

*National Vegetable Industry Centre Newsletter***The 3rd Australian Lettuce Industry Conference.**

It has been nearly three years since the 2nd Australian Lettuce Conference in Gatton, Queensland. The event has now moved south with Victoria hosting the industry conference, and have combined the program with the National Vegetable Expo. The Conference will be held at the Wyndham Leisure and Events Centre, Werribee from the 3rd to 5th May 2005.

The conference kicks off on Tuesday evening, the 3rd May 2005, with a welcome reception at Wyndham Events Centre. Wednesday morning sees the start of the formal proceedings with Australian and International guest speakers. After lunch, participants choose 3 workshops from a choice of 9 themes. Each workshop runs for 45 minutes; each is led by key leaders in their field. Workshops topics include recycled water, irrigation, QA management, marketing, hydroponics, IPM, disease management, processing and packaging developments. All workshops set out to encourage participation and discussion.



On Thursday, five field trips are offered, each taking a half day; with participants choosing one tour that matches their interests. All tours will depart from the Events Centre and return for lunch at midday. A research and development session will be held on Thursday afternoon and an industry conference dinner that night. All of Friday is left free for delegates to enjoy time at the National Vegetable Expo at the University of Melbourne.

Registration is now open with **an all inclusive cost for the conference and Expo of \$150**. Single day tickets are also available for the Wednesday session at \$75 (or \$30 for student). People interested are encouraged to register before 4 March 2005. A registration brochure is available on the DPI website at www.agric.nsw.gov.au/reader/veg-spotlight/veg-lettconf2005.pdf or for more information contact Dr Sandra McDougall or Andrew Creek at Yanco Agricultural Institute on (02) 6951 2611.

Changes to the use of procymidone

The fungicide procymidone has recently been rescheduled as an S7 poison; therefore the APVMA has issued new label instructions. Procymidone is sold as Sumislex[®], Cyon[®], Spiral[®], Aquaflo[®], Fortress[®], Rumble[®] and Procym[®]. All procymidone products will now have the new instructions which incorporate these changes. If you have product which you purchased before 19 November 2004, then it will be necessary to obtain a copy of the new instructions for the product. Copies of instructions can be obtained from your local reseller of procymidone products. Procymidone has been used to control a number of diseases in vegetables including sclerotinia, target spot, white rot and botrytis. Procymidone is still available for use in controlling target spot in potatoes and white rot in onions as long as the new label instructions are followed. Changes and withdrawal in vegetable use include the following:

- (1) Withdrawal of use on green beans, lettuce and tomatoes.
- (2) Withdrawal of all minor use permits (including cucurbits and brassicas).
- (3) Not permitted for use in the home garden.
- (4) No entry onto treated area for 9 days after application unless wearing the appropriate safety equipment.
- (5) Withholding period on potatoes increased to 9 days.

Notice to lettuce growers

Iprodione (Rovral[®]) is still registered for the control of sclerotinia in lettuce with three new permits also now available. The three new permits include bosacilid (Filan[®]) at a rate of 800 to 1000 g/ha (PER8141), tebuconazole (Folicur[®]) at a rate of 350 mL/ha (PER8207) and azoxystrobin (amistar wg[®]) at a rate of 250-300 g/ha (PER 8182). Details of these permits can be found on the APVMA website at www.apvma.gov.au



NSW DEPARTMENT OF
PRIMARY INDUSTRIES



New vegetable project to highlight the value of water

The new HAL funded project “Maximising returns from water in the Australian Vegetable Industry” was launched at a workshop in Melbourne on October 26th. The project brings together key vegetable researchers working from every state to develop a detailed description of water use in all the major vegetable growing regions of Australia.

Funded through Ausveg, the project will provide the vegetable industry with:

- An accurate description of current water use practices in the major vegetable production regions in Australia
- Objective measures, where possible, of the high productivity achieved by the industry for water used including water use efficiency
- An indication of where knowledge and technology gaps to achieving high water use efficiency exist
- Recommendations back to industry for an agreed set of water related research priorities which address those existing knowledge gaps

Jeff McSpedden, Ausveg representative on the HAL Water Initiative and vegetable grower, and Vegetable IDOs from NSW and Queensland attended the workshop. The project will run for eighteen months. For more information on the water project, contact Mark Hickey, NSW Department of Primary Industries, Yanco on 02 69512523

Vegetable IPM and WFT Management

The AUSVEG and HAL supported extension project in Integrated Pest Management (IPM) of Western Flower Thrips (WFT) and other insect vectors of viruses such as Tomato Spotted Wilt Virus is now underway in the Sydney Region. Stacey Azzopardi has commenced employment as Vegetable IPM Project Officer, based at the new NSW DPI Advisory Office in the University of Western Sydney, Hawkesbury.

The five year project, led by Dr Stephen Goodwin, Senior Research Scientist for NSW DPI at Gosford Horticultural Institute, aims to develop and deliver an on-farm extension program through the Vegetable IPM Project Officer, for vegetable growers to manage viruses and their insect vectors using IPM. The project will also encourage the development of commercial IPM consultancy service for the Sydney Basin vegetable industry.

Having worked for NSW DPI with Len Tesoriero in the Plant Health Diagnostic Service at EMAI in Camden, Stacey has gained almost three years of experience in disease diagnostics, working on a range of vegetable and ornamental crops grown in the Sydney Region. The opportunity to offer Sydney vegetable growers access to the latest in IPM technology for implementation on their farms is both exciting and long overdue.

Following in the footsteps of Tony Burfield, the WFT Extension Officer for SARDI in South Australia, the five year project will focus on the management of WFT and Tomato Spotted Wilt Virus as well as mosaic viruses spread by aphids and other insect borne viruses of vegetables.

A key focus of the project is to demonstrate the benefits of monitoring in vegetable crops, enabling growers to use monitoring results to modify their spraying programs. Monitoring on vegetable farms in the Sydney basin led by Stacey Azzopardi is now underway, including virus testing, insect pest monitoring and scouting. During warmer months it is important for growers to take time out to monitor their crops at least once a week for thrips and other insect pests and beneficials and also for plants showing virus symptoms. The use of sticky traps will give counts on the flying insects but ‘scouting’ the crop, looking under the leaves and in the crowns and hearts of the plants will reveal wingless insects and immature pests that may be building up in numbers, waiting to cause damage.

Growers interested in offering their farms for IPM demonstrations, or in participating in the virus surveys are encouraged to contact Stacey Azzopardi, Vegetable IPM Project Officer at Hawkesbury on 02 4588 2135, NSW DPI or stacey.azzopardi@agric.nsw.gov.au



Spraying for thrips

By Tony Napier

A trial was conducted in a commercial onion crop during the 2004 season to test a variety of different nozzle types when spraying for thrips. All the nozzles were set to deliver 200 L/ha of water and a rate of 0.8 L/ha of Dimethoate. The different nozzle types were set at various operating pressures to give a range of different droplet sizes. The nozzle type and the droplet sizes produced are shown in table 1



The application trial was conducted on a commercial crop in the MIA

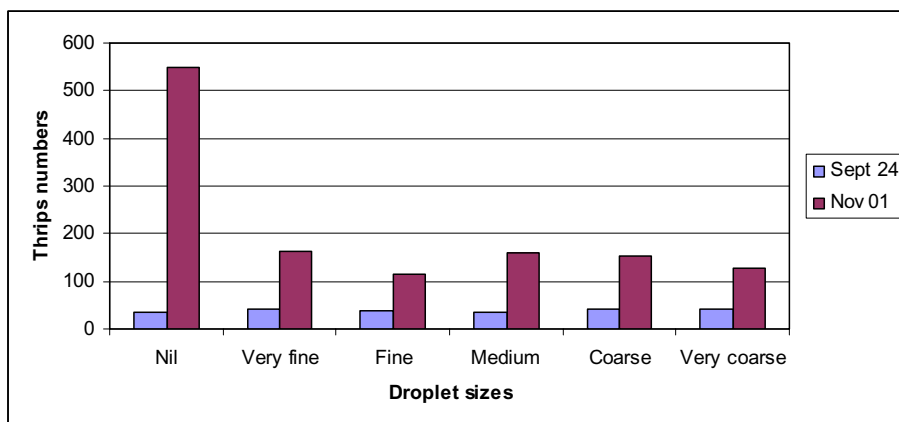
Table 1 Nozzle type used in spray trial

Nozzle type	Droplet spectrum	Droplet size (μm)
Hollow cone	Very fine	<150 μm
Twin jet	Fine	150 to 250
Flat fan	Medium	25 to 350
Flat fan	Coarse	350 to 450
Flat fan	Very coarse	450 to 550

The trial commenced on the 24th September 2004 with an initial count of thrips numbers when the crop was at the 4-5 leaf stage. When thrips numbers increased, the crop was spray twice with dimethoate using the range of nozzles and different droplet

sizes. The first spray treatment was conducted on the 16th of October and the second treatment was conducted on the 29th of October. A final assessment was then conducted on the 1st November (3 days after the final spray treatment) to determine which nozzle type gave the better control. The assessments included counting both the adult and juvenile thrips on 30 onion plants in each plot.

Graph 1 Results of spray application trial in onions



All nozzle types reduced thrips numbers between 70 and 80% compared to the untreated plots. Surprisingly, no significant difference was seen between any of the application treatments. Results from previous spray application trials in other vegetable crops (ie: sweet corn and lettuce) have shown up to a 300% increase in insect control when using a very fine or fine droplet spectrum compared to using a coarse or very coarse droplet spectrum. The results in

onions showed little difference in thrips control regardless of the droplet spectrum used. The difference in plant morphology with the onions long and thin erect leaves (tightly bound at the base) may have reduced the beneficial effects in spray penetration usually expected with smaller droplet sizes. Further trials will be conducted next year to determine the most suitable water rate to use when targeting thrips in onions. (Note: A fine droplet spectrum is still recommended if mixing with a protective fungicide to ensure adequate coverage.).

For more information on Spray application in vegetables, contact Tony Napier, NSW Department of Primary Industries, Yanco on (02) 6951 2796

The Fine Art of Keeping Those Onions Mild

By Mark Hickey

Any seasoned vegetable marketer will tell you that it's relatively easy to take a "non-pungent" variety of onion and grow it for the mild onion market. It's another thing altogether to be able to guarantee the consumer gets what they pay for – a truly mild flavoured fresh eating onion.

Over the last ten years, mild onions have captured a small but ever increasing sector of the fresh onion market occupying a larger space on supermarket shelves. Mostly from Queensland, these large, straw coloured skin onions with a mild flavour are also largely grown in the southern states, including NSW where they are marketed between November and February. Pungency in onions is largely determined by pyruvic acid, which when present in high concentrations gives the strong or pungent flavour. In mild (also known as sweet) onions, pyruvic acid levels are very low, and although the natural sugar levels in these varieties are also low, they have a "sweet" taste, and very little after-burn on the palate.

While growing the right variety is the most important factor in producing mild onions successfully, growing factors also have a big influence on onion pungency. A research trial funded by the industry research body, Onions Australia, was conducted at Yanco this season looking at the effect of irrigation on a range of mild onion varieties. Drip irrigation was used on sandy loam soils, and the varieties selected were those deemed most suitable by the industry.



Explaining the benefits of drip irrigation at a recent field day on mild onions

Robert Hoogers, Irrigation Officer at Yanco, helped conduct the trial and believes that drip irrigation may be the way of the future. One of the main advantages with drip is the ability to meet crop water requirements. This is particularly important as the crop matures, as over watering an onion crop near harvest can damage the bulbs and reduce shelf life. This sometimes occurs with furrow irrigation, the most common form of irrigating onions in NSW.

The irrigation frequency trial at Yanco indicated that a two-day interval gave the best yield result as compared to the four-day and seven-day intervals. Analysis of the pyruvic acid content across the various irrigation treatments and varieties expected to show higher levels in the seven-day treatment, but this was not the case. All three treatments averaged below four micro mol/gram, which is well within the acceptable range for mild onions.

Post harvest curing and storage treatments were also investigated as part of the trial. Dr Jenny Ekman from the NSW DPI Post Harvest Laboratory at Gosford is measuring how well the varieties from the different treatments hold in storage for up to four months. Pungency levels will also be measured at monthly intervals to test the feasibility of extending the market window for NSW mild onions. This work is aimed at strengthen an emerging sector of the industry. NSW DPI and the onion industry is continuing to work on improving awareness of the benefits of mild onions to the Australian consumer and ensuring good product standards are maintained in the production of mild onions to meet the needs of that growing market.

For more information on mild onions, contact Mark Hickey, NSW Department of Primary Industries, Yanco on (02) 6951 2523

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