

# vegetables australia



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# A word from the AUSVEG Chairman

Given the recent incidences of extreme weather around the nation, paramount in most Australians' minds has been what can be done to assist those whose lives and livelihoods have been affected. In the case of vegetables, consumers need to recognise that while some fresh produce isn't at it aesthetic-best, the nutritional value is still spot on.

This realisation is especially crucial to ensure that the Australian vegetable industry is supported when it is most threatened by cheap, imported produce.

Thankfully, growers can play a role in encouraging support of the industry.

We are the ones who can best advocate our needs to policy and decision makers, and I know from my experience in an elected role that on-ground stories make the

strongest impact—better in fact than industry leaders who may deliver the perfect articulation of issues, as this doesn't always get the message across to government.

As an industry, we must become more vocal and take up issues through as many avenues as possible: talkback radio, letters to the editor, conversations with shoppers at farmers' markets, personal contact with local and state politicians. They are there to listen.

Heatwaves in Western and south-east Australia, devastating bushfires in Victoria, extreme floods in New South Wales and Queensland—these events all test the mettle of growers. There are no simple solutions to natural disasters, only the resilience of growers, coupled with the

knowledge supplied by R&D projects, can help us rally against these events.

So, I encourage all growers to attend the upcoming Australian Vegetable Industry Conference in Melbourne in May. It's an opportunity to listen to presentations, look at exhibits, and mix with fellow growers and other industry representatives. Whether you attend to learn about new ways and techniques, or simply form new friendships, it all helps.

This year, we welcome Elders as Signature Sponsor for the conference.

I've had a great deal of contact with media Australia-wide these past few weeks, and I've been struck by the genuine concern that is felt for the vegetable industry. The community has received the message about



**John Brent**  
Interim Chairman  
AUSVEG Ltd

Aussie growers supplying clean, green, home-grown produce, so the best thing we can do is keep on talking—about our experience and our issues, about what we're doing to overcome these problems and what would assist us in these endeavors.

## From the editor



What a horrific start to the year it's been. Bushfires, floods, heatwaves—only in Australia could all these events happen concurrently. It's no small wonder that there continues to be fresh vegetables available at markets and on supermarket shelves; testament to an industry that refuses to give up. For an update on the bushfires, see page 11.

On a more positive note, this issue's feature article is about the rise and rise of New South Wales grower Kim Vincent, whose latest ventures—a retail outlet and fresh produce delivery service—are proving to be a big hit with consumers and local growers (page 26).

As growers prepare for the 2009/10 growing season, it may be worthwhile conducting profit comparisons for different crops, to see which will provide the greatest returns. A levy-funded tool that

helps growers do this will be available shortly; see page 34 for more information.

We'll be back earlier than usual for the next *Vegetables Australia*, with our special Australian Vegetable Industry Conference edition. There'll be a confirmed speaker list, along with a rundown of the R&D showcase. We'll also meet the finalists of the 2009 Australian Vegetable Industry Awards. Early bird registration for the conference is open until 27 March, so register at the discounted rate while there's still time.

**Jim Thomson**  
Editor, *Vegetables Australia*



# Kim Vincent: 100-mile gamble reaps rewards

26

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# vegetables australia

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Grower Kim Vincent at her retail outlet, Absolutely Fabulously Local, near Coffs Harbour, New South Wales. Photography by Gethin Coles.

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# Web ensnares exotic pests

A web-based toolbox, now available for fast and accurate plant pest and disease identification, could potentially save the Australian vegetable industry millions of dollars.

The Plant Biosecurity Toolbox, launched in February by Lois Ransom, Australia's Chief Plant Protection Officer, provides a collection of detailed information about exotic plant pests that can be used by Australia's diagnostic network to more rapidly and confidently confirm whether organisms have the capacity to threaten Australian agriculture.

## Online encyclopaedia

Developed by the Cooperative Research Centre (CRC) for National Plant Biosecurity, the toolbox includes photographs and details of pests, and the symptoms and damage they cause. Information about a range

## plant biosecurity TOOLBOX

of diagnostic tests that help confirm the identity of pests is also provided.

Early detection and confident identification mean that immediate steps can be taken to minimise the risk or impact of incursion. As such, the toolbox is essentially an encyclopaedia of online information that supports rapid diagnosis.

"To date, identifying exotic pests has presented real challenges—particularly for plant health

workers and others in regional and remote locations without access to specialist advice," said Dr Gary Kong, researcher with the Queensland Department of Primary Industries and Fisheries, and Plant Biosecurity Toolbox Project Leader for the CRC.

"For many on the front line, the main resource used to find information about exotic pests has been 'Google' or they quiz their own networks or send a photo to

an expert somewhere in the country. This takes time, and any tests completed might take a week or longer. By then it could be too late to prevent an outbreak."

## Bank on it

Launched in conjunction with the toolbox is the Biosecurity Bank, which provides a national online reference collection of DNA samples and clones from agriculturally significant plant pathogens and pests.

Samples can be used for the development and validation of diagnostic tests and for biodiversity and genomics research. Researchers can locate and order samples of interest via the website.

With plant pest and disease incursions costing the nation in lost production, eradication responses and quarantine regulation, early detection, and fast identification and diagnosis are essential in defending our crops and agricultural industries, said Lois.

The Plant Biosecurity Toolbox and Biosecurity Bank are the first tools of their kind in the world. They demonstrate Australia's plant health protection standards to trading partners across the globe. **va**

## Tools of the trade

The Plant Biosecurity Toolbox contains a collection of useful information and manuals for the diagnosis of emergency plant pests. It provides users with:

- information about biology and taxonomy of pests
- diagnostic morphological, biochemical and molecular tests
- images of pests, host symptoms and damage
- reference material and links to related websites
- contact details for experts and accredited diagnostic laboratories.

Future enhancements will include:

- access to other biosecurity diagnostic tools such as the Remote Microscope Diagnostic Network
- downloadable information compatible with Personal Digital Assistants
- podcasts of diagnostic information.

**i** To access the Plant Biosecurity Toolbox visit:  
[www.padi.gov.au/pbt](http://www.padi.gov.au/pbt)  
To access the Biosecurity Bank visit:  
[www.biosecuritybank.com](http://www.biosecuritybank.com)



# PEP gears up for 2009

Increased funding is available for participants in this year's Produce Executive Program.

Entering its eighth year, the Produce Executive Program (PEP) embraces all horticultural products and elements of the supply chain, including growers, wholesalers, distributors, retailers, exporters and service suppliers to industry. The eighth PEP will be held from 3 to 8 May 2009 in Mt Eliza, Victoria.

Participants can apply for financial support from Horticulture Australia Limited (HAL) through scholarships valued at \$2,000.

## Tailored program

PEP is unique because it is highly interactive, said Jade Neergaard, a program director. "Participants are asked what their primary concerns are regarding their business and their position within the business, and these are issues on which the course focuses."

The program aims to impart knowledge about worldwide developments and current trends,




Michael Simonetta, CEO Perfection Fresh Australia, previously participated in the Produce Executive Program. He will be a presenter at this year's PEP.

and update skills in leadership and strategy.

Presenters are leaders in agriculture from Australia and overseas. Many presenters are previously PEP participants who choose to give something back to the program and the industry,

such as Michael Simonetta, CEO Perfection Fresh Australia and a 2009 program presenter.

To date, more than 250 fresh produce owners, managers and aspiring managers have completed the program. 

 For more information contact:  
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Email: <apike@streamwise.com.au>  
Registration forms must be received by 3 April 2008

# Elders signs on

AUSVEG is pleased to announce Elders as Signature Sponsor of the 2009 Australian Vegetable Industry Conference.

This year's conference theme, "Growing a Healthy Australia", reflects the industry's commitment to addressing Australia's health issues. Mike Guerin, Managing Director Elders Rural Services, said Elders was keen to demonstrate its commitment not only to the vegetable industry, but

also to improving the health of all Australians.

"Elders is proud to lend support to the 2009 conference. Fresh produce doesn't come any better or healthier than what Australian growers supply; we should feel privileged and proud to be a part of this quality, growth industry,"

said Mike.

"As health and food trends evolve we have opportunities to capitalise and maximise the influence of the vegetable sector. At Elders, we have recognised this fact, and are committed to our strategic future in the industry and as a key industry supplier;

our involvement in the conference is a testament to that commitment."

Elders is a leading Australian agribusiness that provides rural and regional Australia with expertise and support in rural, financial, real estate and corporate services. 

# IDO program extended

National Vegetable Levy funding for the Industry Development Officer (IDO) program has been extended for most states until 30 June 2009.

**V**GA Victoria has appointed Katie Fisher to the position of Victorian IDO. Katie's appointment follows the successful completion of the IDO contract by Craig Murdoch, who returned to a role with the Victorian Department of Primary Industries.

Katie has specialised in the agriculture and horticulture industry for a number of years and holds a Bachelor of Agriculture Science from Melbourne University. She will be based at the VGA office located at the

Melbourne Markets.


## New WA Program Manager

VegetablesWA's new Project Manager, Georgia Thomas, has replaced David Ellement, the previous Western Australian IDO. Georgia has worked with the Department of Agriculture and Food Western Australia, the Western Australian Government Office in London and the London Biotechnology Network, and has been involved with projects

in South-east Asia and across Europe.

In other states, Alison Anderson and Roger Orr continue in the IDO positions for New South Wales and Tasmania respectively, and Arris's Jim Kelly has assumed the role in South Australia, following the conclusion of Mel Fraser's contract. There is currently no IDO in Queensland.

Tender documents for the new vegetable industry development program, under which the IDO program falls, are currently being

finalised. The new industry development program is scheduled to begin in July. 

**i** For more information contact:  
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or Georgia Thomas, Western Australia Program Manager  
Phone: 0431 444 918  
Email: <programmgr@vegetableswa.com.au>

## New District Horticulturalist for NSW

A new appointment bucks the trend for diminishing state resources going into research development and extension.

**D**avid Troidahl has been appointed by New South Wales Department of Primary Industries (DPI) as a permanent state-funded District Horticulturalist based at the Vegetable Industry Centre at Yanco. He will complement the extension, inquiry and trial work of Tony Napier, the centre's other District Horticulturalist.

Previously involved in research and extension work with the rice industry, David is currently training in vegetable systems and issues. He will have particular training in irrigation and water management, and work with the

New South Wales DPI climate change group to bring best practice and new innovations on managing natural resources and coping with climate variability to vegetable growers in the Riverina. [va](#)

**i** For more information contact:  
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Phone: 0428 273 058  
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## Two insecticides previewed

Impending registration of two new products offers growers increased options for pest control.

**T**wo new insecticide products to be marketed by Bayer CropScience, Movento and Belt, were introduced to a number of growers and rural resellers at Mindarie Marina in Perth in December 2008. The event incorporated a crop trial tour, showing the performance of the insecticides on growers' properties in the vegetable growing areas of Neergabby, north of Yanchep, and Carabooda.

Movento, a two-way systemic insecticide, controls insects infesting emerging shoots and provides protection against hidden pests, such as aphids in lettuce heads, say representatives from Bayer CropScience.

Applications for product registration for use on lettuce and selected other crops have been made for the control of scale insects, whiteflies, thrips, mealybug (suppression only) and other aphids.

Belt aims to protect against lepidopteran pests in vegetables, including diamondback moth, cabbage white butterfly, cluster caterpillar, heliothis and soybean looper in brassica vegetables; heliothis and tomato leaf miner in tomatoes; and heliothis in capsicums and lettuce. Research is ongoing to extend the product label for coverage of many vegetable crops. [va](#)



# Bushfire-affected ag industry on road to recovery

While losses experienced in Victoria's worst-ever bushfires are still being tallied, for many the rebuilding process has already begun.

Country Victorians have lost their lives and livelihoods with more than 200 confirmed deaths and in excess of 1,850 homes destroyed by fires burning across the state. The toll on farmers has been high with tens of thousands of stock destroyed together with property, assets and farm infrastructure. More than 2,200 farm facilities have been reported lost. Thankfully, reported losses for vegetable growers have not been as extreme.

"About four potato growers have been directly affected by the fires, but there haven't been a lot of vegetables lost due to fire; much more damage has been caused by winds and the heat. Not a lot of vegetables are grown where the fires have been," said Victorian Farmers Federation (VFF) Horticulture Group President, Peter Cochrane.

"I know of one potato grower, who has been on the same property for 100 years, who was basically wiped out. He lost all his sheds and bins. A lot of damage has been caused by the heat, but most of us will be recovering from these losses, depending on what type of product we grow. It may be a couple of weeks or a couple of months, but everyone is back to full production."

There have also been reports of brassica and protected-cropping growers who have suffered losses. Graeme Smith, President Australian Hydroponic and Greenhouse Association, said that there were only a couple of



growers he knew to have been affected.

## Record losses

Losses recorded by the Victorian Department of Primary Industries (DPI) highlight the enormity of the recovery workload ahead. DPI Statewide Emergency Coordinator Lloyd Klumpp said DPI had assessed more than 2,500 properties across bushfire affected areas of the state.

"Farmers affected by the bushfires have ranged from sheep, dairy and cattle farmers to apiarists, fish farmers, vineyards and horticulturalists," said Lloyd. Excluding olive, orchard and vine plantations, horticulture lost 182 hectares.

"These numbers are likely to continue to rise while assessments are being undertaken, and we urge all landholders who have not yet registered for assistance to do so by calling the Victorian Bushfire Information Line on 1800 240 667," said Lloyd.

## Generous assistance

The enormity of the situation has had at least one positive—the generosity of individuals and organisations. Fundraisers, benefits and donations have been arranged by scores of businesses, organisations, groups and individuals around Australia and overseas.

Coles donated all profits from its supermarket stores from

13 February to the Victorian Bushfires Appeal—\$4,870,889. When combined with food and grocery relief provided, Coles has contributed more than \$5 million. Some proceeds from Woolworths \$7 million "Backing our Farmers" Day will also be used to assist in the rebuild.

The decision by Federal Minister for Agriculture, Tony Burke in February to rollover drought support for all Victorian Exceptional Circumstances (EC) areas will be well received by growers.

VFF President Simon Ramsay said that the decision would be of particular help to the bushfire-affected areas.

"The farm community in the fire-affected areas has been hit hard with large losses of infrastructure, stock and equipment. The horticulture industry has seen permanent planting destroyed, which will take years to replace and bring back to full production. The continuation of EC support will provide valuable assistance to these farmers over the next 12 months," said Simon. **va**

For more information contact:  
The Victorian Bushfire Information Line

Phone: 1800 240 667

DPI's booklet *Recovery after fire – practical steps for landholders*, is available from [www.dpi.vic.gov.au](http://www.dpi.vic.gov.au). Follow the "Bushfire Response and Recovery Information" link

# NEWS IN BRIEF

## Recent minor use permits

Permit number	Permit description (pesticide / crop / pest)	Date issued	Expiry date	States covered
<b>FRUITING VEGETABLES</b>				
PER9631*	Nufarm Cabrio Fungicide (pyraclostrobin) / Brassica leafy vegetables / White blister	16-Jan-09	30-Jun-12	All states except Vic
14 – S25A2b - 2009**	Methomyl (all products) / Capsicum, chillies / Heliothis, Western flower thrips	04-Feb-09	30-Sep-10	Vic only
PER10678***	Chess (pymetrozine) / Cucurbits, eggplant, tomato, lettuce, broccoli / Silverleaf whitefly; Lettuce, chicory, endive, radicchio / Lettuce aphid; Pistachio / aphid	03-Feb-09	30-Apr-10	All states except Vic
PER10334****	Methomyl / Selected Asian cucurbits, fruiting vegetables & legume vegetables, sweet potato / Heliothis, cucumber moth, cluster caterpillar	09-Oct-08	30-Sep-10	All states except Vic
<b>LEAFY VEGETABLES</b>				
PER8140	Imidacloprid / Lettuce, chicory, endive, radicchio / Lettuce aphid (soil drench)	31-Dec-08	31-Dec-09	All states except Vic
PER7416	Imidacloprid / Lettuce, chicory, endive, radicchio / Lettuce aphid (seedling drench)	24-Mar-04	31-Dec-09	All states except Vic
<b>ROOT VEGETABLES</b>				
PER10402#	Clethodim / Carrots, parsnips / Grass weeds	16-Jan-09	30-May-11	All states except Vic
PER10758##	Pendimethalin / Parsnip / Grass and broadleaf weeds	16-Jan-09	31-Jan-14	All states except Vic
<b>STEM &amp; STALK VEGETABLES</b>				
PER10729###	Applaud (buprofezin) / Celery / Whitefly	15-Jan-09	31-Jan-13	All states except Vic

\*Appropriate efficacy and crop safety data required for renewal

\*\*Issued by DPI Vic. This permit allows for the use of methomyl products in capsicum and chillies in Victoria as it is a Poison Schedule 7 pesticide.

A permit for chilli already exists in other states – PER10334.

\*\*\*Additional residue data required in lettuce, cucurbits, eggplant, tomato and pistachio for renewal

\*\*\*\*Additional residue data required for sweet potato

#Additional residue data required in carrots and parsnips for renewal

##Additional residue data required in parsnips for renewal

###Additional residue data required in celery for renewal

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# Go online to curb water consumption

A new toolkit developed by researchers from RMIT University aims to help food manufacturers cut their water use.

**D**r Nira Jayasuriya, from RMIT's School of Civil, Environmental and Chemical Engineering, said the online toolkit helped small- to medium-sized food manufacturers by identifying process that had high water-usage, and providing suggestions for cutting water consumption. The toolkit also estimates the return on any water-saving investments.

Food processing uses more than 241 billion litres of water each year, said Nira.

"Smaller businesses usually don't have the expertise or financial resources necessary to develop water sustainability plans. This toolkit will give small business owners a practical understanding of their water use and show them where they can affordably implement water savings," she said.


## Suitable for growers?

Nira said that while the toolkit was

developed specifically for food manufacturers, it could be useful for vegetable growers looking to cut their water use. Growers who were involved in value adding, such as supplying pre-package produce for consumers, were well placed to use the resource.

The toolkit classifies businesses according to the food product they manufacture, determines how water is used in manufacturing, and compares these processes with industry benchmarks.

Businesses are then presented with a range of water saving options—including the use of alternative sources such as rainwater—that meet the strict regulations involved in food manufacturing. **va**

 To access the Water Saver Toolkit visit:  
[www.plentyfoodgroup.com.au/water](http://www.plentyfoodgroup.com.au/water)



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## Groundwater centre gets green light

A National Centre for Groundwater is the latest in a string of government initiatives to secure Australia's long-term water supply.

**A** national consortium led by Flinders University will administer \$30 million in Australian Government funding for a new National Centre for Groundwater Research and Training, which aims to tackle the shortage of skilled groundwater scientists and managers.

Minister for Climate Change and Water, Penny Wong, and Minister for Innovation and Research, Kim Carr, announced the funding allocation in January.

### Resource management

"In Australia's water management, groundwater has often been

overlooked. The new National Centre for Groundwater Research and Training will undertake important work to help us manage our groundwater in a more sustainable way. It will also help state and territory governments deliver on reforms under the National Water Initiative to improve

groundwater management and knowledge," said Penny.

The \$60 million centre is jointly funded by the Australian Research Council and the National Water Commission, with \$30 million in additional contributions from the 20 organisations involved. **va**

# Blemishes, curves and knobs are a-ok

Heat-affected and unusually-shaped produce is being made available to consumers in Australia and overseas.

Concerns about food shortages are causing supermarkets in Australia and abroad to rethink their position on selling produce affected by extreme weather, or those that don't fit the standard requirements of what is 'acceptable' for sale.

Locally, extreme weather experienced by growers during the past few months has adversely affected the appearance of some fresh produce. The floods in Australia's north and long periods of extreme heat and devastating bushfires in the nation's south-east have culminated in supermarkets selling heat-affected produce.

In February, Coles committed to selling produce that had heat-induced cosmetic blemishes, but no change in eating quality. The reasons for this were two-fold: to ensure enough fresh produce was available for consumers and to support growers who had been adversely affected by the heatwave.



## Sub-par produce has its day

While Australia has responded to this hopefully short-term issue, the European Union Member States voted in November last year to repeal specific marketing standards for 26 types of fruit and vegetables. As these standards govern the acceptable size and shape of fresh produce, the repeal opens the way for unusually-shaped products to be sold to consumers.

"In these days of high food prices and general economic difficulties, it makes no sense to throw perfectly good products away, just because they are the 'wrong shape,'" said Mariann Fischer Boel, Commissioner for Agriculture and Rural Development.

The European Commission's vote means that as of 1 July 2009, standards will be repealed for 26 products, including artichokes, asparagus, eggplants, leeks, onions and peas. [va](#)

**Unusually-shaped produce will soon be sold to consumers in Europe.**

## Last chance to register for SFF

Victorian growers are invited to apply to have the Sustainable Farm Families (SFF) program delivered in their community.

Applications for the SFF close on 27 March 2009. The SFF program offers practical advice for growers' health and lifestyle choices.

Victorian Department of Primary Industries (DPI) Project Manager Emily Moule said workshops are yearly sessions with long-term

follow ups focusing on practical steps to improve the lives of farm families in areas that are undergoing significant change.

### Understand the risks

"Farmers will learn how to understand their own health risks, how to manage them and integrate

them into farming life, which can be difficult given the pressures they face," said Emily.

"During the sessions, farmers are tested for fasting-glucose and cholesterol levels as well eyesight checks and height, weight and body mass measurements."

Farming industry and community

groups that have up to 24 farmers who would like to participate in the program should contact DPI on 136 186. [va](#)

For more information visit:  
[www.sustainablefarmfamilies.org.au](http://www.sustainablefarmfamilies.org.au)

# Carrot exports put on hold

Taiwan market closes for carrot exports.

As reported in *Vegetables Australia* (see issue 4.4, page 48), a battle has been waging over the issue of carrot exports to Taiwan.

The Australian Quarantine and Inspection Service (AQIS) has advised that carrot exports were to be suspended from 1 March until further notice, due to Australia's failure to provide a statement confirming country-freedom from burrowing nematode (*Radopholus similis*).

Australia is not free from this pest and therefore cannot meet this requirement. A request by Australia for amended conditions has been made to the Taiwanese. **va**

# Ag innovation awards launched

Nominations are open for NFF's Innovation in Agriculture Awards.

The National Farmers' Federation (NFF) has instituted the awards, which are sponsored by the Australian Government, to acknowledge the pioneering advances and outstanding contributions made by farmers.

"Australians regularly acknowledge the resilience of our farmers, but don't always give our farmers the credit they deserve for innovation," said Minister for Agriculture, Fisheries and Forestry, Tony Burke.

"The farm sector is already preparing to meet the challenges of increasing climate variability, prolonged droughts, the deepening world food crisis and the need to produce more food from limited resources," said NFF President, David Crombie.

"Australian farmers are adept at managing changing circumstances and meeting new and emerging challenges. It's only fitting we recognise those efforts."

## National recognition

The NFF Innovation in Agriculture Awards are designed to facilitate existing state and commodity-based award programs, and their winners, in achieving national recognition. They also enable farmers undertaking specific innovation activities to nominate under the national awards. There are four categories:

- Sustainability
- Value adding
- New technology
- Community development.

Nominations are open to all farmers who are full financial members of NFF member organisations. Award criteria and nomination forms are available from the NFF website, [www.nff.org.au](http://www.nff.org.au). Nominations close 3 April 2009.

The awards will be announced and presented at the gala dinner of the NFF National Congress, to be held at The Brisbane Convention Centre on 22 June 2009. **va**

# Register now for chem collection

The deadline looms for collection of unwanted chemicals in Queensland.

Queensland growers can dispose of unwanted chemicals via the ChemClear program, provided they register their booking for the May collection by 25 March.

Growers from any state or territory can book a collection through ChemClear—an ongoing national program for the safe disposal of unwanted agricultural and veterinary chemicals—however, at this stage the deadline looms large only for Queensland-based businesses.

Group 1 chemicals are collected free of charge. These are chemicals registered for use in Australia by up to 90 per cent of the chemical manufacturing industry.

Group 2 chemicals are those that are no longer registered, or are unknown, unlabelled, out of date, or mixed agvet chemicals. A fee for disposal applies to Group 2, which includes chemicals such as Dieldrin or DDT.

## High demand

The Queensland ChemClear collection is shaping up to be the biggest ever as registrations are already in excess of 16 tonnes for Group 1 chemicals and 28.5 tonnes for Group 2.

"The sheer quantity of current registrations for our services across Queensland is astonishing, unwanted chemicals just keep coming out of the woodwork," said Lisa Nixon, National Program Manager.

"A lot of obsolete or unwanted rural chemicals in sheds and on properties doesn't need to be there. Chemical users are taking responsibility for what they purchase, use, store and now what they dispose of, which is encouraging." **va**

**i** For more information or to register a booking visit: [www.chemclear.com.au](http://www.chemclear.com.au) or call 1800 008 182

# Pokorny talks to PA



Peter Pokorny, General Manager Fresh Produce Coles, will be interviewed in April's *Potatoes Australia*.

Peter, who was appointed to the Coles role after successfully filling a similar position at Woolworths, will address participants at the 2009 Australian Vegetable Industry Conference.

Named for being the driving force behind the "Fresh food people" campaign, Peter will shed light on the complexities of negotiating relationships with supply chains and consumers when he presents at the conference. **va**

**i** For more information about the conference, visit: [www.vegieconf.com.au](http://www.vegieconf.com.au)

# MEDIA MATTERS

Extreme weather conditions—including bushfires, floods and heatwaves—have been big news for mainstream media in recent months, as has the effect of these extremes on the nation's fresh produce. Below are four headlines.

## "Veges drying up"

*Geelong Advertiser*, Geelong  
Tuesday 3 February, page 7

Recent fires, floods and heatwaves have been blamed for a nation-wide shortage of vegetables. With mass crop losses in every state and territory across Australia, lettuce, cauliflower and broccoli have been the most affected crops according to AUSVEG Chairman, John Brent.

"No vegetable grower benefits out of the extremes," John said. "Even though losses or damage to crops may result in higher prices, the result for the grower is that they are in a poorer position than they would be in a normal season."

Despite these extreme weather conditions, growers still report that criticism has mounted from chain stores and markets about the quality of crops not meeting regular standards.

## "Heatwave to lift prices of fruit and vegetables"

*The Australian*, National  
Monday 9 February, page 27

Fruit and vegetables prices are set to rise after reports that the extreme heat is forcing prices up. Even before the heat and the devastating bushfires in south-east Australia, the dry, hot weather was taking its toll on fruit and vegetable production throughout southern New South Wales, Victoria and South Australia.

AUSVEG Chairman, John Brent, acknowledged that weather conditions affect fruit and vegetable prices. However, John said that there were still production areas throughout Australia that could help bridge the gap.

"It is certainly going to be a challenging first half of the year for vegetable growers."

## "Victorians forsake fruit and turn to fat"

*The Sunday Age*, Melbourne  
Sunday 8 February, page 7

A Victorian Population Health Survey has found that less than half of Victoria's adult population consumes the recommended daily intake of serves of fruit and vegetables per day. Vegetable consumption was down 12 per cent from 2001 figures.

Socio-economic status, whether people were time-poor, and the availability of good quality fresh produce were all cited as factors in vegetable consumption.

The lack of promotion of fresh produce should also be considered, said Todd Harper, VicHealth CEO. "If you turn on the TV, you are bombarded with advertisements for foods high in fat, sugar and salt, but you don't see ads for broccoli and pears," he said.

## "Market traders ignore label laws"

*West Australian*, Perth  
Monday 12 January, page 15

According to a survey conducted at Freemantle Markets, three grocery stalls have admitted to labelling only a fraction of their produce with its country of origin. Calls are now being made for the Rudd Government to fast-track the Country of Origin labelling laws.

Government officials visited the market in 2008, when store owners were told that if their produce wasn't labelled, they may be fined. However, more than half of the produce continues to be displayed without labels.

VegetablesWA Executive Officer, Jim Turley, said the review process must be fast-tracked. He said he had spoken to Tony Burke, Minister for Agriculture, Fisheries and Forestry, who agreed that changes were needed.





# New varieties at Vegie Expo

The biennial National Vegetable Expo will be held at Werribee from 7 to 8 May. Buses will be arranged to take delegates from the 2009 conference to the Expo grounds.

The National Vegetable Expo is the only national event to feature spectacular displays of new vegetable varieties offered by seed companies. These are the Expo's major drawcard, with many growers returning several times to view different crops. Exhibitor sites showcase seeds, fertilisers, machinery, irrigation technology, packaging, computer software and more.

This year the event coincides with the 2009 Australian Vegetable Industry Conference, held from 4 to 6 May which means growers are offered a great range of theory and practice in the one week.

*National*  
**VEGETABLE EXPO**  
May 7 & 8, 2009 *Werribee*

The informal nature of the expo encourages discussion and the demonstration of products to prospective customers. Most importantly, the event provides an important link between the industry and those that service the industry with information, technology or services.

#### Established event

The National Vegetable Expo was initiated in 1963, when the Vegetable Growers Association of Victoria discussed the concept of a growers' field day in conjunction with the Field and Gadget day. This was a one-day event at the Keysborough Reserve.

After a few years, the event was moved to the Department of Agriculture's site at Frankston and became a Field Day. It was later moved to Werribee, where it eventually became a biennial event, with a name change to the Werribee Vegetable Growers Open Day and Trade Display.

Today it is the only national expo to highlight all the new vegetable seed varieties at one location. **va**

**i** For more information contact:  
Claire Luppino, Expo Coordinator  
Phone: 0427 335 518

## "Farmers" day raises \$7 million

The third annual Woolworths fund-raising day for drought-affected farmers and rural communities was the most successful yet.

The 2009 Woolworths Backing our Farmers day, held on Friday 20 February, raised \$7,067,992, which will be given to the Country Women's Association (CWA) to distribute to farming families and rural communities in drought-affected areas.

In addition to providing Emergency Assistance Grants funding to farmers for emergency bills and daily expenses, this year some of the \$7 million will be given as support for projects that local rural communities haven't had the resources to undertake themselves.

CWA's National President, Lesley Young, said she was overwhelmed by the support Australians have provided to drought-stricken farming families and rural communities in need.

"If there's one positive thing I can see that's come out of the bushfires and floods, it's a reminder to Australia's urban population that rural communities are very important to this country. They're not just pretty towns to visit on the weekend. The people living in rural areas are real people with jobs and families. They are

producing Australia's food and fibre," she said.

#### Worthy partnership

Woolworths Director of Food, Liquor & Petrol, Greg Foran, said that metropolitan, town and country communities had made a great contribution to the day.

"Since our partnership with CWA started in 2007, the Backing our Farmers days have raised \$17,567,992 for drought-affected farmers and rural communities," said Greg.

"You cannot underestimate the

work the CWA does throughout Australia and we are pleased to continue our work with them."

CWA's processing of applications and the allocation of funds was expected to begin on 2 March for Emergency Assistance Grants. Applications for the Community Infrastructure Grants will close on 30 April and be processed thereafter. **va**

**i** For more information visit:  
The Country Women's Association website, [www.cwaa.org.au](http://www.cwaa.org.au)

# Sell what you sow, more or less

Monogerm seed clusters are the holy grail for beetroot growers who need to meet the produce specifications of canneries, writes Dan McGuire.

**S**owing less to reap more may sound as though it's against the laws of nature, but it could be the future for beetroot growers faced with the commercial reality of yield versus 'payable yield'.

"The canneries are putting more and more specs on us," said Cowra vegetable grower Nigel Hazell, whose property is being used in a four-year beetroot stand management research project. "Anything outside those specs is rejected."

For beetroot, the specification is for a product between 50 mm and 76 mm and as round as possible so it is easier to peel and process.

## Cluster considerations

Beetroot is a notoriously unpredictable crop due to its unusual seeding mechanism.

"Beetroot have fruiting structures called seed clusters. Each cluster may contain between one and five seeds—you don't really know how many until the plants emerge," explained project leader Dr Donald Irving, a Research Horticulturalist at New South Wales Department of Primary Industries Yanco Agricultural Institute.

"Having more seeds results in plants that are crowded and beets that are more likely to be small and misshapen. It's only natural that processors don't like these—they want to offer a high-quality product and keep production costs down. That's why the specs are tight."

Donald said that small clusters are preferred because they are likely to contain fewer seeds, so

seed suppliers mill them down.

"What growers really want is a monogerm cork; when you sow it, you know you have only one plant."

## Close plantings reduce size

The research project was designed by Donald and his colleagues Alan Boulton and Stephen Wade. It involves the testing of different varieties, sowing densities and planting dates.

The first year focused on varieties—21 cultivars were grown on one hectare of Nigel's 140-hectare property, where his other crops include asparagus, pumpkin, melon, and corn.

“Growers want a monogerm seed cluster; when you sow it, you know you have only one plant.”

The crops were established on silty loam riverbank soil with three rows sown on each 1.5-metre wide bed. Corks were planted at spacings of between 3.8 cm and 6.1 cm using a precision vacuum planter.

At harvest the beets were counted, weighed, tested for soluble solids concentrations (a factor in sweetness) and measured for roundness. Calculations were also made to determine singularity—how many plants, on average, emerged per cork for each variety.

Planting density did not affect plant vigour, singularity, beet shape or total yield, but it did impact beet size, said Donald.



[From left] Andrew Ferrier, SPC Ardmona Field Officer, inspects the crop with Cowra grower Nigel Hazell and project leader Dr Donald Irving. Image supplied by Donald Irving.

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“As planting distances got closer, approaching 3.8 cm, there was a slight reduction in the proportion of larger beets and a corresponding increase in smaller beets.”

Total yield ranged from 29 to 49 tonnes per hectare. Of concern was that fewer than 60 per cent of beets were in the desired 50 mm to 76 mm range.

“There is a definite need to improve this percentage,” said Donald.

As for singularity, most varieties produced 1.25 to 1.5 seedlings per seed cluster although two—Red Comet and Early Wonder Tall Top—were closer to two seedlings per cluster.

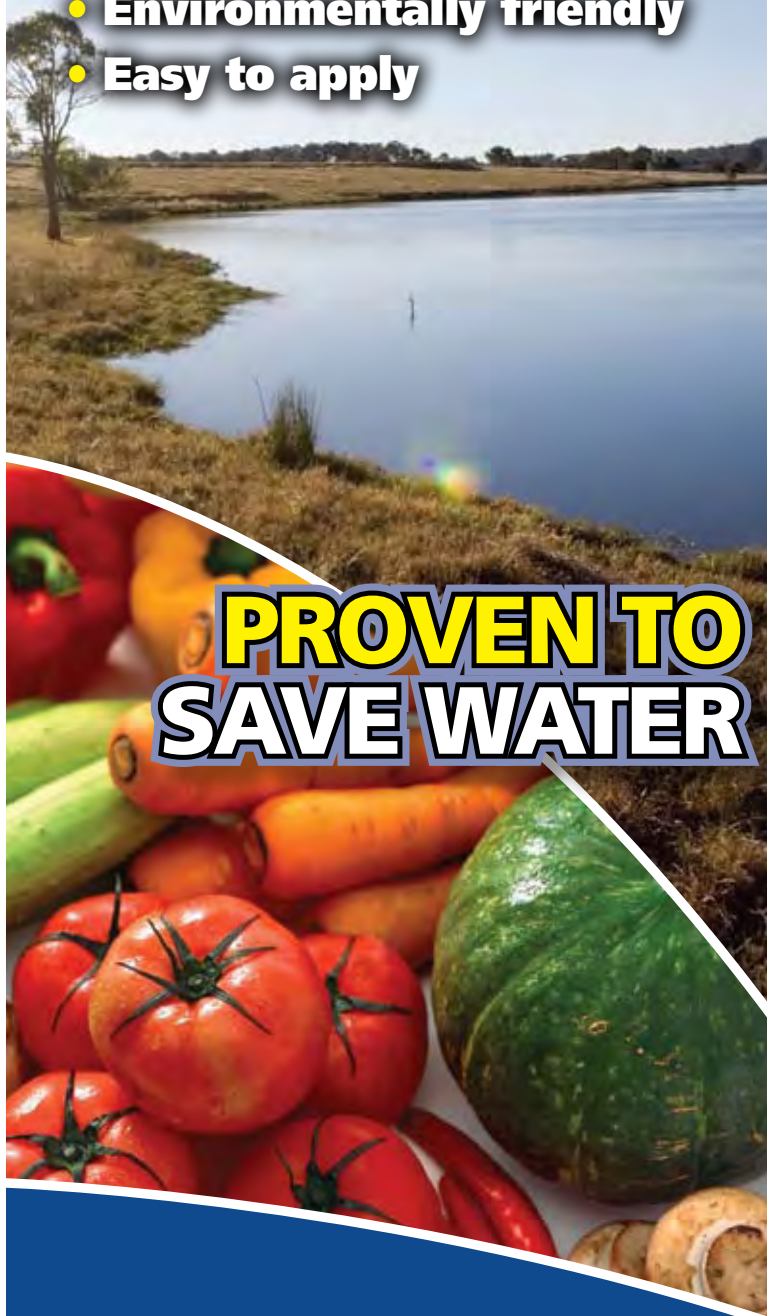
Overall, both Donald and Nigel were impressed with Bejo Seeds’ Pablo variety, a hybrid with a small seed cluster and monogerm tendency that was handled easily by the precision seeder.

Nigel said his next crop will be half Pablo and half standard Detroit varieties ... more or less.

### THE BOTTOM LINE

- Beetroot canneries have strict specifications for which beets are acceptable—between 50 mm and 76 mm.
- A research project is being conducted to isolate beetroot varieties that have high incidences of monogerm seed clusters, which means that only one plant grows when the cluster is sown, instead of up to five.
- Planting density also played a part. While it did not affect plant vigour, singularity, beet shape or total yield, it did affect beet size.

**i** For more information contact:  
Dr Donald Irving, Research Horticulturalist, Yanco Agricultural Institute, New South Wales Department of Primary Industries  
Email: <donald.irving@nsw.dpi.gov.au>  
Phone: 02 6951 2523  
or visit [www.ausveg.com.au/levy-payers](http://www.ausveg.com.au/levy-payers)  
Project number: VG06117  
Keyword: Stand management



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# Q&A – Jin Ju Wilder



With the 2009 Australian Vegetable Industry Conference fast approaching, Jim Thomson meets keynote speaker Jin Ju Wilder, President of Coast Produce Company.

## *You've tried your hand at a number of different business sectors. How has this varied experience guided your career path?*

I am an oddity in the produce industry in that I don't have family in produce and didn't grow up in produce. However, once bitten by the produce bug, I fell in love with the products, the people, and the industry as a whole.

I began in import/export sales because I wanted to find a job that utilised my just-awarded East Asian Studies college degree. Working in Coast Produce's import/export division allowed me to interact with growers, shippers, customers, trucking companies, ocean freight companies, banks, freight forwarders, the United States Department of Agriculture (USDA), and inspectors from Korea.

When Coast Produce realised there was opportunity to sell traditionally Hispanic and Asian items to its mainstream retail and foodservice customers, I began to understand that our value to the retail and foodservice customer was not just in providing consistently high-quality product—we could help sell more of our product by actively participating in ads and promotions, creating consumer education pieces, sharing recipes, and making merchandising recommendations based

on data. After all, who knows the product better than the grower/shipper producing it?

These marketing programs got our foot in the door with many retailers and foodservice operators and we began to understand more of the challenges they faced. One such challenge was that these consolidated buying offices were buying more of their product direct from grower/shippers, but their trucks were waiting a minimum of four hours at each packing shed.

This led us to open our consolidation facility across from the Los Angeles Wholesale Produce Market. Retail and foodservice customers still contract directly with grower/shippers, but now they arrange delivery of the product to our facility, where loads are maximised and trucks wait a maximum of two hours before they are on the road to the distribution center.

Our focus right now is providing even more direct help in-store in the form of merchandising plans and a merchandising team.



## ***Should growers become more involved in the supply chain?***

In the US, the industry is challenged in many areas: food safety perceptions, government regulations, competition from 'nutraceuticals', labor issues, cost-cutting in every segment of the supply chain.

It is unrealistic to expect retailers or foodservice operators to be experts on selling your product. I am a strong believer in cooperative efforts and recommend working with supply chain partners to effect real change that will result in fresher, better product, cost efficiencies, and customer solutions.

## ***You say that the industry needs to be consumer focused. What steps would you encourage growers to make as the industry heads towards this goal?***

As a grower/shipper, or even a wholesaler/distributor, we are often too focused on what will pass through Quality Control at the distribution center receiving dock. We must go beyond that and consider what will move the consumer to pick up our product and take it to the cash register. Make your product development and marketing efforts about the consumer first. The opportunities to do this are not just limited to the cut-fruit and bagged-salad segments.

The goal is to educate consumers *and* drive them to action.

A good example of this was the recent Hyundai commercial in the US. The commercial promotes the Hyundai Assurance program, not a new car design

or fancy new features, because it speaks to customers about what they need. "A decade ago Hyundai pioneered America's Best Warranty. Now we're providing another kind of confidence. Finance or lease any new Hyundai, and if in the next year you lose your income, we'll let you return it. That's the Hyundai Assurance."

A produce example would be the California Avocado Commission's new campaign that features their growers instead of the product. Consumers feel so little control over their environment, but they can control what they eat and they feel safer if they feel they know their food producers.

## ***What trends do you foresee in the coming years?***

During this period of global economic gloom, expect consumers to make more pragmatic choices. Expect fewer dollars going to fresh produce, but frozen and canned sales to increase.

As consumers are expressing a desire for relationships and a personal connection to their food, locally-grown produce and farmers' markets are gaining in popularity.

We will see increased 'supply chain blur' as business models/market channels shift. Grower/shippers are marketers, packaging technology solves merchandising challenges, retailers are going direct to grower/shippers, and the wholesaler's role is changing/diminishing.

## ***How can the various industry sectors best collaborate to deal with issues and achieve outcomes?***

It is important to collaborate across industry sectors. If different sectors appear to have conflicting viewpoints, it gives legislators the perception that we are an immature industry in need of more government oversight.

A recent example is the new Country of Origin Labeling (COOL) legislation that passed in the

2008 Farm Bill. The original COOL legislation passed in 2002 had several onerous provisions, but a coalition of produce associations, including PMA and United Fresh Produce Association (UFPA), negotiated improvements based on member recommendations that reduced the regulatory burden and cost of the new law.

## ***You've spent a lot of time on boards and committees. Is this an aspect of the industry you recommend growers become involved in?***

I highly recommend that growers become involved as volunteer leaders. Volunteer leaders are the lifeblood of associations. In governance roles they provide the direction for the association, they recruit new members, mentor younger members, and provide the credibility and quality of the educational programs.


The owner of Coast Produce Company, John Dunn, has always been a great mentor to me in my career. It was his suggestion that I get involved in industry associations to further my learning and understanding of the industry.

While I gained the industry learning I needed, I also attribute a large part of Coast's success to our willingness to use industry associations to increase our learning and networking, and provide credible information we can use for decision making.

Over the years, we have relied more heavily on the Produce Marketing Association's (PMA) expanding portfolio of products, services and expert staff to help our company, in ways our internal efforts alone could not have achieved.

## ***You have many commitments: to your company, the industry, and to your family. How do you balance this workload?***

Honestly, I am still working on this issue. I think it's about what works for a period of time—getting it right for this week or just for today. Prioritising is the key; as is being organised and having a great team that supports me at work and at home. I am working on celebrating what I do accomplish, but I

wouldn't say that I have been very successful to date. I always feel that I should be doing more. 



To hear Jin Ju Wilder speak at the 2009 Australian Vegetable Industry Conference, visit [www.vegieconf.com.au](http://www.vegieconf.com.au) for information about conference registration

# Lessons learned on US tour



Deardorff Family Farms take advantage of the cheap labour to harvest tomatoes, though wheelbarrows and wooden crates are still used by pickers.

Nine Aussie growers found that self-promotion and cheap labour were the order of the day on US farms, writes Helena Whitman, Environmental Manager AUSVEG and leader of the grower tour to America.

## THE BOTTOM LINE

- Nine Australian growers attended a National Vegetable Levy-subsidised tour of Californian farms and the PMA Fresh Summit Conference in Florida.
- Cheap labour costs (US\$7 per hour, plus piece-rate bonus) mean that many US operations are labour-intensive, especially when compared with Australian businesses.
- American growers are much more effective at marketing and promotion, and Australian growers should follow their lead to increase consumption.

**i** For more information visit:  
[www.ausveg.com.au/levy-payers](http://www.ausveg.com.au/levy-payers)  
Project number: VG08115  
Keywords: California, PMA

The 2008 AUSVEG California & PMA Fresh Summit Study Tour, subsidised by the National Vegetable Levy, has successfully followed in the footsteps of a similar grower tour conducted in 2006. The October 2008 tour incorporated farm visits in the prime vegetable-growing regions of California and attendance at the Produce Marketing Association (PMA) Fresh Summit Conference in Orlando, Florida.

The tour exposed growers to technological, marketing and business development initiatives undertaken by US growers and provided fantastic networking opportunities. Growers saw production and supply-chain systems operating in a large-scale, profitable manner and were able to discuss current and future issues common to both countries.

In California, the group visited

several farms, including Deardorff Family Farms, Tanimura & Antle, and Earthbound Farms, along with Associates Insectary (integrated pest management for fruit growers), Cal Poly's Irrigation Training and Resource Centre, and two supermarkets.

Travelling through many vegetable-growing regions between Los Angeles and San Francisco gave the group a good perspective on the size of some operations. Tour participants remarked on how labour-intensive most operations were—not surprising given that labour costs were only US\$7 per hour, plus piece-rate bonus.

Growers commented on the apparent lack of consideration of environmental impact during production—water supply did not seem to be an issue, nor did the continuous use of the soil, its compaction beneath machinery

and lack of organic matter. There were very few, if any, windbreaks to reduce soil erosion. They felt that Australian growers were more conscientious of their environmental impact and the long-term sustainability of their farms and resources.

## Staff incentives foster loyalty

Tanimura & Antle, a lettuce powerhouse that harvests and packs lettuce every day of the year, was the highlight of the farm visits.

The company has around 200 permanent staff—115 of whom have been there for more than 20 years—and averages 7,000 staff per year. Staff are highly valued and offered incentives such as a comprehensive benefit package that includes medical, dental, vision and life insurance; a profit-sharing program; and

“Tour participants remarked on how labour-intensive most operations were—not surprising given that labour costs were only US\$7 per hour.”

access to an on-site preschool and childcare facility with bilingual instructors.

Gary Tanimura, head of the Salinas farming operation, took the Australian growers on a tour, explaining that as consumption of pre-packed lettuce had fallen, they now pre-packed celery hearts, cos lettuce and a red and green oak lettuce. All harvesting and packaging was completed in-field on specially designed trailers.

### Impressive Aussie irrigation

The Irrigation Training and Resource Centre (IRTC), which focuses on irrigation practices and efficiencies and tests irrigation equipment, was another highlight.

Dr Stuart Styles, Director of the Centre, spoke to the group about different types of water delivery systems, including sprinkler spacing, drip irrigation and drip tape.

According to Stuart, the largest problem faced by American horticulturalists is the lack of uniform irrigation delivery. However, he was impressed by the widespread use of drip tape irrigation by the tour group and Australian irrigators in general.

“American growers simply don’t understand the importance of keeping irrigation systems uniform,” he said, adding that optimum sprinkler spacing was 30 feet by 30 feet.

Stuart said that a drought could be of long-term benefit to the US by forcing industry to improve irrigation techniques and adopt more water-efficient practices.

An unscheduled stop at a Costco Wholesale outlet was also an eye-opener for the growers. Costco Wholesale is a large retail outlet that sells everything from jewellery to fresh produce, including a large range of pre-packaged produce.

The use of packaging was extensive and catered to the working population—all ready to go. Produce prices were cheaper

## Work it out

More than 1,500 delegates registered for workshops held at the 2008 PMA Fresh Summit Conference. Popular sessions included:

### A candid discussion of food-borne illness investigations

The recent salmonella outbreak brought some serious issues to light, including the need to know how food-borne illness investigations were conducted to determine the source of outbreaks. Interestingly, most contamination occurs post-farmgate with 52 per cent through food service and 48 per cent at processing or at home.

### Managing Generation “Why”: Harness the talents and skills of the next generation

Motivating and managing a Generation Y workforce—what makes them tick, how to build their loyalty and how to make them productive.

### Produce managers panel: What are customers really thinking?

Panelists discussed how they responded to customer demands and worked with suppliers to increase sales. They spoke of the credit crunch not affecting their business—restaurants may have been empty but their shops were busy, suggesting that more people were eating at home. Marketing and merchandising were cited as important tools in selling more product.

### Raise the DataBar

Discussion centred on a new type of barcode that allows traceability to extend to individual pieces of fruit and vegetables. The proposed benefits of the system include improved accuracy of traceability systems, and increased efficiencies and productivity.

### Packaging with impact

More than just protecting produce or increasing shelf life, packaging must demand attention. A panel of industry leaders in this area such as Leonard Batti, an acknowledged veteran and ‘guru’ in the packing industry, and Shannon Boase, who has founded her own environmentally-friendly packaging company showed off winners of PMA’s Impact Award, which recognises excellence in packaging development. ‘Compostable’ plastics were also discussed, specifically how they are compostable only industrially and not under ordinary backyard conditions. [va](#)



Study tour participants [from left]: David Herbert, Grant Sweet, Tally Matthews, Lam Phan, Brent Story, Helena Whitman, Steve Skopilianos, Steve Newman, Joe Castro and Peter Cochrane.

## Employment Opportunities PRODUCT DEVELOPMENT/SALES

### The Company

Bejo Seeds is a wholly owned subsidiary of Bejo Zaden BV, Holland, who breed, produce and supply vegetable seeds. Specialising in outdoor hybrid varieties, Bejo Zaden is an International company, recognised for its innovative breeding, reliable varieties and quality seed, with the customer as the pivotal focus. In Australia, Bejo Seeds produce seed for export to Holland, conduct trials, and promote and sell Bejo varieties on a national basis.

### The Positions

Due to continued growth, we require two people to represent us - one in Western Australia and one in Victoria and Tasmania. The successful candidates will be responsible for trials, promotion and seed sales, which includes technical liaison with growers, packers, processors and relevant industry stakeholders.

A University background in horticulture and/or industry/seed trade experience would be an advantage, but the ability to work on your own initiative, be self motivated, enthusiastic and able to negotiate at all levels of the vegetable industry are essential.

The successful applicant will join a stable team, working for a people orientated company, and should ideally reside in the Perth/Melbourne areas.

In addition, we also seek to employ a trainee in Victoria, preferably from a horticultural background, looking to pursue a career in the seed industry. The successful applicant will receive extensive industry based training with a view to becoming a product promotion/sales representative. Applicants for this position should ideally reside in the SE suburbs of Melbourne.

### The Rewards

These permanent positions offer variety, job satisfaction and excellent prospects. The salary is negotiable, and includes a vehicle, superannuation and work cover.

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**Bejo Seeds P/L., PO Box 5627, Cranbourne, Vic 3977.**

than in Australia, however, when considering labour costs, this wasn't surprising.

### “Buy or bury” competition

After several days in California the group flew to Orlando, Florida, to attend the 2008 PMA Fresh Summit. The exhibition area was larger than 14 acres, with more than 17,000 people from 70 countries in attendance.


Workshops were held on numerous topics, though there was a focus on food safety and traceability issues. The recent salmonella outbreak in the US had been a hard lesson learned. The immediate impact—consumers not purchasing fresh tomatoes—lasted well over a month and the industry was only just recovering. It cost the industry more than US\$150m in lost sales and drove many growers out of business.

An interview with Jack Welsh, former Chair and CEO of General Electric, was of particular interest to the Australian growers. Jack, who grew GE from a \$4 billion to

a \$400 billion company, replied candidly to questions about today's economic outlook. His key suggestions were to view an economic downturn as an opportunity to move ahead of competitors and focus on cutting unnecessary costs.

He said that there were unparalleled opportunities for smart business leaders. “Buy 'em or bury 'em when it comes to your competition in these troubled times,” he said.

### Leading the way

The take-home message for tour participants was that Americans were excellent at promoting themselves and that Australian growers should learn from this. Also, as an industry, we cannot compete on a cost of production basis (mainly due to higher labour costs), however, our growers are better innovators, manage limited resources more effectively and look after the environment more responsibly. 



# Help direct R&D investment

Priority determination for levy-funded R&D projects commencing in 2010 is underway. Now is the time for growers to participate, writes Robert Lawler, CEO AUSVEG.

Each year, Horticulture Australia Limited (HAL) invites applications for research and development (R&D) projects relating to a range of Australian vegetable industry activities. The industry's R&D investment is

strategic plan, VegVision 2020, is used as a framework. Priorities nominated by growers will be categorised in-line with the five strategic imperatives identified in VegVision 2020.

The imperatives are:

“All suggestions for R&D investment will be reviewed by the Vegetable IAC.”

funded by the National Vegetable Levy, matched dollar-for-dollar by the Australian Government.

From February to 31 July 2009, National Vegetable Levy payers and other vegetable industry stakeholders are invited to identify priority areas for R&D projects scheduled to commence mid-2010.

When determining annual R&D expenditure, the industry's

- leadership & people development
- information & technology development & dissemination
- production
- market development
- consumers.

### It's time to have your say

The process for determining the program recommendations for the National Vegetable Levy on

R&D is detailed in the Investment Process Policy & Procedures Manual 2009. Copies are available from HAL, AUSVEG, vegetable organisations in each state and vegetable Industry Development Officers (IDOs).

For key activities in the R&D timeline, see Table 1.

From February to July 2009, National Vegetable Levy payers and other stakeholders are invited to identify priority areas for R&D by completing a template. The template is being distributed through vegetable industry organisations in all states and the Northern Territory by vegetable IDOs and is available on the AUSVEG website at [www.ausveg.com.au](http://www.ausveg.com.au).

As indicated in Table 1, all suggestions for R&D investment will be reviewed by the Vegetable Industry Advisory Committee (IAC) and its advisory groups

prior to the final recommendations being forwarded to HAL that will shape the 2010/11 Industry Call.

Completed templates must be returned to AUSVEG by 31 July 2009.

### THE BOTTOM LINE

- National Vegetable Levy payers and other industry stakeholders are invited to identify priority areas for levy-funded R&D projects scheduled to commence mid-2010.
- Priority suggestions are discussed by the Vegetable IAC, its advisory groups and its working groups to help shape the HAL Industry Call.
- Those wanting to suggest a priority must return a completed template to AUSVEG by 31 July 2009.

For more information contact your state or territory industry organisation, IDO or visit [www.ausveg.com.au](http://www.ausveg.com.au)

Table 1: Key activities for National Vegetable Levy R&D investment

<b>Activity 1</b>	February to 31 July 2009	Levy payers, vegetable organisations and other stakeholders invited to identify R&D priorities and return to AUSVEG.
<b>Activity 2</b>	August 2009	Priorities are identified by the Integrated Pest Management, Biosecurity, Chemical, Environmental and Protected Cropping working groups. Reference is made to suggestions provided through Activity 1. Recommendations of the working groups are forwarded to the Production Advisory Group.
<b>Activity 3</b>	September 2009	The Vegetable Industry Advisory Committee's (IAC) five advisory groups (which mirror the VegVision 2020 strategic imperatives) identify priorities for their respective areas. Reference is made to suggestions provided by Activities 1 and 2.
<b>Activity 4</b>	September 2009	Vegetable IAC confirms priorities for R&D investment based on recommendations from Activity 3. Priorities forwarded to HAL.
<b>Activity 5</b>	October to November 2009	HAL Industry Call—Applications invited from R&D providers for projects based on industry-wide priorities including those identified in Activity 4.
<b>Activity 6</b>	March 2010	Vegetable IAC makes recommendations to HAL about levy-funded projects to be approved to commence July 2010 onwards.

# 100-mile gamble reaps rewards

Take one part inspiration, two parts motivation, and a commitment to hard work, and you have a solid recipe for success, as Coffs Harbour grower and entrepreneur Kim Vincent found when she set up shop. By Youna Angevin-Castro. Photography by Gethin Coles.

**F**or vegetable grower and retailer Kim Vincent, recognising a good idea seems effortless. Whether trialling a new method of horticultural production or taking a chance on a business venture, she displays the type of enthusiasm and commitment that inspires both admiration and envy.

Kim's business grew out of a personal desire to buy and consume premium quality, chemical-free, Australian produce. Finding a gap in the market, she set about growing her own vegetables and established Vincent's Produce around eight years ago. Today, Kim has 40 acres of land on

which she grows field vegetables, such as rhubarb, zucchini and beans, as well as 5,000 square metres of land under hydroponic cultivation. She sells her produce through the Sydney Markets, and is known for her exacting standards when it comes to the quality and freshness of her produce.

"I still get a warm and fuzzy feeling when I pick one of my own tomatoes, and I can smell it and see how good and fresh it is," Kim said.

"I'm really passionate about the quality of our produce. I make sure that everything is packed and polished, and that presentation is just so. My agent tells me



Grower Kim Vincent at her retail outlet, Absolutely Fabulously Local.



that when he opens my boxes he goes ‘Wow!’, which is always satisfying.”

Over the past eight years, both Kim’s business and her profile have grown steadily. However, despite this constant growth, Kim acknowledges that she is still a relative newcomer to the industry.

“I’m still learning and growing, and constantly researching about newer and better ways of doing things. That’s part of the attraction of the vegetable industry; there’s always something new to learn, always people to meet who can show you how to do things better.”

### **Retail venture improves returns**

It is this spirit of innovation that has propelled Kim’s latest business venture. Crossing the divide between production and retail, Kim opened a store, Absolutely Fabulously Local, in August 2008. The concept is a simple one—to sell locally-grown, chemical-free produce sourced within a 100-mile (166 kms) radius of Coffs Harbour—but the response from consumers has been phenomenal.

“The locals have embraced the concept of the store. Consumers in general are becoming more aware of the environmental concepts, such as ‘carbon miles’, as well as the value of fresh produce. And you can get any fresher than corn that’s grown just down the road.”

Kim first came up with the concept of retailing her own produce as a way of improving returns.

“The price we were getting on our produce hadn’t really gone up, yet our costs were increasing. I was asked to attend a few markets, which went well, and then other people started asking me to sell their produce for them, and the idea just snowballed from there,” she said.

Not limited by fresh fruit and vegetables, Kim also sources free-range meats, dairy products and eggs from local producers.

“Things are going so well, we now have local producers who grow exclusively for us, and who are expanding their farms in order to keep up with demand.”

For Kim, the greatest reward is seeing her suppliers get a decent price for their produce.

“We’re all doing it quite hard at the moment. So I’m really pleased to see that my growers are actually making a dollar for their hard work, and that they are expanding their businesses, employing more people, and potentially making more dollars.”

### Consumer savvy

Constantly looking for ways to improve her business, Kim is about to launch an online store as an extension to her retail business.

“We’re expecting to sell about five times more produce through our online store, which will offer a delivery service. Everything in the store will be available online, so consumers will be able to get their meat, fruit and vegetables delivered to their doorstep. We’re also planning to open a cafe and deli in about six months, with a view to selling locally-made produce, such as local cheeses.”

Kim believes that her direct interaction with the consumer has made her a better producer.

“It’s really awakened me. It has definitely changed the way I think about growing, even down to the colours of the products I put on the shelf. I used to think I knew what the consumer wanted, but I didn’t. For example, now I only grow red rhubarb, because I know that that is what the



consumer wants.”

### Tap into R&D info

Kim is committed to being an active participant of the vegetable industry, and regards the time she contributes as an investment in her business. She holds a position on the Vegetable Industry Advisory Committee (IAC), is an active member of her local growing community as the President of the Hydroponic Association of the Mid North Coast, and was recently selected to take part in a Rural Leadership Program. All of these things, she believes,

help her keep her finger on the pulse and maintain an awareness of what is happening across the industry.

As part of the IAC, Kim is involved in the decision-making process underpinning the industry’s research and development investment through the National Vegetable Levy. She recently attended a presentation by research providers on outcomes from the industry’s vegetable disease program, and was struck by the amount of research available to the industry.

“I was absolutely amazed by the



**“The store has definitely changed the way I think about growing, even down to the colours of the products I put on the shelf.”**

work that goes into the disease research program. We tend to think that these things, such as mildew on carrots, are simple thing to fix, but the amount of time and level of research is astounding. As growers, I don't think we realise how much work goes on behind the scenes of our levy investment.”

Kim encourages other growers to be proactive in seeking out information that will help their operations—whether it be data about new market opportunities, or details of new pest management techniques—and believes

that the forthcoming Australian Vegetable Industry Conference will be a great opportunity for growers to meet researchers who are working on these projects.

“Face-to-face communication is always better, and if growers can speak personally to a researcher at the conference, or attend workshops being held in their area, then they can gain a better understanding of the research being supported by industry, and how it can help their businesses.”

# World-class speakers confirmed for conference



The 2009 Australian Vegetable Industry Conference is nearly here. Register now to receive the early bird rate.

The Australian Vegetable Industry Conference is a hallmark event on the industry's calendar and this year's event is shaping up to be the best yet. The conference will be held from Monday 4 to Wednesday 6 May at the Melbourne Convention Centre. With world-class speakers, an extensive trade show and a festive social program, the conference will provide valuable learning and networking opportunities for all delegates.

## Renowned speakers

The conference program is undergoing final touches and has something for everyone: growers, industry service providers, government stakeholders and supply chain representatives.

Speakers have been selected to ensure the full scope of vegetable commodities is catered for, including general vegetable, potato and onion sectors. The impressive line-up of international and Australian keynote speakers includes:

- Professor David Hughes, Emeritus Professor of Food Marketing, Imperial College, London
- Jin Ju Wilder, President, Coast Product Company, Los Angeles
- Peter Pokorny, General Manager Fresh Produce, Coles
- Michael O'Keeffe, Principle, O'Keeffe and Associates
- Martin Kneebone, Director, Fresh Logic
- Dr Steven Johnson, Extension

Crops Specialist, University of Maine

- Dr Frank Louws, Associate Professor and Extension Specialist, North Carolina State University
- Associate Professor Colin Birch, Vegetable Centre Leader, Tasmanian Institute of Agricultural Research (TIAR), University of Tasmania
- Stuart Wilder, Western District Health Services
- Kim Lee, Succession Planning Facilitator, Rabobank.

Additionally, a host of researchers and other industry specialists will give presentations around the conference theme, "Growing a Healthy Australia". Integrated pest management (IPM), recycled water and soil health are some of the issues that will be covered.

Wednesday 6 May. The evening will be hosted by award-winning actor and comedian Marty Fields, whose stand-up career spans more than two decades, while The Darryl Cotton Band, featuring Lisa Edwards, will keep guests entertained.

Tickets to the dinner can be purchased via the conference registration form, accessible at [www.vegieconf.com.au](http://www.vegieconf.com.au).

AUSVEG is proud to announce the Signature Sponsor for the conference—Elders Rural Services. Other new supporters include Nufarm Australia, Croplands and Green Agricultural Irrigation Recycling—Gold Sponsors; Sumitomo Chemical Australia and Grow Green Technologies—Silver Sponsors; and Vegetable Growers Association of Victoria—Trade Exhibitor.

Opportunities are still available

“A call for expressions of interest from researchers was recently issued and received an overwhelming response.”

## Showcasing the best

On Day Three of the conference, levy-funded research projects will be showcased from the vegetable, potato and onion streams. A call for expressions of interest from researchers was recently issued and received an overwhelming response. The selected researchers will present their findings and results from levy-funded projects, showcasing the latest innovations and developments across industry.

The gala dinner, at which the 2009 Australian Vegetable Industry Awards winners will be announced, will take place at Crown Palladium, Southbank, on

for conference sponsorship and exhibitors. For more information contact Max Hyde, AUSVEG Sponsorship Manager, on 03 9870 4161 or [max@hydemia.com.au](mailto:max@hydemia.com.au).

For more information visit:  
[www.vegieconf.com.au](http://www.vegieconf.com.au)  
 or phone AUSVEG on  
 03 9544 8098

## Get in quick

Time is running out to take advantage of early bird registration.

Register by 27 March to get a \$50 discount on full conference registrations. Visit [www.vegieconf.com.au](http://www.vegieconf.com.au) to register online or download a registration brochure and fax it to 02 8585 0802.



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# ECONOMIC OUTLOOK

## Bumper 06/07 incomes unlikely to be repeated

The latest ABARE survey reports a 51 per cent increase in vegetable farm cash incomes, but rising input costs are set to stop this trend from continuing.

Farm cash incomes for vegetable farms increased 51 per cent in 2006/07, due to the combined effects of a rise in the quantity of vegetables sold and higher vegetable prices, according to a report released by the Australian Bureau of Agriculture and Resource Economics (ABARE). Additionally, the return to capital, excluding capital appreciation, averaged around six per cent per farm in 2006/07, higher than the average return achieved by broadacre farms.

*Australian vegetable growing farms: an economic survey, 2006/07* was funded by the National Vegetable Levy and matched Australian Government funds. Released in January, it presented results from a survey of 287 vegetable growers undertaken by ABARE in September 2008. It also included estimates of production, socio-economic and financial characteristics of vegetable farms during 2006/07.

"With an improvement in seasonal conditions in 2006/07 for vegetable growing in Australia, vegetable crop yields were generally higher and the average farm cash income rose to an estimated \$237,600 per farm," said Phillip Glyde, ABARE Executive Director.

Preliminary findings for 2007/08 were also presented in the report; growers indicated that production costs increased substantially, especially inputs such as fuel and fertiliser. This, coupled with lower

prices for vegetables, is likely to have adversely affected the financial performance of vegetable-growing farms in 2007/08.

### Information investment

To help achieve the vegetable industry's data and information systems' strategic imperative from the VegVision 2020 strategic plan, the industry has committed to three annual ABARE surveys, of which this was the first. The investment follows an initial 2005/06 survey conducted by ABARE in 2007, which was funded by the Australian

Vegetable Industry Development Group (AVIDG).

"It is essential that the industry has data in three critical areas: production, trade and financial performance. This information enables the industry to effectively engage with policy-makers, legislators, the media and the Australian community," said John Webster, Managing Director, Horticulture Australia Limited.

The report found that larger vegetable farms (with more than 70 hectares of vegetables sown) had the highest average farm cash income and rate of return,

indicating that there are gains to be made by taking advantage of economies of size.

The average rate of return to capital, excluding capital appreciation, for farms sowing more than 70 hectares of vegetables was approximately 12.8 per cent in 2006/07, compared with 2.6 per cent for farms with less than five hectares of vegetables, and an industry average of six per cent.

### Higher yields, higher costs

In 2006/07, there were an estimated 4,222 commercial vegetable farms operating in Aus-

Table 1. 2006/07 Financial performance (average per farm)

	Area sown to vegetables			
	less than 5 ha	5-20 ha	20-70 ha	more than 70 ha
Total cash receipts (\$)	208,547	310,997	710,275	4,409,358
Total cash costs (\$)	134,813	218,899	491,856	3,363,485
Farm cash income (\$)	73,734	92,098	218,419	1,045,873
Farm business profit (\$)	16,699	17,397	108,319	843,959
Proportion of receipts from vegetables (%)	83	86	78	94
Rate of return excluding capital appreciation (%)	2.6	1.8	3.6	12.8
Equity ratio (%)	88	91	92	81
Farm business debt (\$)	147,133	170,566	320,713	1,657,154
Debt servicing ratio (%)	5	4	4	2
Change in debt during the year (%)	18	3	-2	9

Source: Australian Bureau of Agriculture and Resource Economics



**Table 2. Area sown, quantity produced and yield, by crop, 2005/06 to 2007/08 (average per farm)**

	Area sown (ha)			Quantity produced (t)			Crop yield (t/ha)		
	2005/06	2006/07	2007/08 <sup>#</sup>	2005/06	2006/07	2007/08 <sup>#</sup>	2005/06	2006/07	2007/08 <sup>#</sup>
Potatoes	12	10	10	431	357	355	36	37	37
Pumpkins	1	1	1	12	16	20	14	18	22
Green peas	1	1	1	5	4	3	5	4	4
Beans	1	1	1	6	12	11	5	10	9
Tomatoes	4	4	3	282	301	193	79	76	64
Onions	2	1	1	82	74	64	53	55	53
Carrots	1	1	1	47	77	75	52	70	72
Cauliflowers	2	1	1	23	15	14	20	23	22
Other vegetables*	13	13	13	289	270	269	22	20	20
All vegetables	36	33	32	1,177	1,127	1,005	33	34	32

\*Other vegetables here include lettuce, cabbage and broccoli

<sup>#</sup> Preliminary estimates. Estimates are based on data collected in September 2008

Source: Australian Bureau of Agriculture and Resource Economics

tralia with agricultural operations valued at more than \$40,000.

The average area operated by vegetable growers in 2006/07 was estimated to have been 231 hectares per farm, of which 33

average yield for most vegetables and the average production of vegetables per farm.

Total cash receipts for vegetable farms in 2006/07 were \$888,000 on average per farm, of which

“ The average rate of return to capital for vegetable farms sowing more than 70 hectares was approximately 12.8 per cent. ”

hectares were sown to vegetables. However, half the growers surveyed had 12 hectares or less sown to vegetables.

During 2006/07, vegetable farms produced 1,130 tonnes of vegetables on average per farm with a yield of 34 tonnes per hectare. Reflecting an improvement in seasonal conditions, crop yields were higher in 2006/07 than in 2005/06 for all vegetables except tomatoes and green peas. However, preliminary estimates for 2007/08 indicate a fall in the

89 per cent was from the sale of vegetables. Receipts increased 41 per cent, compared with 2005/06 figures—thanks to increased vegetable sales and higher prices received.

Total cash costs were \$650,400 on average per farm, up 30 per cent from 2005/06. Hired labour, packing materials, seed and contracts paid were responsible for the largest share of cash expenditure.

Despite rising costs, the average farm cash income for vegetable

growers increased by 51 per cent to \$237,600 per farm in 2006/07.

### Challenges won't curb growth

The most common factor thought to be an impediment to the future viability of vegetable farms was increased farm input costs. Other impediments identified by the majority of growers included marketing costs, low vegetable prices, access to, and costs of, labour and the availability of irrigation water.

Despite these and other challenges, growers were generally positive about their future involvement in vegetable growing. Around two-thirds of growers were expecting to continue vegetable production in five years time. Additionally, 29 per cent of growers intended to expand vegetable production in the next three to five years.

AUSVEG Chairman, John Brent, said he was pleased with the level of participation in the survey and encouraged growers to engage in the next round of data collection,

which was scheduled to commence on 28 February.

### THE BOTTOM LINE

- Due to the combined effects of a rise in the quantity of vegetables sold and higher vegetable prices, farm cash incomes for vegetable farms increased 51 per cent in 2006/07, according to an ABARE report.
- Preliminary findings for 2007/08 indicate that increased input costs along with lower prices for vegetables are likely to have a big impact on farm cash incomes for that year.
- Despite the challenges faced by growers, 29 per cent of those surveyed intend to expand vegetable production in the next three to five years.

To download the ABARE report visit:  
[www.abareconomics.com](http://www.abareconomics.com)

# Compare profits for smart decisions



A simple tool to help growers compare the management and profitability of vegetable crops will be unveiled at the 2009 industry conference.

Growers who attend the R&D showcase at the 2009 Australian Vegetable Industry Conference will be among the first to see a National Vegetable Levy-funded profit-comparison tool, which has been designed to calculate potential profits from different commodities.

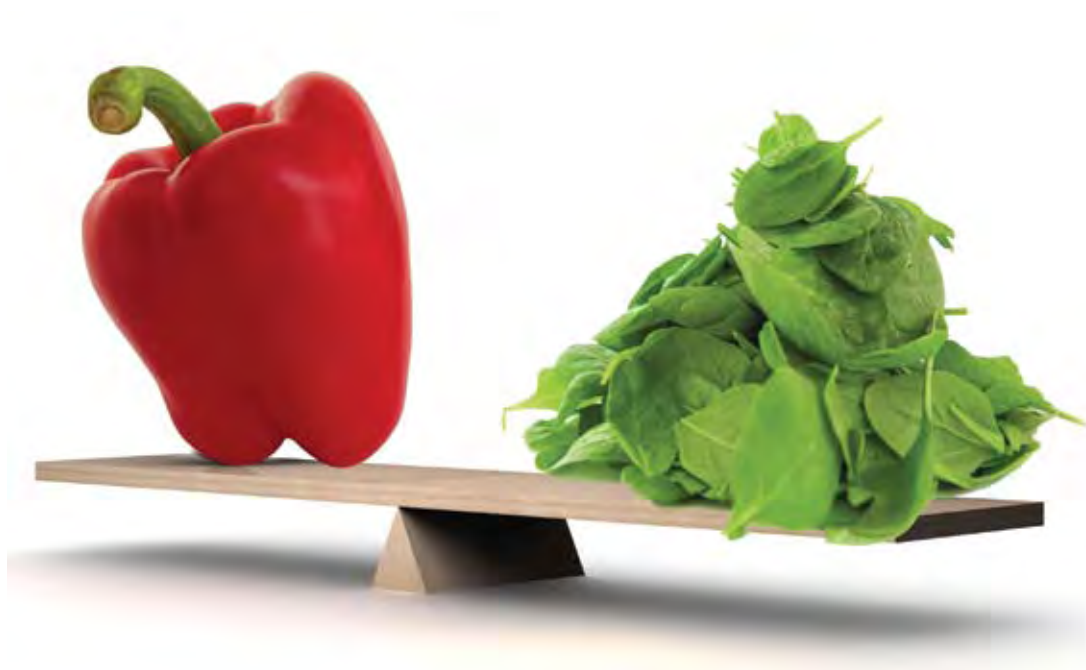
The tool, which will be available from the AUSVEG website or on CD once completed, will let growers input 10 cost categories before a management and profitability calculation is made. Results can be compared for different commodities, helping growers to make crop-planting decisions.

## Steered in the right direction

The tool has been devised in response to the VegVision 2020 strategic imperative of advanced industry data and information systems. There was a strong need identified for a project that would help vegetable growers make decisions about what to grow based on an analysis of potential income and likely operating costs.

The project, which is being conducted by Senior Consultant Lauren Thompson and Consultant Alison MacGregor from Scholefield Robinson Horticultural Services, began in November last year.

Members of the project's steering committee, which includes New South Wales grower Jeff McSpedden and South Australian grower Danny De Ieso, have guided the development of the tool by describing the capabilities they believe are needed by the majority of industry members.



## Keep it simple

For growers to use the tool in their decision making, the key was to keep the program simple.

"If there is evidence that growers are benefiting from using the tool, there may be scope for additional capabilities to be incorporated into it as part of a follow-on project," said Lauren.

The tool will be self-explanatory. Users will be asked to enter estimated yields, prices and input costs in familiar units—without having to convert this information into "per hectare" values—to arrive at a gross margin.

Users can choose the level of accuracy, but it is envisaged that the tool's main use will be to conduct relatively simple comparisons of different crop-production scenarios.

"The Steering Committee suggested that no more than 10 input

cost categories be included," said Lauren. These categories are:

- seed/plants
- fertiliser
- fuel
- chemicals
- water
- labour
- electricity/gas
- packaging
- freight/transport
- other operating costs.

Growers will be able to create and save an unlimited number of scenarios and compare them on-screen or in print. These comparisons will help growers answer questions such as: "What happens to my gross margin if I make changes to the price or yield, or some of the input costs?" or "Which commodities are likely to be profitable?"

The tool will be presented to the vegetable industry at the 2009

Australian Vegetable Industry Conference in May, in time to help growers make decisions as they plan their 2009/10 season.

## THE BOTTOM LINE

- A profit and management comparison tool for growers will be previewed at the 2009 Australian Vegetable Industry Conference.

- After entering 10 cost input categories, the tool calculates potential incomes from crops, which can be compared against each other.

- Once finalised, the tool will be available from the AUSVEG website and on CD.

For more information visit:  
[www.ausveg.com.au/levy-payers](http://www.ausveg.com.au/levy-payers)  
 Project number: VG08004  
 Keywords: Comparing management, profitability  
 or register to attend the 2009 Australian Vegetable Industry Conference at [www.vegieconf.com.au](http://www.vegieconf.com.au)

# Ask the industry

Phil Hault, Technical Services Lead for Syngenta Crop Protection, responds to questions, concerns or problems you have about protecting your crops.

## Should fungicides alone be relied on for effective disease management?

The short answer is “No”. Fungicides are an important management tool for the sustainable production of quality vegetables and a key component of Integrated Disease Management (IDM); however, when Fungicide Resistance Management Strategies (FRMS) are ignored, there is potential for pathogens to develop resistance to fungicides. This can also happen when a fungicide is overused on a pathogen, often at incorrect timing for the disease or the chemistry’s activity (Mode of Action).

Fungicide resistance has a tendency to develop more rapidly in diseases that reproduce and spread quickly, such as powdery mildew. This is particularly the case with chemistry that has a specific or targeted Mode of Action, such as Amistar (Group K). This is in contrast with chemistry that has multi-site activity, such as Bravo Weatherstik (Group Y), to which pathogens have greater difficulty developing resistance.

### Integration is important

An integrated approach to disease management (regardless of crop type, disease spectrum or fungicide type) is crucial to ensure fungal disease is effectively managed, and to prevent or delay fungicide resistance. IDM uses a range of methods to prevent or control fungal disease without adversely affecting the crop.

“Fungicides are not ‘magic bullets’. They should be used correctly and in conjunction with other control measures.”

An IDM program involves use of fungicides in conjunction with other important factors, including:

- Implementing crop-rotation programs
- Planting disease-resistant varieties where available
- Sowing or transplanting crops into correct soil type and structure to ensure good early establishment
- Ensuring adequate soil nutrition for the emerging crop, as crop stress makes plants vulnerable to disease infection
- Managing irrigation to avoid prolonged wet periods
- Destroying nearby crop residues to prevent disease carryover into newly established crops.

### Do your homework

Fungicides are not “magic bullets”. They should be used correctly and in conjunction with other control measures. When using a fungicide, always:

- Correctly identify the pathogen or disease
- Select the correct product. Is the fungicide a curative or a protectant? Does it control the identified disease or problem?

- Select the correct application rate for the pathogen or disease. Ensure your sprayer is calibrated so as to not apply too little or too much fungicide
- Apply the fungicide at the correct time. This relates to the growth stage and vigour of the crop, the stage of development of the disease or pathogen, and weather conditions
- Follow recommended spray intervals for the fungicide. Conditions conducive to disease may require shorter spray intervals for effective control
- Read and follow label directions. [va](#)



If you have a question to ask the industry, email <editor@ausveg.com.au> or ring the Syngenta Technical Product Advice Line on 1800 067 108. Some questions may be published.

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# Asian vegetables join the mainstream

No longer on the sidelines, Asian vegetables are stepping up to be a major player in the industry, writes Economist Ian James.

Asian vegetables have long been seen as a specialised niche, the preserve of small market growers catering for Australians of Asian descent. Growth in the demand for Asian vegetables has been attributed to the recent growth in the number of immigrants from Asia. More recently, there has been recognition that Asian vegetables are becoming an increasingly important part of the Australian diet. This reality has been evident on supermarket shelves with the increased volume and variety of Asian vegetables.

There has been a great deal of research and development (R&D)

Program, which has sought to undertake research into not only the growing of fresh Asian vegetables but also the development of a processed Asian food industry.

The research has covered many aspects of the industry. From the vegetable industry's perspective, there has been an emphasis on production techniques and quality improvements and, despite many growers coming from non-English speaking backgrounds, there has been a rapid improvement in the handling and quality of Asian vegetables.

More recent RIRDC studies have addressed supply chain issues (*Winter Asian Vegetables*

**Table 1. Asian vegetables**

	2005/06	2006/07
Number of growers	363	377
Area planted (hectares)	1,023	1,171
Production (tonnes)	17,046	18,017
Yield (tonnes/hectares)	16.7	15.4
Gross value (\$m)	69.7	77.0
Gross unit value (\$/tonne)	4,089	4,273
Farm gate value (\$m)	62.0	69.1

Source: Australian Bureau of Statistics

into Asian vegetables. The Rural Industries Research Development Corporation (RIRDC) did much of the pioneering work. In 1993, RIRDC launched its Asian Foods Research and Development

from the Top End, Barry Lee, July 2007, and *Improving Market Access for Asian Vegetables*, Jenny Ekman, October 2008) as well as the potential for industry growth in northern Australia to supply

**Table 2. Bitter melons**

	2005/06	2006/07
Number of growers	18	21
Area planted (hectares)	28	30
Production (tonnes)	246	205
Yield (tonnes/hectares)	8.8	6.8
Gross value (\$m)	0.62	1.037
Gross unit value (\$/tonne)	2,500	5,058
Farm gate value (\$m)	0.58	1.006

Source: Australian Bureau of Statistics

**Table 3. Asian gourds**

	2005/06	2006/07
Number of growers	6	12
Area planted (hectares)	13	33
Production (tonnes)	50	190
Yield (tonnes/hectares)	3.8	5.8
Gross value (\$m)	0.125	0.97
Gross unit value (\$/tonne)	2,496	5,083
Farm gate value (\$m)	0.118	0.94

Source: Australian Bureau of Statistics

major metropolitan markets and as potential exports (*Marketing Asian vegetables from Darwin*, Barry Lee, April 2005).

For the vegetable industry, it is likely that the best prospects for growth will be in developing product for the fresh market rather than for processing, due to cheaper labour and economies of scale available to vegetable processors in neighbouring Asian

countries.

RIRDC is conducting a review of recent market changes in order to identify possible R&D opportunities for processed Asian foods and vegetables in Australia.

## Data investment

A major weakness in respect to analysing the development of Asian vegetables in Australia has been the lack of data. In the past,

# Asian Vegetable Profile

## Snake bean (*Vigna sesquipedalis*)

Otherwise known as: Yardlong bean, long-podded cowpea, asparagus bean, Chinese long bean, dau gok, thua fak yao

### Background

Snake bean is a vigorously climbing annual vine, grown primarily for its long (35 to 75 cm) immature pods, which each contain several edible seeds. Native to South-East Asia, snake beans come in different varieties, from the more common pale-green pod, to slender darker-green, to a deep brownish-red.

The plant is usually grown on poles for support and often reaches heights of more than three metres. It has large pale-pink to violet-blue flowers, and continues to grow after fruiting.

### Where and how does it grow?

Snake beans are mainly a warm-season crop, and providing they receive regular water,

can survive extreme humidity and heat. They are ill-suited to colder temperatures.

They prefer light, well-drained soil with a pH of 5.5 to 6.8. It is recommended that planting locations are rotated each year, over a three- or four-year cycle.

The pods, which begin to form about 60 days after sowing, hang in pairs. They are best picked for vegetable use before they reach full maturity. Once fruiting, the plant should be checked and harvested daily as the pods grow very quickly in warm climates.

The plants are susceptible to black bean aphids, spider mites, nematodes and mosaic viruses.

### Preparation and cooking

Snake beans are used in a similar culinary fashion to green beans. The crisp, tender pods are eaten



both fresh and cooked, and are best when young and slender. They are used in stir-fries in Chinese cuisine, while in Malaysian cuisine they are often stir-fried with chillies and shrimp paste or used in cooked salads.

The pods are rich in vitamin A and are an excellent source of vitamin C. They are also a good

source of protein, thiamin, riboflavin, iron, phosphorus, potassium, folate and magnesium. [va](#)

**i** For more information contact:  
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there have been scatterings of industry data. While estimates that the Asian vegetable industry is growing by 15 per cent per annum have been made, there has been no consistent data collection to enable an analysis of trends over time.

In recognition of this dearth of data and as part of the plan to overhaul and improve the level of statistics about the Australian vegetable industry, the Australian Bureau of Statistics (ABS) was commissioned to expand its collection of vegetable data in both its Agricultural Census and

“Asian vegetables outrank by value major vegetables such as cabbages, cauliflowers, peas, corn, zucchini, spinach, pumpkin and celery.”

Agricultural Survey to collect official data on Asian vegetables. This was an important step because the ABS imprimatur gives independent credibility to the data and, as for the rest of the economy, is regarded as

official data that government and industry policy makers can rely on to make decisions.

One of the difficulties was defining what an Asian vegetable was and how broad the collection could go, given cost factors. For

instance, many of the herbs and spices produced by vegetable growers could be classified as Asian vegetables.

Ultimately, data was collected on leafy Asian vegetables, okra, bitter melons, snake beans and Asian gourds. The first commodity is by far the most important. The last four are confined to the tropical regions of Australia.

ABS data is derived from growers with an Australian Business Number and who have

“Following a 10.5 per cent rise on 2006 values, leafy Asian vegetables are now the 12th most valuable vegetable produced in Australia.”

a value of operations in excess of \$5,000. As such, the data picks up commercial operations but does not cover every grower. Only a national register of growers recording accurately their levels of production of each vegetable could achieve this.

### NSW bucks the trend

This official data is now available for 2006 and 2007. Data for 2008 will be available by the middle of this year. In 2007, there were 377 growers producing leafy Asian vegetables. In a year when the overall number of vegetable growers declined, this is an increase of

#### THE BOTTOM LINE

- The Australian Bureau of Statistics has expanded the scope of its data collection, and now collects data on selected Asian vegetables.
- Between 2006/06 and 2006/07, the farm-gate value of Asian vegetables increased from \$62 million to more than \$69 million.
- Leafy Asian vegetables are now the 12th most valuable vegetable produced in Australia, outranking by value a number of minor vegetable commodities.

four per cent on 2006.

Asian vegetables are grown in all states but are of minor importance in South Australia and Tasmania. Growers are most numerous in New South Wales, where 57 per cent of Asian vegetable growers are located. The farm structure of growers of Asian vegetables is decidedly different in New South Wales compared with other states. Farms in New South Wales are almost all in the Sydney Basin (94 per cent) and the majority of growers operate on farms smaller than five hectares. In other states, farms are more likely to be located outside the statistical divisions containing the capital cities and these farms are generally of a larger size.

In Victoria and Western Australia, just over half of the farms are located in the Melbourne and Perth statistical divisions while in Queensland, South Australia and Tasmania the majority of farms are located outside the capital city statistical divisions.

The area planted in 2007 was up 14.5 per cent, due largely to a substantial increase in plantings in Victoria. Production totalled just over 18,000 tonnes. Not surprisingly, given the predominance of growers, New South Wales produced the largest volume of Asian vegetables. However, Victoria, with only one-third of the number of growers in New South Wales, produced almost as much—5,777 tonnes as opposed to 6,255 tonnes.

### No longer niche

Asian vegetables are the most important vegetable crop in the Northern Territory. The Territory is also interesting from another viewpoint—it is where the other Asian vegetables monitored by the ABS are grown, with produce sent interstate into the major metropolitan markets. Plantings of bitter melons, Asian gourds and

Table 4. Snake beans

	2005/06	2006/07
Number of growers	12	18
Area planted (hectares)	20	42
Production (tonnes)	35	87
Yield (tonnes/hectares)	1.76	2.06
Gross value (\$m)	0.132	0.36
Gross unit value (\$/tonne)	3,777	4,161
Farm gate value (\$m)	0.128	0.35

Source: Australian Bureau of Statistics

Table 5. Okra

	2005/06	2006/07
Number of growers	19	19
Area planted (hectares)	54	54
Production (tonnes)	317	158
Yield (tonnes/hectares)	5.9	2.9
Gross value (\$m)	0.76	0.57
Gross unit value (\$/tonne)	2,401	3,616
Farm gate value (\$m)	0.72	0.55

Source: Australian Bureau of Statistics

snake beans were all up on 2006, while plantings of okra remained steady.

While tonnages remain small, these vegetables are making an increasing contribution to the growth in the Territory's vegetable industry.

Leafy Asian vegetables are now the 12th most valuable vegetable produced in Australia following a 10.5 per cent rise on 2006. The gross value of production was estimated at \$77 million in 2007. Asian vegetables are now a more important vegetable than a range of minor vegetables such as eggplants, Brussels sprouts, beetroot, turnips, parsnips and radishes. Asian vegetables also outrank by value major vegetables such as cabbages, cauliflowers, peas, corn, zucchini, spinach, pumpkin, asparagus and celery.

In 2007, the value of Asian vegetables produced in Victoria and New South Wales was the same—

\$25.5 million. Victoria accounted for the major increase in the nation's value of Asian vegetable production. The increase in the value of vegetable production was also high in the Northern Territory but coming off a low base.

Asian vegetables have earned a place on the Australian plate. They are now part of the mainstream vegetable industry and have the potential to grow both in volume and variety. Further work will continue on developing statistics on these important commodities. **va**

## R&D project preview

# Investigations and developing integrated management strategies for carrot powdery mildew

**HAL Project number:** VG08044

**Start date:** October 2008

**End date:** March 2012

**Project leader:** Andrew Watson, Plant Pathologist, Yanco Agricultural Institute, NSW DPI

**Email:** andrew.watson@dpi.nsw.gov.au

**Phone:** 02 6951 2647

A new National Vegetable Levy-funded project has begun researching powdery mildew on carrots. This disease is new to Australia and was first found in Griffith, New South Wales, in 2007. It has subsequently been found in South Australia and Tasmania. The fungal disease is likely to invade all Australian carrot-growing regions.

In the three currently-affected states, permits are available for chemical controls for the disease. However, to provide some fungicide resistance management strategies, research will be conducted into alternative options as the project aims to look at integrated management options for disease control.

The fungus that causes the disease, *Erysiphe heraclei*, has previously affected some Australian parsnip crops, though its affect on carrot crops is a recent development.

The disease favours the warmer times of the year at temperatures 20 °C and above with the optimum around 25 °C. It prefers humidity and can be controlled to a degree through overhead irrigation. Project aims include the examination of alternate hosts, the contribution the disease has to yield loss and whether damage will affect harvesting practices. The varied resistance carrot varieties have to the disease will also be examined.

The fungus is carried easily from infected to uninfected carrots by wind and especially on people and equipment.

**i** To download a PrimeFact sheet visit:  
[www.dpi.nsw.gov.au/agriculture/horticulture/vegetables/diseases](http://www.dpi.nsw.gov.au/agriculture/horticulture/vegetables/diseases) and select 'Powdery mildew – a new disease of carrots'



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# Keep track of consumer purchases

Avenues for accessing consumer data are varied, and each method has its own pros and cons, writes Lisa Cork, Nielsen Fresh Produce Specialist.

The vegetable industry is in transition. The industry's strategic plan, VegVision 2020, signposts a definite intention to shift from a production-driven mindset (shoppers will buy what we produce) to a market-driven mindset (what can we produce that shoppers will buy, and pay a premium for?). This is good news for everyone—growers, consumers and the industry.

One of the keys to becoming more market driven is to understand consumer needs. Market research is one way to do this. While different types of market research exist, they each

have their own strengths and weaknesses.

### Qualitative research

Qualitative research focuses on 'quality' interactions with targeted individuals and is sometimes called focus group or in-depth research. The number of participants is small and discussions are in-depth. Qualitative research is used to gain a deeper understanding of small target groups.

The strategic imperatives section of VegVision 2020 states, "there is intense competition for a share of the consumer's

total food intake and in order to compete, the industry must have a deep understanding of consumers". This is an example of where qualitative research could help the industry understand consumers, shopping preferences, meal-preparation habits and food-consumption patterns.

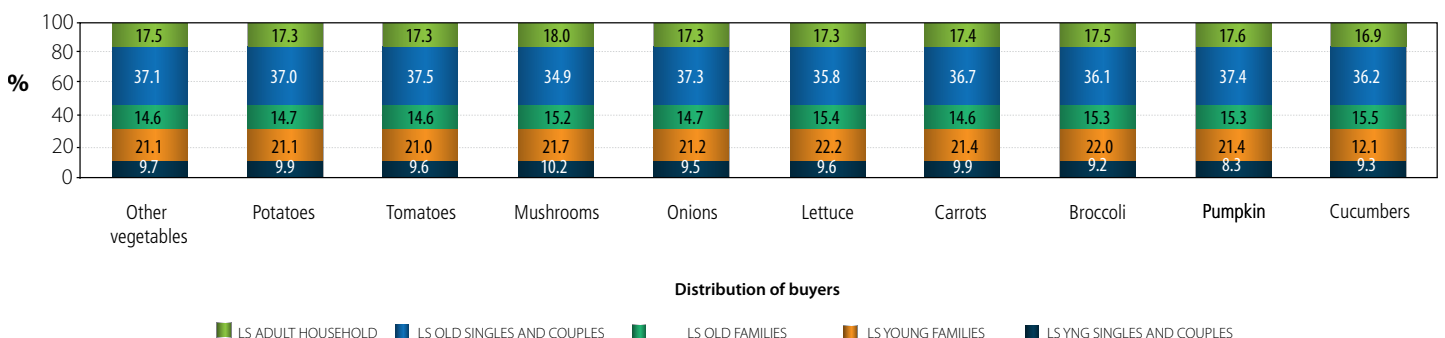
### Quantitative research

Quantitative research focuses on 'quantity', so sample sizes are large (often 500+) and questions usually focus on specific or 'close-ended' responses. For example, "Have you purchased broccoli in the past four weeks?

Yes or No". Quantitative studies used to be conducted by mail or phone, but today most are completed online.

Quantitative research is used to assess consumer opinion about a range of issues: product quality, purchase rationale, and product taste/flavour/size. It is also used to collect purchasing data, such as asking shoppers how frequently they purchase and how much they buy when they do so. While this information is valid, it can have limitations, principally because it relies on consumers' ability to recall past purchases.

Figure 1. Vegetable purchases by demographic (Dated to 5 July 2008, by percentage)







For example, when consumers are asked: “Have you purchased pumpkin in the past four weeks?” there is no way to confirm whether they have remembered their purchases accurately. Information gathered from quantitative research can only ever be an indication of purchasing behaviour.

### Retail scan data

There are two ways to capture actual purchasing behaviour. The first is retail scan data, which some large retailers allow suppliers to purchase. Scan data captures barcode product sales, which are compiled nationally. Fast Moving Consumer Goods (FMCG) companies frequently use scan data to manage categories and sales.

Unfortunately, not every fresh vegetable has a barcode and scan data does not track loose produce or Price Look-Up (PLU) code-product sales, so scan data covers only a portion of the total category. Also, retail scan data reports only one retailer’s sales.

### Homescan data

A second way to access actual purchasing data is through Nielsen Homescan, which consists of a panel of 10,000 Australian households (see *Vegetables Australia* issue 4.3, page 38). Panelists use a hand-held scanner at home to scan every food and grocery purchase they make, including loose and barcoded fresh vegetable purchases and vegetable purchase locations.

Figure 1 provides an example

of some captured data. It shows which demographics are buying what vegetables. Homescan demographic definitions are:

- Adult households (all aged 18+, excludes all other life-stage groups)
- Older singles and couples (adults aged 45+ years, 1 to 2 members)
- Older families (adults/shoppers any age, at least one person 11 to 20 years, but no children 0 to 11 years)
- Young families (adults/shoppers any age, at least one child 0 to 11 years, possible older children)
- Young singles and couples (all less than 35 years, no children, 1 to 2 household members).

These demographic groups can

be compared with their make-up of the population to see whether a particular group is over/under buying a vegetable.

The data captured for Figure 1 provides an indication for how actual purchasing data can be used to illustrate vegetable-buying behaviour and find new opportunities.

In future issues of *Vegetables Australia*, Homescan information will be used to provide information about vegetable commodities, retailer vegetable share and consumers’ vegetable-buying behaviour. **va**



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# Diverse role is a juggling act

Fifteen years ago, Rachel Lancaster was researching efficient ways to feed sheep. Now she helps growers find efficient and cost-effective ways to feed people, writes Angela Brennan.



On paper, Rachel Lancaster's job as a vegetable research officer with the Department of Agriculture and Food Western Australia (DAFWA) is to conduct research into improving the productivity of brassicas crops, along with selected other vegetable commodities. In reality, she has her hands full with two young children, works on-farm with growers and other industry members, and manages an administrative job that includes mentoring young scientists to develop career paths. Additionally, she produces newsletters, fact sheets and information for growers, and contributes to industry publications.

### Reduce passes, maintain yield

"I am interested in plant nutrition and a whole-system approach to crop production," said Rachel. "I like to work closely with growers. My trials are mainly paddock-based and I aim to put together a package for growers so they are better informed and sufficiently confident with research results to use them on-farm."

For the past decade, she has worked as an agronomist in brassicas, covering diseases, insects, plant nutrition and reducing the

number of harvests required to remove a crop.

"I have found my work very interesting. I work with a team of people; part of our work is to assist growers in adapting research information to suit their circumstances. It is good to see productivity improve growers' crops growing well," said Rachel.

"Our research has found that growers can reduce the number of harvests for cauliflower and broccoli to one or two per crop while maintaining yield. It is about providing growers with more options for crop management. Current research is looking at modifying fertiliser requirements and application techniques for brassica crops, without significantly reducing yield."

### Communicating information

Rachel started her career in Geraldton, 425 kilometres north of Perth, after graduating from The University of Western Australia. Geraldton's weather conditions are good for wind farms, windsurfers and shipwrecks. Despite its relatively dry climate, major industries include grain cropping, horticulture and pastoralism.

Rachel worked for three years

“Growers can reduce the number of harvests for cauliflower and broccoli to one or two per crop while maintaining yield.”

on pasture research, looking at improving pastures in the crop/sheep rotation of the wheat belt, before moving south to the lush district of Manjimup, where there is less wind and more water. Much of her current fieldwork continues there. She is now based in Bunbury, a coastal city 175 kilometres south of Perth.

Beyond the paddock, Rachel works with scientists from other state departments of primary industries and universities to ensure that growers have the latest information available for managing their crops.

Possibly the most striking aspect of Rachel's work and the enormity of her output is that she is officially part-time, working a five-day fortnight in the office. The rest of her time is at home with her baby and toddler.

"You have to be organised. It is possible to combine both paid work and family life although it can be difficult at times. Despite this, I find both jobs rewarding."



For more information contact:  
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Email: <rlancaster@agric.wa.gov.au>

## Rachel Lancaster career timeline

- 1993 Graduated from The University of Western Australia—Bachelor of Science (Horticulture)  
First job, Geraldton office of DAFWA, worked in pasture research
- 1996 Moved to Manjimup office of DAFWA, collaborated on a project researching clubroot disease in brassicas; started looking at improved agronomic techniques for brassicas
- 2000 Began work on reduced-pass harvesting projects for cauliflower and broccoli
- 2002 Moved to Bunbury office of DAFWA, continued to work mainly on brassicas, along with selected other vegetable crops  
Completed a Graduate Diploma in Agribusiness from Curtin University
- 2008 Continued working on reduced-pass harvesting projects for cauliflower and broccoli and developing agronomic packages for growers.



# Viral warfare reduces chemical usage

Fighting chemical-resistant pests with ascoviruses and parasitic wasps could help growers implement integrated pest management strategies on-farm.

## THE BOTTOM LINE

- Continuous application of synthetic chemical insecticides against pests can lead to development of resistance to the chemicals.
- An ascovirus that targets cabbage cluster caterpillar and diamondback moth is currently being tested. The ascovirus may be used to protect brassica crops, thereby reducing chemical usage.
- In this instance, the main means of ascovirus transmission is by parasitoid wasps. The effect, if any, of the virus on these wasps is still being determined.

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 Phone: 07 3365 2043  
 or visit [www.ausveg.com.au/levy-payers](http://www.ausveg.com.au/levy-payers)  
 Project number: VG06044  
 Keyword: Ascovirus

**B**rassica growers may soon have a new weapon in their war against cabbage cluster caterpillar (CCC) and diamondback moth (DBM). A three-year project, funded by the National Vegetable Levy and slated to conclude later this year, has found that a pathogenic ascovirus can kill these pests, potentially reducing growers' reliance on chemical controls.

According to project leader Dr Sassan Asgari, Senior Lecturer at University of Queensland's School of Biological Sciences, if an effective transmission approach can be established, the ascovirus could be incorporated in future integrated pest management (IPM) programs.

Sassan, who has been working with fellow lecturer Mike Furlong on the project, has focused on

population control of CCC and DBM. DBM has an almost ubiquitous distribution while CCC occurs in tropical and sub-tropical regions in Australasia, Asia and Africa. Together, the pests cause millions of dollars of crop damage annually.

### Infected stings

Ascoviruses infect a variety of moth hosts by causing a lethal disease in caterpillars. The virus mostly infects larvae of species belonging to the *Noctuidae* family, such as the cotton bollworm and army worm.

"Unfortunately, it is hard to diagnose infected larvae from healthy ones by looking at larvae," said Sassan.

"Infected caterpillars stop feeding shortly after infection and are significantly smaller

than non-infected caterpillars. The best diagnostic symptom is the colouration of caterpillar blood. The blood of an ascovirus-infected caterpillar is milky white or creamy, whereas the blood of a healthy caterpillar is a clear bluish or greenish colour."

While most viruses that cause diseases in insects infect hosts while the hosts are feeding, ascoviruses have a low infectivity rate when eaten. The main means of ascovirus transmission is by parasitoid wasps. When wasps sting caterpillars to lay eggs, their stings become contaminated with the virus, which can be transmitted to other caterpillars if they are stung subsequently.

In most cases, ascoviruses also kill the parasitoid wasp that is developing inside the caterpillar but there are instances where the



Adult cabbage cluster caterpillars (CCC) that survive ascovirus infection emerge deformed [left]. A healthy CCC [right].

virus helps the parasitoid develop inside the host.

Ascoviruses can be transmitted artificially in the laboratory by inserting a tiny pin into an infected caterpillar before inserting it into a healthy larva.

### Deformed dieters

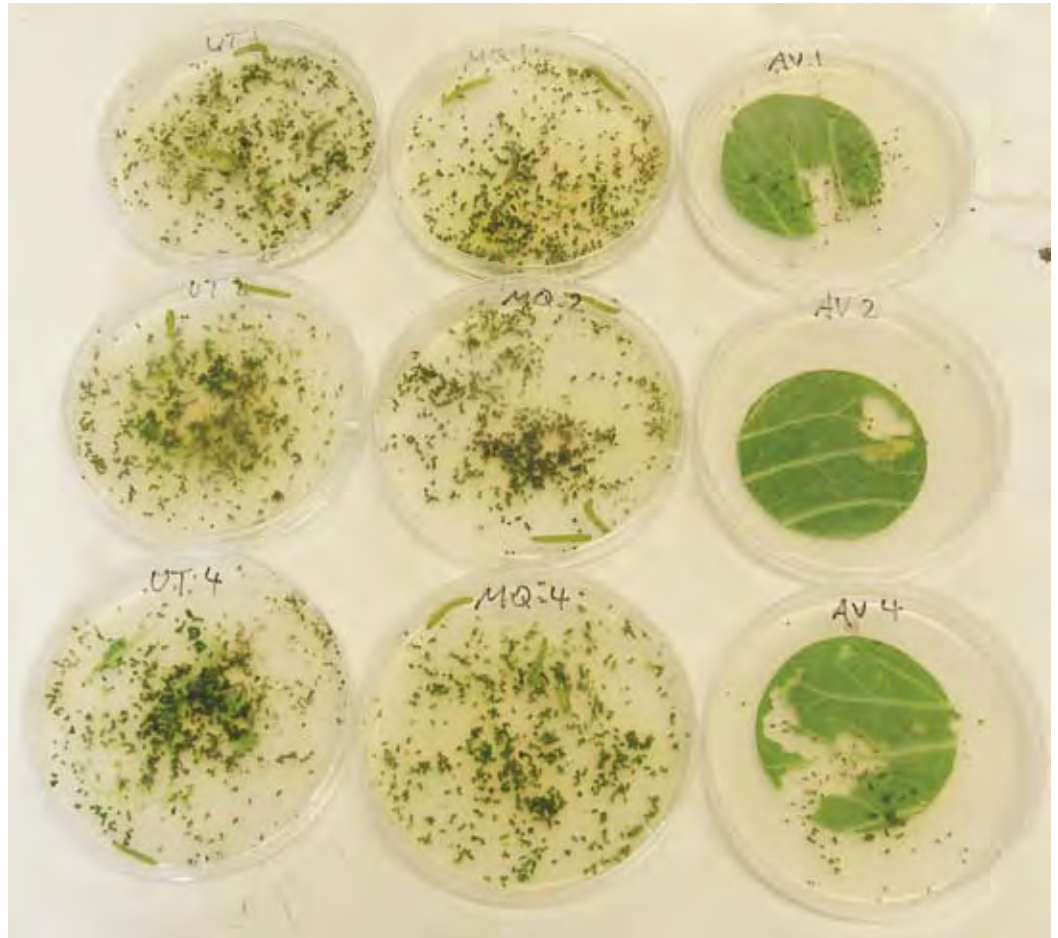
CCC is a serious pest of late-summer and autumn brassica crops in south-east Queensland, and with a potential life cycle of only 30 days, it doesn't take long for pest populations to surge. As young leaves and the centre of plants are the preferred feeding sites for CCC, immature plants may be destroyed before they develop.

Soon after eggs hatch, or after becoming second- or third-instar larvae, caterpillars move toward the growing point of brassica plants. It is here that they feed, concealed by webbing.

"If plants are attacked during the head-formation stage, feeding larvae that tunnel into the head can spoil the harvested crop. Although early instars cause less severe damage than older instars, the amount and distribution of damage is determined by feeding-site preference, feeding behaviour and the survival of early instars," said Mike.

Traditional control methods include chemical options. CCC is susceptible to most insecticides but applications of these chemicals can seriously disrupt established biological control of DBM. Consequently, it is recommended that growers implement IPM strategies that minimise application of these controls. When protecting brassica crops from CCC and DBM, ascoviruses can be useful as they have a role as beneficial biological control agents that suppress pest populations as part of integrated strategies.

During the course of the project, Sassan and Mike discovered that CCC larvae can be infected by an ascovirus that was isolated from cotton bollworm larvae. Most infected pests die from the disease at either the larval or pupal stage.



Ascovirus-infected CCC larvae consume significantly less plant material [right] compared with water-treated [middle] or non-treated larvae [left]. Images supplied by Dr Sassan Asgari.

“Caterpillars that are infected by the ascovirus consume substantially less plant material, which reduces crop damage.”

"The small number of infected insects that survive pupation and reach adulthood are frequently deformed and unable to lay eggs," said Sassan.

In further good news, ascovirus infection significantly reduces larval feeding.

"Caterpillars that are infected by the ascovirus consume substantially less plant material, which reduces crop damage," said Mike.

DBM larvae can also be infected with the ascovirus, leading to the death of caterpillars at the larval or pupal stages.

### Unknown factors

While the results so far have been promising, further work needs to be completed.

"At this stage the level of transmission by parasitic wasps is not clear and our current research is examining how the virus can be effectively delivered to pests in the field," said Mike.

Parasitic wasps are valuable biological control agents that suppress pest population. As such, research is currently underway to investigate the effect the virus has on these beneficials. While preliminary results show that the virus has no negative effect on the survival of the wasps, it is unknown whether the virus affects their fitness parameters, such as fecundity and longevity. Further research is required before these questions can be answered. 🌱

# Water world

A tour of Israel, UAE and Spain may hold the key to solving Australia's water availability issues, writes Daryl Stevens, tour leader and Principal Scientist at Arris.



This recycled-water dam supplies landscape and date palm irrigation at the Dead Sea in Israel.

## THE BOTTOM LINE

- A tour of Israel, United Arab Emirates and Spain aimed to identify and understand alternative water sources and ensure they were fit for Australian horticultural requirements.
- The tour also considered broader sustainability aspects, including managing water resources, energy requirements, raw material use, emissions and ecological impact.
- While alternative water sources are available, they can be energy intensive and expensive.

For more information contact:  
**i** Daryl Stevens, Principal Scientist,  
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The Sustainable water sources, innovations and applications study tour was successfully completed in November 2008, with 18 participants visiting almost 30 locations in three countries—Israel, United Arab Emirates and Spain.

Study tour participants, which included researchers and representatives from government and water authorities, explored a variety of world-leading technologies, management and applications in urban, industrial and rural contexts. The tour aimed to identify and understand alternative water sources and ensure they were fit for Australian amenity and production horticultural requirements.

The tour also explored and identified ideas and opportunities to overcome barriers to the adoption of alternative water source innovations.

Israel, UAE and Spain all had a number of fascinating approaches to water supply management and water use strategies. Many sites visited were struggling to cope with water shortages, like Australia, and desalination plants were being built at an astounding rate.

### Expensive investment

Expenses associated with treating and delivering water were specific to each scheme and dependent on the efficient utilisation of resources available in the area. For

example, desalination systems and associated water-treatment costs can be minimised if there is a heat source available, such as a power-generation plant.

In Fujairah, UAE, a hybrid desalination system provided significant operational savings by reducing fuel consumption by up to 25 per cent when compared with a similar-sized plant that used only Multi-Stage Flash (MSF) distillation technology.

MSF is a desalination process that distils sea water by flashing a portion of the water into steam in multiple stages. While reverse osmosis plants are the most common type of desalination plant, MSF distillation plants produce more than 85 per cent of

all desalinated water.

Major expenses identified in all countries included the setup and ongoing cost of pumping water. Removing salt from water on a large scale is an expensive and energy-intensive process, and costs increase in line with the complexity of water treatment.

### Competing interests

Traditional water resources were stressed in all countries visited. There was big demand for any suitable water available. Many agricultural-based industries were doing everything possible to secure traditional or alternative water resources. For example, staff from Energy Recover Inc (ERI) spoke about greenhouse growers located near the sea who had sourced their own desalination plant.

In this instance, the high-value tomato crops (based on dollar return for megalitre of water used) coupled with the right water-treatment technology led to the development of an economically sustainable system.

Landscape irrigation, drinking water and agriculture were all competing for water. In some places, such as Alicante, Spain, greater volumes of recycled water were used for landscape irrigation than for agriculture.

### Supply sources

Four major water sources have become crucial when securing supplies for drinking (potable) water:

- recycled water (mainly potable replacement)
- bore water
- rainwater
- desalinated water.

In some cases, where urban development was rapid and water supplies limited, desalination was a crucial component (Dubai, UAE). However, there was constant pressure to recycle any wastewater generated to get the best value for money from the desalination process (i.e. using the water twice, rather than once).

In Israel, study tour participants were fascinated by Atlantium



Dr Shoab Ismail, Halophyte Agronomist, talks to the tour group as they visit ICBA shade houses where salt-tolerant plants are propagated.

“Removing salt from water on a large scale is an expensive and energy-intensive process.”

Water Management Technology UV disinfection units, which maximised disinfection and minimised energy requirements to ensure pathogen water-quality parameters met human health requirements. This is one of the most cost-effective water disinfection systems available, with obvious benefits to food production industries.

A further consideration is the timeliness of supplying water to locations. For example, water can be recycled from effluent that flows all year, but some horticultural crops grow for only four to six months. One option for utilising the whole water source was an Aquifer Storage and Recovery (ASR) operation in Dubai, which allowed large volumes of water to be stored at low cost.

### Management options

Irrigation systems are a crucial component of water resource management. In Israel, Netafim (irrigation systems) & Arkal (filtration systems) have combined to supply irrigation systems for vegetable crops using water recycled from effluent. This arrangement has been in place for more than

30 years. They use alternative water sources with efficient irrigation technology—such as surface and subsurface drip—as a viable option for vegetable irrigation.

These companies have developed efficient irrigation systems to manage alternative water sources and ensure maximum yields per volume of water. As one tour participant said, “It looks like you can grow just about anything with drip, anywhere.”

The group also visited the International Centre for Biosaline Agriculture (ICBA) in Dubai, which focuses on research and development innovation in relation to the use of saline water for agriculture. The centre was also developing a range of plants that can cope with harsh conditions and tolerate high-salinity water.

Sophisticated water source and management options are used overseas in climates similar to those found in Australia’s growing regions. This tour introduced participants to different technologies that could be brought to Australia, should the need arise. **va**

# AUSVEG CEO Message

In this time of unprecedented bushfire devastation, AUSVEG extends its sincere condolences and prayers to the families, communities and growers who have been affected by this terrible and ongoing event.

It has been a busy time for everyone at AUSVEG. Together with the new Board of Directors, I have a number of discussions in progress including securing the appointment of outstanding director placements from the Northern Territory and Tasmania, as well as outstanding skills-based directors.

Excitement is growing as the 2009 Australian Vegetable Industry Conference comes together. AUSVEG is on schedule and on budget for the conference, with 2009 sponsorship sales showing no signs of being affected by the global economic crisis. Sales are well ahead of previous years at this stage of planning.

We are pleased to announce that Elders will be the Signature Sponsor for this year's conference. We're delighted to have Elders on board, and thank them for supporting the industry through this important biennial event.

As speakers are confirmed and the R&D showcase is finalised, it's clear that a wealth of expertise will be available to all conference attendees. The registration form is available from the conference website, [www.vegieconf.com.au](http://www.vegieconf.com.au), with early bird registration open until 27 March. With more than 600 delegates expected to attend, I encourage those interested to

register early.

For growers who would like to keep abreast of how the National Vegetable Levy was invested in 2007/08, the Annual Levy Payers meeting will be held at the Melbourne Convention Centre on Day One of the conference. See below for more information.

As always, if you have any questions or would like more information about upcoming AUSVEG initiatives, please don't hesitate to contact me at <[robert.lawler@ausveg.com.au](mailto:robert.lawler@ausveg.com.au)> or on 03 9544 8098. I look forward to hearing from you.



**Robert Lawler**  
Acting CEO  
AUSVEG Ltd

## Want to know how your levy was invested for 2007/08?

Or simply have some questions you would like to ask?

Join AUSVEG and HAL at the Annual Levy Payers Meeting in Melbourne.

**Where:** Bellarine 2 meeting room, Melbourne Convention Centre

**When:** Monday 4 May (Day One of the Australian Vegetable Industry Conference)

4.00-4.30 pm: Fresh potato growers

4.30-5.00 pm: Processed potato growers

5.00-6.00 pm: Vegetable growers

followed by the welcome cocktail reception for the conference.

For more information contact AUSVEG on 03 9544 8098.



# AROUND THE STATES

## New South Wales



The NSW Farmers' Association has been busy in recent months with lobbying of state and Australian Governments over many industry issues such as flying-fox management in New South Wales, Natural Disaster Government Relief Assistance, the Australian Pesticides and Veterinary Medicines Authority (APVMA) Cost Recovery Inquiry, retention of research activities and services at New South Wales Department of Primary Industries (DPI), and the Horticulture Code of Conduct.

The association carried out a survey last year to establish the value of publishing horticulture price information so growers could benchmark themselves and see the real prices paid to other producers within the various horticulture industries.

As a good response to the survey was received, the association is currently reviewing the data to determine the best method forward for this service. Responses provided strong support for an online service that would receive data input from producers.

The proposed website will aim to show actual farm-gate prices received by horticulture producers. Peter Darley, Horticulture Committee Chairman said, "The expected advantages of this type of website would be more accurate market reporting, greater transparency in wholesaler/retailer margins as well as information that could be used to highlight market power within the industry".

Members should note that the Horticulture Committee Annual General Meeting will be held in July 2009 in conjunction with the association's annual confer-

ence. Details of the event will be available in the next issue of *Vegetables Australia*.

### Jason Cappello

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## Northern Territory



As growers around Australia struggle with droughts, floods and fires, the Northern Territory, particularly the Top End, seems like a blessed place to be right now.

Increasingly, people are looking towards the world's tropical regions to find the answers to some of the great challenges of our time—environmental degradation, climate change and food security. The report of the Crawford Fund World Food Crisis Task Force, *A Food Secure World: How Australia Can Help*, points to emerging tropical industries as a potential salvation. On the flip side, the recent Mid-term Report of the Northern Australia Land and Water Taskforce is underpinned by an urgency to secure tropical resources in the face of impending demands.

While growers in the Murray-Darling Basin might dream of a Territory wet season, water availability is as critical an issue here as it is anywhere. And water is just one concern; the carbon debate has barely started. Essentially, the Territory is as fragile in the face of poorly managed development as any other region.

In light of this, NTHA continues

to maintain a strong focus on sustainability initiatives. The development in 2008 of the "Best Practice for Sustainable Land Use in the Northern Territory" guidelines and a "Natural Resource Management Strategic Plan 2009-2013" provide a foundation; the challenge now is implementation.

Increasing demand for production in tropical areas will need to be guided by caution and good science. Australia has yet to establish effective industry best practice for sustainable production systems; in some regions such systems must now be reactive, in the Northern Territory there is still an opportunity to be proactive.

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## Queensland



Developments for a Queensland trial of the Pacific Seasonal Worker Pilot Scheme are progressing. The first 50 seasonal workers have arrived from Tonga to work under the scheme in the trial areas of Griffith, New South Wales, and Swan Hill and Robinvale, Victoria.

The announcement by the Australian Government last year was welcomed by Growcom as a recognition of labour issues that have impacted on Australia's high-value horticulture industry.



The scheme will involve up to 2,500 visas being granted over three years to Pacific Island workers to allow them to work in the horticulture industry for up to seven months in every 12-month period in areas where there are demonstrated labour shortages.

Meetings were held last month in Gatton and Gayndah by the Federal Department of Education, Employment and Workplace Relations to discuss a possible pilot in Queensland. They were well attended by growers.

This was the first opportunity growers had had to hear information about the scheme. It was an excellent chance for growers to decide whether they want to become involved in the scheme in an effort to solve their labour problems for the upcoming winter harvest.

Growers' comments at the meetings confirmed what we have been telling government: that even with the recent rise in unemployment, a labour shortage in horticulture still exists.

Growers interested in holding the trial should fill out a labour market research survey, available from [www.growcom.com.au](http://www.growcom.com.au). Growers must show that they've attempted to source labour from other avenues to establish a clear need for seasonal labour in their region.

The government's decision as to whether a Queensland trial will take place depends on several factors, including feedback received during information sessions, whether there is an unmet demand for labour in the area, whether the region is able to provide employment opportunities for the workers for 30 hours a week for at least six months, and the results of the labour market surveys completed by growers.

We expect a decision to be made by the end of the month and a Queensland region to be included from around June.

While there has been criticism of the slowness with which the scheme is being rolled out, it was never going to be a simple matter to implement and great care must be taken to ensure that the right infrastructure is put in place to support the trial. This includes proper accommodation, transport, local leadership support and pastoral care.

**Mark Panitz**

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**Victoria**



Our condolences to all Victorians who have suffered losses resulting from the February bushfires and extreme heat conditions experienced within the horticulture industry.

VGA Victoria has been successful in obtaining a project grant from the Victorian Government to establish an automated local weather station in the Werribee Irrigation District.

This VGA Victoria project will be carried out in conjunction with the Victorian Department of Primary Industries involving the installation and maintenance of a weather station with SMS text services and website information available to vegetable growers.

The vegetable industry's strategic plan, VegVision 2020, is committed for delivery through the next stage of national marketing, consumer and leadership programs. Your VGA Victoria Executive is active in assisting in the delivery of these programs for Victorian growers and maintaining

the Victorian Industry Development Officer (IDO) position into the future.

A Victorian Vegetable Industry Strategic Plan has been commissioned and is planned to be released at the 2009 Australian Vegetable Industry Conference, held in Melbourne in May.

In addition to the 2009 conference in Melbourne, and the National Vegetable Industry Expo in Werribee (see right), here are some events that may be of interest to growers:

1 August 2009—Vegetable Growers Gala Night at the Crown Palladium Room, Melbourne.

7 August 2009—Vegetable Growers Annual Golf Day at Lang Lang Golf Club, South Gippsland Highway, Nyora.

9 October 2009—VGA Victoria Annual General Meeting at Crowne Plaza, Spencer Street, Melbourne, at 4 pm.

For more information about these events, phone 03 9687 4707.

**Tony Imeson**

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# CALENDAR OF EVENTS

## March 2009

22-25 March

### World Potato Congress

Christchurch, New Zealand

#### For more information:

Website: [www.potatocongress.org](http://www.potatocongress.org)

## April 2009

2-3 April

### Fresh Produce India

Mumbai, India

#### For more information:

Website: [www.freshproduceindia.com](http://www.freshproduceindia.com)

3 April

### Produce Executive Program—Applications due

Course to be held 3-8 May, Mt Eliza, Vic

#### For more information:

Contact Anita Pike

Email: [apike@streamwise.com.au](mailto:apike@streamwise.com.au)

Phone: 03 9904 4172

## May 2009

4-6 May

### Australian Vegetable Industry Conference 2009

Melbourne Convention Centre, Melbourne, Vic

#### For more information:

Website: [www.vegieconf.com.au](http://www.vegieconf.com.au)

Phone: AUSVEG on 03 9544 8098



6 May

### Australian Vegetable Industry Awards 2009 and conference gala dinner

Crown Palladium, Melbourne, Vic

#### For more information:

Website: [www.vegetableindustryawards.com.au](http://www.vegetableindustryawards.com.au)

Phone: Alisha Johnson, AUSVEG, 03 9544 8098



7-8 May

### National Vegetable Expo

Werribee, Vic

#### For more information:

Contact Claire Luppino

Email: [scluppino@optusnet.com.au](mailto:scluppino@optusnet.com.au)

Phone: 0427 335 518

24-26 May

### Future Focus & Produce Marketing Association (PMA) 2009 Fresh Connections Conference

Hilton Hotel, Sydney, NSW

#### For more information about Future Focus:

Website: [www.horticulture.com.au](http://www.horticulture.com.au)

Phone: 02 8295 2300

#### For more information about PMA 2009 Fresh Connections:

Contact John Baker

Email: [john@producemarketing.com.au](mailto:john@producemarketing.com.au)

Phone: 02 9744 6366

## July 2009

19-22 July

### National Industry Conference of the Australian Hydroponic & Greenhouse Association

Sydney Homebush Showgrounds, Sydney, NSW

#### For more information:

Website: [www.ahga.org.au](http://www.ahga.org.au)

Email: [administrator@ahga.org.au](mailto:administrator@ahga.org.au)

Phone: 02 9939 5993

## August 2009

1 August

### VGA Victoria Vegetable Growers Gala Night

Crown Casino, Melbourne, Vic

#### For more information:

Phone: VGA Victoria on 03 9687 4707

## September 2009

2-4 September

### Asiafruit Congress

Hong Kong

#### For more information:

Website: [www.asiafruitcongress.com](http://www.asiafruitcongress.com)

Email: [info@asiafruitcongress.com](mailto:info@asiafruitcongress.com)

10-11 September

### 13th Symposium on Precision Agriculture in Australasia

The University of New England, Armadale, NSW

#### For more information:

Contact David Lamb

Phone: 02 6773 3565

Email: [parg@une.edu.au](mailto:parg@une.edu.au)



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