

Turf impact assessments 2021

During 2020/21, Hort Innovation engaged independent consultants to evaluate the impact of turf research and development over the five years ending 30 June 2020. The assessment provided insights into the type and magnitude of impacts generated from Turf Fund investments.

The evaluation revealed a range of economic, social and environmental benefits being generated for turf growers, supply chain participants and the community at large.



How the impact assessments were made

The approach for evaluating the impacts was performed in line with impact assessment guidelines defined by the Council of Rural RDCs. The impact assessment consultants engaged with researchers, Hort Innovation staff and industry stakeholders to support the evaluations.



Project population defined

A pool of Turf Fund research and development (R&D) projects was identified, with the criteria of being completed between 1 June 2015 and 30 June 2020 and with a Hort Innovation managed investment value of at least \$80,000 – met by a total of 15 projects with an investment value of \$4.81 million.



Projects sampled

From this pool a random sample of four projects was selected (listed in subsequent table). Together these four projects had a nominal Turf Fund value of \$0.66 million (13.7 per cent of the overall investment value). One of these projects was later excluded as it did not meet the inclusion criteria, leaving a sample of three projects.

One of the projects aligned with Turf 2017-2021 Strategic Investment Plan (SIP) Outcome 1 (increase in revenue), one aligned with Outcome 2 (knowledge), and one aligned with Outcome 3 (adoption of R&D). No projects in the sample aligned with Outcome 4 (leadership skills) or Outcome 5 (managing risks).



Projects evaluated

Each of the three projects was evaluated using a framework approach, looking at project objectives, activities, outputs and impacts. Some of the impacts identified were also valued in monetary terms.



The results

The results demonstrated that the benefits of R&D investments in the Turf Fund represent a sound investment for growers, with the **benefit-cost ratio of the three sampled projects estimated at 2.77 to one**. Together, the benefits of the three projects are expected to deliver some **\$1.16 million in additional value** to the industry and community over the next 30 years (considering the present value of their benefits, minus the present value of their project costs).

Note that some, but not all, of the impacts identified for each project investment were quantified as part of the evaluation process. Generally, impacts weren't quantified due to shortages of evidence/ data or the levels of uncertainty and significance regarding the impacts. As not all impacts were valued, it is likely that the estimates reported are conservative estimates of the impacts of the Hort Innovation R&D investment evaluated.

Through the assessments, 15 impacts were identified as having been generated directly by the three randomly selected projects. Economic and social impacts were grouped into the following six broad categories. Environmental impacts included reduced chemical use and climate change adaptation.

Economic impacts

IMPROVED TURF GROWER PROFITABILITY.

EXAMPLE: *Developing a National Standard for turf as an erosion control measure (TU13034):* Improved profitability for growers from additional profitable turf sales into the erosion management market.

IMPROVED INDUSTRY RESOURCE ALLOCATION – RESEARCH, MARKETING, AND BIOSECURITY.

EXAMPLE: *Turf industry statistics and research 2016/17 (TU16001)* improved resource allocation by ensuring industry research, marketing and biosecurity budgets that better reflect the 'real world' situation by being more informed.

IMPROVED POLICY DEVELOPMENT.

EXAMPLE: *Turf industry statistics and research 2016/17 (TU16001)* improved policy development for the turf industry through providing sound statistical data on which to base decisions.

Social impacts

INCREASED SCIENTIFIC KNOWLEDGE AND CAPACITY.

EXAMPLE: *Developing a National Standard for turf as an erosion control measure industry (TU13034)* led to additional policy maker, landscape architect, engineer and researcher skills and knowledge in turf use and erosion control.

INCREASED TURF GROWER AND INDUSTRY ASSOCIATION KNOWLEDGE AND CAPACITY.

EXAMPLE: *Industry development services for the Queensland turf industry (TU13029)* improved turf grower capacity and understanding of innovation and the role of R&D outputs in their businesses. Improved grower ability to respond to environmental, biosecurity, and water use efficiency issues.

PRODUCTIVITY/ PROFITABILITY BENEFITS HAVING A FLOW-ON EFFECT TO SUPPORT IMPROVED REGIONAL/ PERI-URBAN COMMUNITY WELLBEING.

EXAMPLE: *Turf industry statistics and research 2016/17 (TU16001)* contributed to improved regional/peri-urban community wellbeing from spill-over income and employment benefits as a result of a more profitable turf industry.



\$1.16
MILLION
NET PRESENT VALUE

Reporting

Impact assessment results can also be used to understand the impacts achieved by the SIP outcome area. The results provide an assessment of indicative impacts by project but are not representative of all investments undertaken in each outcome area.

REPORTING AGAINST THE TURF STRATEGIC INVESTMENT PLAN 2017-2021

Project code	PROJECT NAME	Present value of benefits (\$m)	Present value of costs (\$m)	Net present value (\$m)	Benefit-cost ratio
Strategic Investment Plan Outcome 1: <i>Turf revenue has increased by five per cent plus consumer price index from targeted marketing programs.</i>					
TU13034	Industry development services for the Queensland turf industry	0.57	0.16	0.42	3.62
Strategic Investment Plan Outcome 2: <i>Improved strategic decision making by turf growers from increased knowledge of industry data and consumer insights.</i>					
TU16001	Turf industry statistics and research 2016/17	0.45	0.12	0.33	3.62
Strategic Investment Plan Outcome 3: <i>Improved farm practices and profitability from increased awareness and adoption of turf R&D.</i>					
TU13029	Industry development services for the Queensland turf industry	0.80	0.37	0.43	2.14
Strategic Investment Plan Outcome 4: <i>Turf industry leadership program graduates are adopting innovation and using their leadership skills in business and industry decision making.</i>					
No sampled projects aligned with Outcome 4					
Strategic Investment Plan Outcome 5: <i>Improved industry sustainability from identifying and managing risks.</i>					
No sampled projects aligned with Outcome 4					

GLOSSARY OF ECONOMIC TERMS

The following economic terms have been used in the above table, illustrating the cost-benefit analysis results by project sampled:

- **Present value of benefits:** The discounted value of benefits to 2020/21 terms.
- **Present value of costs:** The discounted value of investment costs to 2020/21 terms.
- **Net present value:** The discounted value of the benefits of an investment, less the discounted value of the costs – that is, present value of benefits minus value of costs.
- **Benefit-cost ratio:** The ratio of the present value of investment benefits to the present value of investment costs.

