



# VG16078 Soil Wealth and Integrated Crop Protection, Phase 2

## Terms of Reference – Project Partnership Network

Version 3, September 2018

### Introduction

This Terms of Reference (ToR) describes Project Partnerships between the Hort Innovation Vegetable Fund project VG16078 and organisations or persons associated with the project. Applied Horticultural Research (AHR) and RM Consulting Group (RMCG) are jointly delivering the project. The term vegetable industry used in this ToR refers to all levy vegetable producing businesses and closely associated organisations or persons who influence vegetable production processes, especially in the project focus areas.

VG16078 Soil Wealth and Integrated Crop Protection, Phase 2 (SWICP2), is a 5-year extension and capacity building project for the vegetable industry. It commenced in December 2017 and is building on the previous Soil Wealth and Integrated Crop Protection projects (Phase 1).

SWICP2 focus areas are:

1. Biological products and soil amendments
2. Soil biology
3. Improved tillage systems
4. Nutrient management
5. Soil water management
6. Integrated management of pests, diseases and weeds
7. Advanced crop monitoring

Refer to Appendix 1 for more detail on focus areas. Comprehensive information on Phase 2 can be found at [www.soilwealth.com.au](http://www.soilwealth.com.au).

This ToR provides information about the purpose of the Project Partnership Network (partnerships) as well as the nature and management of relationships. It describes the types of contributions to and from the project, project contacts and communications.

## Terms of Reference

### Purpose of Partnerships

The purpose of partnerships is to actively build industry capacity. It is especially important for vegetable producers, their staff and advisers to understand current and future innovations in products, technologies, services and know how available to them that will enhance their business related to the project focus areas and in line with the project's guiding principles.

While the SWICP2 project is establishing linkages to researchers nationally and internationally, it is not a research project. Its goal and therefore the purpose of partnerships is improving access to technologies, products and innovations that are proven, available and adoptable and/or adaptable on vegetable farms.

The purpose of partnerships is NOT to provide additional funding for the SWICP2 project, or for project staff to develop or endorse the partners' products or services.

### Partners

Partners are organisations or individuals who provide products, services, technologies or know-how to vegetable producers in one or several of the project focus areas as part of their normal activities. In these areas, they can provide objective information and or proven products and or technologies. Partners may include but are not limited to:

- vegetable producers (involved in demo sites, case studies, events/training or the PRG)
- vegetable supply chain members
- life science companies
- agribusinesses
- research organisations
- technology companies
- equipment manufacturers
- compost and soil amendment producers
- fertiliser producers / distributors
- natural resource management (NRM) bodies
- seed companies
- peak industry bodies (National, State)
- advisers / consultants
- state government departments/sections.

Partners may or may not chose to make linkages to others in the partnership network.

### Involvement

SWICP2 partners may provide input into any of the following project activities:

- demonstration and case study sites: corporations with leading growers and agronomists
- field days and farm walks
- best practice guides, factsheets and videos
- webinars and podcasts
- workshops, seminars and master classes
- electronic media: Website, Facebook and Twitter
- trialing new equipment/technologies on farm

## Partnership formation and conditions

Interest in partnerships can be lodged via the project website [www.soilwealth.com.au](http://www.soilwealth.com.au). Alternatively, interested parties may contact: Dr Doris Blaesing, RMCG, [dorisb@rmcg.com.au](mailto:dorisb@rmcg.com.au) or Dr Gordon Rogers, AHR, [gordon@ahr.com.au](mailto:gordon@ahr.com.au). A SWICP2 project team member may refer a prospective partner.

The prospective project partner, will nominate a person to be associated with the SWICP2 project. The prospective partner will identify the focus areas of interest and agree to this ToR (e.g. via email).

### Conditions for being a SWICP project partner includes:

- Partners will have a mutual interest in positive outcomes for the vegetable industry
- Partners and their products, services, technologies or specific know-how have industry credibility. Their value (for vegetable producers), feasibility and effectiveness have been established or, at a minimum, proof of concept has been documented for the products, services, technologies or specific know-how
- The SWICP2 project cannot be a platform for the commercial testing and development of products, services, technologies and know-how
- The project will not endorse products, services, technologies or specific know-how for marketing/advertising purposes.
- Any information gathered through the project will be available to the vegetable industry via project communications with credit given to the partner, where appropriate. Partners will be able to view communication products prior to publication
- If a demo site will involve similar products, services, technologies or specific know-how owned by different partners, this will be disclosed to respective partners and relevant conditions may be agreed upon
- Prospective partners may discuss the ToR with the nominated project contact person to clarify details of involvement.

## How the partnerships operate

The interactions between project partners and SWICP2 will vary from case to case within the scope of this ToR. Interactions will be determined by partners and the SWICP2 contact person. It may evolve or cease during the term of the project. Examples of interactions are:

- Owners of products, services, technologies or specific know-how may be invited to contribute to the design of demo trials or other activities to ensure objective representation
- Partners may provide products, services or equipment for demonstrations sites and be actively involved in managing sites
- Partners may become involved in training, events, videos or similar to ensure the information provided to the vegetable industry is technically correct
- Partners may be 'sounding boards' providing a coaching function to the project team or team member(s).

## Partnership benefits

A major benefit for partners is the ability to objectively learn about technical and production benefits of products, services, technologies or specific know-how on commercial vegetable farms. Partners may benefit from networking amongst each other.

## Exclusions

SWICP2 will not be liable for any unfavourable events/outcomes which may arise from the "partnership".

## Communications between partners and the project

Partners may be in contact with any of the project team members once the partnership network has been established. The initial establishment of partnerships will occur via the designated contact persons

for the program Dr Doris Blaesing, RMCG, [dorisb@rmcg.com.au](mailto:dorisb@rmcg.com.au) or Dr Gordon Rogers, AHR, [gordon@ahr.com.au](mailto:gordon@ahr.com.au).

### Commercial in Confidence Information

Project team members will not disclose any commercial in confidence information they may have access to via project partners. Project partners will identify the confidential information as such. A confidentiality agreement may be signed by the relevant RMCG or AHR contact persons.

If requested, the SWICP team will consider keeping specific results confidential in cases where disclosure may disadvantage the partner, provided the non-disclosure does pose any risk to the public or the levy vegetable industry. These requests will be negotiated on a case-by-case basis.

### Conflict of Interest

Any project team member or project partner with a direct or indirect conflict of interest in any matter which falls under the scope of the project must disclose this conflict.

Project team members may not have or make commercial arrangements with commercial partner organisations or favour certain organisations.

### Project team contacts

The project website [www.soilwealth.com.au](http://www.soilwealth.com.au) contains contact details for all project team members.

## Appendix 1: Focus areas details

- 1. Biological products and soil amendments.** For example: composts, soil condition “enhancers”, bio-pesticides, plant defence enhancers, products based on living microorganisms (e.g. beneficial organisms such as mycorrhizae, plant growth-promoting rhizobacteria (PGPR), dark septate endophytes (DSE), selected types/strains or mixes of beneficial fungi, beneficial nematodes), microbial by-products, botanicals, growth regulators and other non-synthetic pest control products. ***How to evaluate and use products/amendments which are based on a sound foundation of published, refereed R&D in vegetable cropping systems.***
- 2. Soil biology.** Role of organic matter, microbial populations and balances, impacts on soil-borne disease and crop health. ***What are the fundamentals and new insights? How can they be applied to vegetable production systems?***
- 3. Improved tillage systems.** Precision agriculture, strip tillage, deep placement of organic matter (e.g. biochar and compost), softer tillage, managing cover crop residues and crop protection. Seeding and planting into crop residues. ***What are the new developments, approaches and practices/equipment relevant for vegetable production systems?***
- 4. Nutrient management.**, Applying principles of nutrient movement in soil and plants, soil and plant test interpretation, nutrient balances and interactions between crop nutrition, crop health and soil health, understanding fertilisers, site-specific fertiliser programs and variable application rate technology – link to Precision Ag. ***How can nutrient management be used to optimise returns from fertilisers inputs (profitability) and maintain environmental stewardship?***
- 5. Soil water management.** Irrigation scheduling and monitoring approaches and how they can be used to maximise productivity, reduce soil borne diseases and control nutrient losses. New soil moisture monitoring and decision-making tools, e.g. ET<sub>o</sub> based tools such as Irrisat®, Apps, cloud-based software; importance of adequate drainage, variable rate irrigation technology. ***What is the foundation knowledge and how can new developments/technologies and research outputs be used in vegetable production systems?***
- 6. Integrated management of pests, diseases and weeds** including genetics (resistant or tolerant varieties, acquired resistance, RNA silencing), improving disease resistance and tolerance, crop biotechnology, area wide management, integration of biological options. Management of new pest biotypes e.g. lettuce aphid or pests, weeds or diseases that become a problem with changed production practices e.g. spinach mite, or weeds e.g. nutgrass, resistant wild radish. ***What is the foundation knowledge and how can new developments/technologies and research outputs be used in vegetable production systems?***
- 7. Crop monitoring:** Pest and disease scouting including automated systems with a focus on integrating a crop protection program with other farm activities. New Technology that provides real time information about how a crop is performing, decision support and their use in production systems (e.g. drones, satellites, sensors, robots, apps). ***How can new developments/technologies and research outputs be applied in vegetable production systems?***

## Signatures

For SWICP		The partner	
Company		Company	
Given name(s)		Given name(s)	
Family name		Family name	
Position		Position	
Signature		Signature	
Date		Date	