

Lettuce Aphid Update 2003

The good news is that Australia remains free of the lettuce aphid (*Nasonovia ribis-nigri*) that has devastated lettuce crops throughout Europe, USA and last year, our near neighbour New Zealand.

The bad news is that it is only a matter of time before our Australian lettuce industry will face this pest. It is important that we learn from the New Zealand experience and better prepare ourselves with effective control measures to limit the impact of this pest.

A Lettuce Aphid Advisory (LAA) group has been established which brings together lettuce growers and representatives from AusVeg, Horticulture Australia, chemical industry, IPM providers, agronomists, seed suppliers, nurseries, wholesale distributors and DPI-Vic staff

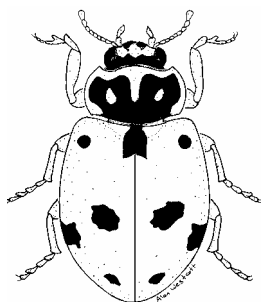
At the annual LAA group meeting, members shared and discussed their understanding of overseas experiences with controlling *Nasonovia* and were confident that the Australian Lettuce Industry could provide an effective response. Essential work already underway includes:

- developing detailed contingency plans,
- ratifying chemical registrations and patterns of use,
- grower evaluation of *Nasonovia* resistant lettuce varieties.

Biosecurity Australia has already been approached by AusVeg to maintain tight import controls on affected countries. Our state-based biosecurity protocols are exhaustive and provide high levels of confidence in prevention. Plant imports from countries affected by lettuce aphid must meet Australian standards.

For a full story on the NZ experience with *Nasonovia* visit www.aphidwatch.com

Summaries of the Lettuce Aphid Advisory Group meetings are available from:
Craig Murdoch
craig.c.murdoch@dpi.vic.gov.au
DPI-Knoxfield 03 9210 9222



Post harvest control of aphids

A recently reported laboratory study found that storing head lettuce in a vacuum under a controlled atmosphere at 5°C for 4 days was effective in controlling aphids (Lettuce aphid – *Nasonovia ribisnigri* and Potato aphid -*Macrosiphum euphorbiae*). While the visual quality of the lettuce was unaffected by the treatment, all aphids were killed. This work shows the potential of post-harvest disinfestation using controlled atmosphere techniques. These techniques are of particular interest for the minimally processed lettuce industry.

The above is taken from the Journal of Economic Entomology.

Lettuce BMO trials

The NSW lettuce IPM project ran a series of Best Management Options (BMO) trials at Hay & Cowra over spring. Essentially the trials aimed to reduce insecticide use and preserve the beneficial insect population by regularly monitoring lettuce and using newer generation chemicals for heliothis control.

Some points the BMO trials highlighted were:

- Accurate and regular crop monitoring is essential for IPM to be a success.
- Insecticide use can be reduced with monitoring based spraying.
- The additional beneficial insects did not alone adequately control heliothis. Targeted insecticides were needed.
- The broad spectrum insecticide sprays were needed prior to harvest to reduce leafhoppers and thrips.
- The softer heliothis control options costed more and yielded no extra lettuce.
- Early fungicide sprays are important for sclerotinia control.
- Spray downy mildew with a systemic fungicide before the disease is well established.

Full reports will be published on NSW Agriculture's website by February. For more information or a copy of the reports contact:

Andrew Creek
andrew.creek@agric.nsw.gov.au
NSW Agriculture Tel: (02) 6951 2653

Regional review

Victoria

Water availability dominates the Victorian lettuce industry. In Werribee South growers are no longer allowed to use bore water. Channel water (water that is normally used for irrigation) is available to the growers, only 35% of total water allocation. Many growers are hoping that recycle water (class A) may become available sooner rather than later. To save water some growers are considering switching from fixed overhead sprinkler irrigation to trickle irrigation systems.

Melbourne metropolitan

In both Melbourne metro regions (Werribee South and Cranbourne) the spring generation of **native budworm** (*Helicoverpa punctigera*) has been present since the middle of October.

Although, the number of moths has been high, growers did not have a problem controlling the *H punctigera* larvae.

Gippsland

A cool spring has slowed crop growth and affected quality. There has been virus damage on some crops due to Tomato Spotted Wilt and Cucumber Mosaic virus and this has severely affected some plantings. Thrips, aphids and rutherghlen bugs have been active while *Helicoverpa* have been relatively quiet until just recently with *H armigera* becoming active in the last few weeks. This is approaching the expected December rise in activity for *H armigera*. Brown lacewings have also been very active in crops. There should be adequate water for irrigation for at least the next month.

New South Wales

Central West

There was relatively little heliothis pressure this spring. In the later lettuce there were however some larger flights of *H punctigera*. Leaf hopper numbers were high most season, speckling leaves and causing the most damage when the lettuce were young.

Thrips pressure was moderate and the district had a low incidence of tomato spotted wilt virus. Lettuce mosaic virus was not present like last year.

Tipburn has been an issue in the higher temperatures. There has been a typical amount of Sclerotinia, and during November there was downy mildew in some crops.

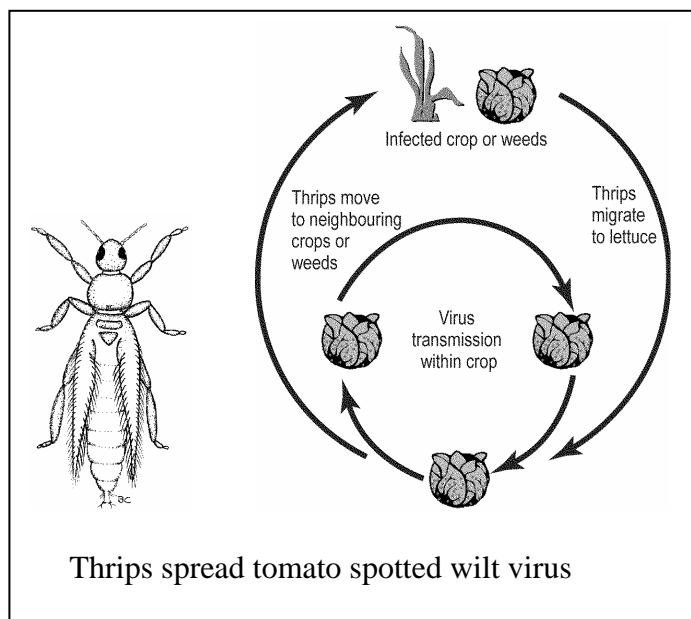
Sydney Basin

During November/December there has been 5 to 10 inches of rain across the Sydney basin. Water storages on farms are finally beginning to fill. Around Maroota some lettuce crops were destroyed by hail.

Most spring lettuce crops have finished in the Windsor area. There is still some lettuce in the Camden district. Insect pressure has been reduced due to the heavy rains, however with dry weather heliothis and thrips numbers will increase. Anthracnose and bacterial leaf spot has been a problem in some lettuce crops.

Queensland

The lettuce harvest has finished in the Lockyer Valley and production is currently in the highlands at Stanthorpe. After the driest November on record, water is still a major concern. For growers with water in storage, the lettuce crops are growing well. Heliothis pressure has been moderate. Thrips & leaf hoppers moved onto crops in spring. To date there has been little disease due to the dry conditions. There has been some scattered storms & hail.



Victorian Lettuce Trials 2003

This season the Victorian Insect Pest Project will look for any soft options that may be available for thrips control and carry out some evaluation. Thrips have caused some problems particularly with the transmission of TSWV. Monitoring of crops will also continue with emphasis on assessing the range of insect pests present and the project.

The project will also evaluate the reports on the systemic effects of some new pesticides when applied as a soil drench to seedlings. Field trials will continue with an emphasis on checking the results in the field from last years trials and bioassays and further evaluation of application of nuclear polyhedrosis virus through overhead sprinklers.

For more information contact:
Slobodan Vujovic
DPI Knoxfield Tel: (03) 9210 9222
or Lavinia Zirnsak (03) 5152 0600

For further information contact: Andrew Creek, NSW Agriculture, Ph (02) 6951 2653, Fax (02) 6951 2692
or - Slobodan Vujovic, DPI Knoxfield, Ph (03) 9210 9222, Fax (03) 9800 3521
www.agric.nsw.gov.au/reader/veg-lettuce or www.nre.vic.gov.au/agvic/ihd/projects/lettuce.htm