

NSW VEGETABLE IPM NEWSLETTER

Integrated Pest Management for Insects and Viruses in Sydney Vegetables



This newsletter is prepared for a project facilitated by HAL in partnership with AUSVEG and is funded by the National Vegetable levy. The Australian Government provides matched funding for all HAL's R&D activities.

Issue 9 – ISSN 1833-007X

Your Levy at Work

January 2010

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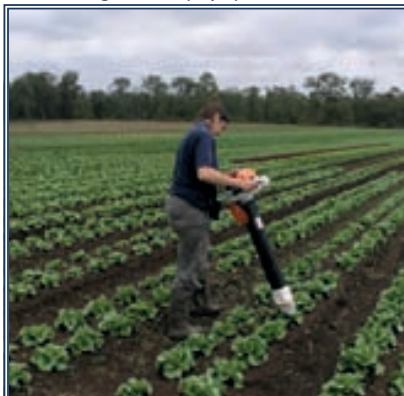
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Lettuce Field Days

Sylvia Jelinek

The first of two successful lettuce field days at a farm in Werombi was held on October 22nd and attended by 25 growers and consultants and the second was held on November 5th and attended by 22 growers and consultants. The field days were organised around a successive currant lettuce aphid (CLA) susceptible planting over four weekly plantings. This was done to entice CLA into the crop, as lettuce aphid had not been seen in the Sydney basin since spring 2008. The successive plantings created a bridge for beneficial insects to move from older plantings once they were cleaned up through to younger plantings that may need some beneficial biological control via the natural enemies that are present within the crop.

Image courtesy of Sylvia Jelinek



Sandra McDougall I&I NSW using the BugVac to sample lettuce for insects.

The first lettuce field day focused on following the plantings through and discovering all the

good and bad insects within the crop, Sandra McDougall of *Industry and Investment NSW (I&I NSW)* demonstrated sampling the lettuce crop for insect presence using the BugVac, a common tool used by IPM consultants to collect insects in order to determine what pest and beneficial insect levels are within the crop.

Image courtesy of Sylvia Jelinek



Sandra McDougall showing growers and consultants insects that were discovered in the lettuce sampling.

Andy Ryland of *Beneficial Bug Co. (BBC)* in Richmond and Sylvia Jelinek of *I&I NSW* also discussed with the growers and consultants the importance of IPM in a field lettuce production crop, as well as the value of protecting natural enemies and maintaining their numbers, that will assist lettuce growers in keeping pest species at bay.

Image courtesy of Sylvia Jelinek



Andy Ryland BBC talking about the importance of IPM in lettuce crops.

This was followed by a refresher demonstration on correct spray application, chemical dilution and spray calibration by Tony Napier, *I&I NSW* Yanco District Horticulturist. A presentation by the *I&I NSW* Nutrient and Water SmartFarms project officers concluded the afternoon. Talks were conducted by Matt Plunkett, Ashley Senn and Ho Dang.

Image courtesy of Sylvia Jelinek



Tony Napier I&I NSW revisited the fundamentals of correct spray application in field crops.

The second lettuce field day focused on lettuce diseases, this was headed up by Len Tesoriero and Leanne Forsyth, *I&I NSW* resident plant pathologists from Camden. Disease issues were discussed, how to reduce them, and fungicide issues that are of importance to the field lettuce industry. Lettuce breeder Stephen Mitchell, *Enza Zarden*, was our special guest for the day and discussed variety resistance, with a focus on Downy Mildew *Bremia lactucae*.

IPM accreditation for growers and IPM consultants was promoted by Leigh Pilkington and Sylvia Jelinek, *I&I NSW*, with an overview by Andy Ryland *BBC* on how the accreditation scheme would work for growers and consultants alike in the Sydney Basin.

IPM Accreditation and Training

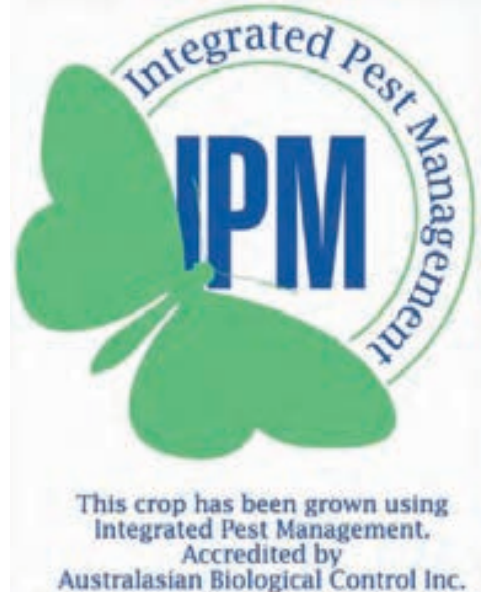
Sylvia Jelinek

Integrated pest management (IPM) is a widely used practice in Europe and the United States of America. In Europe there was a demand from the consumers that drove vegetable and ornamental growers to adopt IPM as their cropping practice. Consumers wanted a pesticide free product that was grown in accordance to a method that assured this quality. Currently in Australia there isn't a driving force behind such a movement, although IPM is being successfully practiced by many crop growers in several commodities. These growers have placed themselves in a position that gives them

an advantage and readiness for such a demand, and will effortlessly adjust to such a change, placing themselves at the forefront with a definite market edge. It's not a question of 'if' it is a question of 'when'.

IPM accreditation is by no means going to be an easy endeavour for most as it has stringent requirements. With some hard work and effort, however, it is attainable. There are several growers in Victoria and Queensland that use the trademarked IPM logo on their produce and a handful in New South Wales.

Image courtesy of Australasian Biological Control Association Inc.



Accreditation enables the grower to use this Trade Marked IPM logo on their product

The Australian Biological Control Association Incorporated (ABC) is currently implementing an Advanced IPM accreditation scheme. Crop consultants gain accreditation and are then able to nominate specific growers for grower accreditation.

To gain accreditation the consultants are assessed by a panel of experienced IPM practitioners who are members of the ABC. Applicants must meet a set of criteria. Accreditation enables the grower to use the Trademarked IPM logo on their product. This logo is a measure of a high level of commitment to IPM recognising the need to reduce chemical inputs and minimise environmental and human health impacts.

For further information refer to the Goodbugs website www.goodbugs.org.au or contact your IPM Project Officer Sylvia Jelinek on 02 4588 2135.

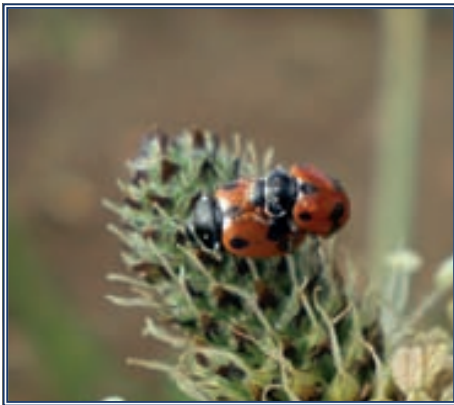
Lettuce Aphid Update

Sylvia Jelinek

This spring there has been a more in-depth observation carried out in the search for currant lettuce aphid CLA in the Sydney Basin, which has not been found in the Sydney Basin since spring of 2008 until recently. It was a similar story for Western Australia, though some were found in Victoria. CLA were found early this spring in the Sydney Basin in fortnightly plantings of susceptible varieties planted out through winter.

Four successive weekly plantings of CLA susceptible lettuce were planted to create a bridge for beneficial insects and pest species to move from the older crop plantings to the younger plantings and observe the insect numbers and their interaction.

Image courtesy of Sylvia Jelinek



***Hippodamia variegata* ~ White collared Ladybirds are voracious predators of aphids found in vegetable crops, as are many other species of ladybirds.**

CLA has been found within those plantings, only in low numbers at this stage, but with the pest species also comes beneficials or natural predators. Those that were present in numbers to clean up the aphids were ladybirds ~ transverse and white collared, as too were brown lacewings. When these natural enemies are present in a crop it may be an indication that there are aphids present, but it also suggests that they will be there ready to clean up the aphids. Beneficial insects detected within a crop are a strong sign that there are low to no chemical residues present on the crop. This is a strong indication of an IPM produced commodity.

Image courtesy of Sylvia Jelinek



***Micromus tasmaniae* ~ Brown Lacewings are successful predators of aphids and can be a common find on vegetable crops.**

Get More Out of Your IPM

Sylvia Jelinek

Integrated pest management (IPM) is an approach that encourages the reduction of pesticides being used. This is done by utilising a range of pest control options to restrain or manage pests below their economic injury level.

The options are:

- Chemical control
- Cultural control
- Varietal selection
- Biological control

The scope of IPM ranges from monitoring pests through a range of cultural control options and only resorting to pesticide applications when pest number reach a predefined limit. The aim of IPM is not necessarily to achieve management through the use of biological control agents, but if biological controls are being used then chemical and other control options must play a supportive role rather than a disruptive one. Chemical options should not be based on a calendar spray regime, but used only when necessary, as dictated by systematic pest monitoring. A selective chemical should be the preferred option over a broad-spectrum with the purpose being to produce high-quality, profitable produce by intelligently using the four control options to manage pests.

The benefits of producing IPM commodities are:

- Increasing health and safety to all farm workers.
- Reduced chemical contamination of produce and farm surroundings.
- Managing the incidence of pesticide resistance.
- Being on the front foot of sustainable agriculture by reducing the dependence on chemicals.

IPM requires a thorough understanding of the interactions between pests and beneficials, as well as the effects of applied chemicals and their residual effect.

To get on board and take a step closer to being a vegetable producer that grows using IPM, employ an IPM consultant or horticultural consultant to scout on your farm which will help provide the information you need to make well-informed decisions on your pest management.

Horticultural and IPM consultants provide suggestions and advice along with monitoring results. Ultimately, the grower is responsible for final decisions and actions regarding recommendations of pesticide use and their application. For a list of IPM consultants in your area please contact Sylvia Jelinek *I&I NSW* 02 4588 2135.

IPM Demonstration to Asian Growers

Sylvia Jelinek

Late in August, IPM was demonstrated for a small group of Chinese growers that were studying their certificate three in agriculture (market gardening). The growers learnt about pest and beneficial insect recognition and their modes of interaction.

Image courtesy of Chun Fong



Sylvia Jelinek and Michelle C. Smith I&I NSW demonstrate to growers/students how to scout for diseases & pest/beneficial insects in a brassica crop.

The farm based course encourages learning in non-threatening surroundings. When learning is done on-farm, students can associate their knowledge and skills to the situation at hand.

Image courtesy of Chun Fong



Sylvia Jelinek I&I NSW show growers/students how to recognise pests in a greenhouse gerbera crop.

Greenhouse Vegetables Field Identification Guide

Sylvia Jelinek

Just a reminder that the 'Pests, Beneficials, Diseases and Disorders in Greenhouse Vegetables: Field Identification Guide' first edition is available at a reduced price of **\$18**. This publication is a must for any greenhouse vegetable grower, but can also be a very useful guide to most vegetable farmers.

This guide is available through the bookshop on: 1800 028 374

<http://www.dpi.nsw.gov.au/aboutus/resources/bookshop>

or email: bookshop@dpi.nsw.gov.au

Further Information

www.dpi.nsw.gov.au for pest and disease management information

www.apvma.gov.au for chemical permits and registrations

www.dpi.qld.gov.au/infopest to subscribe to the Infopest AGVET DVD

Sylvia Jelinek
Vegetable IPM Project Officer
Industry & Investment NSW
Phone: 02 4588 2135 or 0437 977 263
Email: sylvia.jelinek@industry.nsw.gov.au

Leigh Pilkington
Research Scientist
Gosford Horticultural Institute
Industry & Investment NSW
Phone: 02 4348 1953
Email: leigh.pilkington@industry.nsw.gov.au