

# Integrated Crop Protection Update

October 2015



**Integrated  
Crop Protection**  
PROTECTING CROPS

## Overview

The Integrated Crop Protection (ICP) extension project aims to promote best management practices for plant health in the Australian vegetable industry, including responsible chemical use. Protecting crops is vital for vegetable producers to improve productivity, profitability and sustainability. However practices, capabilities and attitudes differ throughout the country. The project is continuing to work with growers, advisors and other industry service providers to tailor solutions that suit their circumstances.

The main project outcomes include:

1. Improved awareness, knowledge, capacity and decision-making about pest, weeds and diseases
2. Improved management of chemicals
3. Application of Integrated Pest Management (IPM)
4. Improved management of pests, weeds and diseases (ICP).

Progress towards each of these outcomes is provided in this industry update.

## Improved awareness, knowledge, capacity and decision-making

The key activities undertaken include:

- Communication and knowledge management: use of multiple face-to-face, online and soft/hard copy communication tools to reach target audiences where they seek information. This includes undertaking events, development of project website ([www.integratedcropprotection.com.au](http://www.integratedcropprotection.com.au)), use of Twitter (@ProtectingCrops) and Facebook (<https://www.facebook.com/protectingcrops>), and articles in industry magazines and newsletter such as Vegetables Australia and AUSVEG Weekly Update
- Development of a suite of 22 publications and videos for extension of ICP information, based on our ICP R&D database to ensure previous projects and investment are being built upon

- Delivery of 11 workshops, information sessions and field days in QLD, NSW, VIC, TAS, SA and WA on insect pest control, spray application, resistance management, insect contamination and biofumigation to improve crop protection knowledge and capacity
- Establishment of 3 grower groups to harness existing mechanisms for delivery of activities, communication and information, including Bundaberg Fruit and Vegetable Growers group (QLD), Graduate Alumni Industry Network – Vegetables (National), and AUSVEG EnviroVeg and EnviroVeg Platinum (National)
- Participation in 9 other industry events to increase awareness and participation in the project, including AUSVEG and state associations in VIC, TAS, SA, NT, WA and QLD.

### Key outcomes to date:

- Over 260 growers, advisors and industry stakeholders involved in project extension events
- Approximately 17,000 hectares of vegetable production has been covered by participating growers in training and events
- Training and events are resulting in improved knowledge and confidence, and ability to make more informed decisions amongst participants. Specific data on evaluation survey findings is outlined below
- The topic and content, delivery, relevance to business, venue location and catering of all 11 training and events has been rated above 4/5 by participants
- Access to advisors extends the reach of information provision to growers (multiplier effect)
- Over 300 followers on Twitter and 165 likes on Facebook.

*“Very informative and feedback by surrounding peers was answered precisely. Good strong performance.”* – Information session participant

Page 1



Figure 1: Information session in Werribee, VIC and field day in Kalbar, QLD

## Improved management of chemicals

### The key activities undertaken include:

#### Training and events:

- Spray application workshops for getting the most out of your chemicals in VIC and SA during May 2015
- Managing pesticide resistance and insect contamination information sessions in QLD, VIC and WA during September and October 2015.

#### Publications and videos:

- Spray Application Basics fact sheet
- Managing Pesticide Resistance fact sheet
- Alternatives to Metham Sodium fact sheet, in conjunction with the Soil Wealth project
- Biofumigation fact sheet, in conjunction with the Soil Wealth project
- What can I use? Chemical options for controlling high priority pests in (based on the Strategic Agrichemical Review [SARP] process): Brassicas; Carrots; Celery; Cucumber; Lettuce; Capsicum.

### Key outcomes to date:

- Knowledge and confidence of participants in spray equipment and chemical application generally improved as a result of the workshops (rating shift from 2.7/5 to 3.3/5)
- The majority of participants were able to make more informed decisions about:
  - Spray equipment and chemical application following the workshops (93%)
  - Controlling insect pests and managing insecticide resistance following the information sessions (95%).

## Application of Integrated Pest Management

### The key activities undertaken include:

#### Demonstration sites:

- Sydney Basin, NSW focussing on using IPM
- Cranbourne, VIC focussing on using IPM and disease management.

#### Training and events:

- Control of pests in brassicas information sessions in VIC, TAS and SA during November 2014
- Controlling Diamondback Moth, Rutherglen bug and Brassica whitefly information session in the Sydney Basin, NSW in February 2015.

#### Publications and videos:

- Mega Pests fact sheet series: Basics of Protecting Your Crop; Managing Major Chewing and Biting Insects; Managing Sucking Pests; Managing Foliar Diseases; Managing Soilborne Diseases
- Using an IPM Approach in Brassicas fact sheet
- Integrated Pest Management (IPM) in vegetables (broccoli), Werribee, Victoria video [https://youtu.be/Xm6\\_GvSpHNc](https://youtu.be/Xm6_GvSpHNc)
- Integrated Pest Management (IPM) in vegetables (leafy, brassica, leeks), Devon Meadows, Victoria video <https://youtu.be/5HQWeSO8xlw>
- Integrated Pest Management (IPM) in vegetables (Asian greens, celery and lettuce), Mornington Peninsula, Victoria video <https://youtu.be/rz1EiOlc5IA>

## Key outcomes to date:

- Knowledge and confidence of participants in controlling insect pests generally improved as a result of attending the information sessions (rating shift from 3.1/5 to 3.6/5)
- Almost all participants identified they were able to make more informed decisions about which pesticide to use following the information sessions (93%)
- The majority of participants were aware of IPM with over half (50-70%) applying IPM to their farm business or the advice they were providing. A smaller percentage (10-15%) were interested in starting.

## Improved management of pests, weeds and diseases (ICP)

### The key activities undertaken include:

#### Demonstration sites:

- North West, TAS focussing on integrated crop protection and beyond IPM
- Bundaberg, QLD focussing on pest management and nematode control
- Koo Wee Rup, VIC focussing on biofumigation / cover crops, soil borne disease control, in conjunction with the Soil Wealth project
- Manjimup, WA focussing on soil borne disease, biofumigation and nutrient management, in conjunction with the Soil Wealth project.

#### Master classes and networking:

- Tools for Transition: Precision Horticulture master class conducted in May 2015, hosted by the Horticulture Centre of Excellence VIC in conjunction with the Victorian Farmers Federation
- Soilborne disease master class conducted in September 2015, in conjunction with the Soil Wealth project
- ICP Community of Practice (ICP COP) has been established, which is a group of like-minded individuals who have a passion for, and actively involved in, the management of insects, diseases and weeds in Australian vegetable crops.

## Publications and videos:

- Managing Plant Health and Soils in Vegetables – Experiences from leading growers video <https://youtu.be/JD7ccNy99AQ> (involving demonstration site growers)
- Reduced till vegetable production – WHY? video in conjunction with the Soil Wealth project <https://youtu.be/RfbhOxnULyI>
- Reduced till in vegetable production – HOW? video in conjunction with the Soil Wealth project <https://youtu.be/5rH3CFh7yvU>



Figure 2: Example of video produced

## Key outcomes to date:

- Soilborne disease masterclass participants generally improved their knowledge and understanding of: causes of soilborne disease; soil conditions and predisposition to disease; cultural control options; biological control options; soilborne disease tests; soilborne disease risk assessment and management; financial assessment of management options.
- Many master class participants stated they would now either look at, or will change their management strategies for soilborne disease in relation to research, techniques and practices, and attitudes
- Over 25 active members in the ICP Community of Practice
- Over 1,750 views of videos online since January 2015.

*“The best workshop I’ve been to so far, I’ve learned so much and met a lot of nice and interesting people. The presenters including the organisers were fantastic! It exceeded my expectations.” – Master class participant*



Figure 3: Master class in Mornington Peninsula, VIC

## Next steps and working with you

The ICP extension team continues to work closely with the Soil Wealth project, which aims to improve soil management practices for better economic outcomes.

The project is also collaborating with other organisations who are already doing great work in plant health management for vegetables. This includes the agrochemical industry, training providers, industry associations, universities, government departments and other service providers.

We are keen to hear your success stories or challenges about crop protection. To stay up to date or for more information:

- **Phone or email:** Anne-Maree Boland, RMCG 0427 679 042 or [anne-mareeb@rmcg.com.au](mailto:anne-mareeb@rmcg.com.au), or Gordon Rogers, AHR 0418 51 7777 [gordon@ahr.com.au](mailto:gordon@ahr.com.au)
- **Online:** [www.integratedcropprotection.com.au](http://www.integratedcropprotection.com.au), or register your interest at [https://www.surveymonkey.com/s/soilwealth\\_ICP\\_Eol](https://www.surveymonkey.com/s/soilwealth_ICP_Eol)
- **Social media:** follow us on Twitter @ProtectingCrops or our Community of Practice on Facebook at <https://www.facebook.com/protectingcrops>
- **In person:** at one of our many workshops, field days and events around the country, check the website above for details.