

Lettuce Aphid in Victoria

Andrew Creek

In late April 2005, lettuce aphid (*Nasonovia ribis-nigri*) was detected on the mainland in the Melbourne metropolitan area. Due to the outbreak, movement of lettuce and other host plant material from Victoria has been subject to regulations. NSW, QLD, SA and WA have placed restrictions on the entry requirements for lettuce and lettuce products. Copies of the regulations can be obtained from the respective state departments.

It is important that growers who send susceptible produce interstate are aware of the importing state's requirements because the regulations vary between states. If a consignment of produce enters a state without the correct documentation, the consignment may be impounded and destroyed.

DPI Victoria are actively monitoring a network of aphid traps and regularly doing intensive crop surveys to maintain area freedom for Victoria's lettuce production zones. At late June 2005, lettuce aphid had been confirmed in Templestowe, Eltham, Scoresby and most recently in a commercial crop at Kooweerup.

Lettuce Aphid or Currant Lettuce Aphid
Nasonovia ribisnigri



A wingless lettuce aphid



A winged lettuce aphid

The time it will take for the aphid to spread throughout the country is unknown. Respective state departments are surveying lettuce production areas quarterly to maintain the lettuce aphid regulations. Growers are advised to check the Ausveg website for the latest information on the lettuce aphid's movements and the state regulations. <http://www.ausveg.com.au>

Victorian growers with long established biological IPM systems on their farms are disgruntled with the regulations. They are left with very few options to trade lettuce interstate. The irony is that last year in Tasmanian lettuce aphid trials, biological IPM was proven to be almost as effective as Confidor® in controlling lettuce aphid.

No super aphid

Andrew Creek



"super-aphid" image by Brian Pribble and Paul Horne

Nasonovia is not a super aphid, just another aphid. Lettuce aphid is a great food source for brown lacewings, ladybird beetles and hoverflies. It was proven in the Tasmanian trials last year that predatory insects can control lettuce aphid to commercial standards.

Like the other aphid species we commonly find in lettuce, *Nasonovia* too can spread viruses. The only difference is that *Nasonovia* prefer to colonise the lettuce heart or be hidden in leaf curls and folds of fancy lettuce. This difference in habit catches out unprepared growers where traditionally applied aphid insecticides fail due to lack of contact with the pest. Hence the "super aphid".

Lettuce aphid is manageable with the following methods:

- Biologically based IPM
- Resistant varieties
- Confidor® seedling drench

There is no bet each way. Integrated Pest Management (IPM) just will not work with Confidor® seedling drenches. A trial earlier this year proved that low rates of Confidor® applied as a seedling drench was toxic to predatory brown lacewings. For IPM to control lettuce aphids, both juvenile and adult beneficial insects need to be present in the lettuce crop. Insecticide drenches do not allow this.

Nasonovia resistant lettuce varieties are available and it is recommended growers contact seed companies and trial varieties suited to their area.

A Confidor® seedling drench is likely to be the most popular choice for lettuce aphid control. APVMA permit number 7416 outlines the details for Confidor® use in lettuce, chicory, endive and radicchio. <http://www.apvma.gov.au>

Lettuce Industry Conference

Sandra McDougall

The 3rd Australian Lettuce Industry Conference held at Werribee turned out to be the largest ever, with 330 registrations. This reflects the excellent support from all sectors of the industry for a lettuce conference. Growers came from all Australian states, New Zealand and New Caledonia.

The major sponsors and many of the minor sponsors from the two previous conferences again showed their commitment to the industry. A few new sponsors also supported the conference.

Frederic Leuenberger, the principle of Eisberg group based in Switzerland gave a fascinating overview of the Eisberg operation. The breadth and scale of their operation is unlike any in Australia but then their market is many times the size of ours. Howard Poole gave a pictorial talk of his experience of growing lettuce in China. Although the individual farms are tiny by our standards, the collective scale of vegetable production is enormous.



Conference delegates wore headphones to hear the simultaneous interpretation of Frederic Leuenberger's presentation.

New Zealand's Stuart Davis from LeaderBrand and head of the NZ lettuce IPM project told of the reliance on Confidor[®] for lettuce aphid-free lettuce and of the potential of brown lacewings and an aphid fungus for control of lettuce aphid in Pukekohe. Lee Peterson told the story of how Houston's have managed to continue to sell babyleaf lettuce to all states of Australia. Lionel Hill told us of the success of seven sequential 0.1ha IPM demonstration plots in Devonport to control lettuce aphid. He also spoke of the imminent failure of the last two plots where 2/3 of each plot was used to test low rates of two chemical treatments.

The afternoon of workshops allowed for smaller groups to be more involved in discussion or hands-on activities. Similarly the Thursday morning field trips gave delegates a range of businesses to see in operation. After lunch a much smaller group discussed Research & Development issues affecting the lettuce industry. Many conference participants spent the afternoon and much of Friday at the National Vegetable Expo site viewing the extensive plantings of leafy and brassica vegetables.

Thursday night was the combined conference and Expo dinner. John Baressi entertained all with his Italian and Greek characters.

As chair of the 3rd Australian Lettuce Industry Conference organising committee I would like to thank the organising committee, the conference convenor, sponsors, workshop presenters, tour hosts, NSW Department of Primary Industries staff and the staff of the Wyndham Events Centre.



Arie Baelde, Howard Poole and Sandra McDougall amongst the extensive leafy vegetable plantings at the Expo site.

The conference evaluations indicated the overall success of the conference and a desire for it to happen again. The next conference is likely to be in three years time in either Adelaide or Perth. If you have an interest assisting with the organisation of the next Australian lettuce industry conference please contact:

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Harvesting technology

Andrew Creek

Growers Anthony Staatz and Jamie Buckel of Koala Farms in the Lockyer Valley have developed a new low impact vegetable harvest aid. Starks Engineering will manufacture the harvester. The new harvest aid has been used to pick lettuce, cauliflowers, melons and butternut pumpkins. Produce can be efficiently bagged and packed on the harvest aid.



Anthony Staatz and Jamie Buckel from the Lockyer Valley have developed a new low impact harvester.

A ski lift-like carrying cradle replaces the traditional belts that many harvest aids have. Produce is placed on a cradle, rather than being thrown on a belt. Belts also have the disadvantage of build up points that accumulate produce, leaves and dirt.

Lettuce are efficiently harvested, sanitised and bagged in the field with minimal damage. The produce comes off the back of the harvester, packed ready for market.

For more information about harvester contact:
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