

### A consolidation of services

The state government has consolidated its role in rural industries by creating a single Department of Primary Industries on 1 July 2004. This brings together the services of NSW Agriculture, NSW Fisheries, State Forests of NSW and the Department of Mineral Resources. The Hon. Ian Macdonald has been appointed Minister of the new NSW Department of Primary Industries and Barry Buffier as the new Director General. These changes will have little effect on the day to day activities of staff based at the National Vegetable Industry Centre at Yanco. Front line staff from Yanco will continue with research and extension activities for the NSW vegetable industry.

### Better thrips control in onions

Field trials are planned for the 2004/05 onion season to measure the effect of nozzle selection for thrips control. Applying the correct water and chemical rate will not automatically ensure the best possible thrips control. There has been previous research to demonstrate how nozzle selection has influenced the final result of any spray application job. Previous trials have evaluated the control of heliothis in sweet corn and showed a three hundred percent increase in pest control by simply changing the nozzle type.

The planned spray application trials in onions will help in providing recommendations for the best nozzle types to use and quantify the benefit by using them. The trials will also evaluate different water rates and provide recommendations from the results. The spray application trials will be conducted on a local grower's property in a commercial crop using a standard 8m wide boom. Assessments will be done on pest numbers and marketable yield. For more information contact Tony Napier, District Horticulturist at Yanco Agricultural Institute, on (02) 6951 2796



### Processing tomato trials in NSW

The NSW whole peel variety trial was conducted at Barooga and harvested on the 9<sup>th</sup> of March 2004. There was a light infection of *Sclerotinia* through the trial but this had little effect on the final results. The experimental variety of FG-9936 was the top yielding variety and closely followed by SPS-7491 and Hypeel-696. The best "all round" looking variety in the trial was Heinz-9509 with a bush that sat nicely on top of the bed producing firm, good sized fruit.

The NSW mid season paste variety trial was conducted at Jerilderie and harvested on the 23<sup>rd</sup> March 2004. The industry standard of Heinz-9035 was the highest yielding variety closely followed by a United Genetics experimental line of TOP 3929. Heinz-4401 recorded the highest brix level for this trial but was also the lowest yielding variety in the trial.

Table 1: 2003/04 NSW Whole peel tomato trial

Variety	Ripe Yield (t/ha)	Green Yield (t/ha)	Rotten Yield (t/ha)	Fruit Weight (g)
FG9936	80.4	19.2	0.3	48.2
SPS7491	78.9	9.0	0.9	47.7
Hypeel696	74.1	5.7	0.6	48.1
SPS4399	72.3	15.9	0.0	54.9
Falcorosso	67.2	5.1	0.3	45.3
Heinz 9509	66.0	6.6	0.0	43.6
TS8	62.4	10.5	0.0	41.1
FG9852	59.7	14.4	1.8	45.4
RG31	57.3	12.0	0.0	45.3
LSD (5%)	25.23	9.0	0.96	6.0

Unfortunately due to herbicide damage, the NSW early season variety trial was not harvested. Data from all trials will be reported on in full in the next "Australian Processing Tomato Grower" magazine. For more information contact the District Horticulturist at Yanco Agricultural Institute on (02) 6951 2611.

### Freshcare training

There is increasing interest for vegetable growers to gain Quality Assurance accreditation due to Woolworth's recent announced that ALL growers whose product is destined for them must have a certified food safety system in place eg; Freshcare, HACCP, SQF or WQA, by 31<sup>st</sup> December 2004. For those growers interested in Freshcare, NSW DPI will be conducting training across NSW. For more information contact Peter Melville, District Horticulturist, Yanco on (02) 6951 2545 or Gerard Kelly, District Horticulturist, Dareton on (03) 5027 4409.



## Lettuce aphid

By Tony Napier

The lettuce aphid, *Nasonovia ribis-nigri*, has been found in Tasmania and is a major concern for all lettuce growers across Australia. Tasmanian lettuce growers first became worried back in early March 2004 when paddocks infested with aphids were difficult to control. By mid March the aphids were identified as the "Lettuce Aphid". This pest has been devastating lettuce crops around the world including in USA, NZ and Europe. The *Nasonovia* Lettuce aphid was first detected in New Zealand in March 2002 and has since spread over the entire country. In late January 2004, the Lettuce aphid is thought to have travelled to Tasmania on an unusual weather pattern consisting of easterly winds that originated from NZ. As yet, the aphid has not been found in mainland Australia but researchers believe it is only a matter of time before the pest crosses the Bass Strait.

Aphids are not new to lettuce growers in Australia and are often found on the outer wrapper leaves. Aphids are usually controlled by beneficial insects but if chemical control has been warranted, foliar insecticides have traditionally worked. The *Nasonovia* lettuce aphid is different to other aphids as it prefers to colonize the centre of the lettuce, making it very difficult to control with foliar insecticides. The *Nasonovia* lettuce aphid is also known to have resistance to many of the insecticides currently registered for use on lettuce.

Researchers at Yanco Agricultural Institute are now evaluating a number of control options including using resistant varieties, developing an effective IPM strategy and the application of soil drench insecticides. Soil drench insecticides differ from foliar insecticides in that they are applied to the soil pre-sowing and before the pest attacks. Foliar insecticides are applied directly onto the foliage of the lettuce at the time when you need to control the pest. The soil drench treatment has the advantage of being taken up systemically by the roots and controlling the aphids deep inside the heart of the lettuce that the foliar insecticides cannot reach.



An emergency use permit for the use of Confidor® (imidacloprid) to control lettuce aphids on lettuce has been issued by APVMA for all states except Victoria. The permit allows for the use of Confidor® as a seedling drench to cell trays at a rate of 35 to 55mL per 1000 seedlings. For more information contact Dr Sandra McDougall or Andrew Creek at Yanco Agricultural Institute on (02) 6951 2611

## Mild onion trial in NSW

By Dr Mohammad Quadir

During the past few years, the National Vegetable Industry Centre at Yanco has conducted a series of onion variety trials throughout southern NSW. Trial sites have included Griffith, Whitton, Wellington, Canowindra and Cowra. These trials identified varieties with a high yield and quality potential.

The latest in these series of trials was conducted during the 2003/04 season at Joe and Frank Punteriero's property in Whitton. Nine varieties were sown on May 13 in a replicated trial with on-farm cultural practices being followed as per grower's commercial crop. Bulbs were hand picked at maturity and separated into two grades (bulbs 50-75 mm and more than 75mm in diameter). Sugar content (brix) was also recorded.

**Table 2: Yield and quality results for mild onion trial**

Varieties	Date harvested	Total Marketable Yield (t/ha) bulb > 50mm	Bulb Yield (t/ha) >75mm	Brix
HA 890 (Lefroy Valley)	2/12/03*	72.16	51.51	8.26
NAUTILUS (Terranova)	2/12/03*	82.99	67.99	7.43
PREDATOR (Terranova)	2/12/03	74.73	60.74	7.31
SOMBRERO (Henderson)	9/12/03	76.92	70.04	6.70
RIO XENA (SPS)	9/12/03	91.68	84.44	7.42
SWEET SENSATION (Magnus Kahl)	9/12/03	78.32	73.26	7.89
SPARTACUS (Terranova)	17/12/03	78.97	72.00	7.49
SWEET MATILDA (Magnus Kahl)	17/12/03	33.61	30.53	7.90
DOMENICA SUPER SWEET (Magnus Kahl)	23/12/03	48.94	45.91	7.60

\*was ready on 21/11/03 but rain delayed harvest until 2/12/03

HA 890 and Nautilus were the first varieties to mature on November 21, followed by Predator ready for harvest on December 2. Sombrero, Rio Xena and Sweet Sensation were harvested one week later with Spartacus and Sweet Matilda a further week after that. Domenica Super Sweet was the last variety to mature which was harvested on December 23. The total marketable yield was highest for Rio Xena which was closely followed by Nautilus. Very good yield was also recorded for Spartacus, Sweet Sensation, Sombrero, Predator and HA 890. Highest yield of larger sized bulbs was also for Rio Xena and then followed by Sweet Sensation, Spartacus, Sombrero, Nautilus, Predator and HA 890. Brix was highest for HA 890 followed by Sweet Matilda and Sweet Sensation.

The evaluation trial indicated very good potential of several mild onion varieties in regard to earliness, high yield and quality targeting local and export market. For more information contact Mohammad Quadir, Research Horticulturist, Yanco Agricultural Institute, on (02) 6951 2520.