Nursery impact assessments 2021

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

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

Hort Innovation
Strategic levy investment

NURSERY FUND

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 nursery 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 19 projects with an investment value of $7.32 million.

Projects sampled

From this pool a random sample of three projects was selected (listed in subsequent table). Three other Nursery fund projects which had been evaluated as part of a cross section impact assessment program (MT18011) were added to the sample to increase the total number of Nursery Fund projects to six.

Together these six projects had a nominal Nursery Fund value of $1.46 million (20 per cent of the overall investment value).

Two of the projects aligned with Nursery 2017-2021 Strategic Investment Plan (SIP) Outcome 1 (demand), one aligned with Outcome 2 (knowledge), and three aligned with Outcome 4 (productivity). No projects in the sample aligned with Outcome 3 (protection) or Outcome 5 (careers).

Projects evaluated

Each of the 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.

This work was funded through the multi-industry Hort Innovation project *Industry-specific impact assessment program: MG, TU NY, BS and RB* (MT20008)

The results

The results demonstrated that the benefits of R&D investments in the Nursery Fund represent a sound investment for growers, with the **benefit-cost ratio of the six sampled projects estimated at 5.83 to one**. Together, the benefits of the six projects are expected to deliver some **$10.65 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, 28 impacts were identified as having been generated directly by the three randomly selected projects. Economic and social impacts were grouped into the following eight broad categories. Environmental impacts included increased public amenity and biodiversity.

Economic impacts

INCREASED SALES AND/OR GROSS INCOME FOR THE NURSERY AND GARDEN INDUSTRY.

EXAMPLE: *Evaluation of Nursery Tree Stock Balance Parameters* **(NY15001)**: increased the quantity and value of landscape container-grown trees supplied to nursery customers.

INCREASED PROFITABILITY THROUGH REDUCED COSTS.

EXAMPLE: *Nursery Turf Statistics and Research* **(NY16004)**: improved profitability for growers by a reduction of costs for a portion of nursery businesses utilising project generated data to make more informed decisions.

IMPROVED BUSINESS AND TECHNICAL MANAGEMENT.

EXAMPLE: *Communication program for the Australian Nursery Industry 2015-2018* **(NY15006)** improved business and technical management by some nursery and garden industry participants through extension of R&D outputs.

INCREASED EFFICIENCY AND/OR EFFECTIVENESS OF RESOURCE ALLOCATION AND/OR POLICY DEVELOPMENT

EXAMPLE: *Nursery Turf Statistics and Research* **(NY16004)** improved policy development and resource allocation for the nursery industry based on sound statistical data.

$10.65 MILLION
NET PRESENT VALUE

Social impacts

ENHANCED OR MAINTAINED SOCIAL LICENCE TO OPERATE

EXAMPLE: *Communication program for the Australian Nursery Industry 2015-2018* **(NY15006)** created a greater appreciation of the nursery and garden industry as a respected and responsible industry, leading potentially to a strengthening of the industry's future social licence to operate.

INCREASED AVERAGE COMMUNITY HEALTH AND WELLBEING

EXAMPLE: *Evaluation of Nursery Tree Stock Balance Parameters* **(NY15001)**: created potential health and well-being improvements in some urban local government areas from increased tree cover.

INCREASED INDUSTRY AND/OR RESEARCHER CAPABILITY AND CAPACITY

EXAMPLE: *Nursery Turf Statistics and Research* **(NY16004)** resulted in capacity being built in both industry and researchers in the collection and interpretation of data.

OTHER/MISCELLANEOUS.

EXAMPLE: *How to budget for the successful establishment of trees in the urban landscape* **(NY18003)** made a positive contribution to the realisation of the 202020 vision. The 202020 vision was started in 2013 by Hort Innovation with the target of creating 20% more green space in urban areas by 2020. It is now Australia's biggest network of green space experts, creators and supporters.

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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 MANGO 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: *Increased demand and sales of green life products by four per cent per annum plus CPI (consumer price index)*					
NY16005	Where should all the trees go? An investigation of the impact of tree canopy coverage on socio-economic status	0.73	0.25	0.49	2.96
NY18003	How to budget for the successful establishment of trees in the urban landscape	4.86	0.18	4.68	26.51
Strategic Investment Plan Outcome 2: *Increased marketing effectiveness and efficiency and better decision-making based on increased industry knowledge*					
NY16004	Nursery Turf Statistics and Research	0.98	0.27	0.71	3.58
Strategic Investment Plan Outcome 3: *Improved industry protection from exotic, emerging and endemic pests and diseases*					
No sampled projects aligned with Outcome 3					
Strategic Investment Plan Outcome 4: *Improved productivity, profitability and professionalism through the creation and adoption of innovation and industry best management practices*					
NY15001	Evaluation of Nursery Tree Stock Balance Parameters	1.33	0.20	1.13	6.72
NY12011	Nursery and Garden Industry Communications 2013-2015	1.27	0.41	0.86	3.08
NY15006	Communication program for the Australian Nursery Industry 2015-2018	3.67	0.89	2.78	4.14
Strategic Investment Plan Outcome 5: *Better career development*					
No sampled projects aligned with Outcome 5					

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.

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