

The annual revenue from levy income and Australian Government contributions for eligible R&D set the overall budget parameters for this SIP. Importantly, a portion of these funds is already committed, as the industry has current multi-year projects for RD&E and marketing activities. In addition, the levy income from year to year will vary due to changes in seasonal and market conditions.

The financial estimates used for the purpose of developing this SIP are presented in **Table 1** below and are indicative. The intention of the table is to offer a strategic overview of the industry fund at a specific point in time, and the figures will be regularly reviewed to reflect the latest information for the industry and any changes in investment priority. Further details will be available within the AIP each year.

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

	2022 \$	2023 \$	2024 \$	2025 \$	2026 \$
R&D					
Balance end FY2021	360,024				
Estimated levy funds (growers)	490,000	490,000	490,000	490,000	490,000
Australian Government contribution	510,563	396,538	398,357	332,101	330,927
Current investments	470,000	175,700	178,800	65,900	63,900
New investments	400,000	500,000	500,000	500,000	500,000
Total project investments	870,000	675,700	678,800	565,900	563,900
CCR	151,127	117,375	117,914	98,302	97,954
Projected end balance	319,800	458,400	592,300	748,600	906,100
MARKETING					
Balance end FY2021	42,047				
Estimated levy funds (growers)	122,000	120,000	120,000	120,000	120,000
Current investments	100,000	–	–	–	–
New investments	–	100,000	100,000	100,000	100,000
Total project investments	100,000	100,000	100,000	100,000	100,000
CCR	21,951	21,951	21,951	21,951	21,951
Projected end balance	49,000	55,800	62,500	68,900	75,200

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

TURF INDUSTRY OUTCOMES



The overarching strategic intent of this SIP is to improve the profitability, efficiency, and sustainability of the Australian turf industry through implementing sustainable BMPs and creating demand based on sustainability credentials and benefits of turf products to Australian consumers.

Industry outcomes

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

OUTCOME 1: Demand creation

Contribute to improving consumer knowledge, attitudes, and purchase intent to drive volume growth.

Demand creation will support industry to develop existing and future domestic markets. This will contribute to improved consumer knowledge and attitudes, in addition to encouraging purchase intent to drive category volume 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 domestic markets. It means the industry is investing to:

- Broaden consumer awareness so natural turf is top of mind and purchased more frequently
- Support product positioning with consistent quality, evidence of beneficial product health attributes and responsible industry production practices
- Develop strong relationships within industry and across the supply chain, with a shared goal to grow the category
- Identify and prioritise domestic market niches by increasing demand and growth potential for the competitive supply of quality Australian turf.

OUTCOME 2: Industry supply, productivity and sustainability

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

The Australian turf industry will increase profitability, efficiency and sustainability through adoption of innovative R&D and sustainable BMPs.

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

- Sustainable growing systems
- Practical pest and disease management strategies
- Maximising water-use efficiency, quality and availability
- Effective biosecurity systems
- Proactively monitoring potential crop protection regulatory threats and having access to a broader suite of effective, socially acceptable and environmentally sound crop protection solutions.

OUTCOME 3: Extension and capability

Building capability and innovative culture.

Building capability and an innovative culture will support industry cohesion, increase knowledge, attitudes, skills and aspirations (KASA) and practice change from relevant investment outputs, further supporting the supply chain and demand initiatives to better manage risk and create positive change.

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

- A change in KASA and practice change for grower/industry profitability and sustainability through use of BMPs and innovation
- Maintaining and improving industry cohesiveness, with most businesses and most of the industry supply chain actively engaged in implementation of this strategy
- Growers, value chain, media and governments being well informed on industry initiatives and achievements as a vital part of regional communities and networks
- Increased on-farm use of R&D outcomes which will build a stronger, more resilient industry, in addition to improved networks and cross-industry collaboration
- Proactive strategic and evidence-based decision-making in businesses and for industry on investment, priorities and risk management.

OUTCOME 4: Business insights

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

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

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

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

These investments underpin and are complementary to the delivery of the other outcome areas as decisions informed by high-quality information and analysis are likely to lead to better outcomes.



“The important function of this SIP is to ensure investment decisions align with turf industry priorities.”



TURF INDUSTRY STRATEGIES

Strategies to address industry investment priorities

The strategies and identified impacts for each of the key outcome areas are described in the tables below. 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 term (0-3 years), medium term (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: Demand creation
Demand creation supports the Australian turf industry to expand into existing and future domestic markets.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Increase domestic consumer demand for quality Australian-grown turf through improving knowledge, attitudes and purchase intent	<ul style="list-style-type: none"> Increased consumer demand for turf Strategic marketing techniques developed to leverage turf marketing messages
2. Inform consumers about the positive and distinctive health and environmental attributes and sustainability credentials of turf	<ul style="list-style-type: none"> Increased consumer demand for turf
3. Develop and implement plans to 'influence the influencers' such as specifiers, councils, landscape architects and key social media people	<ul style="list-style-type: none"> Increased consumer demand for turf
4. Promote the benefits of turf for use in urban environments and new potential markets	<ul style="list-style-type: none"> Increased consumer demand for turf
5. Disseminate market research and research findings to growers and consumers and encourage the use of the research findings in industry-based marketing, R&D programs as well as in production businesses	<ul style="list-style-type: none"> Increased consumer demand for turf



OUTCOME 2: Industry supply, productivity and sustainability

The Australian turf industry has increased profitability, efficiency and sustainability through innovative R&D and sustainable BMPs.

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Develop a sustainability framework for the turf industry, incorporating, water-use efficiency, nutrient management, soil health, integrated pest and disease management (IPDM), chemical use, waste management and climate change (reduced emissions)	<ul style="list-style-type: none"> Trusted sustainability credentials for the turf industry Awareness of what the turf industry is doing and achieving towards environmental sustainability
2. Develop and optimise fit-for-purpose IPDM strategies for turf growers	<ul style="list-style-type: none"> Turf loss reduced by sustainable pest and disease practices Increased industry awareness of existing and emerging pests and diseases
3. Protect the high biosecurity status of the turf industry	<ul style="list-style-type: none"> Minimised likelihood of impacts from potential pest or disease incursions and their effect on production and trade
4. Improve production techniques to maximise water-use efficiency, quality and availability	<ul style="list-style-type: none"> Improved water-use efficiency in turf production systems
5. Monitor overseas innovation and trends, particularly in relation to new technology, machinery, breeding and chemical alternatives	<ul style="list-style-type: none"> Uptake of new technologies and production systems to improve labour and production efficiencies and business sustainability
6. Review options for improving Work Health and Safety (WH&S) in the turf industry for the benefit of employees and business owners	<ul style="list-style-type: none"> Improvement in WH&S for turf industry employees and business owners
7. Develop an effective and implementable crisis management plan for the turf industry	<ul style="list-style-type: none"> Crisis management plans are in place to minimise the effects to growers of various potential natural disasters and other potential crisis issues
8. 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. Where tools are unavailable or unsuitable the SARP aims to identify potential future solutions
9. Support and co-ordinate 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 access or use is negatively impacted
10. Generate residue, efficacy and crop safety data to support applications to the Australian Pesticides and Veterinary Medicines Authority (APVMA) that seeks to gain, maintain or broaden access to priority uses for label registrations and/or minor use permits for crop protection needs*	<ul style="list-style-type: none"> Crop protection solutions meet industry priority needs as identified in the industry SARP or biosecurity plan



OUTCOME 3: Extension and capability

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

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Deliver communication and extension capability to create positive change, through use of business insights in the areas of demand creation and industry supply, productivity and sustainability	<ul style="list-style-type: none"> A change/progression in awareness, knowledge and skills for grower/industry profitability and sustainability which supports the adoption of BMPs and innovation
2. Provide opportunity for the required levels of engagement between industry, across industry members and relevant stakeholders to innovate through trusted relationships	<ul style="list-style-type: none"> Improved networks and cross-industry collaboration increasing the efficiencies and use of R&D outputs and building a stronger, more resilient industry
3. Strengthen industry skills and leadership for the turf industry through targeted leadership development, training and career pathway initiatives to encourage and maintain the next generation of turf producers and industry participants	<ul style="list-style-type: none"> Proactive strategic and evidence-based decision-making in businesses and for industry on investment, priorities and risk management

OUTCOME 4: Business insights

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

STRATEGIES	POTENTIAL BENEFIT OR IMPACT
1. Increase industry alignment with quality and brand-positioning opportunities driven by consumer insights*	<ul style="list-style-type: none"> Delivery of consumer insights and research that helps inform the marketing strategy and activities
2. Use industry production and market segmentation statistics to inform long-term and/or in-season market planning and supply strategies	<ul style="list-style-type: none"> Targeted marketing activities that drive consumer demand
3. Use industry production benchmarking activity to measure and track industry productivity and profitability	<ul style="list-style-type: none"> Identification of areas for ongoing productivity improvement

* 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.

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



TURF SIP MONITORING AND EVALUATION

The turf 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.

Hort Innovation will facilitate the regular review of the SIP to ensure it remains relevant to industry. An M&E and reporting framework is shown below. The framework shows what will be measured to demonstrate progress against the SIP and how these metrics will be tracked. Reporting on these KPIs will be processed through various formal channels to inform industry and government investors of progress, performance and impact.

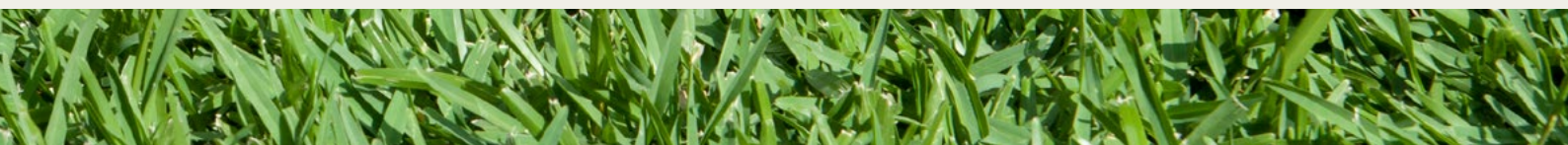
Hort Innovation will facilitate the regular review of the SIP to ensure they remain relevant to industry.

Turf SIP Monitoring and Evaluation Framework

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

OUTCOME	STRATEGIES	KPIs
Demand creation		
Outcome 1: Demand creation supports the Australian turf industry to expand into existing and future domestic markets.	1. Increase domestic consumer demand for quality Australian-grown turf through improving knowledge, attitudes and purchase intent	<ul style="list-style-type: none"> • Positive influence on consumer preference • Positive shifts in brand tracking
	2. Inform consumers about the positive and distinctive health and environmental attributes and sustainability credentials of turf	<ul style="list-style-type: none"> • Positive influence on consumer preference
	3. Develop and implement plans to ‘influence the influencers’ such as specifiers, councils, landscape architects and key social media people	<ul style="list-style-type: none"> • Positive influence on consumer preference
	4. Promote the benefits of turf for use in urban environments and new potential markets	<ul style="list-style-type: none"> • Increased customer awareness of urban environment benefits of turf
	5. Disseminate market research and research findings to growers and consumers and encourage the use of the research findings in industry-based marketing, R&D programs as well as in production businesses	<ul style="list-style-type: none"> • Positive influence on consumer preference

OUTCOME	STRATEGIES	KPIs
Industry supply, productivity and sustainability		
<p>Outcome 2: The Australian turf industry has increased profitability, efficiency and sustainability through innovative R&D and sustainable BMPs.</p>	<p>1. Develop a sustainability framework for the turf industry, incorporating, water-use efficiency, nutrient management, soil health, IPDM, chemical use, waste management and climate change (reduced emissions)</p>	<ul style="list-style-type: none"> • Turf industry sustainability program developed as part of a broader horticulture sustainability program
	<p>2. Develop and optimise fit-for-purpose IPDM strategies for turf growers</p>	<ul style="list-style-type: none"> • Development of pest and disease management strategies that mitigate loss in collaboration with turf growers
	<p>3. Protect the high biosecurity status of the turf industry</p>	<ul style="list-style-type: none"> • Development of an industry biosecurity plan • Development of risk analyses of high priority pests including entry pathways, establishment and spread potential
	<p>4. Improve production techniques to maximise water-use efficiency, quality and availability</p>	<ul style="list-style-type: none"> • Improved water quality and availability for turf growers
	<p>5. Monitor overseas innovation and trends, particularly in relation to new technology, machinery, breeding and chemical alternatives</p>	<ul style="list-style-type: none"> • Review of new turf industry innovations and trends that can be implemented by turf growers
	<p>6. Review options for improving WH&S in the turf industry for the benefit of employees and business owners</p>	<ul style="list-style-type: none"> • Improvement in WH&S for turf industry employees and business owners
	<p>7. Develop an effective and implementable crisis management plan for the turf industry</p>	<ul style="list-style-type: none"> • Crisis management plans in place to minimise the effects to growers of various potential natural disasters and other potential crisis issues
	<p>8. 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 published and shared with stakeholders, including registrants
	<p>9. Support and co-ordinate 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>10. Generate residue, efficacy and crop safety data to support applications to the APVMA that seeks 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)



OUTCOME	STRATEGIES	KPIs
Extension and capability		
Outcome 3: Improved capability and an innovative culture in the Australian turf industry maximises investments in productivity and demand.	1. Deliver communication and extension capability to create positive change, through use of business insights in the areas of demand creation and industry supply, productivity and sustainability	<ul style="list-style-type: none"> A positive change in awareness and KASA, which supports the adoption of BMPs and innovation leading to grower profitability and sustainability
	2. Provide opportunity for the required levels of engagement between industry, across industry members and relevant stakeholders to innovate through trusted relationships	<ul style="list-style-type: none"> Improved networks and cross-industry collaboration increasing the efficiencies and use of R&D outputs and building a stronger, more resilient industry
	3. Strengthen industry skills and leadership for the turf industry through targeted leadership development, training and career pathway initiatives to encourage and maintain the next generation of turf producers and industry participants	<ul style="list-style-type: none"> Proactive strategic and evidence-based decision-making in businesses and for industry on investment, priorities and risk management
Business insights		
Outcome 4: The Australian turf industry is more profitable through informed decision-making using consumer knowledge and tracking, production statistics and forecasting and independent reviews.	1. Increase industry alignment with quality and brand-positioning opportunities driven by consumer insights*	<ul style="list-style-type: none"> Delivery of consumer insights strategy Evidence that consumer insights inform strategic market engagement New consumer knowledge available for growers
	2. Use industry production and market segmentation statistics to inform long-term and/or in-season market planning and supply strategies	<ul style="list-style-type: none"> Availability and evidence that production data supports marketing and production decisions
	3. Use industry production benchmarking activity to measure and track industry productivity and profitability	<ul style="list-style-type: none"> Identification of areas for ongoing productivity improvement

* 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 turf 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. This will involve Hort Innovation's whole-of-horticulture reporting obligations and corporate plan, 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](#).





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 we 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 more multi-industry collaboration in RD&E, marketing and international trade, Hort Innovation aims to support more effective and efficient outcomes for growers and the wider horticulture sector.

Where cross-sectoral priorities are identified Hort Innovation will seek to work with other Research and Development Corporations (RDCs) and cross-RDC initiatives such as the Plant Biosecurity Research Initiative. 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 turf industry include:

- Sustainable horticulture initiatives, biosecurity, crisis and risk management, water management and soil health
- Future farms, green cities and urban production
- Leadership and training for the next generation of producers.

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 turf SIP 2022-2026 include:

- 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

Collaboration across the agriculture research community is essential, including with IRBs and organisations such as the CSIRO, 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.

Strategic priorities and opportunities identified by Turf Australia have been considered in the development of the turf SIP where applicable.

TABLE 2. Government and key agency priorities

Turf Australia priorities	Rural RD&E for Profit priorities	Australian Government Science and Research priorities
Sustainable natural turfgrass industry	Advanced technology	Food
Communication	Biosecurity	Soil and water
Advocacy	Soil, water and managing natural resources	Advanced manufacturing
Climate change	Adoption of R&D	Environmental change
		Health

The key outcomes and strategies held within this SIP are in alignment with Turf Australia priorities provided to Hort Innovation during consultation on the draft SIP. These include increased demand for turf, greater industry engagement and regional development, strengthening industry skills and leadership as well as continued improvements in industry sustainability and productivity.

This SIP has been developed alongside the government and key agency priorities listed in **Table 2**, with consideration of issues faced by the turf 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 turf 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 turf 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 strategic partnership initiative.

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

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

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

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

- Green cities
- Environmental sustainability (water, soil and climate)
- Leadership.

Partnering with Hort Frontiers on these areas would provide the turf 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, aiming to strengthen the horticulture industry’s sustainability to meet the changing expectations and needs of growers, consumers, the community, investors and governments. The framework applies across the whole of Australian horticulture, including fruits, vegetables, nuts, nursery stock and turf. Through widespread consultation with industry and external groups, proposed sustainability goals and indicators were identified and are detailed within the framework. The framework is aligned to the UN Sustainable Development Goals.

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



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

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

Table 3 provides an example of a turf SIP strategy that illustrates how the industry is already aligning to the framework.

TABLE 3. A turf SIP strategy example showing how the industry is already aligning to the Australian-grown Horticulture Sustainability Framework

STRATEGY	POTENTIAL BENEFIT OR IMPACT	SUSTAINABILITY GOAL
Develop a sustainability framework for the turf industry, incorporating, water-use efficiency, nutrient management, soil health, IPDM, chemical use, waste management and climate change (reduced emissions)	<ul style="list-style-type: none"> • Trusted sustainability credentials for the turf industry • Awareness of what the turf industry is doing and achieving towards environmental sustainability 	Planet & Resources



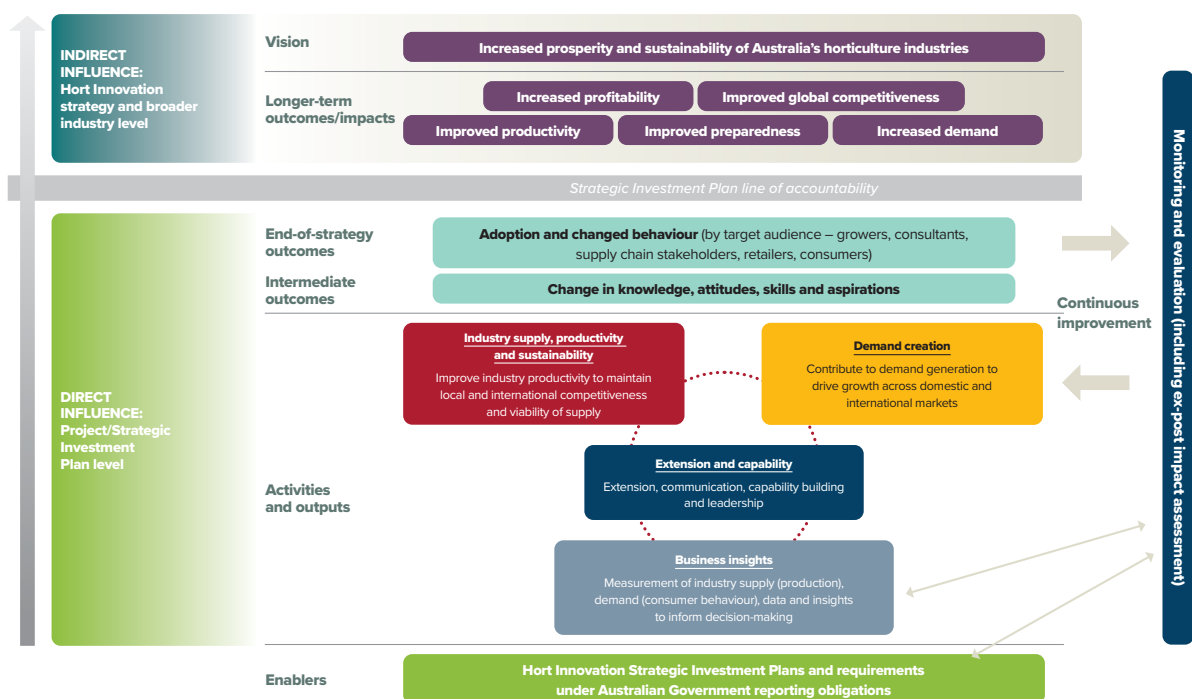
HORT INNOVATION



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 KASA, which drive adoption and behaviour change. Beyond the SIP, investment will contribute to driving longer-term impacts for the sector like increased preparedness, demand, productivity, global competitiveness and profitability. Realising these impacts will support Hort Innovation’s vision of increased prosperity and sustainability of Australia’s horticulture industries.

FIGURE 2. Strategic Investment Plan logic



Aligning to Hort Innovation investment priorities

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

1. Drive knowledge and innovation into horticulture industries
2. Deliver the highest value R&D, marketing and 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 an RDC, Hort Innovation is able to leverage industry levy investments in RD&E with Australian 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.

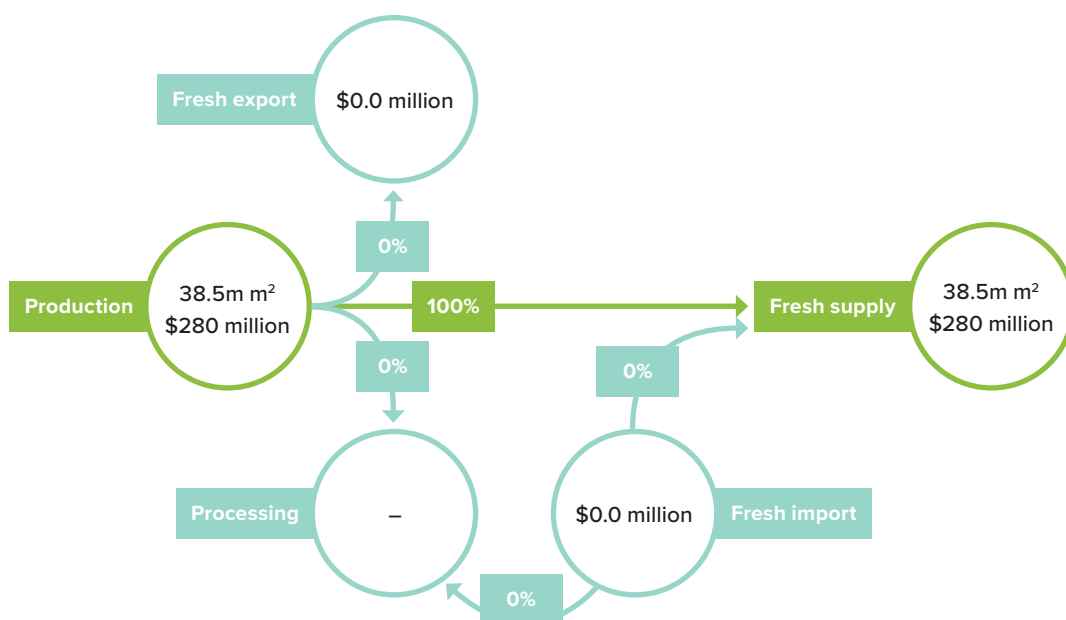
APPENDICES

APPENDIX 1: Industry context

Industry supply chain

The turf industry is unique in Australian agriculture as it is the only industry where growers, in most cases, own the supply chain. This means that growers are in direct contact with their end-users and have control from production, through to sales, delivery and installation. This creates unique opportunities but also challenges. The Hort Innovation project *Turf industry statistics 2017/18 to 2019/20* (TU17005) reported that 71% of turf businesses delivered turf to customers in 2018/19, 16% of customers collected the turf from the farm and a contractor delivered 12%.

FIGURE 3. Turf supply chain, 2019/20



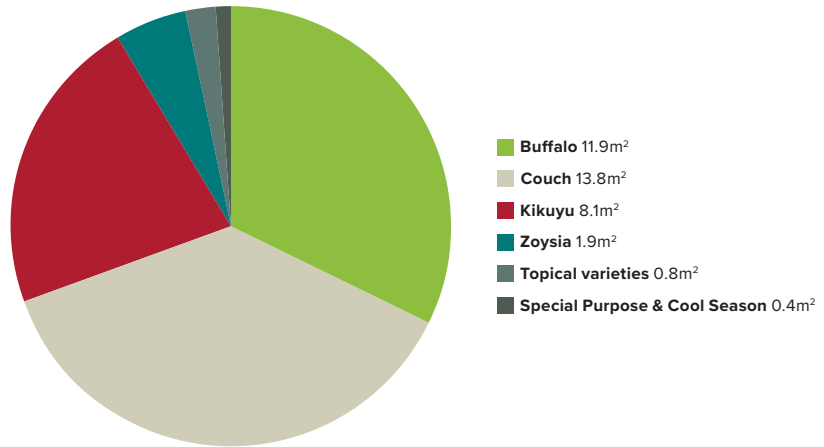
Source: Australian Horticulture Statistics Handbook (2019/20)

The Australian turf industry supplies two main market segments. These are the residential/property development segment and the commercial market, including sporting fields, parks and roadsides.

The main turf varieties are listed in **Figure 4**, with production dominated by Couch, Buffalo and Kikuyu, representing 92% of the total market. Couch currently makes up around 37% of total market share, followed by Buffalo at 32% and Kikuyu at 22%. While some varieties are developed in Australia, the majority are developed overseas and then imported.



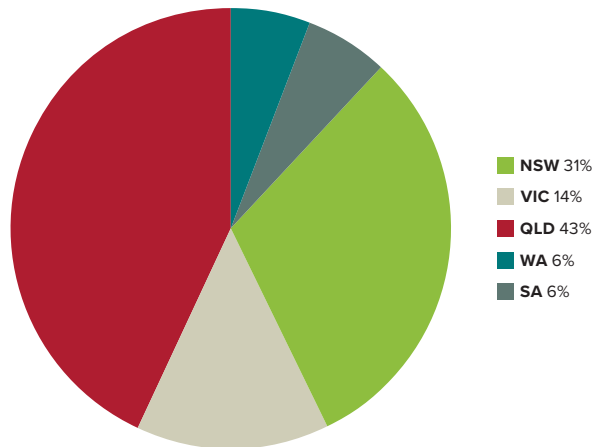
FIGURE 4. Main turf varieties produced in Australia, 2019/20



Source: Australian Horticulture Statistics Handbook (2019/20)

Production is mainly located on the fringes of capital cities, which is where demand for turf is highest. **Figure 5** shows that the main turf-producing states are Queensland, New South Wales and Victoria.

FIGURE 5. Turf production by state in Australia



Source: Australian Horticulture Statistics Handbook (2019/20)



Domestic consumers and drivers of demand

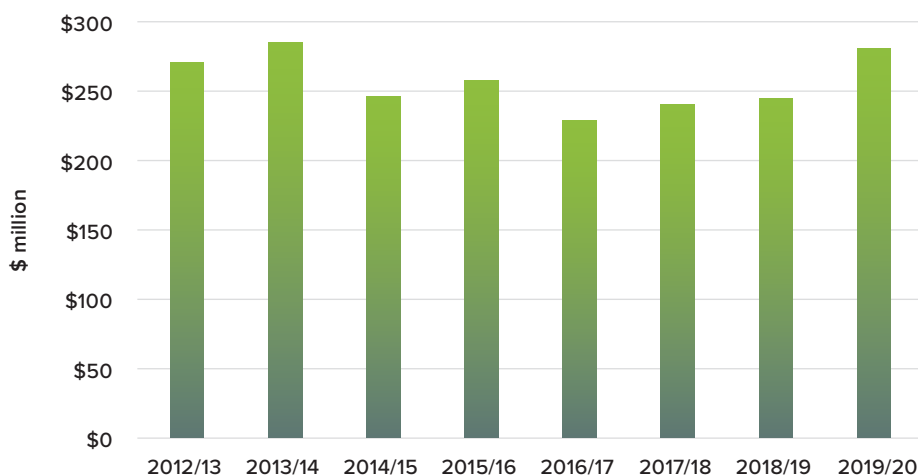
The turf industry has invested significantly in research into the benefits of turf for the community. This includes the following Hort Innovation projects:

- *An environmental assessment of the Australian turf industry* (TU16000)
- *Economic, environmental, social and health impacts and benefits of the turfgrass and lawncare industries in Australia* (TU17006)
- *Conveying the benefits of living turf – a bushfire retardant* (TU17008)
- *Conveying the benefits of living turf – mitigation of the urban heat island effect* (TU18000)

These investments are disseminated through *The Australian turf industry communications program* (TU16004) and *National market development program for the Australian turf industry* (TU16002), allowing growers to better market their products to consumers. As there is a wide consumer base for turf, including private and public landholders, it is vital that preferences for turf are maintained and grown in the face of increasing competition.

Industry production

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



Source: Australian Horticulture Statistics Handbook (2019/20)

Turf production value has remained relatively constant since 2012/13, increasing over this period from \$270 to \$280 million. The industry peaked in 2013/14 with a production value of \$284 million (**Figure 6**). This reflects the maturity of the turf industry and it being more of a commoditised product. Turf also is unsuitable for exports, meaning export-driven growth is not possible as it is for many other horticulture industries.

Grower sentiment has reached a reasonably high level, with 48% of surveyed turf businesses reporting that they were in a better financial position in 2019/20 than in the previous year. This has carried through to business decision-making, with 39% indicating that they will be actively looking to invest in their businesses over the next five years. This figure however, is contingent on location, with 78% of Western Australian businesses stating it is unlikely they would be investing and growing their businesses.

APPENDIX 2: Turf 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 domestic demand, logistics and supply chain, labour supply – all having potential impacts on grower profitability. COVID impacts on the turf industry in terms of sales has been positive with increased sales during this period.

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

Strengths, weaknesses, opportunities and threats

Table 4 has been used to analyse the turf 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 4. Turf SWOT analysis

The turf industry	
Strengths	<ul style="list-style-type: none"> • The turf industry and its leadership are strong • Existing R&D and marketing levies that can be used for collective investment in R&D and marketing activities for the benefit of the whole industry • Good networks and opportunities to exchange ideas, including forums and conferences • A highly professional and passionate industry • Provides environmental, economic, social and health benefits to the Australian community, including its use in green space and erosion control • Provides venues for sporting and other community activities • Essential product for homeowners and makes a difference in people's lives • Strong demand for the product • Industry has excellent 'green' credentials and brings green industries into the cities • The growers have control, in most cases, over the whole supply chain as they sell directly to the end-user • Varietal development is in the pipeline which is more drought tolerant, uses less water and delivers better wear • Continuous industry development with advancements in quality, services and technology transfer • Growth in housing assisting industry development • A well-recognised brand in the market



The turf industry	
Weaknesses	<ul style="list-style-type: none"> • Industry can improve communication of natural turf benefits to government and the public • Insufficient marketing of turf and the benefits it offers the Australian community • Government and community have a lack of recognition of the value of turf • Poor understanding of business and marketing within segments of the industry, including cost of production and overheads • Treated as a commodity and therefore, price cutting occurs • Growers' pricing structure does not reflect the value of product and, therefore, places undue pressure on enterprise profitability • Pockets within the industry are not cohesive or working together • Poor and expensive levy-collection process • Not all growers are paying the levy • Growers are time poor as they have total control over the supply chain and therefore, must be able to cover production, marketing and installation • Reduced access to crop protectants • Lack of water security for turf production • Labour availability • Slow uptake of technology, including the use of social media • Perception that the maintenance of turf requires large volumes of water • The number of available varieties can be confusing for the consumer • Turf does not have a strong marketing or public relations presence due to low funding
Opportunities	<ul style="list-style-type: none"> • Inclusion of turf in the nursery industry's Greener Spaces Better Places program and leverage with Hort Frontiers projects, such as <i>Greener Cities, Healthier Lives</i> (GC15005) • Full-scale assessment of the industry's value, including economic, environmental, social, health and wellbeing benefits to the Australian community • Influence of government policy regarding the role of turf in green spaces, soil erosion, ground water collection, and bio-filtration systems • Education on all the benefits of turf to government and community • Research on managing industry risk, including access to chemicals and emerging WH&S issues • Enhancement of growers' business and marketing skills through targeted programs • Industry certification on quality • Change the mix of RD&E and marketing levy expenditure • Increase market research to better understand and target private and levy-funded marketing activities • Research on more efficient production systems, including the production of greater quality for less money • Education on soil erosion and use of potential Australian Standards regarding the use of turf in such circumstances • Increased use of social media to build demand for turf products • Enhancement of leadership and labour development within the industry • R&D and investment in emerging technologies such as precision farming and automation • Greater alliance with other green space industries such as nurseries • Leverage existing recognition of turf branding

The turf industry

Threats

- Competition from other ground cover alternatives such as artificial turf and pavers
- Poor urban design and development resulting in reduced green space
- Misconception about turf regarding costs, maintenance, and water usage
- Devaluation of turf by growers resulting in poor pricing
- Levy funds not delivering benefits to growers
- Increased government regulation, such as WH&S, adding to the cost of production of turf
- Water security, quality and availability
- Continuation of trends to smaller residential blocks and increases in apartment living
- Environmental concerns about turf production (e.g., water runoff)



APPENDIX 3: People consulted

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

NAME	INDUSTRY ROLE	REGION
Sheila Nguyen	Sports Environment Alliance	Melbourne
Peter McMaugh	Consultant	Sydney
Matt Plunkett (on behalf of Turf NSW)	Development Officer, Turf NSW	Hawkesbury
Bec Sellick	Producer; Chair, Turf Australia	Perth
Jenny Zadro	Market Development Manager, Turf Australia	Hawkesbury
Neil Tweedie	Producer	Hawkesbury
Paul Muscat	Producer	Hawkesbury
Michael Mifsud	Producer	Hawkesbury
Steve Valla	Producer	Hawkesbury
Anthony Muscat	Producer	Hawkesbury
Paul Saliba	Producer	Hawkesbury
Frank and Rob Muscat	Producer	Hawkesbury
Paul Saad	Producer	Hawkesbury
Anthony Heilig	Producer; Turf SIAP member	Sunshine Coast
Terry Sellick	Producer; Turf SIAP member	Perth
Lawrence Stephenson	Producer; Turf SIAP member	Sunshine Coast
Robert Prince	Turf SIAP member	Sydney
Ross Boyle	Producer; Turf SIAP member	Sunshine Coast
Simon Adermann	SIAP member	NSW South Coast
Eva Rici	Executive Officer, Turf Growers Association Of Western Australia	Perth

APPENDIX 4: Reference material

Horticulture Innovation Australia Limited, 2012, Turf Strategic Investment Plan 2012-17

Horticulture Innovation Australia Limited, 2019, Growing into the Future: Strategy 2019-2023

Horticulture Innovation Australia Limited, 2020, Australian Horticulture Statistics Handbook 2019/20

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

Turf Australia, 2021, Turf Industry Snapshot

https://www.turfaustralia.com.au/public/85/files/2020_Grower_Snapshot_Report_%20FINAL.pdf

APPENDIX 5: List of acronyms

AIP	Annual Investment Plan
APVMA	Australian Pesticides and Veterinary Medicines Authority
BMP	best management practice
CSIRO	Commonwealth Scientific and Industrial Research Organisation
FY	financial year
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
R&D	research and development
RDC	Research and Development Corporation
RD&E	research, development and extension
RRA	Regulatory Risk Assessment
SARP	Strategic Agrichemical Review Process
SIAP	Strategic Investment Advisory Panel
SIP	Strategic Investment Plan
SWOT	strengths, weaknesses, opportunities, and threats



Hort Innovation

Horticulture Innovation Australia Limited
ACN 602 100 149

Level 7, 141 Walker Street
North Sydney NSW 2060 Australia

02 8295 2300 | communications@horticulture.com.au

www.horticulture.com.au