Horticulture Impact Assessment Program:

Appendix 12: Addressing vegetable consumption through food service organisations (chefs, TAFEs and other training institutes) (VG16026 Impact Assessment)

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What the report is about

This report presents the results of an impact assessment of a Horticulture Innovation Australia Limited (Hort Innovation) investment in *VG16026: Addressing Vegetable Consumption through Food Service Organisations (Chefs, TAFEs and other training institutions).* The project was funded by Hort Innovation over the period April 2017 to September 2017.

Methodology

The investment was first analysed qualitatively within a logical framework that included activities and outputs, outcomes and impacts. Actual and/or potential impacts then were categorised into a triple bottom line framework. Principal impacts identified were then considered for valuation in monetary terms (quantitative assessment). Past and future cash flows were expressed in 2017/18 dollar terms and were discounted to the year 2018/19 using a discount rate of 5% to estimate the investment criteria and a 5% reinvestment rate to estimate the modified internal rate of return (MIRR).

Results/key findings

Longer term, the investment is likely to contribute to an increase in profitable sales for vegetable growers. To realise this impact, investment is required in the roll out of the food service sector program designed as part of the project. Improved health outcomes for the Australian community are also possible following roll out of the food service sector program. Capacity has been built in relation to understanding and working with the food service sector and future positive benefits from this relationship may include more cost effective program rollout in the future.

Investment Criteria

Total funding from all sources for the project was $0.35 million (present value terms). The investment produced estimated total expected benefits of $0.67 million (present value terms). This gave a net present value of $0.32 million, an estimated benefit-cost ratio of 1.9 to 1, an internal rate of return of 9.5% and a MIRR of 7.2%.

Conclusions

While several social impacts identified were not valued, the impacts were considered uncertain and indirect compared with the impact valued. Nevertheless, combined with conservative assumptions for the impacts valued, investment criteria as provided by the valuation may be underestimates of the actual performance of the investment.

Keywords

Impact assessment, cost-benefit analysis, VG16026, vegetable, consumption, food service sector, food service industry research, industry influencers, TAFE.

Introduction

Horticulture Innovation Australia Limited (Hort Innovation) required a series of impact assessments to be carried out annually on a number of investments in the Hort Innovation research, development and extension (RD&E) portfolio. The assessments were required to meet the following Hort Innovation evaluation reporting requirements:

- Reporting against the Hort Innovation's current Strategic Plan and the Evaluation Framework associated with Hort Innovation's Statutory Funding Agreement with the Commonwealth Government.
- Reporting against strategic priorities set out in the Strategic Investment Plan (SIP) for each Hort Innovation industry fund.
- Annual Reporting to Hort Innovation stakeholders.
- Reporting to the Council of Rural Research and Development Corporations (CRRDC).

The first series of impact assessments included 15 randomly selected Hort Innovation RD&E investments (projects) worth a total of approximately $9.31 million (nominal Hort Innovation investment). The investments were selected from an overall population of 85 Hort Innovation investments worth an estimated $50.38 million (nominal Hort Innovation investment) where a final deliverable had been submitted in the 2017/18 financial year.

The 15 investments were selected through a stratified, random sampling process such that investments chosen represented at least 10% of the total Hort Innovation RD&E investment in the overall population (in nominal terms) and was representative of the Hort Innovation investment across six, pre-defined project size classes.

Project *VG16026: Addressing Vegetable Consumption through Food Service Organisations (Chefs, TAFEs and other training institutions)* was selected as one of the 15 investments and was analysed in this report.

General Method

The impact assessment follows general evaluation guidelines that are now well entrenched within the Australian primary industry research sector including Research and Development Corporations, Cooperative Research Centres, State Departments of Agriculture, and some universities. The approach includes both qualitative and quantitative descriptions that are in accord with the impact assessment guidelines of the CRRDC (CRRDC, 2018).

The evaluation process involved identifying and briefly describing project objectives, activities and outputs, outcomes, and impacts. The principal economic, environmental and social impacts were then summarised in a triple bottom line framework.

Some, but not all, of the impacts identified were then valued in monetary terms. Where impact valuation was exercised, the impact assessment uses cost-benefit analysis as its principal tool. The decision not to value certain impacts was due either to a shortage of necessary evidence/data, a high degree of uncertainty surrounding the potential impact, or the likely low relative significance of the impact compared to those that were valued. The impacts valued are therefore deemed to represent the principal benefits delivered by the project. However, as not all impacts were valued, the investment criteria reported for individual investments potentially represent an underestimate of the performance of that investment.

Background & Rationale

Background

The Australian vegetable industry is large and diverse. There are approximately 1,675 vegetable-growing businesses paying the national vegetable levy accounting for 68% of all vegetable-growing farms. These farms are located in all regions of the country and represent more than 130 different vegetable crops. The gross value of vegetable production was approximately $4.35 billion in 2017/18. Per capita consumption of vegetables is static at approximately 88 kg per annum (Vegetable Industry SIP 2017-2021 and Horticulture Statistics Handbook, 2018).

More than 90% of Australians consume less than the recommended daily intake of vegetables. Low vegetable consumption is associated with multiple health and economic impacts including increased chronic disease and reduced sales of vegetables. It has been estimated that the community cost of low vegetable consumption is $978.5 million per year and that increasing vegetable consumption by 10% would add $22.3 million per year to vegetable grower income (VG15031 delivered by Deloitte Access Economics).

Rationale

The food service sector includes any organisation responsible for a meal prepared outside the home. The food service sector accounts for 10% of all vegetables consumed in Australia (Department of Agriculture, Fisheries and Forestry, 2012). The sector includes institutions (aged care, hospitals, schools, jails, etc.) and commercial businesses (restaurants, pubs/clubs, cafés and fast food outlets). This scoping study focussed on the commercial component of the food services sector where there is potential to increase vegetable consumption. The institutional component of the sector is constrained by specific nutritional and menu requirements (Coles, 2017)[1].

The food services sector has access to a broad cross section of the Australian population. Food service is a strong influencer of food trends that 'trickle down' to day-to-day consumption in ordinary households. Consequently, inspiring and engaging the food service sector to increase its use of vegetables is likely to have a positive impact on total vegetable consumption, community health and grower returns.

Project Details

Summary

Project Code: VG16026

Title: Addressing Vegetable Consumption through Food Service Organisations (Chefs, TAFEs and other training institutions)

Research Organisation: Workshop Australia Pty Ltd

Principal Investigator: Jamie Kwong

Period of Funding: April 2017 to September 2017

Objectives

The aim of this scoping study was to understand the food service sector and develop a plan to drive increased vegetable consumption. The project's objectives were to:

1. Understand the food service industry (starting with chefs, cooks, hospitality students) – who they are, what are their motivations and how to recruit them into a vegetable consumption program.
2. Understand the gaps in their knowledge of Australian vegetables: nutrition profile and therefore health benefits, cooking techniques etc., cost benefits of incorporating more vegetables (versus protein) as a business initiative.
3. Understand food trends, cultures and alternative meal occasions using vegetables.
4. Develop a program outline that can be rolled out in stages to successfully recruit, educate and impact this target audience, continually building momentum and relevance.
5. Engage a 'champion' for the project and build a representative advisory panel that can ensure the program is continually on track, appealing, inspirational and garner additional media attention within industry and beyond.

[1] Specific requirements for the institutional component were not provided by Coles 2017.

Logical Framework

The focus of VG16026 was to complete a scoping study and develop a program to drive increased vegetable consumption through the food service sector. Table 1 provides a detailed description of the project in a logical framework.

Table 1: Logical Framework for Project VG16026

Activities and Outputs	• Kick-off meeting with Hort Innovation to finalise research direction and content. • Recruitment of food service stakeholders for the completion of qualitative interviews. • Completion of three focus group discussions and twenty phone/face-to-face interviews. • Focus Group 1 was with TAFE Student Cooks/Chefs, Group 2 was with TAFE Hospitality Students and Group 3 was with Cooking School Chefs/Cooks. Each group included eight individuals from the relevant food service sub-sector. • Phone/face-to-face interviews were completed with both small-scale niche restaurants and large-scale food delivery businesses and included 5 head chefs (restaurants), 5 head cooks/procurement (large catering organisations/corporate), 5 apprentice chefs (restaurants/4-5 star hotels) and 5 tertiary education lecturers/heads of departments. • Interviews focussed on career motivations, knowledge, knowledge gaps and constraints to using additional fresh Australian vegetables. • Completion of desk-based research addressing past food service sector studies, food trends and the potential for additional vegetable consumption within these trends. • Development of a knowledge base using interview and desk-based research findings. • Resultant knowledge base included information on the health benefits of individual vegetables, the financial implications of seasonality, trends, cultural influences, best practice for sourcing, choosing and even growing vegetables. • The knowledge base was reviewed with project champion Kylie Kwong and an advisory panel made up of food service sector participants and 'foodies of the future'. • Review was to ensure that content was clear, appropriate and likely to inspire additional vegetable consumption. It was important that content could be viewed by individuals as a direct aid to each food service stakeholder's own personal success. • The study showed a lack of opportunities for vegetable education, supplier engagement and seasonality. Vegetable dishes are profitable but experience low demand. Increasing vegetable consumption can be achieved through a focus on curriculum and student / young chef competitions. Social media and celebrity are important to achieving traction • Formulation of a program to increase vegetable consumption through the food service sector using project champion Kylie Kwong and an industry advisory panel. • Program to include addition to current TAFE commercial cookery certificate and the awarding of prizes for the innovative use of vegetables by young chefs and students. • Program to include measures to inspire enquiry (Kylie Kwong Instagram), education ('how to' material) and motivation (competitions, innovation awards, field trips). • The program will focus attention on tertiary food educators, chefs and cooks. • The program components were described in detail, assessed for risk and costed. • A presentation of the program was made to Hort Innovation and enough detail was provided for Hort Innovation to be able to consider a program implementation RFP.
Outcomes	• Vegetable industry with a program to increase vegetable consumption through the commercial component of the food service sector.
Impacts (potential)	• Increase in profitable vegetable sales for vegetable growers – a longer term impact that may be realised following investment in program implementation. • Improved health outcomes for the Australian community associated with any increase in vegetable consumption following program implementation. • Improved financial outcomes for the food service sector – including better quality meals/menus and cost savings through the use of seasonal vegetables. • Increased research capacity in relation to understanding and working with the food service sector. • Increased income in regional Australia associated with more profitable and sustainable vegetable industries (marginal long-term spill-over impact).

Project Investment

Nominal Investment

Table 2 shows the annual investment (cash and in-kind) in project VG16026 by Hort Innovation. There were no 'other' investors in this project.

Table 2: Annual Investment in the Project VG16026 (nominal $)

Year ended 30 June	Hort Innovation ($)	Other ($)	Total ($)
2017	153,478	0	153,478
2018	125,572	0	125,572
Totals	**279,050**	**0**	**279,050**

Program Management Costs

For the Hort Innovation investment the cost of managing the Hort Innovation funding was added to the Hort Innovation contribution for the project via a management cost multiplier (1.162). This multiplier was estimated based on the share of 'payments to suppliers and employees' in total Hort Innovation expenditure (3-year average) reported in the Hort Innovation's Statement of Cash Flows (Hort Innovation Annual Report, various years). This multiplier was then applied to the nominal investment by Hort Innovation shown in Table 2.

Real Investment and Extension Costs

For the purposes of the investment analysis, investment costs of all parties were expressed in 2017/18 dollar terms using the GDP deflator index. 'Extension' costs were included in budget totals and included Hort Innovation briefings by Workshop Australia Pty Ltd. Extension informed the planned future roll out of food service sector program implementation.

Impacts

Table 3 provides a summary of the principal types of impacts delivered by the project. Impacts have been categorised into economic, environmental and social impacts.

Table 3: Triple Bottom Line Categories of Principal Impacts from Project VG16026

Economic	• Increase in profitable vegetable sales for vegetable growers – a longer term impact that may be realised following investment in program implementation. • Improved financial outcomes for the food service sector – including better quality meals/menus and cost savings through the use of seasonal vegetables.
Environmental	• Nil.
Social	• Improved health outcomes for the Australian community associated with any increase in vegetable consumption following program implementation. • Increased research capacity in relation to understanding and working with the food service sector. • Increased income in regional Australia associated with more profitable and sustainable vegetable industries (marginal long term spill-over impact).

Public versus Private Impacts

Impacts from investment in VG16026 will be both public and private in nature. Public benefits will be realised with any increase in vegetable consumption resulting in improved health outcomes. Private benefits will accrue to vegetable growers who may, in the longer term, increase profitable sales.

Distribution of Private Impacts

Economic benefits from any future increase in profitable sales by vegetable growers will be shared along the supply chain with input suppliers (e.g. seed, chemical, fertiliser), transporters, wholesalers, retailers and consumers all benefiting in the longer term. The share of benefits captured by each link in the supply chain will depend on the interplay of both short- and long-term supply and demand elasticities for each vegetable and its closest substitutes.

Impacts on Other Australian Industries

If the strategy to increase vegetable consumption through the food services sector is successful it will occur at the expense of other food suppliers e.g. those who supply protein to restaurants, pubs/clubs and fast food outlets.

Impacts Overseas

No overseas impacts anticipated.

Match with National Priorities

The Australian Government's Science and Research Priorities and Rural RD&E priorities are reproduced in Table 4. The project findings and related impacts will contribute primarily to Science and Research Priority 1 and 8.

Table 4: Australian Government Research Priorities

Australian Government	
Rural RD&E Priorities (est. 2015)	**Science and Research Priorities (est. 2015)**
1. Advanced technology 2. Biosecurity 3. Soil, water and managing natural resources 4. Adoption of R&D	1. Food 2. Soil and Water 3. Transport 4. Cybersecurity 5. Energy and Resources 6. Manufacturing 7. Environmental Change 8. Health

Sources: (DAWR, 2015) and (OCS, 2015)

Match with Vegetable Strategic Investment Plan 2017-2021 Priorities

The strategic outcomes and strategies of the vegetable industry are outlined in the Vegetable Strategic Investment Plan 2017-2021[2] (Hort Innovation, 2017). Project VG16026 addressed Vegetable Strategic Investment Plan (SIP) Outcome 1, Strategies 1.1 and 1.4.

Valuation of Impacts

Impacts Valued

Analyses were undertaken for total benefits that included future expected benefits. A degree of conservatism was used when finalising assumptions, particularly when some uncertainty was involved. Sensitivity analyses were undertaken for those variables where there was greatest uncertainty or for those that were identified as key drivers of the investment criteria.

A single key impact was valued – increase in profitable sales for vegetable growers. The impact is longer term and requires further investment in the roll out of the food service sector program designed as part of VG16026.

[2] For further information, see: https://www.horticulture.com.au/hort-innovation/funding-consultation-and-investing/investment-documents/strategic-investment-plans/

Impacts Not Valued

Not all of the impacts identified in Table 3 could be valued in the assessment. The improved health impact could not be valued due to unclear links between additional vegetable consumption through the food service sector and the estimate of total community cost of low vegetable consumption prepared by Deloitte Access Economics (2016). Other social impacts were hard to value due to lack of evidence/data, difficulty in quantifying the causal relationship and pathway between VG16026 and the impact and the complexity of assigning monetary values to the impact.

The social impacts identified but not valued were:

- Improved financial outcomes for the food service sector – including better quality meals/menus and cost savings through the use of seasonal vegetables.
- Improved health outcomes for the Australian community associated with any increase in vegetable consumption following program implementation.
- Increased research capacity in relation to understanding and working with the food service sector.
- Increased income in regional Australia associated with more profitable and sustainable vegetable industries.

Valuation of Impact: Increase in Profitable Sales for Vegetable Growers

The VG16026 investment provided improved understanding of the food service sector and a program to increase vegetable consumption in the sector. Increased vegetable consumption is reliant on rollout of the 'inspire, educate, motivate' program through food educators, young chefs and cooks. The food service sector accounts for 20% of all food consumed in Australia but vegetables are underrepresented on food service sector menus (Coles, 2017).

The food service sector consumes 10% of Australia's total vegetable production (Department of Agriculture Fisheries and Forestry, 2012). Total vegetable production is approximately 3.7 million tonnes per annum (Hort Innovation, 2018). VG16026 and the resultant program to increase vegetable consumption in the food service sector targets only the commercial component of the sector and does not engage with institutions (aged care, hospitals, schools, jails, etc.). An estimated 75% of current food service sector consumption will be relevant to the rollout of the program developed as part of VG16026 and this includes spill-over benefits when food service sector menus start to influence vegetable consumption in the home.

The increase in vegetable consumption attributable to VG16026 will not occur straight away. The program needs to be rolled out by Hort Innovation and young chefs/cooks who experience the program need to be in a position to start influencing food service menus. When fully implemented it is assumed that the VG16026 program increases vegetable consumption in the targeted component of the food service sector by 2.5% per annum. This and other assumptions are tested using sensitivity analysis.

Attribution

A 10% attribution factor has been assumed for VG16026's contribution to increased vegetable sales targeted through the food service sector. A low attribution factor has been assumed to allow for the cost of subsequent program rollout. A preliminary rollout budget for the program of approximately $3 million was provided as part of the VG16026 final report (Coles, 2017).

Counterfactual

The scenario assumed if the investment had not been made is that the increase in profitable vegetable sales attributable to the food service sector would not have occurred.

Summary of Assumptions

A summary of the key assumptions made for valuation of the impacts is shown in Table 5.

Table 5: Summary of Assumptions

Variable	Assumption	Source/Comment
Impact 1: Increase in Profitable Vegetable Sales		
Increase in vegetable sales attributable to roll out of the food service sector program designed as part of VG16026.	6,929t/year.	See above explanation.
Grower profit on increased vegetable sales.	$83.50/tonne	Farm gate value of vegetable production of $4,345.7 million divide production of 3,695,345 tonnes to give a gross value of $1,176/tonne (Hort Innovation, 2018). Typically, profit averages somewhere between 2% and 10% in established horticultural industries and 7% has been used in this analysis to reflect higher value crops covered by the vegetable levy and targeted in this analysis.
Year of first impact.	2023/24	Consultant estimate that recognises no benefits will be realised until there is additional investment in program rollout and young chefs trained through the program begin to shape food service menus.
Attribution.	10%	Consultant estimate made after considering additional investment required in program rollout.

Results

All costs and benefits were discounted to 2018/19 using a discount rate of 5%. A reinvestment rate of 5% was used for estimating the Modified Internal Rate of Return (MIRR). The base analysis used the best available estimates for each variable, notwithstanding a level of uncertainty for many of the estimates. All analyses ran for the length of the project investment period plus 30 years from the last year of investment (2017/18) as per the CRRDC Impact Assessment Guidelines (CRRDC, 2018).

Investment Criteria

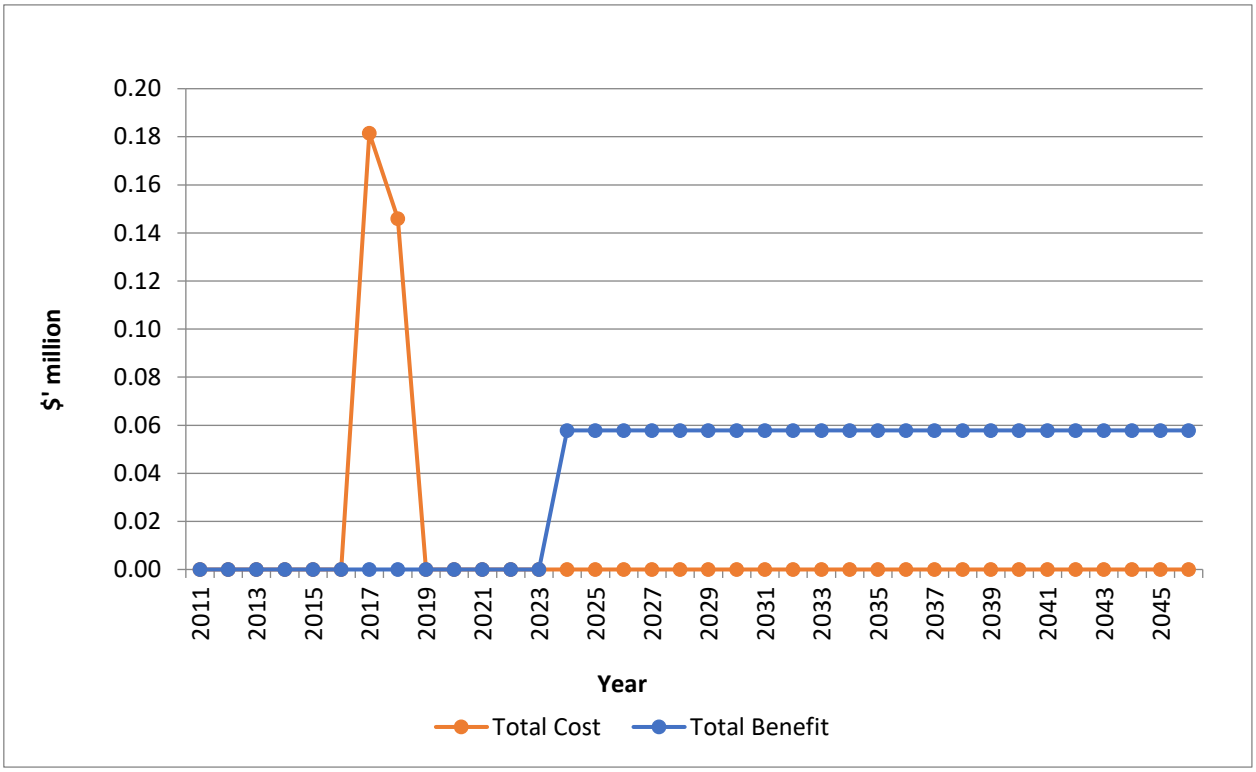
Tables 6 shows the investment criteria estimated for different periods of benefit for the total investment. Hort Innovation was the only contributor to this project so there is no second set of analyses showing results for Hort Innovation.

Table 6: Investment Criteria for Total Investment in Project VG16026

Investment Criteria	Years after Last Year of Investment						
	0	**5**	**10**	**15**	**20**	**25**	**30**
Present Value of Benefits ($m)	0	0	0.21	0.37	0.49	0.59	0.67
Present Value of Costs ($m)	0.35	0.35	0.35	0.35	0.35	0.35	0.35
Net Present Value ($m)	-0.35	-0.35	-0.15	0.01	0.14	0.24	0.32
Benefit-Cost Ratio	0	0	0.58	1.04	1.40	1.68	1.90
Internal Rate of Return (%)	negative	negative	negative	5.4	7.9	9.0	9.5
MIRR (%)	negative	negative	0.0	5.3	6.7	7.1	7.2

The annual undiscounted benefit and cost cash flows for the total investment for the duration of VG16026 investment plus 30 years from the last year of investment are shown in Figure 1.

Figure 1: Annual Cash Flow of Undiscounted Total Benefits and Total Investment Costs



Sensitivity Analyses

A sensitivity analysis was carried out on the discount rate. The analysis was performed for the total investment and with benefits taken over the life of the investment plus 30 years from the last year of investment. All other parameters were held at their base values. Table 7 present the results. The results are sensitive to the discount rate and this reflects the lag between project investment and the realisation of project benefits.

Table 7: Sensitivity to Discount Rate
(Total investment, 30 years)

Investment Criteria	**Discount rate**		
	0%	**5%**	**10%**
Present Value of Benefits ($m)	1.45	0.67	0.36
Present Value of Costs ($m)	0.33	0.35	0.38
Net Present Value ($m)	1.12	0.32	-0.02
Benefit-cost ratio	4.42	1.90	0.94

A sensitivity analysis was then undertaken on the increase in vegetable consumption achieved with roll out of the VG16026 food service sector program. If vegetable consumption increase attributable to the VG16026 program is only 1.25% then project costs will exceed project benefits. – Table 8.

Table 8: Sensitivity to Increase in Vegetable Consumption
(Total investment, 30 years)

Investment Criteria	**Increase in Vegetable Consumption**		
	1.25%	**2.5% (base)**	**5%**
Present Value of Benefits ($m)	0.34	0.67	1.34
Present Value of Costs ($m)	0.35	0.35	0.35
Net Present Value ($m)	-0.02	0.32	0.99
Benefit-cost ratio	0.95	1.90	3.80

A final sensitivity analysis tested attribution of benefits to VG16026. Under the base set of assumptions it is assumed that 10% of benefits are attributed to VG16026 and 90% are attributable to the resultant program. If attribution to VG16026 is halved to 5%, project costs will exceed project benefits – Table 9.

Table 9: Sensitivity of Attribution to VG16026
(Total investment, 30 years)

Investment Criteria	**Attribution of Impacts to VG16026**		
	5%	**10% (base)**	**15%**
Present Value of Benefits ($m)	0.34	0.67	1.01
Present Value of Costs ($m)	0.35	0.35	0.35
Net Present Value ($m)	-0.01	0.32	0.65
Benefit-cost ratio	0.95	1.90	2.85

Confidence Rating

The results produced are highly dependent on the assumptions made, some of which are uncertain. There are two factors that warrant recognition. The first factor is the coverage of benefits. Where there are multiple types of benefits it is often not possible to quantify all the benefits that may be linked to the investment. The second factor involves uncertainty regarding the assumptions made, including the linkage between the research and the assumed outcomes.

A confidence rating based on these two factors has been given to the results of the investment analysis (Table 10). The rating categories used are High, Medium and Low, where:

High: denotes a good coverage of benefits or reasonable confidence in the assumptions made

Medium: denotes only a reasonable coverage of benefits or some uncertainties in assumptions made

Low: denotes a poor coverage of benefits or many uncertainties in assumptions made

Table 10: Confidence in Analysis of Project

Coverage of Benefits	**Confidence in Assumptions**
Medium-high	Medium

Coverage of benefits was assessed as Medium-high. The key benefit, increase in profitable sales for vegetable growers, was quantified. Other benefits – improved health outcomes and increased research capacity, were not valued. Consequently, the investment criteria as provided by the valued benefits are likely to be underestimated to some degree.

Confidence in assumptions was rated as medium. Analysis is reliant on a number of assumptions.

Conclusion

Longer term, the investment in VG16026 is likely to contribute to an increase in profitable sales for vegetable growers. To realise this impact, investment is required in the roll out of the food service sector program designed as part of the project. Improved health outcomes for the Australian community are also possible following roll out of the food service sector program. Capacity has been built in relation to understanding and working with the food service sector and future positive benefits from this relationship may include more cost effective program rollout in the future.

Total funding from all sources for the project was $0.67 million (present value terms). The investment produced estimated total expected benefits of $0.35 million (present value terms). This gave a net present value of $0.32 million, an estimated benefit-cost ratio of 1.9 to 1, an internal rate of return of 9.5% and a modified internal rate of return of 7.2%.

While several social impacts identified were not valued, the impacts were considered uncertain and indirect compared with the impact valued. Nevertheless, combined with conservative assumptions for the impacts valued, investment criteria as provided by the valuation may be underestimates of the actual performance of the investment.

Glossary of Economic Terms

Cost-benefit analysis:	A conceptual framework for the economic evaluation of projects and programs in the public sector. It differs from a financial appraisal or evaluation in that it considers all gains (benefits) and losses (costs), regardless of to whom they accrue.
Benefit-cost ratio:	The ratio of the present value of investment benefits to the present value of investment costs.
Discounting:	The process of relating the costs and benefits of an investment to a base year using a stated discount rate.
Internal rate of return:	The discount rate at which an investment has a net present value of zero, i.e. where present value of benefits = present value of costs.
Investment criteria:	Measures of the economic worth of an investment such as Net Present Value, Benefit-Cost Ratio, and Internal Rate of Return.
Modified internal rate of return:	The internal rate of return of an investment that is modified so that the cash inflows from an investment are re-invested at the rate of the cost of capital (the re-investment rate).
Net present value:	The discounted value of the benefits of an investment less the discounted value of the costs, i.e. present value of benefits - present value of costs.
Present value of benefits:	The discounted value of benefits.
Present value of costs:	The discounted value of investment costs.

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Abbreviations

CRRDC	Council of Research and Development Corporations
DAWR	Department of Agriculture and Water Resources (Australian Government)
GDP	Gross Domestic Product
GVP	Gross Value of Production
IRR	Internal Rate of Return
MIRR	Modified Internal Rate of Return
OCS	Office of Chief Scientist Queensland
PVB	Present Value of Benefits
RD&E	Research, Development and Extension
RFP	Request for Proposal
SIAP	Strategic Investment Advisory Panel
SIP	Strategic Investment Plan