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A word from the AUSVEG Chairman

The recent activities of AUSVEG and the Fair Dinkum Food campaign have very publicly brought to the attention of Australian consumers that our industry is facing a number of challenges. This will undoubtedly alter the way the industry operates in the future.

As Australian vegetable growers, we clearly understand that the future viability of the industry depends on our ability to compete in a globalised food industry.

How can Australian growers compete against some imports when the country in which the product was grown either provides subsidies to growers or operates in a less regulated environment?

AUSVEG is not calling for the introduction of tariffs, but believes that an 'Australian Universal Standard (AUS)' needs to be applied for all imported goods. The AUS

would require importers to receive some form of accreditation to ensure that their goods were grown to minimum Australian standards in the areas of food safety, food quality, environment, human rights and exploitation of labor, and occupational health and safety.

Many Australian exporters have to comply with onerous regulations to export their products overseas. All we ask is that Australians be able to exercise their rights to the fullest extent to maintain Australian standards and values in allowing imported

products into the country. By requiring such standards to be met, the Australian government would be actively levelling the playing field.

Michael Badcock
AUSVEG Chairman

From the Editor



Welcome to the second issue of Vegetables Australia. I am pleased to say that your feedback from the first issue of the magazine has been very positive. Over the coming months many of you will be invited

to participate in some more formal feedback activities, including focus groups to be held in each state, and a more broadly circulated survey. And of course, we always welcome Letters to the Editor.

With much media attention turned toward the vegetable industry over the last few months, I felt it was important to allocate a significant proportion of this magazine to clarifying some of the issues being discussed, and highlight some of the activities which may affect the growing community.

As always, Vegetables Australia also brings a wealth of valuable information on research and development, and I must thank the researchers and growers who

have kindly assisted us in bringing this information to you.

Youna Angevin-Castro
Editor, Vegetables Australia

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INDUSTRY IN CRISIS: Tractor Rally

The Fair Dinkum Food campaign created a wave of media attention last month, as Tasmanian growers drove tractors across three states to raise awareness of the impact of imported produce on the Australian vegetable industry, and bring about a change to national Country of Origin Labelling laws.

Setting off from Devonport on the Spirit of Tasmania, the convoy of tractors arrived in Melbourne on July 20, where they held a public rally outside state parliament. From there, they made their way across regional Victoria, through NSW and Sydney, before finishing up in the nation's capital Canberra.

Along the way, thousands of concerned growers, with their tractors, joined the campaign rallies. Local communities also showed strong support, while local and Federal politicians, including Peter McGauran, the newly-appointed Federal Minister for Agriculture, also attended various events across the country.





Canberra

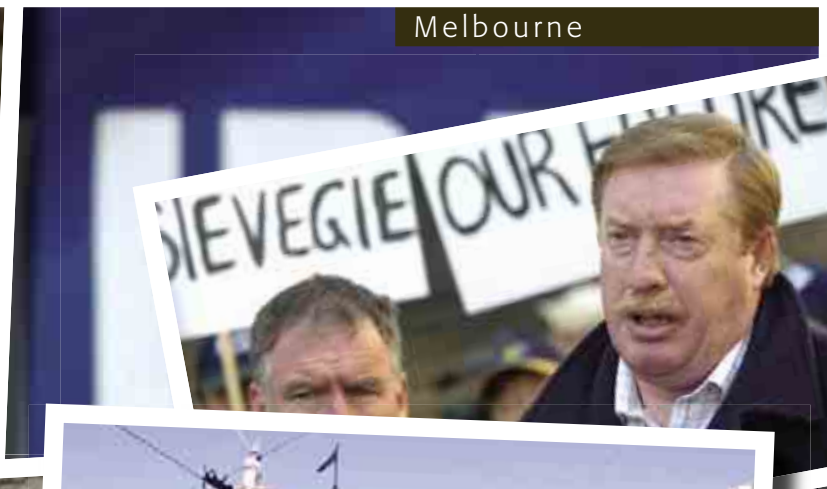
The campaign came to an exciting conclusion on August 11, when over 100 tractors congregated outside Parliament House - coinciding with the first sitting of Federal Parliament.

Since the Canberra rally, Food Standards Australia New Zealand (FSANZ) have released a proposed new standard which

would extend current Country of Origin Labelling to include unpackaged produce (whether fresh or processed). However the new standard does not allow consumers to determine the country of origin of all contents in packaged goods. Under the proposed new standard, processed imported vegetables could still carry the

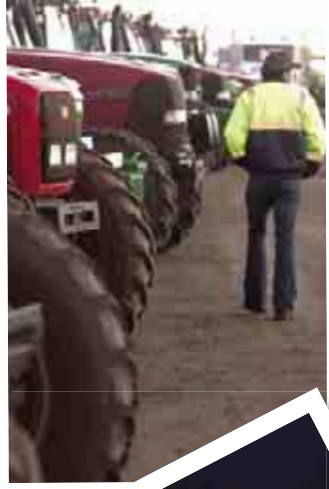
words "Made in Australia" if more than 50% of the end value of the product was added to them during the processing or packaging stage in Australia.

AUSVEG is now working on a proposal to demand mandatory Country of Origin Labelling on packaged foods. ■



Melbourne





Ballarat

INDUSTRY IN CRISIS: Tractor Rally

Sydney



INDUSTRY IN CRISIS:

**A young grower's perspective:
Matt Ryan**

When Tasmanian vegetable grower Matt Ryan invited fellow grower Richard Bovill to talk to a group of young farmers earlier this year, he had no idea that it would lead to his becoming the face of young vegetable growers nationally.

"There was a group of about 20 young growers in my area who were becoming concerned about the state of our industry and what the future held for us, so we decided to hold a community meeting at a local hall, and invited Richard to come along. We thought it would be good to have a talk about our situation, and it all sort of evolved from there," said Matt.

And evolve it did. Since that initial meeting, the Fair Dinkum Food campaign was developed and a troupe of tractors, manned by Matt and his colleagues, made their way from Tasmania to Canberra in an effort to persuade the Australian public to support their local vegetable industry.

Matt, 31, is based in Thirlstane in northern Tasmania, where he and his wife Tricia grow a range of vegetables for processing, including potatoes, peas, beans, broccoli and onions. In addition to the farm, the Ryans also own and operate a transport business.

"I suppose we're what you'd call relatively small-time farmers," Matt said. "We have about 300 acres on which we grow our vegetables. Half of our business is farming,



Source: Tasmanian Country, Hobart

and the other half involves contracting back to the vegetable industry through harvesting and cartage with our trucks."

Though Matt's grandfather was a dairy farmer back in the 1920s, Matt and his family are relatively new to farming. After pursuing agricultural studies in Victoria in the early nineties, Matt returned to Tasmania. He spent five years working as a field officer for Harvest Moon, before finally deciding to try his hand at vegetable growing.

"Eventually we bought our own farm, I left the job and we did our own thing," said Matt, which includes leasing an adjoining block of land from his mother, which was purchased from the sale of his grandfather's farm following his death in 1988.

Recently, however, their 'own thing' has been threatened by a downturn in industry sustainability and morale, due to the loss of major supply contracts across Tasmania.

Matt's contribution to the Fair Dinkum Food campaign has given him the opportunity to publicly voice his concerns about the future of his own business – seemingly catapulting him to the role of poster-boy for angry young farmers. Matt shrugs off the angry label as media sensationalism, but acknowledges some truth to the claim.

"I guess I'm angry about the way corporations use their market power to mistreat the Australian industry. I'm certainly deeply concerned about the future of the industry. And if anger is the tool required to get that message across, then so be it."

Despite his concerns, Matt tries to remain optimistic about his future in the industry.

"We're going to try to survive for the next year or so, and see what happens. Though I don't know all the answers, I believe that the only way we're going to move forward is to identify our point of difference within the market, and concentrate on that."

Matt refuses to let adversity put him off his dreams of being a landowner and farmer.

"I think farming and agriculture, whether you're a vegetable grower or whatever agricultural industry you're in, is the best job in the world."

"I think that if we are to have a future, especially as young farmers, we just need to work a bit harder to voice our issues – continue to sell our message - and encourage the Australian people to support farmers and their broader community." ■

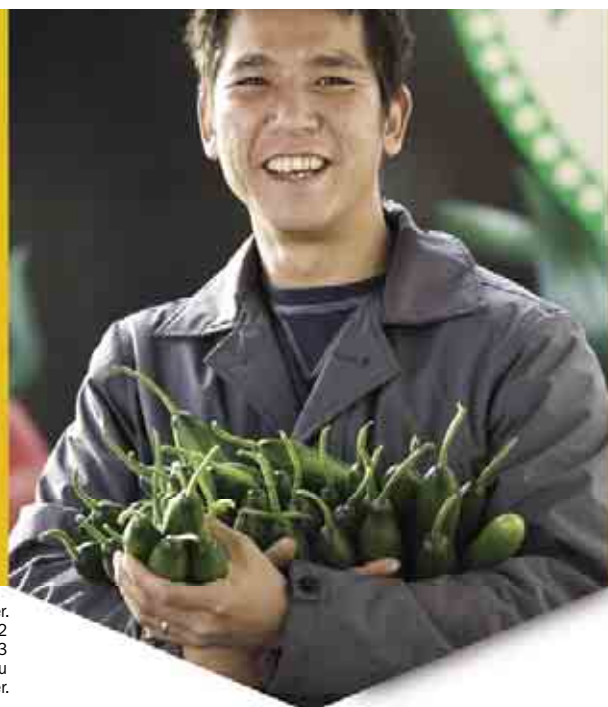
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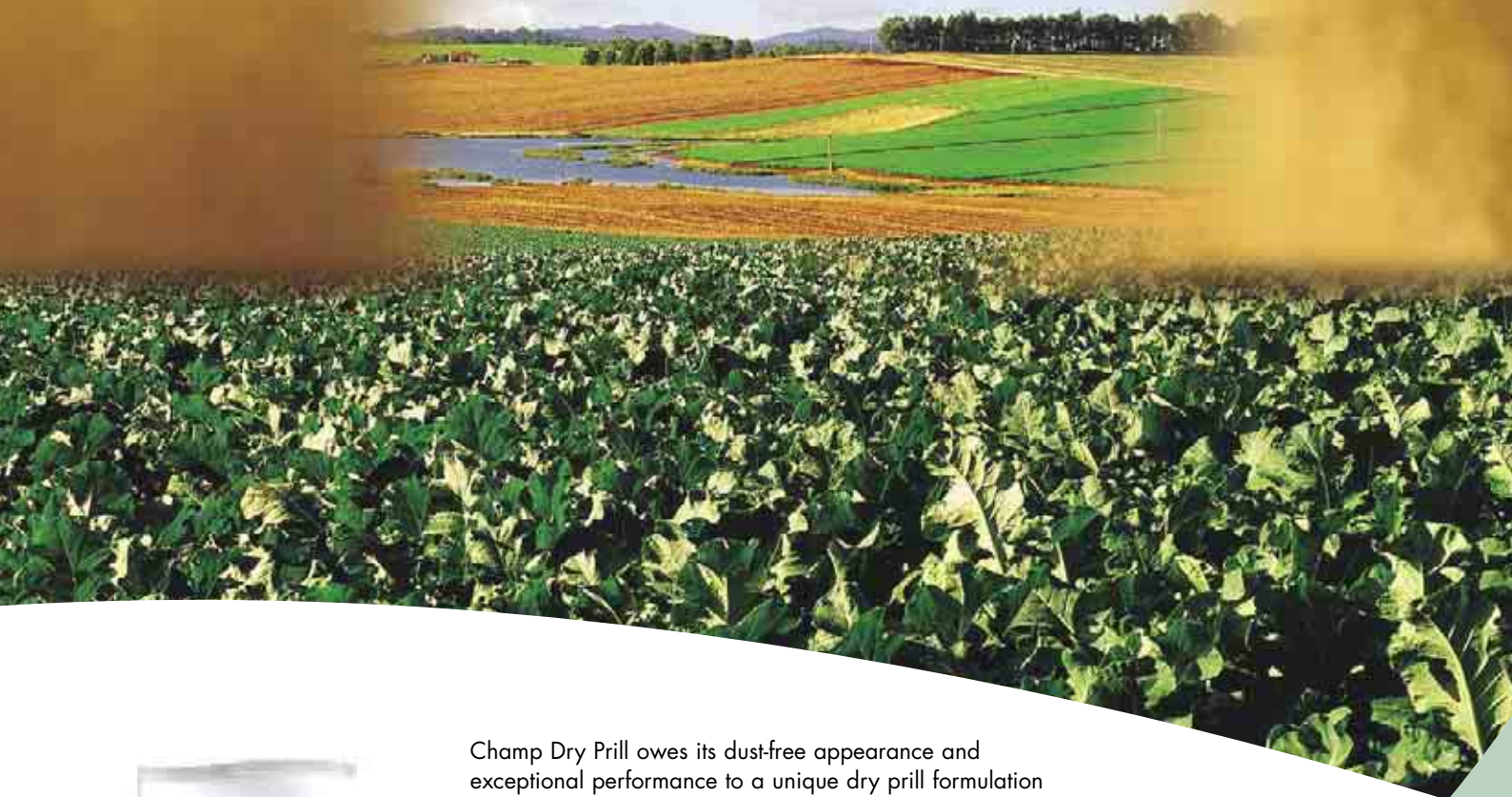
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While recent public attention focused on the Fair Dinkum Food tractor rally, the lobbying arm of the campaign run by AUSVEG has been working actively towards developing a new vision for the industry.

As the tractor convoy landed on the steps of Parliament House, the AUSVEG Board handed a plan of attack for the future sustainability of the industry to the Federal Minister of Agriculture, Peter McGauran. This plan - pathway to a new vision - detailed background work on key issues affecting the industry such as country of origin labelling, imported food inspection guidelines and the horticulture business code. Proposed actions on these issues will accumulate into a new vision for the industry which will be announced next year at the Australian Vegetable Industry Conference in Brisbane from 10-12 May.

In late June, a successful industry crisis summit was held in Melbourne. Here, industry leaders, union representatives, government officials and economists discussed the industry's future and looked at solutions to assist the industry going forward. This summit generated enormous media interest.

The AUSVEGIE Fighting Fund was established and these funds are being used to inform consumers about the benefits of Australian products over imports and convince the Australian government to get serious about accurate labelling, quality assurance and residue testing.

"Australian consumer support for Aussie vegetables has been overwhelming," said AUSVEG chairman Michael Badcock.

"Their support has made a very real difference to the future viability of the industry because it has raised the awareness of our plight, gaining strong support from Government."

The focus for the industry beyond May 2006 is implementation of the new vision. It will involve a whole of industry and whole of government commitment to dealing with the industry's key issues. It will involve significant resourcing and will include managing a structural adjustment in the sector. ■

For detailed information on the projects the industry is embracing as part of the AUSVEGIE campaign, please see material on www.ausveg.com.au.

The nine key claims the AUSVEGIE campaign is making are:

CLAIM 1: AUSVEG is calling on all Australian Governments to implement Mandatory Country of Origin Labelling (COOL) on or associated with all fresh produce.

CLAIM 2: AUSVEG is calling on all Australian Governments to implement Mandatory Country of Origin Labelling (COOL) on packaged food including frozen product.

CLAIM 3: AUSVEG is calling on all Australian Governments to support removal of the terms "local and imported ingredients" on packaged goods where their use is potentially misleading to consumers, and replacing this with clear COOL.

CLAIM 4: AUSVEG is calling on all Australian Governments to support increased prominence of the COOL so that it appears on the front of the pack and clearly stands out from other information.

CLAIM 5: AUSVEG is calling on the Australian Government to commission an independent review of the statistical basis for classifying fresh and frozen vegetables as low risk foods.

CLAIM 6: AUSVEG is calling on the Australian Government to immediately start microbial testing of imported fresh, frozen and packaged produce.

CLAIM 7: AUSVEG calls on the Australian Government to introduce a Mandatory Horticulture Code of Conduct as per the Horticulture Australia Council (HAC) model as soon as practicable.

CLAIM 8: AUSVEG calls on the Australian and state governments to immediately repeal the Security Sensitive Ammonium Nitrate regulations or provide a compensatory grants scheme for those sectors affected. The National Farmers Federation submitted such a Compensatory Grants Scheme to the Australian Government in early 2005.

CLAIM 9: AUSVEG calls on the Australian Government to immediately implement an Australian Standard that would apply to imported produce that reflects the standards imposed on domestic producers in the areas of:

- Food safety
- Food quality
- Environment
- Human rights and exploitation of labor
- Occupational health and safety.



INDUSTRY IN CRISIS:

Country of Origin Labelling campaign continues

Country of Origin Labelling at the point of sale on vegetables is one of the critical issues for the industry. Current labelling laws are weak and not well enforced and the industry is fighting hard for change.

Over the last few months, some critics have argued that clear Country of Origin Labelling is 'just disguised protectionism under another name.' Nothing could be further from the truth. Australian vegetable producers, like the rest of Australian agriculture, strongly support moves to dismantle agriculture protection barriers. They believe in integration into the global economy, not in erecting barriers to imports.

"Australian vegetable producers are not calling for the introduction of quotas or the imposition of tariffs. What producers are calling for is the right of consumers to know the origin of the product that they are buying," Michael Badcock, AUSVEG chairman said.

Free markets work best with perfect knowledge. The more knowledge market participants have, the more efficiently the price mechanism will work to indicate to producers what the consumer requires. However at present, existing labelling laws enable the distortion of information from the producer to the consumer.

Clear labelling of country of origin, far from being protection in disguise, is designed to improve information flow to the consumer and remove the existing market distortion. How can anyone argue that consumers should be denied the basic right to know where the goods they are buying are produced?

Current labelling requirements state that a label on a package containing food shall include a statement that identifies the country in which food was made or produced or a statement indicating that it is imported.

"The words 'imported' on a tiny label, in illegible print on the back of a packet of food does not give the consumer enough information to make an informed decision," Michael said.

"Unfortunately the current labelling system enables the distortion of information from

the producer to the consumer. We are calling on the State and Federal governments to enforce current labelling laws and to make them a lot stronger for the future.

"AUSVEG is extremely disappointed that there are no significant changes being proposed for packaged foods,"

Michael Badcock said.

"A food label should be in a prominent position on the packet or in association with the product on display. It should state clearly what country it is from and be large enough for consumers to absorb the information at a glance," he said.

In August, Food Standards Australia New Zealand released a proposal for new food standards which would extend the current labelling regulations for packaged foods to unpackaged foods. However, this does not go far enough in allowing consumers to know where their food actually comes from.

"AUSVEG is extremely disappointed that there are no significant changes being proposed for packaged foods," Michael Badcock said.

"In fact under the proposed new standard processed imported vegetables could still carry the words 'Made in Australia' if more than 50% of the end value of the product was added to them during the processing or packaging stage here."



FSANZ will consider a final proposal regarding changes to food labelling in late September before it is presented to the Ministerial council for approval and implementation across Australia. AUSVEG will continue to lobby FSANZ and the government to make sure the new laws are not detrimental to growers. ■

AUSVEG is lobbying for:

1. Mandatory Country of Origin Labelling on or associated with all fresh produce.
2. Mandatory Country of Origin Labelling on packaged food including frozen product.
3. Removal of the terms 'local and imported' ingredients where their use is potentially misleading to consumers.
4. Increase the prominence of Country of Origin Labelling on the front of the pack and to make sure it stands out from other information.

INDUSTRY IN CRISIS:

Pathway forward
through partnerships

\$200,000 funding from the Australian Government is assisting the Australian vegetable industry to develop practical strategies and actions to improve the industry's performance and economic sustainability through a project titled - Industry Partnerships Project.

This project involves a broad range of industry members including, growers, exporters, processors, retailers, wholesalers, freshmarkets and the service sector.

"The Industry Partnerships Project is an excellent opportunity for all facets of the vegetable industry to take stock of the current situation and set directions to address issues head on that are effecting the long term viability of the vegetable industry," said Michael Badcock, AUSVEG Chairman.

Taking stock of the industry will include an in depth analysis of the industry's performance including; consumer trends, domestic and export markets, supply chain, service provision and the role of the industry in regional economies and communities.

Results from this analysis will help industry to set priorities which address identified issues (opportunities and threats) to improve its profitability, competitiveness and sustainability.

The strategies will guide how the vegetable industry, its supply chain and government could work together to improve the industry's:

- ability to continuously yield positive financial returns
- capacity to operate in future environmental and social settings
- ability to compete in the global marketplace
- capability to respond to change and be flexible
- confidence to manage its affairs.



The Industry Partnerships Project began in June 2005 and will be completed by November. Project outcomes will be reported in the next edition of Vegetables Australia. ■

If you want to participate in the project or find out more information on activities that will be undertaken please contact Kiri-Ganai Research: Richard Price, Tel (02) 6295 6300, Mob 0409 624 297, Email richard.price@kiri-ganai.com.au

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INDUSTRY IN CRISIS:

**Hon. Peter McGauran MP,
Minister for Agriculture,
Fisheries and Forestry,
speaks to Vegetables Australia**



Hon. Peter McGauran MP, Minister for Agriculture, Fisheries and Forestry.

1. What do you see as the two largest issues facing the vegetable industry?

Competition from imported products, and stronger Country of Origin Labelling of food products are the most urgent issues.

Both of these challenges have been brought into national focus recently by the Fair Dinkum Food Campaign by Tasmanian and Victorian farmers.

2. What did you mean when you said that the mission of the Department of Agriculture is to support Australian farmers ahead of anything else?

The mission of my department is to increase the profitability, competitiveness and sustainability of Australia's farming, fisheries, food and forestry industries and strengthen the natural resource base to achieve greater national wealth and stronger rural and regional communities.

3. Have you been surprised by the immense public support from Australian consumers for home grown vegetables?

No. Consumers generally purchase Australian grown vegetables ahead of imports, particularly fresh produce. The Australian Government supports the consumer's right to know where their food comes from.

4. Do you think supermarkets have a responsibility to the community as well as their shareholders?

Yes. As with other businesses operating within the Australian economy, supermarkets need to conduct their business in the market place while being consistent with broader community values. This should

be seen as part of their social licence to operate. Also, branding yourself as a good corporate citizen makes sound commercial sense as consumers base purchasing decisions on a range of factors, such as perceiving the broader contribution that individual businesses make to their community and way of life.

5. How is the Australian Government helping Australia's vegetable growers?

We are responding to industry's concerns with several practical initiatives.

First, the Government is supporting industry to develop appropriate strategies through the Industry Partnerships Program.

The \$200,000 Industry Partnerships Project has engaged a team of independent consultants to facilitate industry and Government participation in the project. This project is being supported by an ABARE study to examine the international competitiveness of the Australian vegetable industry.

Further to this, the Government has pledged \$3 million to help the vegetable industry implement strategies identified through the Industry Partnerships Project.

The Government is also developing a Horticulture Code of Conduct, which will make trade transactions in the domestic wholesale fruit and vegetable sector more transparent and make the wholesale fruit and vegetable sector more efficient.

An independent consultant — the Centre for International Economics — has released a draft Regulation Impact Statement and draft code for extensive stakeholder consultation in July and August. The Code is expected to be finalised in September 2005.

The Australian Government also strongly supports Country of Origin Labelling of food to help consumers make informed decisions when purchasing food products, and is working to strengthen existing labelling requirements.

6. What are some of the short term solutions for growers facing hardships?

Vegetable growers can access assistance through programs under the Australian Government's flagship agricultural package Agriculture – Advancing Australia (AAA). Programs include FarmBis, Farm Help, the Rural Financial Counselling Service and the Farm Management Deposits Scheme.

Since 1997, the Australian Government has contributed over \$1 billion to these programs, which have helped thousands of farmers adapt and respond to an increasingly complex and competitive global market.

7. What are some of the longer term solutions for growers from your perspective?

For a viable industry it is vital that they find solutions through strategies based on better information about its markets and competitive position, and better engagement with consumers and supply chain partners.

The vegetable industry's participation in the Industry Partnerships Program will help them achieve this.

I believe clear, comprehensive labelling is essential to help our growers to remain competitive and sustainable, but food labelling is not the only answer. The fruit and vegetable industry must also take steps to remain competitive and sustainable.

8. Do you think there is a solid future for vegetable growers in Australia?

Yes, very much so.

The industry is at a crossroads — we're united on that — but we're also united as an industry, and in the years to come Australian's will value Australian vegetables in a way they haven't in the past.

Stronger food labelling and price competitiveness against imports will pave a clearer future for the sector. ■

INDUSTRY IN CRISIS:

Getting a fair go in the wholesale market system



The dysfunctional nature of Australia's wholesale market system has been an impediment to the growth and development of the vegetable industry for many years.

Two government reviews have confirmed that the only way to improve the system and give growers a 'fair go' is to regulate the market through a mandatory Horticulture Code of Conduct. This will bring transparency to the trading relationship between a grower and their first point of sale. And more specifically clearly define whether the trader is acting as an agent (taking a commission) or as a merchant (taking a margin). In the existing system many traders are operating as a mixture of both an agent and a merchant (hybrid system). The legal status of this arrangement is questionable.

In the hybrid system, growers are kept in the dark and are not provided with specific details of their sale.

In the hybrid system, growers are kept in the dark and are not provided with specific details of their sale. Growers carry all the risk and wholesalers can use grower funds as 'working capital'.

Horticulture Australia Council (HAC) and AUSVEG successfully lobbied, prior to the last Federal Election, for the government to commit to the introduction of a mandatory code. Since the election, industry has worked towards the implementation of a mandated code to much opposition from the wholesaling sector. The draft code released, produced by the consultants from the Centre for International Economics (CIE) on behalf of government in July, presented three options representing initial submissions from both the wholesalers, growers and the consultants preferred option. The consultant's option tried to be all things to all people and failed to address the key concerns of the growing sector.

Are the recommended draft codes of conduct good for growers?

No. The draft codes proposed by the consultants and the wholesalers are not in the best interests of growers and confirm some of the existing practices that are unacceptable.

Will the consultant's draft code of conduct ensure contractual clarity and transparency?

No. The draft code fails because it allows a trader to conduct business under a hybrid model with the aspects of both an agent and merchant trader.

What will the code cost to implement?

There are claims being made the code could cost in excess of \$100 million to implement. Traders currently use growers' money through extended payment terms to fund their own business' working capital costs, whilst growers often take overdrafts to meet their financial obligations.

Under the code more favourable payment terms should apply and where a trader acts as an agent, the money from sales of produce should be held in a trust account.

The claims about the high costs relate to what it would cost traders to fund their working capital costs through other financial sources. However, it doesn't take into account the savings growers will make by having access to their money sooner and reducing their debt burden. ■

What happens now?

HAC and AUSVEG are writing final submissions to the Code consultants outlining the industry's concerns. The aim is to have the government reject both the wholesaler and consultant options and to fully implement the growers' option. The revised draft code will be presented to the government in mid-September. Development of the code is then in the hands of the government bureaucracy.

Growers are encouraged to contact their local MP's to gain support for the industry's position. State vegetable growing associations can assist with lobbying activity.

To keep abreast of the development of the code visit the Horticulture Code of Conduct web site at www.hortcode.com.au or visit www.ausveg.com.au

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De-coding the vital secrets of vegetables

Could new research into the health-giving components of vegetables assist in the prevention of bowel and bladder cancers?

Australian and New Zealand scientists, under the umbrella of the \$20 million Vital Vegetables research project, have been preoccupied with de-coding vegetable secrets for the past three years, concentrating on antioxidants and phytochemicals (plant chemicals), thought to play a role in the prevention of disease in human beings.

Department of Primary Industries (DPI) Victoria and Crop & Food Research Institute scientists in Australia and New Zealand, along with vegetable grower representatives in both countries set up the trans-Tasman Vital Vegetables project in 2003.

Some vegetables have higher concentrations of phytochemicals than others. Scientists have at last isolated a variety of broccoli with the highest anti-cancer properties, two to four times higher than what is already on the market. A range of red lettuce mixes with high health features were identified.

According to plant physiologist Dr Rod Jones from DPI Victoria, the results are so promising, that as well as contributing to a lowering of the rate of disease, they might also be the answer we are looking for as trade barriers to vegetable imports fall.

"There's no way we can stop competition with Asia, but we can compete on health and quality issues, and by developing niche markets with these high health vegetables grown in a clean, green environment," Rod said. The research in Australia is being conducted at one of the best-equipped chemical laboratories in Australia, in cooperation with Victorian growers and the Henderson Seed Group.

"There are roughly 400 varieties of broccoli, and scientists have isolated the top five that contain glucoraphanin and gluobrassicin - critical elements in the fight to ward off cancers.

"We are also studying red lettuce, of which there are 1500 different varieties, as well as assessing new Asian lines as ingredients for stir fries or salads," Rod said.

Because pigs have similar digestive systems to humans they are being used to see how phytochemicals are absorbed.

"While we have known about them for some time, we are now more closely observing their action and measuring their activity in blood and urine," Rod said.

"We want to identify what they do in physiological terms," Rod says.

However the research hasn't only concentrated on finding the highest health vegetables. Taste, cooking methods, and postharvest handling of vegetables have been critical elements as well.

"There's no point in discovering the healthiest broccoli if it tastes too bitter," Rod said. "It's got to taste good or quite obviously consumers won't buy it."

So taste test surveys, run by Crop & Food in New Zealand, have been a major aspect of the study, as has finding the best way to cook the vegetables to retain maximum nutrition.

"Many phytochemicals are water soluble so boiling isn't the best option as they leach out into water that is often discarded.

"Steaming for a short time until just tender is by far the best approach to cooking

broccoli, with the next best method light stir-frying," Rod said.

Postharvest handling methods have been tested in the 30 cool rooms at DPI Knoxfield with the conclusion that storage in a cool environment, but with high humidity, retains maximum phytochemical levels in the vegetable, as well as visual appeal to the consumer.

DPI Victoria has worked closely with broccoli growers in field trials throughout the project, to see how they can be grown with optimum crop results, taking into account how the seasons, location, climate and fertilisers affect phytochemical levels in certain vegetables.

"One of the great findings in our research is that growers are already on the right track, and won't need to vary their current practices greatly," Rod said.

A short list of new products has been drawn up to be promoted under the Vital Vegetables brand. When launched, the brand will be owned by growers, under the auspices of AUSVEG, New Zealand's VegFed and HAL. ■

The bottom line:

- Vital Vegetables has identified a number of vegetable varieties that may help in the fight against cancer.
- Development of high health vegetables may provide a competitive edge against imports.

For further information visit www.ausveg.com.au and search under 'Vital Vegetables', or contact your local Industry Development Officer.



Scientists and growers - an interdependent relationship

It is vital for scientists to link up with growers if Australian agriculture is to remain at the cutting edge as we compete more intensively in the global market.

Over the past three years, scientists from DPI Victoria have worked closely with Paul Gazzola who grows broccoli on 200 hectares of land on the Mornington Peninsula in Victoria.

Gazzola Farms is a family business spanning three generations, and was an ideal choice for research because they also grow a variety of Asian vegetables – Pak Choy, Bok Choy and Choy Sum.

“We always try to help researchers if we can, because we know we need to monitor what we are doing,” Paul said. “The only way to advance is to keep trying to improve the product.”

“When we were approached by the representatives of the Vital Vegetables project we set aside land to plant new varieties of broccoli,” he said.

The DPI research team was keen to see how different broccoli varieties reacted to the seasons, location, light and chemicals.

“We cultivated and watered the area as per normal, but the researchers controlled the fertilisation protocols, and later took the broccoli away for laboratory testing after harvesting,” Paul said.

There are still many questions that remain unanswered in terms of Australian marketing and production as we enter the global market, Paul says.

“We can’t compete with China on the same level,” Paul said. “But we can offer something better, something different, if we are committed enough.”



FutureWater: Facilitating a vision

With water reforms and drought already high on the public agenda, one research project set out to help establish a vision for water in inland Australia.

Dr John Wolfenden, water research specialist and a leader of the FutureWater Australia project, is convinced Australia can have a national vision for water use in irrigation – but not without changes in the way irrigators perceive themselves and their role.

“Irrigators need to see themselves as stewards of water, who also make a profitable living working in harmony with nature,” he said.

John is a senior researcher with the Centre for Ecological Economics and Water Policy Research at the University of New England. He has been involved with the FutureWater Australia, a combined effort of UNE, the Irrigation Association of Australia and the World Wide Fund for Nature, since the project began in 2002.

The project set out to facilitate the establishment of a vision for water in inland Australia. The vision was to be built from the ground up working with all stakeholders including irrigators, horticulturists, environmental representatives, government representatives and many others.

John says though the project and resulting workshops didn’t offer a final vision, it did establish ways that communities could work out one for themselves. And he says it had other significant effects which continue to benefit the industry.

The FutureWater initiative started as a vision for irrigation but the need to think more broadly where water is concerned soon became obvious to participants. John said it also became clear early on

that any vision must embrace the need for sustainability.

“In a water-challenged and fragile country such as Australia, the future we aspire to must work in harmony with nature,” he said.

As well as demonstrating that Australia can develop a generic vision for water, John says the FutureWater project also showed it is critical for stakeholders to develop regionally appropriate visions throughout the country.

“If people in a particular area can collectively develop a vision, then it gives them something to tackle together – a sense of ‘our challenge’, ‘our vision’, ‘our journey’.”

“And these would need to be in accord with ecosystem realities,” he said. “It’s no good having a vision for European-style irrigation for example, since the Australian climate just won’t support it.

“If people in a particular area can collectively develop a vision, then it gives them something to tackle together – a sense of ‘our challenge’, ‘our vision’, ‘our journey’.”

John says this can be a powerfully unifying concept and such visioning builds on local or regional sense of community. He says these are key concepts in working with local or regional communities for improved management of natural resources. But he also accepts that it can be difficult to form effective communities of interest in some areas.

“A key concern is how to work in the peri-urban scene to effect change towards more sustainable practices,” he said.

“There is increasing use of water in small-holding blocks for horticulture, market gardening and lifestyle-type activities. This is occurring in places like the Sydney basin, Toowoomba and the overall South-East Queensland area.

“Combine this increasing demand with increasing populations in these areas, and water availability to the different sectors is becoming an increasing problem.”

John says it may be that effective vision-casting among some of these more rural-type sectors could help in strategic planning for water.

“The challenge for these groups is in forming effective communities of interest to facilitate this,” he says. “There is a lot of social fragmentation in such areas – particularly where there are a high proportion of lifestyle blocks and the owners work in other areas.”

Despite the completion of the project, John sees potential for an ongoing role for FutureWater in water issues.

“FutureWater Australia remains available to support the visioning agenda for any particularly group that would like to do this,” he said.

The best opportunity for continued involvement, he says, could unfold through the CRC for Irrigation Futures (CRCIF), formed to examine critical issues in Australian irrigation.



The birth of a vision

- In mid 2002 FutureWater Australia is formed with the aim of facilitating establishment of a vision for water in inland Australia – a vision to be built from the ground up, working with stakeholders from all perspectives.

- Support provided by HAL enables FutureWater to undertake a pilot project in the Border Rivers Catchment of NSW and Queensland.

- Two workshops are held at Goondiwindi, with participation from irrigators, horticulturists, environmental representatives, government representatives and many others.

- The workshops give stakeholders the opportunity to be heard, and for their contributions to be used as a building block for visioning on a national scale.

- Participants formulate a draft vision for the Border Rivers catchment, identifying principles aimed at a much more unified approach to water management in the area. They also begin a communicative process which includes developing a context for visioning.

“Among other things, we have already established a Senior Water Policy Makers reference group which brings together the key government people in each State.

“We also have strategic links with two of the key industry bodies – the Irrigation Association of Australia and the Australian National Committee on Irrigation and Drainage.

“We would like to form a second reference group with membership drawn from peak industry and environmental organisations. The CRCIF gives us a more substantial basis through which to exercise leadership than we were able to achieve through the FutureWater initiative alone – we hope to

be able to harness this to help support the development of a sustainable irrigation industry for Australia.” ■

The bottom line:

- Drought and water reforms have created the need to rethink water sustainability.
- A community approach is imperative to developing regionally appropriate visions.

For more information visit www.ausveg.com.au and search for 'FutureWater' or 'HG03049', or contact your local Industry Development Officer.

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Managing pests by the book

If you're having trouble differentiating lacewings from heliothis, a comprehensive publication developed by Queensland's Department of Primary Industries and Fisheries could be the solution.

Vegetable growers now have a handy new tool to help them control pests. The Insect Pest Guide has been produced to help growers identify insect pests and their natural enemies.

The 106-page guide was an outcome of a project completed late last year to develop and implement integrated pest management systems for eggplant and capsicum crops. It was developed by Queensland's Department of Primary Industries and Fisheries principal experimentalist in horticulture and forestry, John Brown, who has had 40 years experience studying insects.

An integrated pest management (IPM) system, which is based on the relationship between insect pests, beneficial insects and prudent chemical use to manage pest populations, was used on capsicum and eggplant crops for the first time.

Capsicum and eggplant are the major crops in the dry tropics around north Queensland and rely heavily on insecticides to control pests. Heliothis, aphids and eggfruit caterpillar are the major threats to both crops. Silverleaf whitefly also attacks eggplant. But there are few or no registered products available for some pests. Growing resistance to insecticides was also becoming a problem and there was an urgent need to develop sustainable control.

The project established the number of insects in crops by random sampling and then determined the ratio of beneficial insects needed to control the pests. Five leaves per plant were sampled for one in every 300

plants to give a reasonable estimate of the insect population.

John found an average of 1.2 beneficial insects such as ladybird beetles and lacewings or parasitic wasps per leaf could successfully control an average aphid population of six.

"These results show that with this kind of information an IPM system can be successful," he said. But the main problem was that many growers didn't know which pests were beneficial and which were harmful.

"Before, whether it was pest or beneficial, they would say 'it's bad, I'm going to spray'. Now they can identify and say 'that's a good one, I'm not going to spray'," John said.

As a result, the guide was established as one of the first comprehensive tools released on vegetable pests in dry tropics to be used for beans, capsicum, cucurbits, eggplant, sweet corn and tomato crops.

"The biggest thing to come out of the project was the publication of the free book," John said.

"Without it, growers are not in a position to adopt IPM systems unless they have training in pest identification."

The compact guide has colour photos of insect pests with a description of the crops they attack, the type of damage they cause, how to monitor them and some of the bio-controls available. It's small enough for growers to keep in their car or take in the field and identify an insect instantly.

A lot of growers use scouts or crop monitors to tell them what pests they have and when to spray. The guide will help growers to scout crops themselves.

"Not all growers can afford to have monitoring done for them. Some growers would spray on calendar. Now they should be able to identify and know if the insect is good or bad," John said.

Using IPM will help reduce the amount of broad spectrum sprays. Growers only spray when they have to and they can target the pest species.

"We now have the tools, chemicals are more refined and people are more aware. With less chemical use, there is less chance of resistance," John said.

Growers through most of Queensland's major growing areas, including Bundaberg, Bowen, Burdekin, and Townsville, will use the tool to fight pests.

"Victorian growers have also been interested, even though they don't have many of the same pests," Mr Brown said.

The project also found that while beneficial insects controlled aphid populations, moderate populations of heliothis could be managed by beneficial insects including egg parasites in capsicums.

"We are still out there trying to develop controls for these crops and other crops," he said. Future work is still required to control whitefly in eggplant crops as there is currently no parasite available to manage it.

John also recommended that an education program should be implemented to help growers use the pest guide to adopt IPM systems. ■





The bottom line:

- A 106-page guide is now available to growers to identify and implement suitable Integrated Pest Management strategies for eggplant and capsicum crops.
- For a free copy of the Insect Pest Guide, contact John Brown on (07) 4783 2355.

For more information visit www.ausveg.com.au and search under 'Integrated Pest Management' or 'VG00026', or contact your local Industry Development Officer.



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L-R: Young growers Kevin Pham (NSW), Heim Le (SA), Trent De Paoli (QLD), Stuart Grigg (VIC), Michael Nichols (TAS), Leon Canzirri (WA).

Young Vegetable Growers Visit NZ

Six young Australian vegetable growers had the opportunity to observe the practices of their nearest neighbours during a recent eight-day study tour of New Zealand's North Island.

In August, six young vegetable growers were selected to visit New Zealand to attend the 'Produce Plus' New Zealand Horticulture Conference, as well as observe the practices of a number of the country's vegetable farms.

This is the third time a group of young vegetable growers from Australia has visited New Zealand, with the aim of giving them a chance to learn about an overseas vegetable industry and meet other young vegetable growers.

The 8-day tour, led by NSW Industry Development Officer Alison Anderson, set off from Pukekohe, south of Auckland and traveled to Rotorua for the 'Produce Plus' Conference. The conference offered a strong focus on knowing and improving your business, including a talk by Contiki co-founder, John Anderson.

The trip continued on through Ohakune, Feilding and Levin before finishing in Wellington. Farms visited included potatoes, onions, glasshouse tomatoes, carrots, parsnips, leeks, brassicas, shallots, yams, silverbeet, watercress, and lettuce (field and hydroponic).

Throughout the conference and tour, growers were presented with a multitude of networking opportunities, adding to the overall experience.

"The best aspect of the tour was the contacts made and the ideas you get from talking with people," said Leon Canzirri of Western Australia.

The Australian growers also gained an insight into the issues facing the New Zealand vegetable industry, including the carbon tax to be implemented in 2007 (which could cost some glasshouse enterprises in excess of \$150,000 per annum) and the loss of export markets (onions and carrots in particular).

The trip was best summed up by Queensland grower Trent De Paoli:

"[It was] overall a fantastic opportunity for any young person to look outside the square," he said.

"Sometimes we focus too much on the day to day and need to seize opportunities like this to see how things are done in other countries." ■

New name for New Zealand vegetable industry body

The New Zealand vegetable industry is strongly united through Vegfed – the New Zealand Vegetable and Potato Growers Federation, which plays an agripolitical, research and development, and marketing role for the industry.

Vegfed will soon join with NZ Fruitgrowers Federation and Berryfed to become Horticulture New Zealand. Horticulture New Zealand will be responsible for creating a united industry vision, promoting the importance of the horticulture industry to the economy, providing a strong voice on areas of concern for growers and protecting a grower's ability to use best practice to grow.



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Chicken manure – separating the myth from the fact

A research study conducted in Western Australia has revealed some interesting facts about the use of chicken manure as an effective fertiliser for vegetable crops.

With increasing concern that the use of chicken manure as a fertiliser was possibly contaminating groundwater and contributing to stable fly breeding, the Western Australian Government tried to ban its use in 1998, but there was strong opposition from growers.

Four years ago, a study was commissioned through Western Australia's Bioscience Pty Ltd to take a closer look at chicken manure's efficacy. Dr Peter Keating began by interviewing growers before establishing field trials on lettuce, broccoli, cabbage and sweet corn.

Laboratory tests were also set up to work out how the manure broke down, how nutrients were released and how it affected soil biology. The study also tackled the fly breeding issue.

The results were surprising, yet helpful to growers. It found that chicken manure can be a cost effective and sustainable approach to plant production, but that changes to current practice will enhance its use, as well as allay environmental concerns.

Chicken manure was found to break down faster than previously thought, lasting only two weeks in watered soil. During this time it provides a cost effective and reliable means of delivering nitrogen, phosphorus and potassium as well calcium, magnesium and sulphur to crops.

It was also discovered that the manure promoted significant changes in soil microbial activity, including a rise in soil temperature valuable to plant growth during cool periods.

But researchers found that current application rates used by growers are too high, creating unnecessary waste and an increase in Stable fly populations. They recommended that growers limit applications to 15m³ per hectare or less, followed by a banded side dressing every two weeks until harvest.

Further, if the manure was treated with phosphoric acid and dried to reduce pH, flies could not lay eggs and the manure could be stored more easily. The acid treatment also means ammonia is not produced; so growers can plant immediately after incorporating treated manure into soil.

Researchers failed to find bacteria harmful to humans in chicken manure or crops treated with it, thus alleviating other concerns about its use.

However the researchers did find that crop trash had as much contribution to soil organic carbon as manure, and that compost organic carbon persisted in soil for longer than organic carbon from chicken manure or crop trash.

They recommended that chicken producers should be encouraged to use screened dried compost as an alternative to sawdust in litter trays, thus promoting better soil organic carbon for vegetable growers. ■

The bottom line:

- Chicken manure can be a cost effective and sustainable form of fertiliser.
- Reducing application rates to 15m³ per hectare and treating manure with phosphoric acid can minimise fly populations.

For further information visit www.ausveg.com.au and search under 'Chicken Manure' or 'VG00006', or contact your local Industry Development Officer.



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Hydroponics,

A growing demand for hydroponically grown lettuce in the hospitality industry has turned a hobby farm in Virginia, South Australia into a rapidly expanding growing and packaging enterprise.

From its first harvest of lettuce sold in 1997, grower Dino Musolino's farm now employs up to 25 people in the high seasons with 10 people tending to the crop and up to 15 people processing and packaging the harvest. Dino's entire crop is grown hydroponically.

"Hydroponic allows crops to grow faster and cleaner. They are the two biggest advantages to growing," Dino said.

"Hydroponic lettuce is sought after in the hospitality industry. Our brand, which is the only one to my knowledge that is grown hydroponically in South Australia, is second to none according to feedback from chefs," Dino said.

Dino became interested in hydroponic growing techniques while dividing his time working as a promoter of the vegetable industry for the Virginia Horticulture Centre and working on his family's 650 acre farm run by his four siblings.

After conducting some initial research, Dino decided to strike out on his own with his wife Rose and four children, leaving the family business and establishing his lettuce farm on a five acre lot originally purchased by his father in 1955.

"My attention was caught by the variety of colours of lettuces and I found the way the product was developing, particularly in the hospitality industry, interesting. I realised there was a niche market waiting to be exploited, conducted a feasibility study and launched into it," Dino said.

Early on, Dino had to overcome the issue of processing, packaging and delivering the lettuce within ten days, which required prolonging the shelf life of his harvest. This led him to becoming one of the first in South Australia to trial modified atmosphere packaging.

Modified atmosphere packaging involves packaging the crop using plastic bags that are specially designed to manipulate the levels of oxygen and carbon dioxide to prolong a crop's freshness and crispness, without the use of chemicals.

This type of packaging could also be treated to provide good sealing and high clarity, including anti-fog properties, ensuring the final product displayed to the customer showed fresh, crisp lettuce without the condensation or excess moisture.

Using modified atmosphere packaging, Dino began supplying kilo bags locally, before expanding to smaller retail bags in supermarkets.



the Farmer's Choice in South Australia

"We had four varieties of value added retail bags - the salad bag, spinach bag, rocket bag and Caesar salad bag (all 150 grams) - under the brand High Fresh," he said. "As we expanded, we moved into more value added bags."

Despite being told by some in the industry that he wouldn't be successful, and that hydroponically grown lettuce would be too soft, Dino established his lettuce as a high demand item for independent supermarkets and chefs, which he sells to under the brand name 'Farmer's Choice'.

Farmer's Choice was a Victorian-based direct marketing organisation that was focusing on independent supermarkets - Dino's primary market. Rather than both organisations competing for the same business, Dino began supplying Farmer's Choice with both lettuce bags and bowls.

Within 12 months, Dino had purchased 50 per cent of the company and relocated it from Victoria to South Australia. He now supplies lettuce interstate, as well as locally.

"They had a network of people on the ground in three states and I saw that opportunity to grow the business by supplying them to a point where I said I'd like to buy an interest in the company. They came back to me with a proposal and here we are," Dino said.

Dino's rapid expansion hasn't been easy. Like any grower, he's had to contend with his fair share of problems since he began, such as an ever-changing range of pests and long periods of hot weather, which Dino says always proves a testing time for hydroponic growers.

"2000 and 2001 were a particularly bad time for crops. We lost more than 70% of

our crop over a five to six week period, with long periods of 35 degree heat," he said.

However, unlike a lot of growers, when asked about problems he's had to overcome, the first thing that comes to Dino's mind is expanding his business quickly enough to keep up with demand. Contending with local government building regulations proved to be as big a hurdle as drought or bugs, despite Dino being a councillor and deputy mayor of the City of Playford.

Dino is also keen to expand his hydroponic operation with plans to double the size of the current crop. Although his focus is firmly on lettuce, Dino isn't ruling out diversifying his crop. But even with two of his four children currently working in the business, it seems he's going to have his hands full just keeping his ever-growing customer base happy. ■

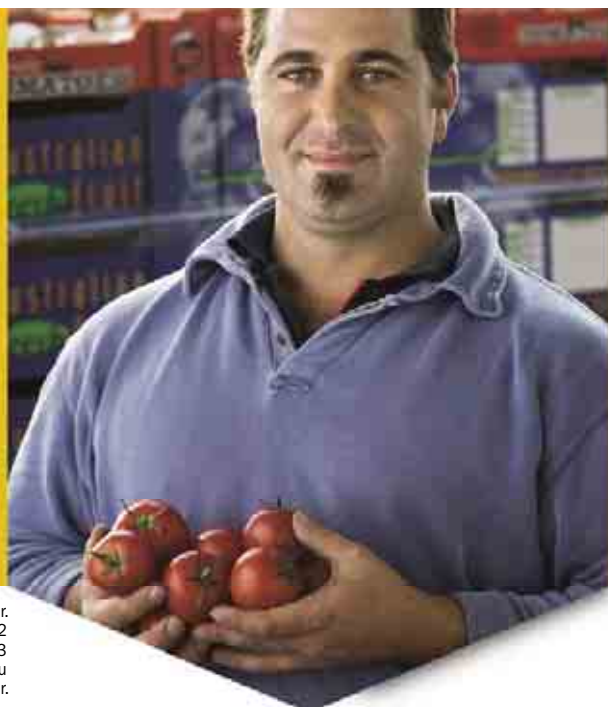
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Fungus identified at root of capsicum disease

Sudden wilt of capsicum has caused losses in the Australian capsicum industry over the last 15 years. However, this may now be a thing of the past, thanks to a recent Queensland study.

Graham Stirling may not have seen sudden wilt in capsicum in the field during the five years he worked on a project to control it, but he's confident he and his team of researchers at Biological Crop Protection have found some sound strategies to combat it.

The unpredictable disease robbed Bundaberg growers of about 25 percent of their crops in 1997 and over the past 15 years has caused occasional problems to the industry in Queensland.

Graham said that as the disease's name suggested, it struck suddenly, and at a crucial time in the crop's development.

"What happens is plants grow quite normally until they start to set fruit and then they collapse within a few days," he said.

With the project spanning five years, three of which were spent searching for a cause and the other two dedicated to seeking a means of controlling it, research turned to the laboratory to recreate growing conditions.

As research progressed, Graham found there were two causes for the sudden wilt – Pythium root rot and high soil temperatures.

The Pythium fungus produces spores, which swim in water films around soil particles. The spores attach to and invade capsicum roots, and the fungus then causes root rotting, which culminates in sudden wilt.

Graham said research revealed temperature at the time of infection was crucial.

While some growers seek chemical solutions, Graham said he was keen to find a non-chemical method of controlling



Source: Biological Crop Protection.
In the absence of pathogens, capsicum root systems are stressed by excessive heat. Left to right shows plants grown at 25, 30, 35 and 40 degrees Celsius.

sudden wilt – and found the answer lay in manipulating temperature. Even four or five degrees could have a huge impact, he said.

Graham said the ideal soil temperature for growing capsicum was about 32 degrees, but at 36 degrees, the favoured temperature of Pythium, capsicums became stressed, causing a ripple effect that could result in sudden wilt.

Queensland's capsicum industry uses either white or black plastic mulch on their crops, and plastic colour has a major impact on soil temperature.

In the Bowen region, the plastic of choice is white, to deflect the heat, whereas in Bundaberg black plastic is often used for winter plantings, to create a warm haven for seedlings.

And Graham said this could be where the problem lay. By the time winter-planted crops reached maturity in October and November, a period of unusually hot weather could result in soil temperatures under the blanket of black plastic that were ideal for Pythium root rot.

There were several options for reducing soil temperature: planting two, rather than one row of capsicums to create shade; increasing the planting density; and painting the black plastic white at key times. Another solution that warrants consideration is to eliminate plastic completely by growing a green manure crop on prepared beds, spraying it with a herbicide and letting it fall as mulch, Graham said. ■



Source: Biological Crop Protection.
The growth of capsicums in plots mulched with forage sorghum compared with black plastic.

The bottom line:

- Sudden wilt in capsicum is caused by a combination of Pythium root rot and high soil temperatures.
- Capsicum is at greater risk of wilt at soil temperatures above 36 degrees.
- Changes in plastic mulch colour may assist in controlling sudden wilt.

For further information visit www.ausveg.com.au and search under 'Capsicum' or 'VG02020', or contact your local Industry Development Officer.

Building plant immunity – the chitosan story

We've heard about the value of protecting and boosting the human immune system, but what about our plants?

Tasmanian researchers have investigated the potential for chitosan, an element derived from chitin – a naturally occurring substance from the exoskeleton of shellfish, to improve vegetable crop defence.

Chitosan holds enormous potential for the vegetable industry. It is hoped chitosan will provide a viable substitute to pesticides, this because of its potential to trigger plant defensive mechanisms, much like a vaccine does in human beings.

If proved successful, growers will benefit from reduced pesticide costs, and cutting down on the time spent applying them.

Project leader Rachel Walker and a team from Serve-Ag Research tested chitosan to determine its capabilities.

Using the Aminogro formulation produced in Australia and certified as an allowable organic input, Rachel oversaw screening trials on tomatoes, peas, carrots, beetroot, lettuce snow peas, cucumber and capsicums.

Tomato crops were the most promising, where applications of chitosan resulted in a 20% increase in yield in 2 out of 3 trials.

The plants were also less susceptible to powdery mildew fungus (*Erysiphe cruciferarum*), and did not produce plant phototoxicity.

However there were difficulties in the trial. Bans on the import of varieties of chitosan required a quarantine biological import permit. A source was found in China for the trial work, but producers were unable to state the concentration of chitosan in the product.

Dr Rachel Walker
of Serve-Ag Research.
Source: Serve-Ag Research

Plant physiology studies were also limited because of difficulties in assessing exactly the amount of enzyme activity that resulted after the application of chitosan in terms of boosted immune capacity.

It was suggested that growers would have considerably more confidence in chitosan as crop protection if it was registered with the Australia Pesticides and Veterinary Medicines Authority (APVMA).

The bottom line:

- Chitosan may provide a viable alternative to chemical pesticides.

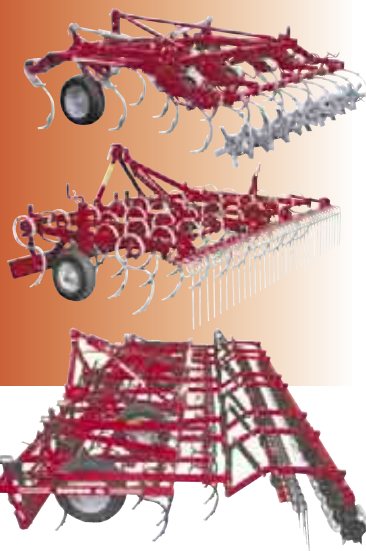
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Lifting the veil on broccolini buyers



As Australian shoppers turn to their local supermarkets for vegetables, a recently completed study investigates the buying behaviour of broccolini consumers.

Understanding what makes consumers tick is important to anyone selling a product – but for Michael Simonetta, whose company has the sole rights to broccolini seed in Australia, it is crucial.

Perfection Fresh Australia began importing the seed from Japan about six years ago, and while Australian consumers have been reasonably receptive to this new product, Michael and his colleagues are keen to see the market grow.

The highest selling companion product was bananas – almost 35 per cent of broccolini buyers also bought bananas during the project's intervention phase and up to 70 per cent chose the fruit at the same time during the benchmarking phase.

Enter researcher Marie Piccone, who came up with a number of ways to tap into the psyche of the average grocery shopper.

With unprecedented access to customers, thanks to the help of three Sydney grocery stores, Marie was able to look at buying patterns in great detail – right down to how often customers picked up a piece of broccolini and placed it back in the display.

“We were trying to understand what drives consumer decisions,” Marie said

“We used a range of tools to analyse what's happening through the supply chain.

“Instead of just looking at product quality, we looked at merchandising and price.”

With stores placing great importance on profit per square metre of display size, working out how to drive sales up was important.

The project, which came to an end in July, looked at the effectiveness of where broccolini was positioned in a store, the influence of promotional activity and the size of the display, as well as other types of produce bought with the vegetable.

Marie said her research challenged the notion that consumers were driven solely by price.

“Consumers are more sensitive to other issues, like the fullness of the display,” she said.

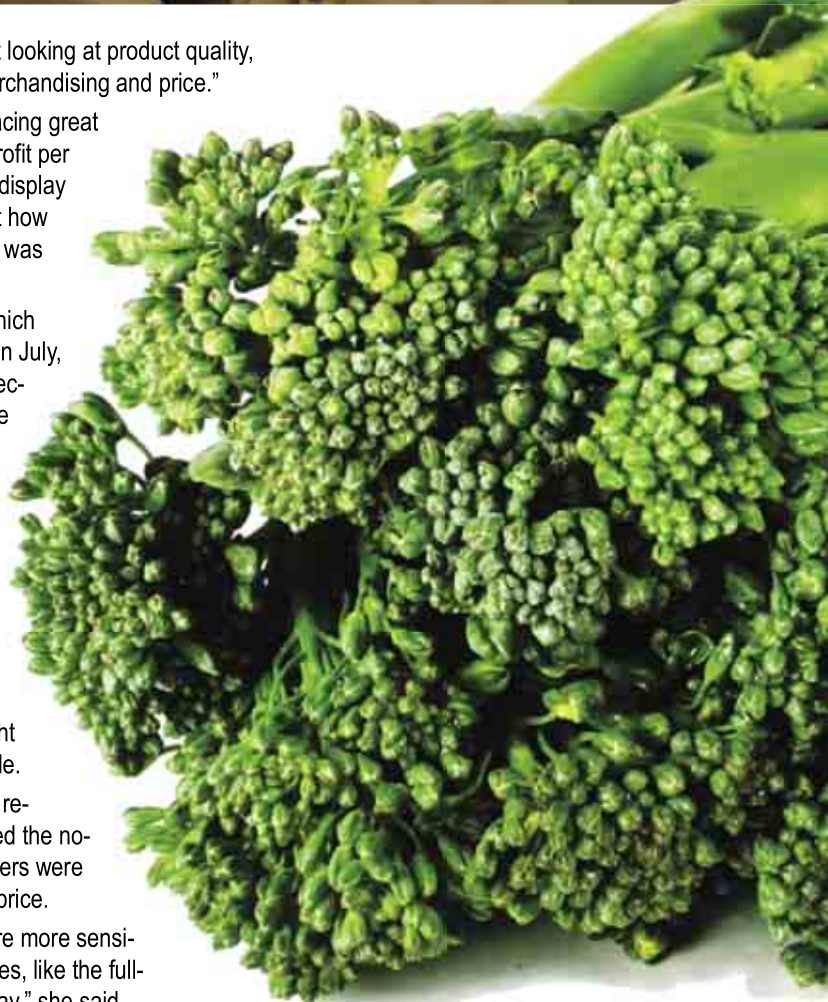
“We found that as the display gets emptier they don't necessarily purchase, because there is an attitude that there's only the 'dregs' left, or it does not take their attention.

“Our research suggested that they're not totally price-sensitive, provided other things

are met like quality, availability and information about how to use it.”

Marie said a key element of the project was strengthening the relationship between suppliers, marketers and retailers.

“We have to work together,” she said.



Late last year a benchmarking study was carried out to establish sales patterns, and then early this year several interventions were made to test what drove customers to buy.

The stores lowered the price from \$2.99 to \$2.49 for five days during the project and then dropped it to \$1.97 for about 10 days, before increasing it again to \$2.99.

At the same time as the price drop, signs were added to draw customer attention to the display, which doubled in size during the cheapest period.

"We found that if the display gets too big, then you have problems with the product being out there too long," Marie said.

Researchers also surveyed consumers to learn about which characteristics they looked for when choosing broccolini.

She said colour and firmness of stems were the key factors, while 69 per cent of people thought the number of yellow flowers on the vegetable was important – a factor that Michael Simonetta found interesting.

"One of the characteristics of broccolini is that when it matures the flowers appear – yet it does not affect quality," he said.

"You need to keep broccolini out there a lot longer for that (yellow flowers appearing) to occur, whereas with broccolini, after a few days it tends to stimulate the opening of the buds."

Research showed other produce around the broccolini also had an influence.

Marie found that 30 per cent of people who bought broccolini also bought broccoli, and 30 per cent of people who bought broccolini bought asparagus at the same time. But the highest selling companion product was bananas – almost 35 per cent of broccolini buyers also bought bananas during the project's intervention phase and up to 70 per cent chose the fruit at the same time during the benchmarking phase.

Michael wanted to find what tempted customers to buy broccolini.

"It was about learning what consumers look for in broccolini – one of the critical things was to learn about the conversion rate of someone interacting with broccolini and actually purchasing it."

He was also wanted information about the impact of other produce and price.

"We have always had the opinion that the price of broccoli and the price of asparagus affected broccolini sales, but we had no statistics to prove it.

"We still have not implemented some of the key learnings of the program because we have not seen the final report, but we certainly will be implementing the things the program tells us to," he said. ■

The bottom line:

- Broccolini consumers are not driven solely by product price.
- Quality and availability of produce is a key factor in buying behaviour.
- Do consumers link different vegetables when choosing to buy?

For more information visit www.ausveg.com.au and search for 'Broccolini' or 'VG04001', or contact your local Industry Development Officer.



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Working with nature to produce disease free carrots

Soil borne diseases commonly faced by carrot growers are cavity spot and crown rot disease. While some commercial products claim to control these diseases, other less hazardous approaches are now under scrutiny.

For some years carrot growers have been adding organic matter to soil in the hope that the immunity of their crops to soil borne diseases such as cavity spot (*Pythium*) and crown rot disease (*Alternaria radicina*) would be enhanced.

However recent experience has demonstrated that it's not quite so simple. Despite good intentions, there has been little improvement in yield, quality or disease suppression.

Under the guidance of researcher Domenic Cavallaro, a 20-month field trial was set up in the vegetable growing area of Virginia in South Australia. The aim was to improve soil quality by increasing organic carbon levels but also to boost other soil nutrients - potassium, magnesium and calcium - in the hope that beneficial organisms would flourish.

However instead of using compost, Domenic initially took a different approach to increasing organic carbon by sowing cover crops, particularly cereal rye corn and millet. This was found to be more cost effective than applications of commercial composts. In fact, to grow a summer cover crop with irrigation and a winter cover crop without irrigation cost \$1274 to \$1359 per hectare, whereas compost cost \$4120 (at the rate of 2m³/100m²).

But while cover crops increased organic carbon levels, they still didn't seem to significantly increase beneficial organisms. Domenic found that for this situation to exist others factors were required to come into play, like soil cation exchange capacity.

"We found that if commercial compost could be applied between the first cover crop, and prior to planting the second

cover crop, it increased decomposition, destroyed pathogens and provided disease suppression," Domenic said.

The answer to carrot crop disease control might lie in a combination of elements: balanced levels of potassium, calcium and magnesium, enough organic carbon and a multiplicity of beneficial microbes.

But to reach this degree of health in the soil, it seems growers will require patience. "A realistic time frame to restore soil to this level of quality is between three to five years," Domenic said.

Another concern is the affect of sodium chloride found in some irrigation water. High sodium levels in the soil reduce the availability of calcium, potassium and magnesium, deficiencies commonly found in areas beset by poor quality irrigation water. ■

The bottom line:

- Carrot disease may be controlled through a combination of soil nutrients, organic material and beneficial microbes.

For more information visit www.ausveg.com.au and search under 'Carrots' or 'VG02119'

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Designer carrots, made to order



Source: University of Tasmania

While some might laugh at oddly shaped carrots, buyers for niche and export markets don't display a similar generosity of spirit.

Tasmania is a major producer of high quality fresh carrots, but around 30% of the crop displays costly root splitting, shape defects or significant size variation.

Researchers and growers have been working hard to come up with a more consistent carrot, one that rarely falls outside market specifications.

With past research indicating that pre-harvest trimming of carrot leaf canopies alleviated root splitting, the team designed equipment to trim foliage both horizontally and vertically.

Researchers Sam Graham (project leader), Mark Boersma (Webster Fresh Tasmania), Dr Alistair Gracie (University of Tasmania), Jason Dennis (Bioden), Dr. Philip Brown and Petra Novak designed a 2-pronged approach to their research, firstly looking for answers in the growth pattern of carrots and then discerning whether planting methods were at fault.

Leaf trimming

With past research indicating that pre-harvest trimming of carrot leaf canopies alleviated root splitting, the team designed equipment to trim foliage both horizontally and vertically.

Generally the more leaf material removed, the more effective the treatment. If the crop displayed a high propensity to split during the harvesting operations, then there were good results. Splitting was reduced for up to 10-12 days after treatment.

The time of day of trimming did not seem to affect results and the treatment did not preclude mechanical harvesting.

Plant spacing

Previous research had shown that improving plant spacing could reduce the level of shape defects and size variation.

A survey of current sowing methods showed that in-row spacing was extremely variable and the proportion of seed falling within the target spacing range was lower than that recorded for other vegetable crops.

Sowing larger seeds improved accuracy slightly. The proportion of carrots falling within a medium size class was improved by planting single rows rather than multiple double rows on a bed.

Researchers say the study highlights the need for better designed equipment to increase the evenness of spacing.

It was also found that the carrots varieties with longer taproots were more likely to fork and be misshapen, so growers needed to make decisions on the choice of varieties for their crops. Kuroda carrot types were more susceptible to growth splitting than Nantes, which were more prone to forking. ■

The bottom line:

- Root defects can create up to 30% in carrot crop losses in Tasmania.
- Preharvest leaf trimming, and increased plant spacing may assist in reducing defects.

For more information visit www.ausveg.com.au and search under 'Carrots' or 'VG01095', or contact your local Industry Development Officer



Source:AHR



No-till soil process a winner for growers



A mulch transplanter in Bowen, QLD. Source:AHR

A new study trialling a no-till alternative to conventional bed cultivation may yield longer term benefits for growers.

Tomato, brassica and cucurbit growers may be able to replace plastic mulch with a totally organic substitute and avoid the annual chore of laying trickle irrigation tubing while maintaining superior soil fertility through a new no-till process being studied around Australia.

Trials of the system on crops in Queensland, New South Wales, Victoria and the Northern Territory have shown the resulting soil quality improvements give growers similar, and in some cases higher yields compared to conventional planting.

The research, conducted by Dr Gordon Rogers of Applied Horticultural Research (AHR) CropScience has confirmed vegetables grown using the no-till permanent beds are of a similar quality to crops grown in cultivated beds, with less long-term impact on the soil.

Gordon found mulch produced by the process served to conserve soil moisture and suppress weed growth, ensuring more fertile soil and increasing crop yield without harbouring common pests and diseases.

“This process is a much better option than the repetitive cycle of discing, ripping, rotary hoeing, forming beds, laying plastic and trickle irrigation tube, only to pull it all out at the end of the crop and start the whole process again,” Gordon said.

The process involves installing sub-surface irrigation into a crop bed. Unlike trickle irrigation, this irrigation system can last up to ten years without requiring replacement.

A cover crop is grown and killed by a combination of selected herbicides and a crimping roller, leaving residues to break down on the soil surface, increasing the soil structure and protecting the soil from erosion and crusting over.

The commercial crop is then planted through the use of a modified cup planter, which enters the soil, opens to deposit and press soil against the seedling, while isolating it from the mulch.

Nitrogen and potassium fertilisers can be used to combat the potential problem of nutrient drawdown during crop growth

which could limit the size of the vegetables. The crop is then harvested, with residues mulched and the next cover crop immediately sown to preserve the permanent bed.

Gordon advised no-till permanent bed systems can take up to two years to achieve maximum results both in soil regeneration and yield. For example, a tomato crop comparison conducted in Bowen, Queensland resulted in a superior yield for the cultivated crop beds during the first four harvests, but a greater yield from permanent beds beyond that point. ■

The bottom line:

- No-till permanent bed systems provide an alternative to conventional cultivation.
- Reduced long-term impact to soil.
- May take up to two years to achieve maximum results.

For further information visit www.ausveg.com.au and search for ‘No-Till’ or ‘VX01033’, or contact your local Industry Development Officer.

Researcher profile

Stephen Goodwin

Stephen Goodwin has never believed there would be a quick end to the war on pests threatening Australia's multi-million dollar protected cropping industry.

That's what has kept him at the frontline of efforts to build a biocontrol arsenal for greenhouse growers for more than a decade.

Stephen chaired the 2005 Australian Hydroponic and Greenhouse Association (AHGA) conference in Bundaberg, and is a senior research scientist with the NSW DPI at the National Centre for Greenhouse Horticulture, Gosford. Integrated Pest Management (IPM) is his field and he is half of a partnership leading the way in the development of new greenhouse pest biocontrol agents for commercial production in Australia.

His partner in the pest battle is his wife Marilyn Steiner, a senior DPI entomologist. The two met in 1993 and they have been working together in the field ever since.

Stephen and Marilyn's research program at the Gosford Centre has resulted in five new bio-control agents for commercial

production, including the highly effective *Montdorensis* thrips predator.

Another of their passions is the pursuit of new, safer biorational chemicals that can be used with biocontrol agents to develop IPM packages for greenhouse growers. Part of this work involves the development of exciting new fungal biopesticides for key pests such as western flower thrips and greenhouse whitefly. Local company Becker Underwood Australia is collaborating with them on the commercial development side of this project.

"This year will signal the start of new research into several natural enemies with potential to benefit the protected cropping industry," Stephen said. "Among these is a new whitefly parasitoid."

"Greenhouse whitefly is a major problem for greenhouse vegetable growers throughout Australia and another biocontrol agent to

supplement the existing *Encarsia formosa* for hot conditions would be well received."

Engaging with growers is a high priority for Stephen and Marilyn and they assist growers throughout Australia in greenhouse IPM practices through training courses, workshops and over-the-phone technical support.

Stephen has been on the executive of the AHGA for three years, a role he says gives him much satisfaction. "It is an opportunity to put something back into an industry that has supported our R&D over the years." He said the protected cropping industry is at the crossroads in Australia.

"Significant new greenhouse investments during the past 12-18 months have put pressure on smaller growers. Annual conferences such as the Bundaberg one are a great way of making contacts and learning," he said. ■

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Source: DPI Knoxfield



Source: DPI Knoxfield

White Blister (*Albugo candida*)

Researchers at Victoria's Department of Primary Industries have adapted a predictive model for the management of white blister in Australian climates.



When white blister appeared in epidemic proportions in the Werribee area of Victoria in 2001-2002, attacking brassica crops such as broccoli and cauliflower, there was great concern among growers. Although the *Albugo candida* fungus poses no harm to the consumer, its effect on the growth and appearance of plants can render a crop unmarketable.

Though other strains of white blister (sometimes known as white rust) affecting radishes have been around for generations, this particular strain which attacks brassicas was not a major problem until this outbreak. Since then, white blister has become a problem in all states, except Queensland - possibly due to climatic and seasonal differences.

As the fungus goes to work, yellow, chlorotic spots form on the upper surface of a leaf, while matching round, white blisters form beneath. The blisters are composed of masses of white dust-like spores. The fungus can also cause swellings on stems and stalks, and distortions of broccoli and cauliflower heads.

So what conditions give rise to white blister? A temperature range of 13-24 degrees and the presence of water is essential for its growth, whether it be from dew, fog or rain leaving moisture on leaves and stems.

As white blister relies on water, spring, winter and autumn are more likely periods for it to establish itself in crops. In summer, the disease is less problematic because of the warmer and drier weather conditions. There are also some brassica varieties with higher disease tolerance available on the market, which are more suitable for summer production.

Integrating disease control strategies could produce the best results in securing yields and produce quality. Controlled watering reduces white blister's opportunity to take hold. Short, heavy watering is preferable to a long, light watering, and night irrigation should be avoided where possible, especially during warmer periods with night temperatures exceeding 13 degrees.

Ventilation is also important. Maintaining good air movement in the crops' environment will dry leaves quickly and reduce infection. Balanced nutrition will also help

defend plants against white blister. A final step is to remove possible sources of spore infection, like volunteer broccoli and cauliflower plants and their crop debris.

Advances in white blister control have come from the Management Strategies for White Blister research project being led by Dr Liz Minchinton, and carried out by Victoria's Department of Primary Industries at its Knoxfield Research Centre.

"As part of the project, we're evaluating a disease risk predictive model called BrassicaSpot, under Australian conditions. BrassicaSpot was created in the UK for the prediction of major airborne diseases in brassica crops," said project scientist Joanna Petkowski. "The computer-based model indicates the periods of time with the highest probability of infection, so we now know when the disease is most likely to appear in the crop."

This predictive model reveals the best time to monitor crops and apply chemicals. One advantage of a model of this kind is a reduction in the frequency of chemical sprays.

Joanna is positive about the application of the model in Australian brassica vegetable crops. "Field trials evaluating BrassicaSpot in Werribee and Cranbourne have given good results, and helped successfully control the disease via effective chemicals applied at the time of highest disease risk." ■

For more information, refer to the AUSVEG website www.ausveg.com.au to download the Brassica Technical bulletin compiled by Crop & Food Research

Economic Outlook

AUSVEG economist Ian James summarises the industry's current economic trends

Establishments and Employment

The latest Australian Bureau of Statistics (ABS) data shows the number of establishments in 2003/04 at 4297. Industry estimates this at 6,500-8,000.

The number of vegetable farms has fallen 19 per cent in the last four years, almost double the rate of the decline in total agriculture establishments.

Queensland has the largest number of vegetable farms followed by Victoria. On a per capita basis farm density is greatest in Tasmania.

Latest employment figures show 23,500 people are directly employed in vegetable growing, with 6,200 of these being proprietors or owners. The long term trend for both is downward, reflecting farm consolidation and efforts to lift productivity.

Production

The ABS estimated Australian production of vegetables totalled just over 3 million tonnes in 2003/04. Latest ABS value of production figures for 2002/03 estimated the value to be just over \$2.1 billion.

Both figures are likely to significantly underestimate the actual figure. Based on National Vegetable Levy receipts, AUSVEG and Horticulture Australia Ltd estimates the value of vegetable production is almost 50 per cent higher - closer to \$3.2 billion.

Consumption

Figures are dated, but ABS estimates suggest vegetable consumption (162 kilograms per capita) in the three years

to 1999 is up 9.4 per cent from a decade earlier, and up 32 per cent over the preceding two decades

Imports

Australian imports of vegetable products rose to \$326 million in 2004/05. Fresh and chilled imports totalled \$32 million, frozen imports \$105 million, prepared non-frozen imports \$146 million and dried vegetable imports \$43 million in 2004/05.

In the fresh area, garlic and capsicums were the highest in value. For frozen imports vegetable mixes, potatoes and peas were the highest, and in prepared non-frozen imports tomatoes and tomato paste, beans and vegetable mixes were highest.

While imports have risen substantially over the last five years, dried vegetable imports have been static. Excluding the latter, imports are up 55 per cent over that period.

Growth in imports of prepared non-frozen imports has been steady over the last two years. The strongest growth in this period has been in the frozen category with imports surging 36 per cent. Frozen potatoes have more than doubled while imports of mixed vegetables have surged 70 per cent.

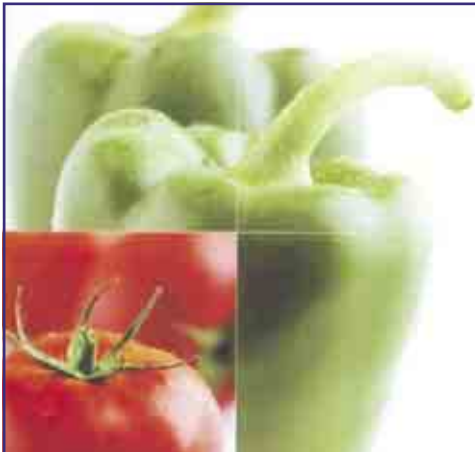
Exports

The majority of Australian exports are in the fresh and chilled area. Australian exports for 2004/05 in this classification fell to \$164 million, down 5 per cent on the previous year. This is the third year in a row that exports have fallen. Exports are now 28 per cent lower than three years ago. ■

For more economic statistics, refer to the AUSVEG website www.ausveg.com.au

Fast facts

- 900 growers have left the industry in last four years
- Increasing output per farm = increasing efficiency
- Declining terms of trade = costs increasing faster than returns
- 23,500 people are directly employed on vegetable farms
- Value of production is estimated at \$3.2 billion
- Consumption per capita is rising
- Imports are growing - frozen vegetable imports are up 36 per cent in last two years
- Exports of fresh and chilled product are falling, down for the third year in a row



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Representing





\$3 million boost to vegetable industry

\$3 million was pledged by the Australian Government at the final destination of the tractor rally held in front of Parliament House, Canberra.

This funding will be used to help the industry take the next steps to a new vision and implement strategies to improve economic sustainability.

The specific use of this money will become clearer once the outcomes of the Industry Partnerships Project are known.

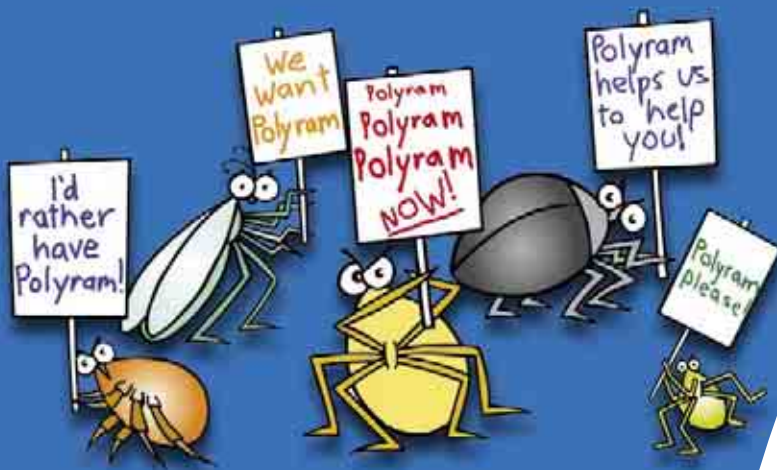
However, the broad areas that will be vital to support the industry into the future are:

1. Creating sustainable businesses - for example a customised training package for producers to improve self reliance.
2. Positioning of the vegetable industry - addressing issues such as leadership,

youth development, risk management and market development.

3. Strengthening vegetable industry relationships - by building stronger, more resilient supply chains through stronger alliances.
4. Accelerating priority research and development activities - by the provision of additional resources focusing on achieving world's best practice. ■

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Polyram® is less toxic than mancozeb* against a range of beneficial insects.

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* Trials completed in Australia in 2002 by CESAR (Centre for Environmental Stress and Adaptation Research) demonstrated that Polyram is less toxic than mancozeb on a range of beneficial insects.
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Victorian Premier Steve Bracks presents the Innovation Award

Vegetable innovation wins prize at Food Victoria Awards

Food processing company O-zo Fresh Processing were recognised for their innovative approach to asparagus processing at the 2005 Premier's Food Victoria Awards in Melbourne recently.

White Paper Submission to Agriculture and Food Policy Reference Group

AUSVEG has lodged a submission for the consideration of the Agriculture and Food Policy Reference Group.

The Australian vegetable production industry is a significant industry generating some \$3 billion in farm gate receipts. Yet it is an industry characterised by declining terms of trade, increasing exposure to globalisation and lack of recognition within government policy settings.

The end result is that vegetable production in Australia is unsustainable in the medium term under the current policy settings of the Australian government (AEC Group 2005).

This fact then leads to the question of Australia's food security. Given current trends and the likely imminent loss of processing capability in Australia, it is likely that Australia will not be able to feed itself from a domestic food supply within the next ten years.

To frame any policy consideration going forward, the first question that needs to be asked is whether this inability to provide its

own domestic food supply is a concern for Australian consumers and governments. AUSVEG's view is that self sufficiency in food should be a cornerstone of Australia's national security and part of its national risk management policy.

A range of issues are identified in the white paper submission, which outlines many of the problems facing the industry and providing some recommendations for consideration. These are quite specific and will go some way towards securing the future viability of the sector.

The more significant change that will secure the industry's future, however, is a philosophical change within government, recognising that food security is important to Australia as a nation. If food security is the goal, then a willingness to deal with the major issues will follow. ■

The white paper submission is available on the AUSVEG website www.ausveg.com.au.

The Victorian-based company was awarded the Innovation Award for their work in developing Quickfresh Asparagus - fresh cut asparagus packaged in a breathable, microwave-safe container which provides longer shelf life.

"The technology used to bring Quickfresh Asparagus to the consumer has the potential to be applied to other vegetables to expand fresh cut exports," said Victorian Premier Steve Bracks.

Innovative processing techniques deliver farm freshness to the plate. Asparagus is harvested, sanitised and processed on site, providing a revolution in the fresh cut asparagus industry. The process also reduces wastage and shrinkage.

"The technology used to bring Quickfresh Asparagus to the consumer has the potential to be applied to other vegetables to expand fresh cut exports," said Victorian Premier Steve Bracks

The Food Victoria Awards recognise companies that are significant participants and leaders within the Victorian food industry. Winners of the Awards receive sponsorship to the value of \$1,000 for a staff member to attend a workshop, conference or training seminar of their choice. ■

New South Wales***Currant Lettuce Aphid (CLA)***

CLA has not yet been sighted in NSW in any surveillance carried out by NSW DPI. As a result NSW is still enjoys 'Area Freedom' from CLA. In view of the upcoming spring influx of Victorian lettuce into NSW, NSW Farmers' Association recently held a meeting in the Sydney Basin to give growers an opportunity to discuss possible protocols with NSW DPI Biosecurity representatives and representatives from the processing industry and research agronomists. The meeting was not as well attended as hoped, but discussions were still helpful. Let's hope that a national lettuce industry approach can be arrived at as soon as possible so processors don't have to stoop to imported product and local jobs lost in the process.

Horticulture Code of Conduct – consultation meetings

The Association was represented at the recent CIE consultant's meeting discussing the draft RIS and Code in Sydney. Approximately 20 growers attended, with a similar number of wholesalers and industry stakeholders. It was clear that the time and place of the meeting was not conducive to grower attendance, a fact we made clear to the CIE. It was clear from the views expressed by the majority of growers that the CIE proposed 'hybrid' option was not acceptable to growers who felt it was no better than the current unsatisfactory situation.

The Association has begun its own process of holding regional meetings with members and industry with a meeting already being held in western Sydney and further meetings scheduled for Griffith and the north coast region. A co-ordinated campaign to meet with Federal members in regional areas has also been commenced recently.

Luke Jewell
NSWFA

**NSW
Farmers
ASSOCIATION**

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Tel: 02 8251 1885
Fax: 02 8251 1752
Contact: Luke Jewell

Queensland

Growcom is the peak horticulture industry group with a core membership of Queensland's fruit and vegetable growers.

During the past few months, Growcom consulted with more than 700 growers at meetings in key Queensland horticulture regions as part of its consultation on the draft Horticulture Code of Conduct. At many meetings, growers were unanimous in their support of the views being promoted by Growcom and the Horticulture Australia Council. There is a strong view that the draft code is unworkable and provides for the status quo to continue.

Growcom has introduced a new membership model, removing the old tiered system and introducing a flat fee of \$350.00 + GST per year. For information contact Growcom on 07 3620 3844 or visit www.growcom.com.au

The planning of the National Vegetable conference to be held in Brisbane in May 2006 has begun together with the variety trials at the Gatton research station. Queensland is excited to be the host state of the inaugural national conference and believes it will provide a significant boost to the industry through awareness of the innovation currently implemented by Queensland growers.

Growcom has launched a new web page providing information pertinent to the vegetable industry. Go to www.growcom.com.au and follow the links to the vegetable industry.

Jan Davis
CEO, Growcom



Address: Floor 1, 385 St Pauls Terrace,
Fortitude Valley, QLD 4006
Tel: 07 3620 3844
Fax: 07 3620 3880
Contact: Jan Davis

South Australia***Innovation in Rainwater Recycling for the Greenhouse Sector***

As part of their Natural Resource & Water Management strategies, the VHC is encouraging growers to install rain catchment technology, such as above ground tanks or lined dams.

With the help of Rhino Tanks, the VHC are in the process of developing a best practice rainwater recycling model at the Greenhouse Demonstration Site. A rain water tank has been installed, and has been successful in eliminating the waste of rain water.

We encourage growers to come and look at the best practice model and speak to staff at the Centre about the financial benefits this will have to your business.

"SA Grown" - Increasing Awareness for Consumers

Adelaide Plains vegetable growers have taken a unified approach to promote certified South Australian grown produce, and has launched the "SA Grown" brand in a number of retail outlets across metropolitan Adelaide. The brand will finally give consumers the choice to knowingly buy local fresh produce, as opposed to inferior imported product.

The move has been in response to the current attention to food labelling standards, unknown country of origin issues and the push for consumers to be educated about what they are actually purchasing.

It is envisaged that the VHC will work with other key industry bodies to create further exposure for the brand.

For further information, contact Victoria Andrew on 08 8282 9200

Kitchen Opening

Jointly funded through the Department of Agriculture Fisheries and Forestry, community and industry, the Virginia Community Kitchen has now been completed and is fully operational.

The VHC will manage the facility, and the kitchen will assist industry and community with diversification, product development, and product extension.

The VHC also welcomes Product Development Manager, Andrew Hudson to assist in this area, as well as working to achieve outcomes for the Value Adding Adelaide Plains project.

The formal opening of the kitchen is planned for October.

Michael Redmond
General Manager, VHC



VIRGINIA
HORTICULTURE CENTRE
SOUTH AUSTRALIA

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Tel: 08 8282 9200

Fax: 08 8380 8950

Contact: Michael Redmond



South Australian Farmers Federation
Address: 3rd floor, 122 Frome St,
Adelaide SA 5000

Tel: 08 8232 5555

Fax: 08 8232 1311

Contact: John Mundy

Tasmania

From small beginnings in Tasmania, a major campaign captured the attention of Australians in the nation's capital, Canberra.

Richard Bovill, with his group of young tractor drivers and support crew on the TFGA "Fair Dinkum Food Campaign (FDfC)" created a wave of patriotism across the nation as 112 tractors, and a crowd in excess of 2000 people from across Australia showed their support of the Vegetable Industry by attending rallies around the states. The campaign called for clearer food labelling, and a more responsible approach by the major fast food and supermarket chains.

The success of the campaign can be attributed to dedication of the TFGA Vegetable Council, Richard Bovill and the committed volunteer support team to Tasmania's Vegetable Industry.

Following the campaign, five members of the TFGA Vegetable Council, along with Euan Laird and Mike Badcock from AUSVEG, met with McDonalds Managing Director Mr Peter Bush and his team from their Supply and Purchasing Department. The group spent the day visiting farms on

the North West Coast and viewing first hand the issues that were confronting growers. Equally as important, the McDonald's team came to understand the flow on effect from the farm-gate to the greater community, and the ramifications of the loss in farm income to rural communities.

The day was a relaxed and informal one, in which the twelve interacted and were able to give views and answer questions from both sides of the fence. Both parties were able to come away from the day with a much clearer understanding of how the other did business, and a firm commitment to work together toward ensuring that Tasmania's vegetable and processing industry remained viable and explored new opportunities as they presented.

Denis Leonard
Executive Officer, TFGA – Vegetable Council



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Contact: Denis Leonard

Western Australia



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103 Outram St, West Perth WA 6005

Tel: 08 9481 0834

Fax: 08 9481 0024

Contact: Jim Turley

Victoria

The Vegetable Growers' Association of Victoria (VGA) has remained very active and involved with industry issues and maintained a close liaison with the AUSVEG, VFF Horticultural Group and Melbourne Market Authority through its Grower's Advisory Committee in joint meetings with retailers, wholesalers and flower operators.

Occupational Health & Safety and Work-safe legislation, quality assurance, environmental and food safety issues are constantly impacting upon the vegetable grower costs of production, with sale price returns not reflecting the higher production cost.

Water remains in short supply, although there has been good autumn rainfall in some Victorian growing areas, rural catchments remain at half capacity.

Recycled water plants in the south eastern and Western areas from Melbourne are operational with limited supplies available.

The Vegetable Growers Celebration Gala Night at the Crown Palladium held in August was very well attended and great support was received from the service industries in the form of sponsorship and door prizes. On this night, the VGA presented an award to E.E. Muir & Sons in celebration of 50 years servicing the vegetable industry in Victoria.

The VGA Annual General Meeting will be held Friday 4 November 2005 in the Bridge Room at the Holiday Inn Clarendon Street Melbourne commencing at 4.00pm to elect the 2006 Executive Committee. All members are encouraged to attend.

The VGA is affiliated and actively participate in vegetable issues with AUSVEG, Victorian Farmers Federation Horticultural Group (VFF) and the Australian United Fresh Fruit & Vegetable Association (AUF).

Tony Imeson
Executive Officer, VGA



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Contact: Tony Imeson

44 Vegetable Industry R&D program

Projects running in 2005 (Funded by the National Vegetable Levy and Australain Government matching funds unless otherwise indicated)

Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
Vegetables - Communication, technology transfer & industry development					
VG99053	Facilitating the communication and development of the Vegetable Industry in NSW	Ms Alison Anderson, NSW Farmers Association, 02 9746 1865		May-00	Jun-06
VG00070	Facilitating the communication and development in the Tasmanian Vegetable Industry	Mr Stephen Welsh, Tasmanian Farmers and Graziers Association, 03 6331 6377		Oct-00	Oct-05
VG02040	Facilitating IPM adoption in vegetable crops through regional extension programs	Mr Tony Burfield, SA Research & Development Institute, 08 8303 9580	+VC	Jul-02	Jul-05
VG02002	VegeLink network - Developing a vegetable industry regional network in Western Australia	Mr Jim Turley, Potato Growers Association of WA Inc, 08 9481 0834		Jul-02	Jul-05
VG02116	VEGEnote series: Practical science solutions for vegetable growers	Mr Jim Kelly, ARRIS Pty Ltd, 08 8303 7247		Dec-02	Jul-05
HG02097	Produce executive program for horticulture industry members, 2003 - 2005	Prof John Morris, EMFOR Corporation Pty Ltd, 03 9904 4173	VC	Jul-03	Jul-05
VG03052	Facilitating the development of the Vegetable Industry in Northern Australia - Stage 2	Ms Jan Davis, Growcom, 07 3620 3844		Jul-03	Sep-06
VG03085	Improved economic sustainability of Vietnamese vegetable growers in the Sydney region	Dr David Hall, NSW Department of Primary Industries, 02 4348 1944	+RIRDC	Jul-03	Oct-05
VG03054	Facilitating the communication and development of the Vegetable Industry in Victoria - Stage 2	Mr Patrick Ulloa, Vegetable Growers Association of Victoria Inc, 03 9800 4631		Oct-03	Sep-08
VG03076	Facilitating communication and development of the South Australian vegetable industry - Stage 2	Mr Craig Feutrill, ARRIS Pty Ltd, 08 8303 7247		Oct-03	Jan-08
VG03094	Improving communication networks in the Australian Vegetable Industry	Ms Lisa Maguire, AUSVEG, 03 9644 8098		Mar-04	Feb-07
VG03102	Determining the cost benefit analysis of vegetable R&D	Mr Ian James, AUSVEG, 03 9644 8098		Mar-04	Feb-07
VG03103	Maximising the effectiveness of the vegetable industry R&D program	Mr Jonathan Eccles, AUSVEG, 0407 242 756		Mar-04	Feb-07
HG03019	Planning for Australia and New Zealand to host the International Horticultural Congress 2014	Dr Russ Stephenson, QLD Department of Primary Industries and Fisheries, 07 5444 9649		Jul-04	Nov-06
HG04016	Facilitating the horticultural development of the Bowen and Gumlu region	Mr Dale Williams, Bowen District Growers Assn Inc, 07 4785 2017		Jul-04	Jan-06
HG04050	Facilitating the development of horticultural growers in the Bundaberg region	Ms Jan Davis, Growcom, 07 3620 3844	VC	Jul-04	May-06
HG04051	Facilitating the development of horticultural growers in the Granite Belt region	Ms Jan Davis, Growcom, 07 3620 3844	VC	Jul-04	May-06
HG04027	Facilitating the development of Tasmanian women in horticulture	Ms Amabel Fulton, Rural Development Services Pty Ltd, 03 6231 9033	VC	Aug-04	May-07
VG04023	Facilitating the development of the Vegetable Industry communication network in Western Australia - Stage 2	Mr David Ellement, Western Australian Vegetable Growers Association, 08 9226 0244		Aug-04	Jun-09

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

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Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
HG04023	Communication to industry via 'Irrigation Australia' quarterly journal	Ms Anne Currey, Naturally Resourceful, 02 6628 7079	VC	Jul-05	May-07
HG04053	Third International Symposium on Cucurbits, Townsville, September 2005	Dr Gordon Rogers, Applied Horticultural Research Pty Ltd, 02 9527 0826	+VC	Jul-05	Dec-05
VG04086	Communicating R&D outcomes through Vegetables Australia magazine	Ms Lisa Maguire, AUSVEG, 03 9644 8098		Jul-05	May-06
HG05036	USA Study Tour including PMA Fresh Summit, Georgia USA, October 2005	Mr John Rich, AgTour Australia, 03 6344 5530	VC	Sep-05	Jan-06
VG05075	Developing strategic alliances with the New Zealand vegetable industry: Study tour for young growers, July 2005	Dr Alison Anderson, NSW Farmers Association, 02 9746 1865		Jul-05	Sep-05
VG05079	Australian Vegetable Industry Conference, Brisbane, May 2006	Mr Euan Laird, AUSVEG, 03 9544 8098		Jul-05	Sep-06
VG04083	Communicating R&D outcomes through Vegetable Industry website	Ms Lisa Maguire, AUSVEG, 03 9644 8098		Apr-05	Jul-06
HG05003	Australian Hydroponic & Greenhouse Industry Conference, Bundaberg, July 2005	Dr Stephen Goodwin, Australian Hydroponics & Greenhouse Association, 02 4374 1641	VC	Jul-05	Oct-05
HG05037	National WinHort value adding and exporting workshop, Hahndorf, SA, June 2006	Ms Naomi McGrath-Kerr, Rural Development Services Pty Ltd, 03 6231 9033	VC	Aug-05	Jul-06
Vegetables - Crop management					
HG00026	National irrigation initiative	Prof James Pratley, Charles Sturt University, 02 6933 2864	VC	Jul-00	May-05
HG02017	Raising the professionalism and sustainability of irrigation in Queensland urban and rural enterprises	Mr Merv Jessen, Irrigation Association of Australia, 07 5482 8030	VC	Jul-02	Jul-05
HG02092	National coordination of reclaimed water use in horticulture	Mr Jim Kelly, ARRIS Pty Ltd, 08 8303 7247	VC	Jul-03	Jan-07
HG03026	Facilitating the improvement of irrigation efficiency and management in Western Australia.	Mr Adrian Nicholas, Irrigation Association of Australia, 08 9474 9089	VC	Jul-03	Jan-06
VG03074	Sustainable integrated compost evaluation and crop residue management	Dr Harrie Hofstede, Spartel Pty Ltd, 08 9360 6699	VC	Jul-03	Jan-05
VG03084	Pollination and seed development in hybrid vegetable seed crops	Dr Philip Brown, University of Tasmania, 03 6226 2716	VC	Jul-03	Jun-06
VG03088	Developing the Enviroveg program as a national environmental program in the vegetable industry	Ms Helena Whitman, AUSVEG, 03 5429 5220		Jul-03	May-06
HG03065	Sustainable horticultural industry development in the South Australian Murray River irrigation districts	Mr Tom Martin, Riverland Horticultural Council Inc, 08 8595 8104	VC	Jul-03	Jan-07
VX03013	Coordination of the National Cadmium Minimisation Strategy	Dr Michael Warne, CSIRO Land and Water, 08 8303 8533	+PT, VC, GRDC	Oct-03	May-06
HG03062	National program for sustainable irrigation	Dr Ian Prosser, Land and Water Australia, 02 6263 6061	LWA	Dec-03	Jan-06
VG04009	Increasing water and nutrient use efficiency in vegetable production on sandy soils	Mr Peter O'Malley, Department of Agriculture Western Australia, 08 9368 3313		Jul-04	Jan-08
VG04018	Enhancing fertiliser use efficiency for transplanted vegetables	Mr Dennis Phillips, Department of Agriculture Western Australia, 08 9368 3319		Jul-04	Jan-06

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
VG04015	Benchmarking Vegetable Industry water use	Mr Bill Ashcroft, VIC Department of Primary Industries, 03 58 335 253		Jul-04	Sep-05
VG04010	Australian vegetable crops - Maximising returns from water	Mr Mark Hickey, NSW Department of Primary Industries, 02 6951 2523		Jul-04	Mar-06
HG04011	Coordination of water reform in Queensland horticulture	Ms Jan Davis, Growcom, 07 3620 3844	VC	Dec-04	Jan-06
HG05007	'Time to Deliver' - Irrigation Australia conference, Brisbane, May 2006	Mr Simon Cooper, Irrigation Association of Australia, 07 5591 5353	VC	Jul-05	May-06
HG05017	Coordination of natural resource networks for fruit and vegetable growers in Queensland	Ms Jan Davis, Growcom, 07 3620 3844		Jul-05	May-07
VG05060	Scoping study to assess the application of precision agriculture for vegetable production	Professor Alexander McBratney, University of Sydney, 02 9351 3214		Jul-05	Feb-06
HG05015	Delivering water use efficiency in Queensland horticulture	Mr Merv Jessen, Irrigation Association of Australia, 07 5482 8030	VC	Jul-05	Sep-08
VG05051	Scoping study into climate change and climate variability	Mr Peter Deuter, QLD Department of Primary Industries & Fisheries, 07 5466 2233		Sep-05	Jul-06
Vegetables - Market development					
HG04006	Assessment of the national fruit and vegetable consumption campaign	Mr Martin Kneebone, RETAILworks Pty Ltd, 03 9852 8733	+ Other levies	Apr-05	Nov-05
VG04069	Establishing the economic fundamentals of the vegetable industry	Mr Ian James, AUSVEG, 03 9644 8098		Jul-05	Jan-07
VG05072	Compiling the nutritional and health benefit information for fresh vegetables	Dr Carolyn Lister, NZ Crop & Food Research Institute, +64 6 356 8300		Jul-05	Jun-06
VG05082	Audit of market research and information for vegetables	Ms Melanie Curtis, New Knowledge, 08 9321 5415		Jul-05	Jun-06
Vegetables - Pest, disease & weed management					
HG01020	DNA Diagnostics to protect horticultural industries in Northern Australia	Dr Andre Drenth, CRC for Tropical Plant Protection, 07 3896 9345	VC	Jul-01	Jul-06
HG01005	Facilitating national adoption of methyl bromide alternatives	Mr Alan Shanks, Agriculture Victoria, 03 9210 9222	MB, VC	Nov-01	Nov-04
VX02016	Improved management strategies for silverleaf whitefly in vegetable crops	Dr Paul De Barro, CSIRO Entomology, 07 3214 2811	+VC	Jul-02	Aug-05
HG02103	Integrated pest and sustainable land management for Northern Adelaide Plains	Dr Peter Taverner, SA Research & Development Institute, 08 83039538	VC	May-03	Jun-06
HG03003	Evaluation of insecticides for western flower thrips resistance	Dr Grant Herron, NSW Department of Primary Industries, 02 4640 6333	+BS, TM	Jul-03	Sep-06
VG03099	Provision of western flower thrips technology transfer services in Bundaberg and Bowen	Mr Iain Kay, QLD Department of Primary Industries and Fisheries, 07 4155 6244		Jul-03	Jan-08
HG03070	Development and implementation of industry biosecurity plans	Mr Rodney Turner, Plant Health Australia, 02 6260 4322	+VC, other levies	Mar-04	Jan-07
VG03098	Regional extension strategy for managing western flower thrips and tomato spotted wilt virus in the Sydney Region	Dr Stephen Goodwin, NSW Department of Primary Industries, 02 4348 1900		Jul-04	Jul-08
VG04017	Using Hippodamia ladybird in brassica integrated pest management	Mr Brendan Nolan, QLD Department of Primary Industries & Fisheries, 07 5466 2245		Jul-04	Nov-06

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

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Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
VG04021	Evaluation of new seed dressing technologies for improved disease and insect control in vegetable crops	Mr Hoong Pung, Serve-Ag Research Pty Ltd, 03 6423 2044	+VC	Jul-04	Dec-07
VG04024	Facilitating the introduction and registration of new crop protection products for intensive horticulture	Mr Ian MacLeod, Serve-Ag Research Pty Ltd, 03 6423 2044		Jul-04	Oct-06
VG04026	Effect of herbicides and wetter on foliar diseases of vegetables	Mr Dean Metcalf, Biocontrol Australia Pty Ltd, 03 6272 2235	+VC	Jul-04	Jan-06
VG04073	Preparation of pesticide minor-use applications in various vegetable crops	Mr Kevin Bodnaruk, AKC Consulting Pty Ltd, 02 9499 3833		Feb-05	Mar-06
VG04084	Preparing desktop minor use applications for vegetables	Mr Peter Dal Santo, AgAware Consulting Pty Ltd, 03 5439 5916		Feb-05	May-06
VG04071	Generation of pesticide residue data in vegetables to support minor-use permits - Region 1	Mr Martin Collett, Agrisearch Services Pty Ltd, 02 6362 4539		May-05	Jan-06
VG04072	Generation of pesticide residue data in vegetables to support minor-use permits - Region 2	Mr Ian Macleod, Serve-Ag Research Pty Ltd, 03 6423 2044		May-05	Jan-06
HG04018	Evaluation of methyl iodide for soil disinfestation in Australian horticulture. Part II	Mr Ross Mann, VIC Department of Primary Industries, 03 9210 9222		Jul-05	Sep-07
HG05005	Horticultural Pest Management Strategic Plan Review and on going support	Ms Jan Davis, Growcom, 07 3620 3844	+VC	Jul-05	Jun-08
HG05020	15th Biennial Australian Plant Pathology Conference, Geelong, September 2005	Dr Nigel Crump, VIC Department of Primary Industries, 03 9210 9222	+VC	Jul-05	Dec-05
VG05014	Native vegetation to enhance biodiversity, beneficial insects and pest control in horticulture systems	Dr Nancy Schellhorn, CSIRO Entomology, 07 3214 2721		Jul-05	Jun-06
VG05080	Biennial meeting of the national vegetable pathology	Mr Andrew Watson, NSW Department of Primary Industries, 02 6951 2647		Jul-05	Jun-06
VG05087	Improved fumigation technology	Mr Trevor Wicks, SA Research & Development Institute, 08 8303 9563		Sep-05	Jun-06
VG05050	Developing integrated pest management strategies for silverleaf whitefly in vegetables	Dr Siva Subramaniam, QLD Department of Primary Industries & Fisheries, 07 4761 4000		Oct-05	Nov-08
VG05013	Attendance at 2nd International Biofumigation Symposium	Mr John Matthiessen, CSIRO Entomology, 08 9333 6641		Jan-06	Jun-06
Vegetables - Postharvest management					
VG04048	Pesticide bioremediation technologies for Australian Horticulture - Stage 3: building a versatile technology across pesticide classes	Dr John Oakeshott, CSIRO Entomology, 02 6246 4157	+VC	Feb-05	May-07
Vegetables - Product development					
Various	Vital vegetables: A trans-Tasman collaborative program to produce fresh, flavoursome and functional vegetables	Mr Bruce Tomkins, VIC Department of Primary Industries, 03 9210 9209 Dr Ross Lill, NZ Crop & Food Research Institute, +64 6 356 8300	+VC	Jan-03	Aug-07
Vegetables - Quality assurance & food safety					
VG04019	Assessing nitrate and nitrite levels in vegetables	Ms Sophie Parks, NSW Department of Primary Industries, 02 4348 1914		Jan-04	Jan-08

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
Export vegetables - Market access					
VG01014	Disinfestation of sweet corn for export using phosphine and controlled atmospheres	Dr Francis De Lima, Department of Agriculture Western Australia, 08 9368 3587		Sep-01	Jan-07
VG04006	Heat disinfestation of capsicums for export to New Zealand and interstate	Ms Elizabeth Hall, QLD Department of Primary Industries & Fisheries, 07 4044 1660		Jul-04	Jun-06
VG05019	Residue risk analyses and management option development for export cabbages, cauliflower, carrots, capsicum and lettuce.	Mr Kevin Bodnaruk, AKC Consulting Pty Ltd, 02 9499 3833		Jul-05	Jun-07
Export vegetables - Market development					
VG04070	Identifying counter seasonal market opportunities for selected vegetables to Europe	Mr Ian James, AUSVEG, 03 9644 8098		Jul-05	Jan-05
VG05028	Market access for Australian broccoli and cauliflower	Ms Rachel Lancaster, Department of Agriculture Western Australia, 08 9780 6210		Jul-05	Jun-08
Export vegetables - Transport technology					
VG04007	Further developing technologies to export vegetables in bulk	Mr Dennis Phillips, Department of Agriculture Western Australia, 08 9368 3319		Jul-04	Jun-06
VG04020	Evaluation of new shipping technology for Australian vegetables	Ms Jenny Ekman, NSW Department of Primary Industries, 02 4348 1967		Jul-04	Dec-05
Processing vegetables - Pest, disease & weed management					
VG02115	Managing northern corn leaf blight in processing sweet corn	Mr Andrew Watson, NSW Department of Primary Industries, 02 6951 2647	VC	Oct-02	May-06
Brassicas - Crop management					
VG02051	Agronomic packages for reduced pass harvesting of export cauliflower	Ms Rachel Lancaster, Department of Agriculture Western Australia, 08 9780 6210	+VC	Jul-02	May-06
VG03083	Cost efficient production of processing broccoli	Mr Antony McConville, Matilda Fresh Foods Pty Ltd, 07 4668 0444	VC	Oct-03	Nov-05
VG04008	Export cauliflower - Alternative planting configurations	Ms Rachel Lancaster, Department of Agriculture Western Australia, 08 9780 6210	+VC	Jul-04	Sep-07
Brassicas - Market development					
VG05062	Understanding the retail performance of broccoli using a tool for determining in store performance and consumer demand	Ms Marie Piccone, Piccone Horticultural Consultancy Pty Ltd, 07 3357 5277	+RIRDC	Jul-05	Feb-06
Brassicas - Pest, disease & weed management					
VG03047	Pyramiding genes for clubroot resistance in brassica vegetable crops	Dr Eddie Pang, RMIT University, 03 9925 7137		Jul-03	Apr-07
VG04004	National diamondback moth project: integrating biological, chemical and area-wide management of brassica pests	Dr Greg Baker, SA Research & Development Institute, 08 8303 9543		Jul-05	Jan-08
VG04013	Management strategies for white blister (rust) in Brassica vegetables	Ms Elizabeth Minchinton, VIC Department of Primary Industries, 03 9210 9224		Jul-04	Jan-07
VG04014	A coordinated approach to the dissemination of brassica disease research and development through Better Brassicas	Ms Caroline Donald, VIC Department of Primary Industries, 03 9210 9299		Jul-04	May-06

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

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Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
VG04059	Developing on-farm diagnostic kits for brassica diseases	Mr Robert Faggian, VIC Department of Primary Industries, 03 9800 3521		May-05	May-07
VG05005	Scoping study to determine the soil borne diseases affecting Brassica crops	Dr Trevor Wicks, SA Research & Development Institute, 08 8303 9563		Jul-05	Jul-06
Brassicas - Product development					
VG01092	Varietal improvement of kailaan and production of a kailaan-broccoli hybrid - Stage 2	Dr Kiang Lee, Henderson Seed Group Pty Ltd, 03 9850 2266	VC	Jul-01	Sep-06
VG03086	Investigating anti-cancer properties of Asian brassica vegetables	Mr Tim Ohare, QLD Department of Primary Industries and Fisheries, 07 5466 2267	+RIRDC	Jul-03	Sep-06
Leafy vegetables - Crop management					
VG01020	Evaluation of agronomic, cultural and postharvest related factors affecting the quality of lettuce salads	Dr Mala Gamage, Food Science Australia, 03 9731 3471	+VC	Feb-02	Jan-05
VG01028	Improving lettuce insect pest management - NSW and QLD	Dr Sandra McDougall, NSW Department of Primary Industries, 02 6951 2728	+VC	Dec-01	Oct-05
VG03092	Agronomic and postharvest improvement in iceberg and cos lettuce to extend shelf life for fresh cuts salads	Dr Gordon Rogers, Applied Horticultural Research Pty Ltd, 02 9527 0826	VC	Jul-03	Jun-06
VG05068	Optimising crop management and postharvest handling for baby leaf salad vegetables	Dr Gordon Rogers, Applied Horticultural Research Pty Ltd, 02 9527 0826	VC	Jul-05	May-08
Leafy vegetables - Pest, disease & weed management					
VG02062	Weed management in lettuce	Mr Phillip Frost, Serve-Ag Research Pty Ltd, 03 6423 2044		Jul-02	Sep-05
VG04012	Effective management of root diseases in hydroponic lettuce	Mr Len Tesoriero, NSW Department of Primary Industries, 02 4640 6428		Nov-04	Jan-07
VG04067	Integrating lettuce aphid into integrated pest management strategies	Mr Lionel Hill, DPIWE, Tasmania, 03 6421 7636		Nov-04	Jan-06
VG04068	Generation of efficacy and residue data for imidacloprid (Confidor) in lettuce to control lettuce aphid	Mr Phillip Frost, Serve-Ag Research Pty Ltd, 03 6423 2044		Nov-04	Sep-05
Root vegetable - Crop management					
VG01010	Improving sweet potato agronomy to meet new market opportunities	Mr Stephen Harper, QLD Department of Primary Industries and Fisheries, 07 5466 2222		Jul-01	Nov-05
VG04030	Taro industry development - the first step	Mr Jeff Daniells, QLD Department of Primary Industries and Fisheries, 07 4064 3911	+RIRDC	Jul-04	Sep-06
VG05064	Improving yield in hybrid carrot seed crops	Dr Cameron Spurr, Tasmanian Institute of Agricultural Research, 03 6226 2651		Jul-05	Jan-08
VG05083	Development of integrated strategies for sustainable processing beetroot production	Dr Valerio Tanguilig, Golden Circle Limited, 07 3266 0000	+VC	Jul-05	Dec-08
Root vegetables - Market development					
VG05081	Understanding market and consumer requirements for carrots	Ms Fiona Guest, Market Equity, 02 9922 8192		Jul-05	Jun-06

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
Root vegetables - Pest, disease & weed management					
VG05037	Improving the management of sweet potato soil insect pests	Mr Eric Coleman, QLD Department of Primary Industries & Fisheries, 07 5466 2222		Jul-05	Jun-09
VG05045	Investigating the cause of parsnip canker and developing management strategies	Dr Elizabeth Minchinton, VIC Department of Primary Industries, 03 9210 9224		Jan-06	Jan-08
Root vegetables - Product development					
VG02114	Development of smooth skinned, easy to peel sweet potato using smart state technology	Mr Eric Coleman, QLD Department of Primary Industries and Fisheries, 07 5466 2222	VC	Dec-02	Mar-06
Other vegetables - Communication, technology transfer & industry development					
VG04029	Communicating Asian vegetable R&D through Access to Asian Foods newsletter	Mr Graeme Thomson, VIC Department of Primary Industries, 03 9210 9222		Jul-04	Jun-06
VG05069	Greenhouse vegetable study tour, Holland, November 2005	Mr Graeme Smith, 03 5427 2143		Oct-05	Jan-06
Other vegetables - Market development					
VG04031	Improving the market development for Asian vegetables	Dr Jenny Ekman, NSW Department of Primary Industries, 02 4348 1900	+RIRDC	Jul-04	Jun-07
Other vegetables - Pest, disease & weed management					
VG01096	Stop the rot - managing onion white rot in spring onions	Mr Oscar Villalta, VIC Department of Primary Industries, 03 9210 9269	+VC	Apr-02	Oct-05
VG02030	Integrated pest management in the green bean industry	Mr John Duff, QLD Department of Primary Industries and Fisheries, 07 5466 2222	+VC	Sep-02	Oct-06
VG02035	Capsicum breeding for tospovirus resistance	Mr Des McGrath, QLD Department of Primary Industries and Fisheries, 07 4761 4000		Jan-03	Dec-06
VG03109	Extension to greenhouse integrated pest management program	Mr Stephen Goodwin, NSW Department of Primary Industries, 02 4348 1900	+VC	Jul-03	Jun-06
VG03002	Managing bean root and stem diseases	Mr Andrew Watson, NSW Department of Primary Industries, 02 6951 2647		Jan-04	Jun-06
VG03029	Development of guidelines for sustainable management of powdery mildew in capsicums	Dr Chrys Akem, QLD Department of Primary Industries and Fisheries, 07 4783 2355		Jan-04	Dec-06
VG04032	Integrated management strategies for pests and diseases of Asian vegetables	Mr Len Tesoriero, NSW Department of Primary Industries, 02 4640 6428	+RIRDC	Jul-04	May-08
VG04025	Scoping study to investigate management of root-rot diseases in parsley	Ms Elizabeth Minchinton, VIC Department of Primary Industries, 03 9210 9224		Jul-05	Jan-06
VG05029	Developing management strategies to control Fusarium wilt in snow peas	Mr Andrew Watson, NSW Department of Primary Industries, 02 6951 2647		Jul-05	Sep-08
VG05034	Managing mildews in cucurbits with systemic acquired resistance	Dr Jenny Jobling, University of Sydney, 02 9351 3498		Jul-05	Oct-08
VG05035	Improving integrated pest management systems for sweetcorn	Mr Peter Deuter, QLD Department of Primary Industries & Fisheries, 07 5466 2233	+VC	Jul-05	Nov-09
VG05052	Refining integrated pest management of eggfruit caterpillar	Mr Iain Kay, QLD Department of Primary Industries & Fisheries, 07 4155 6244		Jul-05	May-08
VG05053	Developing management options for rhubarb viruses	Dr John Thomas, QLD Department of Primary Industries & Fisheries, 07 3896 9371		Jul-05	May-09

Vegetable Industry R&D program Projects running in 2005

(Funded by the National Vegetable Levy and Australian Government matching funds unless otherwise indicated)

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Project No.	Title	Project Leader, R&D Organisation, Telephone	Other funds involved*	Project Start	Project finish
VG05084	Integrated management of greenhouse vegetable diseases: Development of microbial biocontrols and biorational chemical strategies	Mr Len Tesoriero, NSW Department of Primary Industries, 02 4640 6406		Jul-05	May-08
Other vegetables - Product development					
VG00073	Breeding disease and insect resistant supersweet corn	Mr Ian Martin, QLD Department of Primary Industries and Fisheries, 07 4095 8419	+VC	Jul-00	Jul-05
Across Industry Program (involves national vegetable levy funds)					
AH01015	Developing key genes for horticultural products	Dr Steve Swain, CSIRO Plant Industry, 08 8303 8600		Aug-01	Sep-06
AH03002	Area wide management of fruit fly - Central Burnett	Dr Annice Lloyd, QLD Department of Primary Industries and Fisheries, 07 3896 9366		Jul-03	Sep-06
AH03007	Coordination of the horticultural plant improvement programs	Mr Paul Brennan, Horticulture Australia, 2 6687 5288		Jul-03	Jun-06
AH04006	Facilitating communication of horticultural gene technology - Stage 2	Ms Paula Fitzgerald, Agrifood Awareness Australia, 02 6273 9535		Jul-04	May-07
AH04007	Coordination of pesticide regulation for horticulture	Mr Kevin Bodnaruk, AKC Consulting Pty Ltd, 02 9499 3833		Jul-04	Jul-09
AH04009	Coordination of minor use permits for horticulture	Mr Peter Dal Santo, AgAware Consulting Pty Ltd, 03 5439 5916		Jul-04	Jan-07
AH05001	Initiatives post the review of the retail grocery industry code	Mr Stuart Swaddling, Horticulture Australia Council, 02 9679 1560		Jul-05	Jun-06
AH05003	Coordination of market access for horticulture products	Mr Stephen Winter, Stephen Winter & Associates Pty Ltd, 03 9832 0787		Jul-05	Jun-06
AH05006	Returnable Plastic Crates for Horticulture	Mr Steve Howe, Third Party Logistics Pty Ltd,		Jul-05	May-06
AH05017	Strategic review of industry development in horticulture	Mr Brian Ramsay, Concept Consulting Group Pty Ltd,		Jul-05	May-05

* Other funds involved

VC : Funded only from Voluntary Contributions from other industries / companies

+VC : Also funded from Voluntary Contributions from other industries / companies

+GRDC : Funds also from Grains Research & Development Corporation

+RIRDC : Funds also from Rural Industries Research & Development Corporation

LWA : Funds from Land & Water Australia

MB : Methyl Bromide voluntary levy collected by chemical companies

PT : Potato levy

BS : Strawberry levy

TM : Processing Tomato levy

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Townsville, QLD.

The International Cucurbit Symposium offers researchers, industry and cucurbit growers a unique opportunity to hear new and exciting developments and technical information in cucurbit crop production and handling. It will cover issues such as breeding and genetics, postharvest physiology and technology, cucurbits and human health, and technology transfer with keynote presentations by cucurbit scientists and specialists from Australia and overseas including USA, Asia, Europe and the Middle East

For more information on the symposium contact Gordon Rogers

Tel: 02 9527 0826

Email: gordon@ahr.com.au

Website:

www.cucurbitsymposium.org.au

14-17 September

Australian Melon Conference

Jupiters Hotel and Casino,
Townsville, QLD.

Held in conjunction with the International Cucurbit Symposium

For more information contact

Judy Greensill,

Email: greensill@optusnet.com.au

Website: **www.melonaustralia.org.au**

19-21 September

National Potato Conference

Cowes, Phillip Island, VIC

For more information, contact Tony Pitt

Tel: 03 5623 4788

Email: tony.agchall@dcsi.net.au

Notice of Annual Potato Levy Payers Meeting to be held at National Potato Conference 2005

8:00 am - 8:45 am

Tuesday 20th September 2005

The Continental

The Continental Phillip Island,

The Esplanade, Cowes

The purpose of the meeting is to provide a forum for Potato R&D Levy payers where levy issues can be discussed and the annual report presented by the Potato Industry Advisory Committee.

Enquiries can be made to Leigh Walters, Technology Transfer Manager (Potatoes)

Tel: (08) 8100 8707.

27-30 September

Australasian Postharvest Horticulture Conference 2005

Royal Lakeside Novotel,
Rotorua, New Zealand.

Held in New Zealand or Australia every two years, this conference updates participants from research and commerce on the latest developments in postharvest horticulture.

The conference will cover all aspects of postharvest science and technology, including preharvest to postharvest; postharvest quality; molecular biology and physiology; supply chain management and traceability; shipping and handling; postharvest pathology; disinfestations; food safety; nutrition and health; and marketing.

Early registrations close 29 July 2005.

For more information, contact Don Brash

Email: brashd@crop.cri.nz

Website:

www.crop.cri.nz/home/conferences/aphc2005/index

OCTOBER 2005

23-26 October

The ANCID 2005 Conference (Australian National Committee - International Commission on Irrigation and Drainage Incorporated)

Mildura, Vic.

ANCID's annual conferences are the key focus for Australian irrigation water providers and aim to examine emerging issues and their resolutions with participants focusing on industry reform objectives. This year the theme of One Life, One River, Our Future will be examined using an ESD approach - examining economic, environment and social implications of

new research and technologies for the future of the sector.

Website: **www.lmw.vic.gov.au/ancid2005/about.htm**

tbc

AUSVEG Board Meeting

Adelaide

tbc

AUSVEG National Vegetable Levy Payers Meeting

Adelaide

NOVEMBER 2005

4-8 November

Fresh Summit, PMA's Fresh Summit International Convention & Exposition

Atlanta, Georgia, US.

For more information

Website: **www.pma.com**

26 November – 5 December

Southern Hemisphere Congress in Chile

Santiago, Chile.

The Southern Hemisphere Congress is the leading annual conference event for the international fresh fruit and vegetable business in the Southern Hemisphere.

For more information

Website: **www.shcongress.com**

MAY 2006

10-12 May

Australian Vegetable Industry Conference

Brisbane Convention and Exhibition Centre, Brisbane, QLD.

For more information

Website: **www.vegieconf.com**



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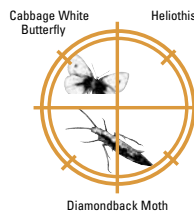
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