

Facilitators

Project VG16063 was led by Danielle Park from AUSVEG.

Major outcomes

EnviroVeg is an industry-led environmental best-practice management program for vegetable production businesses. It provides resources for sustainable growing techniques and represents vegetable businesses as responsible stewards of land, water and biodiversity.

The program sought to build upon resources and momentum developed in earlier projects to provide a platform to integrate key delivery mechanisms to enable a streamlined and integrated approach. It has been able to harness the complementary capabilities of partner organisations and begin to reduce duplication.

Key outputs from the EnviroVeg Program 2017-2022 include:

- Published EnviroVeg Technical Manual.
- Updated Three Step EnviroVeg Pathway.
- EnviroVeg Sustainability Strategy.

As project lead, AUSVEG was focused on increasing engagement with industry during the project period. This included not only working with growers to sign up for the program and complete the program's pathway but engaging with the VegNET team and industry to improve the industry's environmental sustainability, and to demonstrate its environmental credentials through the aggregated data collected by the program.

The program was guided by a steering committee, with vegetable industry representatives from all six states providing guidance and insight into the opportunities that EnviroVeg could provide to vegetable producers and the wider industry.

During the project, over 300 vegetable producing properties registered for the revised EnviroVeg program, of which 140 vegetable properties – encompassing approximately 19,500 hectares from across the six states – commenced the EnviroVeg self-assessment.

Of these, 47 per cent have completed

the first step, training of key staff from 28 vegetable properties has occurred and there have been five audits, with ongoing demand for the final two steps remaining.

Recommendations

Project recommendations include:

1. Seek vegetable levy funds to maintain the first stage of the EnviroVeg program. Growers have demonstrated a strong desire for the program to continue and for the levy to continue supporting the program, as it has a positive legacy in the industry and has momentum to continue engaging with vegetable growers on the journey to environmentally sustainable vegetable production.
2. Continue to support VegNET Regional Development Officers (RDOs) to pursue regionally relevant RD&E projects that incorporate EnviroVeg self-assessment data to tailor extension activities and track practice change on-farm.
3. Two regional partnership projects have already been achieved during the project. These projects – led by VegNET RDOs – incorporate regional and de-identified practice data captured as a part of the EnviroVeg self-assessment, demonstrating the ongoing benefits that the program delivers to the wider industry.
4. Provide VegNET RDOs with training and facilitator access to the EnviroVeg platform, allowing them to support their local vegetable producers more efficiently.
5. Investigate the option to segment the EnviroVeg self-assessment into its 10 module components. This would support VegNET RDOs when setting priorities for tracking practice change relevant to a vegetable growing region.
6. Maintain the linkage with the Freshcare environmental standard

and make necessary modifications to the EnviroVeg Program in the case of any release of an updated Freshcare environmental standard.

7. Investigate the option for single component module certification through Freshcare. This could exist as an add-on to the Freshcare food safety process and provide more targeting options to environmental best-practice goals aligned with a single audit to achieve certification.
8. Investigate the ability to broaden the current scope of the EnviroVeg program. Include details specific to the practice needs of protected cropping systems. Investigate options to explicitly assess organic vegetable production systems.

Background

The *EnviroVeg Program 2017-2022* draws together three previously separate and long-running vegetable industry environmental programs: Freshcare Environmental, Growcom Hort360 and EnviroVeg.

This project aimed to collaboratively develop and deliver resources to support the improvement and uptake of environmental practices on-farm and deliver recognition advantages to program members.

Its objectives were to:

- Support and improve environmental management on-farm.
- Track industry progress regarding sustainable practices.
- Facilitate recognition and competitive advantages for improving environmental management.

The project had the goal of delivering upon the Australian vegetable industry's strategic investment plan's key priorities: consumer alignment, market and value chain development, farm productivity, resource use and management.

Acknowledgements

This project has been funded by Hort Innovation using the vegetable research and development levy and contributions from the Australian Government.

Further information

The final report for this project is available on InfoVeg. Readers can search 'VG16063' on the InfoVeg database: ausveg.com.au/infoveg/infoveg-database.

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Facilitators

Project VG18004 was facilitated by Hortigrow Consulting in partnership with Hort Innovation.

Major findings

Hort Innovation uses a Strategic Agrichemical Review Process (SARP) to undertake regular reviews of the pesticide requirements for crops. Project VG18004 produced seven new SARP reports, and 18 updated reports compiled by the Canberra-based Hortigrow Consulting during 2019-2020.

The reports contain a comprehensive list of the current pesticide control options for each vegetable type, outlining specific uses and any associated risks such as regulatory or Integrated Pest Management (IPM) issues.

"The information was collated via a desktop audit and an industry liaison component to identify major concerns," project facilitator Dr Vasanthe Vithanage explained.

"Against these threats, the availability and overall suitability of chemical control tools was then evaluated in terms of IPM, resistance, efficacy, trade, human safety and environmental issues."

Where tools are unavailable or unsuitable, the process aimed to identify suitable new or alternative pesticides to address those gaps. Dr Vithanage says each industry's SARP report will also assist with ongoing efforts to overcome issues regarding access to effective chemical controls.

"This may relate to pursuing chemical registration with agrichemical companies or minor use permits with the Australian Pesticides and Veterinary Medicines Authority," he explained.

Examples of possible justification for future permit applications include:

- The identification of a new disease, insect or weed as a cropping issue.
- Insufficient options for resistance management or export approval.
- IPM, environment or Occupational Health & Safety (OH&S) issues.
- Opportunity to extrapolate a use pattern when a new, effective pesticide is registered in another crop.
- Insufficient return on investment for registrant.

Recommendations

All recommendations are contained within the individual SARP reports produced by the project. However, each report should not be considered a comprehensive assessment of all pests and control methods used in the industry.

"The reports attempt to prioritise the major problems, establish what products are available or under development, and identify any gaps in existing pest control options regarding lack of availability or insufficient short to medium-term control options," Dr Vithanage said.

New opportunities would ideally involve:

- Better IPM strategies that use a combination of cultural practices and work in harmony to keep ahead of insect resistance to chemicals while posing the least amount of risk.
- Novel biopesticides such as non-toxic bacterial treatment, which specifically targets certain pests such as caterpillars, but is safe for beneficial insects.
- Improved approaches to pest and disease management (lures, sterile-male pest release techniques and the use of semiochemicals (e.g. pheromones and 'softer' chemicals).

Alternative pesticides should ideally be selected for benefits of:

- IPM compatibility.
- Improved scope for resistance management.
- Residue and trade acceptance both domestically and for export.

The SARP reports have been presented in a digital format that will enable the data to be updated as new information becomes available in the future.

Background

The horticulture industry faces constant challenges surrounding pest control, whether it be access to registered or permit-approved chemicals, pest chemical resistance, the threat of overseas pest entry, or market calls for chemical-free produce.

As a result, growers need a strategic outlook that directs ongoing efforts towards ensuring the availability of effective control tools that contribute to a productive, profitable and competitive industry.

Project VG18004 provided a current update on the priorities and gaps regarding insect, disease and weed control for each of the nine crop groups (25 vegetable crops).

Collectively, the SARP reports will be a road map for industry stakeholders to plan for pest control in the near future and allocate levy investment resources for maximum gains. Exotic plant pests not present in Australia are addressed in a separate biosecurity plan that has been developed for the vegetable industry in consultation with industry, government and scientists.

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This project has been funded by Hort Innovation using the vegetable research and development levy and contributions from the Australian Government.



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Further information

The current SARP reports for the vegetable industry can be download from the Hort Innovation website: horticulture.com.au.

The final report for this project is available on InfoVeg. Readers can search 'VG18004' on the InfoVeg database: ausveg.com.au/infoveg/infoveg-database.

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