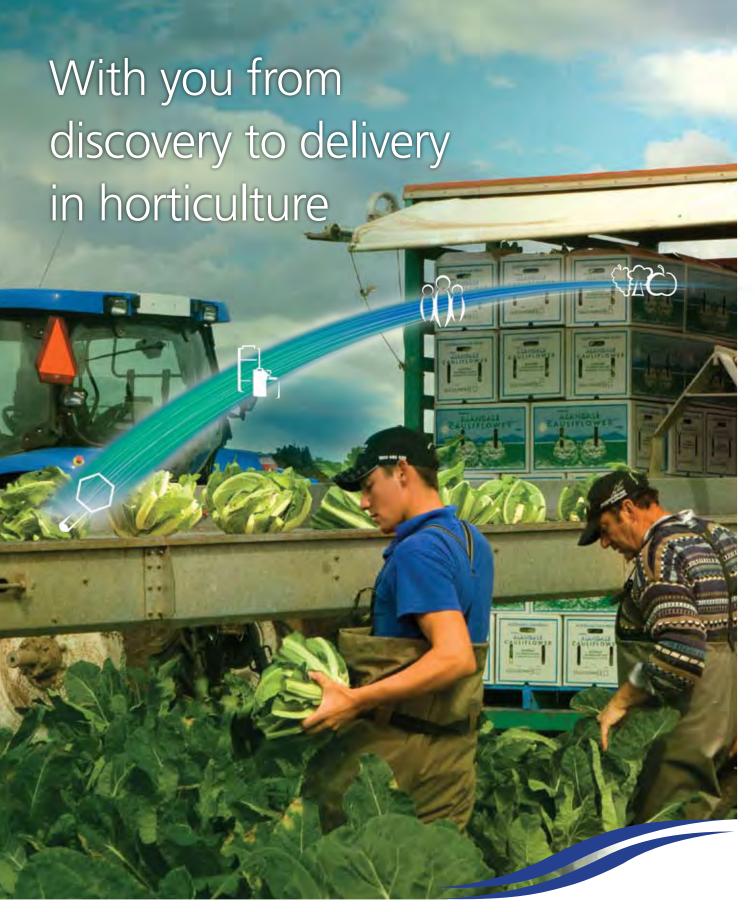
vegetables australia





20 2008 Vegetable Industry Awards winners 28 Sam Calameri: One of a kind 32 Tap into sea vegetables





From Discovering Sustainable Chemistry



With Knowledge and Experience



By Developing Innovative Brands



To Delivering Quality Produce

Everyday, Syngenta invests millions of dollars in discovering and developing sustainable horticultural crop protection solutions.

To find out how we can help you deliver quality produce, call the Syngenta Technical Product Advice Line on Freecall 1800 067 108 or visit www.syngenta.com.au



A word from the **AUSVEG Chairman**

The vegetablesWA 60th Anniversary Dinner on 31 May was the ideal setting for the Australian Vegetable Industry Awards 2008. Congratulations to the very worthy award winners, and a huge thankyou to our award sponsors—you made the night a great success.

↑ Te look forward to your continued support in the future. The Bill Stevens Award of Excellence, an award for Western Australian growers, was also presented on the night.

To everyone at vegetablesWA, thanks for the fellowship of the night. Six hundred people from all parts of the industry gathered to celebrate the great industry we

The next all-of-industry gathering we can look forward to is the biennial industry conference. With a theme of "Growing a Healthy Australia", the conference will be held in Melbourne in May 2009. AUSVEG will host the event, which promises to showcase industry activities and

achievements, the latest research from Australia and around the world, and offer attendees some fantastic opportunities to network.

The Australian Vegetable Industry Development Group finished up on 30 June. In its two years of operation, the group examined the industry in detail. It presented its final report on 1 July, where its findings on the profitability and sustainability of the Australian vegetable and potato industries were discussed.

AUSVEG has farewelled Lisa Maguire, General Manager and Director of Communications. We wish Lisa well in her new career and thank her for the longstanding commitment she made to the company and to growers.



David Anderson Chairman AUSVEG Ltd

From the editor



ith mid-year upon us, it's a time of endings and beginnings. We have the final article in our series about the five vegetable Industry Advisory Committee (IAC) advisory groups—this time it's the Leadership and People Development Advisory Group. In future issues of Vegetables Australia we'll be touching base with the five groups to see how they're progressing, but in the meantime, turn to page 18 to see how the next generation of leaders is

Speaking of endings, the Australian Vegetable Industry Development Group (AVIDG) is given a comprehensive rundown as we recap the group's aims and tally the outcomes of its seven Foundation Projects (page 42). The AVIDG project has now finished; it's time for the vegetable industry to gain a better understanding of its strengths and weaknesses, as outlined in the Foundation Projects, and take charge of its future.

Congratulations to all finalists of the Australian Vegetable Industry Awards 2008; winners were announced at the vegetablesWA 60th Anniversary Dinner, held in Perth at the end of May. See page 20 for a round-up of the winners and the evening's

This issue we meet grower Sam Calameri, winner of the 2008 Clive Stevens Award of Excellence, who tells us about his inventor's streak, and how he's built custom-made equipment specifically for his farm (page 28).

We'll be back in September with a look at why fertiliser prices have increased so dramatically and an explanation of the chemical registration process in Australia. Until then, good growing.

Jim Thomson

Editor, Vegetables Australia



Sam Calameri: One of a kind

28



contents july/august

Features

- 20 Industry celebrates awards winners
- 28 Sam Calameri— One of a kind
- 36 Bundaberg association sparkles in its diamond anniversary
- 42 Pass the baton
- 52 Investment plan to support development of leadership and business skills

News

- 8 Water challenges "a harsh reality"
- 9 VegeNotes survey winner
- 9 New AUSVEG constitution stalls
- 12 Growers flock to soil health workshops
- 13 Experts to help irrigators make decisions
- 13 Tour Asia
- 2009 conference to "grow a healthy Australia"
- 14 Changing of the guard
- 15 Media matters

R&D

- 9 Spinach goes straight to the heart
- 11 HAL seeks grower feedback
- 16 Prevention is better than
- 18 Growth spurt needed for future leaders
- 27 Code Red
- 32 Seaweed is no small-fry
- **34** Avoid the silver lining

We need innovative, creative and enthusiastic young growers to lead the way and take us to 2020 and beyond. • page 18

- 35 Project preview: Nutrient management of leafy Asian vegetables
- 40 On-farm assistance makes a difference
- 48 Take a leaf out of their book

Industry update

- 10 Recent minor use permits
- 25 Westside story
- 26 Record crowd at Demo Farm opening
- 31 Many languages, one voice
- Asian vegetable profile— Lotus root
- 38 Demand for supply chain tour
- 47 Ask the industry
- 47 It's nearly time to fly
- 54 Around the states

Regulars

- 3 Chairman's message— David Anderson
- 3 From the editor
- 50 Economic outlook— Conservative budget will have limited effect
- 55 Calendar of events

vegetables australia



AUSVEG Ltd Chairman

David Anderson

Editor

Jim Thomson Phone: 03 9544 8098 Fax: 03 9558 6199 Mob: 0407 242 788 Email: editor@ausveg.com.au

Editorial Committee

Anthony Brandsema Tasmanian vegetable grower

John Mundy

South Australian vegetable grower

Figaro Natoli

Western Australian vegetable

Glenn Abbott

Queensland vegetable grower

Thérèse Schreurs

Victorian vegetable grower

David Chung

New South Wales vegetable

grower

Alison Anderson News South Wales Industry Development Officer

Toni Davies Communications Manager, AUSVEG

Advertising

Max Hyde Phone: 03 9870 4161

Email: max@hydemedia.com.au

Contributors

Brea Acton, Angela Brennan, Robyn Brett, Hannah Burns, Jonathan Eccles, Jenny Ekman, Barbara Hall, Lucy Jarman, David Jarwood, Lucy Keatinge, Suzanne Laing, Ross Ord, Sophie Parks, Leigh Pilkington, Emily Webb, Westways Colorgrafix

Design

Arris www.arris.com.au

Printer

Erwins Printing Pty Ltd

Distribution

Mailcare

Thank you to all growers and researchers for your participation in the interviews.





Know-how for Horticulture™

All research and development projects are facilitated by HAL in partnership with AUSVEG and are funded by the National Vegetable Levy and/or voluntary contributions from industry. The Australian Government provides matched funding for all HAL's R&D activities.

For more information visit www.ausveg.com.au

Vegetables Australia is produced by AUSVEG Ltd and is free for all National Vegetable Levy payers.

Industry Development Officers (IDOs)

New South Wales Alison Anderson Phone: 0409 383 003

Queensland Vacant

Phone: 0408 135 042

South Australia Melissa Fraser Phone: 0407 773 369

Tasmania Roger Orr

Phone: 0438 217 600

Victoria Craig Murdoch Phone: 0429 990 553 Western Australia

David Ellement Phone: 0408 941 318

Disclaimer

AUSVEG Ltd makes this magazine available on the understanding that users exercise their own skill and care with respect to its use. Before relying on or altering any business practices users should carefully evaluate the accuracy, completeness and relevance of the information for their purpose and should obtain appropriate professional advice relevant to their particular circumstances. This magazine contains views and recommendations that do not necessarily reflect those views of AUSVEG Ltd.

Special care should be taken with agriculture chemicals which may have been used experimentally but are not yet registered for commercial usage. Clarification should be sought from the researchers or the chemical manufacturers.

© Copyright AUSVEG Ltd 2008

This work is copyright. Apart from any use as permitted under the Copyright Act 1968, no part may be reproduced by any process without prior permission from AUSVEG Ltd. Requests and inquiries concerning reproduction and rights should be addressed to The Editor, *Vegetables Australia*, PO Box 563, Mulgrave VIC 3170.

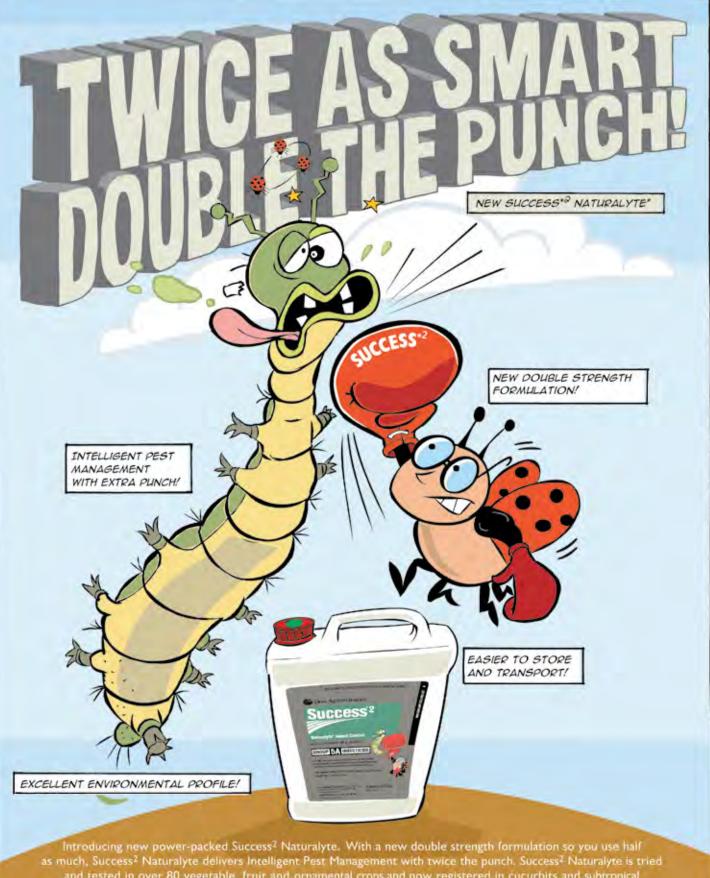
ISSN 1882-3340 AUSVEG Ltd PO Box 563 Mulgrave VIC 3170

Vegetables Australia is printed using soy-based inks on EMS accredited pH-neutral paper produced from sustainable fibre plantation ECF pulp.

Vegetables Australia is distributed using OxoBiodegradable plastic envelopes.



AUSVEG Ltd is proud to be an Australian Grown campaign partner.



Introducing new power-packed Success² Naturalyte. With a new double strength formulation so you use half as much, Success² Naturalyte delivers Intelligent Pest Management with twice the punch. Success² Naturalyte is tried and tested in over 80 vegetable, fruit and ornamental crops and now registered in cucurbits and subtropical fruit tree crops. To discover how Success² Naturalyte can help you grow more first-grade produce, better crop yields and a bigger profit margin call Dow AgroSciences on 1800 700 096, talk to your reseller or visit dowagrosciences.com.au





Water challenges "a harsh reality"

What does the Australian Government have in mind for the water crisis? Melanie Ward reports on the key strategies of the government's 'Water for the Future' plan.

Australian Government's long-term, \$12.9 billion plan to secure water for all Australians. The plan was unveiled on 29 April 2008 by Penny Wong, Minister for Climate Change and Water. She spoke at the Irrigation Australia 2008 Conference in Melbourne in May, and discussed how the strategy will address Australia's key water challenges.

Climate change

Warmer days and lower rainfall are some of the glaring indicators of climate change. In the Murray-Darling Basin, the past few years have seen a sequence of very low inflows to the River Murray and record-low allocations, with the pattern set to continue.

"This is a harsh reality. We all have to take responsibility for the future we create," said Penny.

Research conducted by the CSIRO is investigating the future water availability in the Murray-Darling Basin and exploring the future implications of groundwater use, new farm dams, and

rights, markets and trading as a fair way to allocate water resources between competing users. A new cap is planned for the new Basin Plan, as well as a program to help irrigated regions and communities further improve the ways they manage, deliver and use water resources.

"This is an opportunity to take the initiative in securing a longterm, viable future for irrigation regions, and in the process, make the necessary adjustments in anticipation of a new Basin Cap," said Penny.

Securing new water supplies

A key element of the 'Water for the Future' plan is to work with the states to develop new sources of water that do not rely entirely on rainfall. This will hopefully alleviate the problem of matching grower water needs to declining traditional water resources, while providing practical projects to save water and reduce water loss.

The Murray Darling is Australia's largest and most important



We can not afford to wait before more water can be returned to the environment.

land-use change on the basin's water resources. Australians must understand the implications of climate change and ensure that all needs are catered for in the face of declining water availability.

In the 1990s, the Interim Cap was introduced in the Murray-Darling Basin. This system created irrigation water property river system; it supports many economic, environmental and cultural functions. The government believes that urgent action must be taken to restore the nation's rivers and wetlands to health.

Water purchase program

The government will invest at least \$3.1 billion to restore the

balance in the Murray-Darling Basin and will purchase water to put back in the rivers over the next 10 years. The government believes that purchasing water from willing sellers at a fair market price is a sensible response to this problem.

"We can not afford to wait for a new Basin Plan to come into effect before more water can be returned to the environment," said Penny.

A dozen representatives from a broad cross-section of Murray-Darling stakeholders are part of a committee established to evaluate the outcomes of the first water purchase tender. The committee will play an important role in assessing the strengths and weaknesses of the tender and advise the government how to conduct future water purchasing.

"The water crisis that we face must be dealt with, and as water professionals I ask that you play a role in shaping the ways we respond and adapt to this challenge," said Penny. va



For more information about The Australian Government's water purchase program, visit www.environment.gov.au/ water



Spinach goes straight to the heart

Increased consumption of dark leafy green vegetables could lead to healthier hearts for diabetics.

Well, two months ago it was bitter melon (see *Vegeta-bles Australia* 3.6, page 40); this time spinach is being heralded as the great new hope for diabetics.

Researchers from Australia and China have uncovered a new therapeutic role for folic acid—protecting the heart muscle from the onslaught of high glucose levels experienced by diabetics. Spinach is a great source of folic acid, as are a host of other vegetables, particularly dark leafy green varieties.

The team from Charles Sturt University (CSU) in Australia and China's Guangzhou Red Cross Hospital and Taishan Medical College conducted experimental trials on diabetic rats and found that folic acid can significantly reduce the rate of cardiac cell death.

"The study in a diabetic animal model showed that dietary folic acid supplementation for 11 weeks will substantially diminish the rate of cardiac cell death," said Professor Lexin Wang from CSU School of Biomedical Sciences.

"Folic acid enhances the expression of cell-death-prevention genes and suppresses cell-deathinducing genes in heart muscles."

Risky business

Diabetes is one of the most important risk factors for cardio-

vascular disease in Australia and internationally. In patients with diabetes, there is an increased risk of heart failure due largely to the development of diabetic heart muscle disease or diabetic cardiomyopathy.

Up to a third of the cardiac cells can be destroyed or damaged as a result of high blood glucose levels experienced by diabetics.

"These are extremely exciting discoveries because for a very long time we did not have much of success in steering the heart away from the insult of high levels of blood glucose," said Lexin

"Now with a short course of folic acid treatment, we see a clear reduction in the death rates of cardiac cells. More importantly, the biology of the surviving cardiac cells is also improved, making these cells and muscles more resistant to future injuries from diabetes." va

VegeNotes survey winner

Thank you to everyone who responded to the VegeNotes Reader Survey; it's a great way for growers to let us know what you enjoy about VegeNotes, and what you'd like to see more of in the future.

Congratulations to Charlie Vella from Freemans Reach, New South Wales, for winning the TomTom ONE XL car navigation system. Charlie grows a range of crops including zucchini, capsicum, lettuce, Chinese cabbage, eggplant and silver beet.

New AUSVEG constitution stalls

On 2 July, AUSVEG members met in Sydney to vote on a proposed new constitution, but failed to secure the required 75 per cent of the vote in favour of the change.

A new constitution is needed for the representative body to grow, ensure holistic representation from industry and encompass wider exposure and positive interaction for its members. Members will be called on to vote again in a minimum of 90 days time.

AUSVEG Vice Chairman, Jeff McSpedden, said, "We are prepared to make amendments to the proposed constitution to ensure an effective outcome is achieved for our existing members, and look forward to the implementation of a new constitution to represent a united vegetable industry". va

NEWS IN BRIEF

Recent minor use permits

Permit number	Permit description (pesticide / crop / pest)	Date issued	Expiry date	States covered
ALLIUM VEGETABLES				
PER6914*	Methomyl / Spring onions, Shallots / Western flower thrips	23-May-08	31-Mar-11	All states except Vic
PER8762*	Maldison / Leeks, Shallots, Spring onions / Onion thrips	18-Apr-08	30-Sep-12	All states except Vic
PER10058*	Bifenthrin / Cucumber, Brassicas, Beans, Lettuce, Peppers, Eggplant, Peas, Pistachio, Cherries / Silverleaf whitefly, Two-spotted mite, Greenhouse whitefly, Flea beetle, Red-legged earth mite, Blue oat mite, Carpophi- lus beetle	15-Apr-08	1-Apr-10	All states except Vic
PER10218*	Acramite (bifenazate) / Cucumber, Capsicum & Tomato (field and protected cropping) / Two-spotted mite	3-Jun-08	3-Jun-10	All states except Vic
PER10344*	Simazine, cyanazine, propachlor, ioxynil, ethofumesate, oxyfluorfen, pendimethalin / Leeks, Garlic / Weeds	18-Apr-08	31-Mar-12	All states except Vic
PER10349	Amistar (azoxystrobin / Alliums (other than onions) / White rot	18-Apr-08	30-Jun-11	All states except Vic
PER10672	Chlorthal-dimethyl / Spring onions, Shallots, Parsley / Weeds	14-Apr-08	30-Apr-13	All states except Vic
PER10676	Pendimethalin / Spring onions, Shallots, Radish / Weeds	1-Apr-08	30-Sep-13	All states except Vic
BRASSICAS				
PER10588	Iprodione / Broccoli / Rhizoctonia	7-May-08	30-Apr-13	All states
PER10674	Metalaxyl & mancozeb / Brassicas, Brassica leafy vegetables, Rocket / Downy mildew, White blister	14-Apr-08	31-Mar-13	All states except Vic
PER10688	Alpha-cypermethrin / Cauliflower / Staphylinid beetle	1-May-08	30-Apr-13	WA
CUCURBITS				
PER9893	Methidathion / Peppers & Eggplants (field grown) / Rutherglen bug	8-May-08	31-May-13	All states except Vic
PER10219*	Mancozeb / Cucumber / Grey Mould	16-Apr-08	30-Apr-13	All states except Vic
LEAFY VEGETABLES				
PER10465*	Betanal (phenmedipham) / Lettuce / Potato weed, Nettles	16-Apr-08	30-Sep-09	All states
PER10677	Propyzamide / Chicory, Endive / Grass & Broadleaf weeds	14-Apr-08	30-Apr-18	All states except Vic
ROOT VEGETABLES				
PER7422*	Methomyl / Radish, Swede, Turnip / Cabbage white butterfly, Heliothis, Cabbage centre grub, Cutworm, Cluster caterpillar, Looper	23-May-08	31-Mar-11	All states except Vic
PER9775***	Chlorothalonil (various formulations) / Beetroot, Celeriac, Parsnip, Papaya, Rubus & Ribes, Spring onions, Tamarillo / Various diseases	14-Apr-08	30-Mar-10	All states except Vic. Tamarillo for NSW only
PER10197*	Amistar (azoxystrobin) / Carrots / Powdery mildew	4-Sep-07	31-Dec-09	NSW, SA, Tas
PER10198*	Folicur (tebuconazole) / Carrots / Powdery mildew	4-Sep-07	31-Dec-09	NSW, SA, Tas
PER10275**	Fusilade (fluazifop) / Sweet potato, Leeks, Garlic / Grass weeds	31-Mar-08	31-Dec-09	All states except Vic
PER10431	Methomyl / Beetroot / Helicoverpa spp., Looper, Webworm	30-Apr-08	30-Apr-11	All states except Vic
PER10468*	Linuron / Celeriac / Weeds	23-Apr-08	30-Apr-10	NSW, Qld

^{*}Note: APVMA require additional residue data for the renewal of this permit.

^{**}Note: APVMA require additional residue data for renewal in sweet potato and leeks.

^{***}Note: APVMA require additional residue data for Rubus (x 2), Ribes (x 2) and Tamarillo (x 4).



HAL seeks grower feedback

Horticulture Australia Limited (HAL) is seeking feedback from growers to help prioritise areas of industry development and delivery options.

While the vegetable industry has evolved during the past few years, industry development arrangements have remained largely unchanged. Industry development is defined as "the process of informing and empowering those in horticulture to make better business decisions".

The Vegetable Industry Development Needs Analysis Project is a comprehensive review of industry development needs. It is based around the key strategic imperatives identified in the industry's strategic plan, VegVision 2020. The project builds on previous industry studies to identify gaps and inform future investment in vegetable industry development initiatives.

Addressing needs

Two surveys are underway to assess the industry's needs in relation to communication and global competitiveness.

HAL Industry Development Manager, Richard Stephens, said Growth of the Australian vegetable industry depends on its ability to compete in the global marketplace.

feedback from National Vegetable Levy payers was vital to fill in the information gaps and prioritise industry development investment.

"The vegetable industry has invested \$15.3 million in industry development projects between 2002 and 2008, 25 per cent of the total R&D investment made in this period." said Richard.

"Industry development must

benefit levy payers. These surveys will examine what is commercially available in the marketplace, what is required by growers and what gap the R&D levy can fill to deliver the best value to growers."

Taverner Research will contact selected levy payers to ask what communication tools growers find useful and what they would prefer to see in the future. For example, the survey questions may ask where growers source solutions to agronomic problems.

The Australian vegetable industry is part of a highly competitive global marketplace:

its growth depends on the ability of participants to compete in that global marketplace. Businesses engaging in vegetable production, packing and marketing in Australia require world-class services and information if they are to meet this competitive challenge.

By June 2009, all industries investing in industry development through HAL will have undertaken a complete review of their industry development needs. The vegetable industry is committed to completing the review by September 2008.





NEW- NITRO-GYP LIQUID

More cost effective than Calcium Thiosulphate More nutrition than Liquified gypsum

AVAILABLE NOW!!

Two formulations (8% Nitrogen or 16% Nitrogen)
(PHONE FOR OUR FREE LIQUID NUTRITION GUIDE)

"Gets rid of salt as you feed"



For your nearest Distributor, or to order direct: Phone 0414 255586 email JamesCathcart@bigpond.com

NEWS IN BRIEF

Growers flock to soil health workshops

A series of workshops around the country have been informative for growers and presenters alike.

The Victorian Department of Primary Industries has ensured an international soil health perspective is brought to Australia's vegetable growers by hosting three eminent research and extension scientists from Cornell University in the United States

Professors Harold van Es and David Wolfe, and Dr Robert Schindelbeck developed a simple and cheap soil test that gives a health check of a grower's soil. This enables growers to confirm if their practices contribute to good soil health or whether they should implement changes on-farm.

The visit took place over a twoweek period in June. Workshops were held in Victoria, South Australia and Tasmania and a tour of key Queensland growers was conducted.

Quick health test

The Cornell University Soil
Health Program began in 2001,
developing an extensive database
of more than 5,000 entries of soil
physical, chemical and biological
characteristics from vegetable,
broad-acre and grape crops.
This allowed a practical set of soil
health indicators to be developed
into a low cost, quick soil health
test.

"The test allows growers to assess the performance of altered practices on-farm, such as conventional tillage compared to no-till systems, or how a cover crop or compost will affect



[From left] Bob Schindelbeck, Harold van Es and David Wolfe examine soil quality during a recent 10-day visit to Australia. Image supplied by DPI Victoria.

organic matter levels and soil compaction. Growers can actively pursue management practices that improve soil health over time," said Harold.

The visit began in Victoria with a review of soil health trials on the Mornington Peninsula, followed by workshops in three states. Workshops were attended by more than 170 growers, industry representatives and researchers.

Despite differences in farming philosophies by the attendees, there was consensus that protection of the soil asset on-farm was of utmost importance, and the need for resilient soil that can cope with the pressures of production and market forces was a priority for industry.

Differences noted

A tour of vegetable growing regions around Bowen in far-north Queensland highlighted the differences in growing opportunities and soil health issues between tropical and temperate regions. For example, high-value land and three to four crop cycles per year mean Victorian growers cropping on sandy soils were keen to reduce input costs of production to improve cropping efficiency.

Growers in tropical regions, however, where monsoon rains followed by dry conditions limit their cropping options, focused on soil health practices such as controlled traffic, minimum tillage and improving water-holding capacity. It was evident that a range

of strategies for improved soil health will need to be investigated for different regions.

The visit by the Cornell scientists proved to be of great value, not only to the Australian researchers, consultants and farmers but also to the visitors. As a result of the visit, indicator tests used in the temperate vegetable research program have been modified. A number of Australian researchers will be making return visits to Cornell to see their tests working in the USA. At least three companies are considering use of the tests to improve farm sustainability throughout the vegetable industry in Australia. va





Experts to help irrigators make decisions

Murray-Darling Basin growers to have better access to Extension Providers.

cal organisations have been contracted to help horticulture irrigators in the southern Murray-Darling Basin access the financial and agronomic information they need to make business decisions in the face of reduced water-availability.

Through the project, growers are able to access free, confidential sessions with local Extension Providers who have backgrounds in horticulture or finance.

Sunraysia irrigator Tony Martin,

chair of the project's Implementation Steering Committee, said the service is designed to help growers manage their businesses and plan for the future.

"Water scarcity is a major issue for irrigated horticulture in the Murray-Darling Basin. To ensure the profitability and sustainability of the industry, we need to give horticulture irrigators access to good agronomic and financial information," said Tony.

"There's a lot of information

out there from a variety of sources, and the Extension Providers have the knowledge and skills to help growers access information that is most relevant to them. The project is being run until the end of October in Sunraysia, the Riverina, South Australia and the Goulburn Valley and Swan Hill region." va



Tour Asia

Australian growers will have access to Hong Kong and China's vegetable production chains.

To coincide with this year's Asia Fruit Logistica International Trade Fair for fruit and vegetable marketing, held in Hong Kong from 10 to 12 September 2008, Quadrant Australia has organised visits to Austrade, supermarket distribution centres, wholesale markets and production areas in Hong Kong and China.

Tour leader, Jonathan Eccles, said, "with so much talk about Chinese vegetables dominating the Asia Pacific region, it is a great opportunity to see Chinese businesses specialising in fresh and processing vegetables."

Asia Fruit Logistica will be held with the Asiafruit Congress. Tour participants may be eligible for funding support from HAL.



"PERLKA-One of the worlds best vegetable fertilizers...

- is now one of the most cost effective"

For your nearest Distributor, or to order direct: Phone 0414 255586

email JamesCathcart@bigpond.com



Perlka fertilizer is used to fertilize approximately 1 million hectares of crop around the world and is one of the **best nitrogen fertilizers for irrigated crops** in sandy soils. Perlka is a multifunction fertilizer and being **20% nitrogen** and over **35% calcium** is the highest level of nutrient of any fertilizer available.

Perlka is one of the few fertilizers to contain carbon-shown to improve the health of

your soil as you feed; & the nitrogen is stabilized-so only **1 application at planting is all that is needed**. Perlka fertilizer, made in Germany, **ISO 9002 Accredited** production so you can be assured of quality every time.

C ALL OR EMAIL FOR A FREE BOOKLET TODAY- AND SEE FOR YOURSELF HOW PERLKA CAN HELP YOU!!

NEWS IN BRIEF

2009 conference to "grow a healthy Australia"

The 2009 Australian Vegetable Industry Conference will be held in Melbourne from 4 to 6 May.



AUSVEG Chairman David Anderson said, "Next year's theme, 'Growing a Healthy Australia', demonstrates the industry's commitment to playing its part in addressing Australia's health issues."

The 2009 conference, held at the Melbourne Convention Centre, will be followed by the National Vegetable Expo in Werribee on 7 and 8 May.

"The conference provides an excellent way to showcase research

and development outcomes to vegetable growers and offers a fantastic opportunity for the industry to come together and explore future strategies to ensure its success." said David.

Opportunities abound

Next year's event will build on the success of the 2007 conference, which saw more than 500 delegates and 36 exhibitors unite in Sydney. More than 80 per cent of delegates from the 2007 conference said they would definitely attend again, and 95 per cent of delegates rated the conference and trade show as either good or excellent.

The conference welcomes participation from all vegetable industry sectors including general vegetables, fresh and processed potatoes, onions, organics, hydroponics and Asian vegetables. Similar to last year, there is a range of sponsorship and exhibitor packages available to ensure that

industry partners can professionally demonstrate their support to the vegetable industry.

"This is an extremely worthwhile occasion for the industry to unite, share ideas, gain valuable knowledge and motivate each other to bring future success for the vegetable industry,"



Changing of the guard

Toni Davies has been appointed AUSVEG Communication Manager for both the national vegetable and potato industries.

Toni was first appointed as AUSVEG Communication Coordinator in 2006, which saw her previously managing National Potato Levy funded projects. Toni is now responsible for managing and implementing all AUSVEG communication projects across industry.

With extensive experience in

all areas of the communications process, Toni will work to ensure the communication needs of vegetable and potato growers and commercial stakeholders are met, and that R&D outcomes are effectively conveyed.

"I very much look forward to working with, and forming networks in, the vegetable industry, as I have done in the potato industry," Toni said.

Toni replaces Lisa Maguire, who finished at AUSVEG in June after four years of dedication and hard work. AUSVEG thanks Lisa for the effort and commitment she has put into progressing the Australian vegetable industry.



communication strategies for both the vegetable and potato industries.

MEDIA MATTERS

From rising input costs, to labour shortages, to the detrimental effects of importing cheap produce, daily newspapers are shining a light on problems faced by the vegetable industry. Here are five recent headlines.

"Fruit and vegies set to run out"

West Australian, Perth Tuesday 18 March, page 3

Western Australian fruit and vegetable growers say they are being driven out of business by rising production costs and cheap imports, and that the state government needs to regulate the industry

VegetablesWA is calling on the government to investigate and establish a regulatory authority to licence growers and ensure sufficient production levels are at sustainable prices.

VegetablesWA Chief Executive, Jim Turley, warned production would fall dramatically unless grower margins improved. "The way we are going, WA growers will be incapable of supplying sufficient quantities of fresh vegetables within 10 to 15 years. We won't be able to grow enough food to feed ourselves," he said.

"Fertiliser prices put bite on fruit, veg growers"

West Australian, Perth Tuesday 27 May, page 5

Western Australian vegetable growers are warning that prices for fresh produce will need to rise in order to cover a jump in fertiliser prices, adding to rising fuel and labour costs.

Fertiliser prices have increased more than 150 per cent over the past six months, and increases for farm-gate prices over the past season have failed to keep pace with the input costs.

"The increase in fertiliser prices, which accounted for 10 to 20 per cent of running costs, was the latest of many rising expenses which were not being matched by farm gate prices," said vegetablesWA President, David Anderson.

"Shortages, but farmers blame profiteers as grocery prices rocket"

Herald Sun, Melbourne Thursday 1 May, page 22

Food prices are of concern following predictions that prices may rise by as much as 50 per cent over the next five years, according to industry bosses.

Victorian Farmers Federation President, Simon Ramsay, said growers were not benefiting from the rises.

"Growers have informed the VFF that there is a mark up of around 120 per cent on farm-gate prices for vegetables. Parsnips attract \$50 per 10 kg box at the farm gate, but retail at \$9.99 per kg, which equates to \$100 per 10 kg box, or a 100 per cent mark up," he said.

"Supermarkets reject rip-off claims"

The Age, Melbourne Wednesday 14 May

The Victorian Farmers Federation (VFF) has accused major grocery chains of using the same products in their private brands, sourced from the same suppliers, and then pricing the items according to their market position.

However, Australia's major supermarket chains have hit back at these claims.

Australian Competition and Consumer Commission (ACCC) chairman Graeme Samuel, who is heading the inquiry, has appealed to the VFF to find growers who will provide confidential evidence of any bullying, harassment, oppression or unconscionable conduct by parties in the supply chain.

"Horticulture workers needed"

Adelaide Advertiser, Adelaide Tuesday 10 June, page 16

When the drought finally ends it is estimated that the rural sector will need an extra 100,000 employees.

The horticulture industry is facing an increasing shortage of workers, said John Mundy, South Australian Farmers Federation horticulture spokesman. "While you don't often hear of crops not being harvested, the availability of workers is pretty tight," he said.

Whether the industry will need to bring in workers from interstate or overseas will depend on how attractive it is to work in the horticulture sector compared with other areas. The federation's Labour Shortage Action Plan includes 42 recommendations to address labour shortfall.

Prevention is better than cure

Australia's relative isolation and its strict quarantine measures have helped protect it against incursions of carrot rust fly, but the industry still needs to prepare for the worst, writes David Jarwood.

THE BOTTOM LINE

- Carrot rust fly can cause widespread damage to a number of commodities, including carrots, parsnips, celery, celeriac, and parsley.
- Currently, Australia has not experienced an outbreak of the pest, though a Pest Specific Incursion Management Plan has been developed, should such an outbreak occur.
- Early detection of the pest is crucial to protecting Australia's carrot industry and the industry's clean and green image.
- For more information contact:

Marc Poole, Research Officer, Entomology, Plant Health Policy and Risk Analysis, Plant Industries Department of Agriculture and Food WA

Email: <mpoole@agric.wa. gov.au>

Phone: 08 9368 3224 or visit www.ausveg.com.au/ levv-payers

Project number: VG06114 Keywords: PSIMP, Carrot rust fly



Carrot rust fly is a seriously damaging pest that can have a major impact on carrot crops. A widespread pest, prevalent in Europe, North America, South Africa and New Zealand, many people believe it is only a matter of time before carrot rust fly takes hold in Australia.

Marc Poole and Dr Ruben Flores have spent the past 12 months compiling a risk analysis about this pest and devising a Pest Specific Incursion Management Plan (PSIMP) for managing the problem, if it arrives.

Carrot rust fly can inflict serious damage to entire crops while they are still at seedling stage, or make final crops un-sellable due to the presence of larval mines, secondary rots and uneven root development.

It is possible that carrot rust fly could be transported into Australia as larvae in root crops, especially from other temperate growing areas. Marc said the main opportunity for the carrot rust fly to enter Australia is from imported carrots, most probably from New Zealand.

"The more carrots that we import from existing or new sources, the greater the likelihood of carrot rust fly entering Australia," he said.

Versatile pest

Besides carrots, carrot rust fly attacks other commodities, including parsnips, celery, celeriac, and parsley. The maggot damages plants by eating the small fibrous roots and by tunnelling in larger roots. Affected plants may become yellow, stunted, and die.

Marc said neither he nor Ruben were horticultural experts, but rather experts in risk analysis. "This is important because there are no experts on this pest in Australia, due to the fact that it has not reached here."

If there is an incursion of carrot rust fly, Australian growers have the advantage of learning from the experiences of other countries.

Marc said the risk analysis was nearing completion; he expected to have it and a PSIMP completed by February next year.

To maintain Australia's freedom from carrot rust fly, strict quaran-

You can't have nil-risk policy. There is always a chance that carrot rust fly will come here—we must follow strict guidelines.

tine controls need to be maintained. These safety measures revolve around a thorough inspection of all consignments of imported carrots. However, there are no guarantees.

"You can't have nil-risk policy. There is always a chance that it will come here, which is why we must follow strict guidelines. The document is prepared and we are ready to go if carrot rust fly does get here," said Marc.

Plan of attack

An early sign of crop infection by carrot rust fly is the tops of the plants turning yellow for no apparent reason. On pulling up the carrots, growers may see holes in them and hopefully report this immediately to the relevant agricultural department. This would be where the PSIMP that Marc and Ruben have been developing would come into force.

First, a survey would be



conducted to ascertain how wide-spread the problem was. Smaller outbreaks could potentially be eradicated through destroying the affected crop and adjacent host plants. However, if it was too widespread to be eradicated, a containment management plan would be put in place. This may involve the use of pesticides, and for growers to stagger their planting. Traps would then be put out for the adult fly to monitor their presence and spread.

Marc said the movement of host material in an area, or even in a whole state, would be restricted. With such a widespread pest, various cultural control techniques are recommended to minimise the damage inflicted. Physical barriers, crop monitoring, crop rotation, late seeding to avoid damage from the first generation, not growing carrots in sheltered areas, and strategic use of pesticides and traps have all been effective strategies elsewhere in the world.

Protect trade

Marc said the pest could have a sizeable impact if it did arrive in Australia, with interstate trade being stopped. Additionally, potential problems of the carrot rust fly would extend beyond carrot crops. "It would put Australia's clean and green image at risk," he said, as more chemicals would be needed to control the pest if it did establish in Australia.

"If we can supply a relatively clean product then we can maintain a good marketing advantage."

Marc said the best strategy was to everything possible to prevent its arrival, but if it does arrive, to detect it early.

"The earlier it can be detected the better. This increases our chance eradicating it."







PHONE: 1800 003 244. Available at all Rural Outlets

Email: sales@ultimateagri.com.au • Website: www.ultimateagri.com.au



Recognition of prior learning, industryspecific courses and mentorship of young growers are crucial to the industry's development, say members of the Leadership and People Development Advisory Group. Angela Brennan reports.



f the Australian horticulture industry is to survive, it needs innovative thinkers, good leadership and clever people."
That is the view of Andrew Mathews, a South Australian grower and member of Leadership and People Development Advisory Group. "Look at the winners of the Nuffield scholarship and the New Zealand Young Growers Tour. There are people out there. We've just got to get them leading the industry," he said.

The Leadership and People Development Advisory Group was formed last year as one of five groups established under the VegVision 2020 strategic pillars. The aim of the group is to bring the people working within the vegetable industry—growers

"R&D funding for education and training tops this list," said Andrew. "Farms are no longer small or simple. Growers run milliondollar businesses now, requiring a manager, a foreman, new technology, accountancy and an understanding of global markets. Our group needs to bring this to the attention of government, industry funding agencies and careers advisers."

Recognise prior learning

The group stressed the need for industry to recognise the extent of growers' prior learning, while finding ways to encourage growers to broaden their knowledge and skills.

"Training opportunities need to be meaningful, cost effective and accessible," said Denise.

We need innovative, creative and enthusiastic young growers to lead the way and take us to 2020 and beyond.

and their families, professionals and tradespeople—into industry discussion. Surprisingly, despite constant scrutiny of production processes, this is the first time the vegetable industry is paying serious attention to the people working within it.

Broad expertise

"The formation of this group balances the focus by recognising the importance of these workers," said Denise Ellement, vegetable grower and the group's chair.

"Our aims are to build growers' capacity to make sound business decisions, to develop and promote leaders in the industry and prioritise education and training," she said.

"We have entered a global market with rapid development in new ideas and technologies. We need to create opportunities for all growers to take up these technologies and for both growers and the wider community to learn about the changing nature of the industry."

"In the past there was not this priority on formal training. Growers learned from hands on experience, from trial and error. Now they are faced with the often complex areas of environmental management, quality assurance, staff management, integrated pest management, technology and administration. This adds a whole new dimension to their work that will involve considerable time off-farm and can be expensive."

The group is keen for growers to see themselves as part of an industry.

"We recognise that the industry is characterised by small businesses, often owner-operated and competing with each other, but productivity and growth will improve most rapidly when industry members work together to share knowledge and skills, and drive future R&D," said Barbara McPherson, one of two nongrower members of the group and an adviser in workplace learning.

"Growers who can adapt and adopt new technologies

The Leadership and People Development Advisory Group is one of five groups established under the VegVision 2020 strategic pillars to support the deliberations of the Vegetable Industry Advisory Committee about the National Vegetable Levy investment in R&D. Members of this group are: Denise Ellement, Andrew Mathews, Barbara McPherson (non-voting), Kathy Sims (non-voting) and Danny Trandos.

will be the industry success stories of tomorrow. Production horticulture has become a high-skill, high-tech business. We need to build sustainable training programs, making use of the nationally accredited training system to build the skill base. Then we need to create pathways by which growers can benefit from extension R&D within the industry," she said.

The group has confidence in growers to adapt. "Growers are naturally inventive. It's in their nature to look at new ways," said Andrew.

Support the next generation

Danny Trandos, 2007 Young Grower of the Year and member of the advisory group, believes that the industry needs a succession plan to take it to a new level. Attracting young people through mentoring programs, education and careers advice is an important part of this process.

"Career advisers need to update their information," said Andrew.

"Horticulture is very different to mainstream agricultural learning and advisers often don't know how to talk to students and prospective workers because they don't know how the industry works. In Bundaberg, Queensland, it was the advisers, not students, who were shown how a modern vegetable farm works. It was a real eye-opener for them," he said.

"Our younger growers, and those who might be interested in joining the industry, need mentors. The average age of growers is getting older, but given the right training older growers can lead future workers into the industry."

"Our group has been created to highlight the role and needs of growers as we enter a global market," said Denise. "It's still about competition and production, but we have a bottom-up approach, and are seeking proactive growers to lead the industry and to occupy executive positions."

"It is one of the most important issues facing horticulture today," said Danny.

"The horticultural environment has changed all over the world and these are very testing times. In Australia we need innovative, creative and enthusiastic young growers to lead the way. It is a new breed of grower that will take us to 2020 and beyond."

THE BOTTOM LINE

- Members of the Leadership and People Development Advisory Group aim to harness existing industry opportunities to help build growers' capacity for making sound business decisions and foster leadership skills.
- The increasingly complex growing environment is moving growers away from the mostly hands on learning process they've engaged in in the past, though it is crucial that the vast knowledge they already have is recognised.
- Young growers need mentors to help them assume leadership positions and assist in progressing the industry.

Industry celebrates awards winners The Australian vegetable industry recognised the most vegetable Industry Awards Awards Awards

60th Anniversary gala dinner in Perth on 31 May.

he gala dinner, sponsored by Landmark, brought together more than 550 industry guests to commemorate 60 years of the West Australian Vegetable Growers Association and acknowledge and celebrate all award finalists. Dinner attendees were given an historical pictorial tour of vegetablesWA, with photographs and images from the past 60 years lining the entrance walkway

Speakers at the dinner included special guest, Western Australian Minister for Agriculture, Kim Chance MP; David Timmel, Landmark WA State Manager: and David Anderson, AUSVEG Chairman.

Kim Chance presented the Australian Vegetables Industry Awards to each of the five winners.

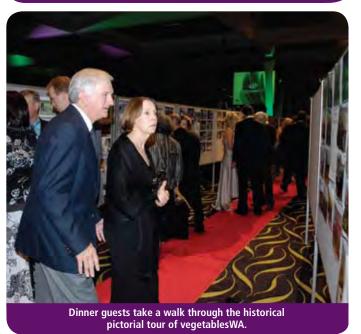
Bill Stevens Award

The night also celebrated finalists of the Bill Stevens Award of Excellence, exclusive to Western Australia, which was won by Baldivis grower Sam Calameri.

Sam, who accepted the award from Bill's son, Clive Stevens, said that accepting the award was a great honour.

"I accept this award with great pleasure and I am deeply honored at this 60th anniversary to be a recipient of the Bill Stevens Award of Excellence. To be recognised in this industry with an award like this, you have





to be focused, hard working, innovative and passionate about what you do. That's how I would describe the late Bill Stevens, who achieved so much for this industry," said Sam.

"In 1979, when I joined the VGA, I was fortunate enough to work with Bill. At the time he was the secretary of the association. I looked upon Bill as my mentor; he set the foundations for me to climb the ladder in the association, from a committee member, to Junior Vice, then Senior Vice, then President of the VGA for four years. I am grateful to Bill for giving me so much encouragement. I am honored to have my name associated with his."

David Anderson was impressed with the high standard of this year's awards finalists and winners who have all achieved outstanding success within the industry.

"Congratulations to every winner and finalist for their commitment to excellence and for setting a benchmark for the Australian vegetable industry," he said.

"And in this the International Year of the Potato, it is great to see a potato grower, Sam Calameri, win the Bill Stevens Award of Excellence." va

For more information visit: www.vegetableindustryawards.



Australian Vegetable Industry Awards winners 2008

- Landini Grower of the Year—Peter Schreurs, Victoria
- Landmark Young Grower of the Year—Chris Millis, Victoria
- Bayer CropScience Researcher of the Year
 - —Dr Sandra McDougall, New South Wales Department of Primary Industries
- Brisbane Produce Market Innovative Marketing Award
 - —Odeum Produce, Western Australia
- AUSVEG Chairman's Award—Peter Cochrane, Victoria

Landini Grower of the Year Award

Sponsored by PFG Australia - Landini Tractors

Part Har

2008 winner: Peter Schreurs (Vic)

Peter Schreurs has been in the vegetable industry for more than 20 years; his company, Royston Park Vegetable Farm, is one of the largest leek producers in Australia. He has adopted an Environmental and Sustainability Policy that includes nature-friendly initiatives through soil biology, water conservation, integrated pest management (IPM), biodiversity and energy conservation.

Peter strongly encourages the use of recycled water in agriculture and was a key organiser of the South East Growers Network. He established an efficient water conservation practice on-farm, plants substantial numbers of trees to offset carbon emissions and has a policy to reduce electricity and fuel use on-farm.

"This award has been because of the contribution made by our three sons; they run the show," said Peter

"I encourage all growers to seriously look at sustainability. Since 2000, we got involved in IPM and it was then that I realised that God's given us everything we need to control pests without using chemicals. If we let them, the beneficials will do our job for us; I encourage all growers to take on sustainability."



Landmark Young Grower of the Year Award

Sponsored by Landmark





2008 winner: Chris Millis (Vic)

With the protected cropping industry increasingly driven by technology, it pays to be an early adopter. Chris Millis, Project Manager at Flavorite Tomatoes in Victoria, has introduced a carbon dioxide enrichment program, hanging gutters for vine-tomato production, specialist management trolleys for high-wire crops, and a commitment to developing an IPM system on-site.

A member of the Greenhouse Advisory Board, Chris regularly commits to further education. He hosts industry open days, allowing growers to see his initiatives first-hand, and he communicates the benefits of best practice by organising grower meetings around the state.

"Thanks to Landmark, VegetablesWA and AUSVEG. I'd also like to thank my family, particularly my father, Mark. If it wasn't for him, I wouldn't be up here—he got us out of wholesale and into growing," said Chris.

"It is great to be recognised in our industry, particularly as horticulture becomes more important in the world. This award focuses me more on being part of one of the top fresh produce companies in Australia. Our industry is only beginning to kick off and I see huge advances in technology, such as water and environment management—it's really exciting. Let's not forget that good produce sells itself."

Bayer CropScience Researcher

Researcher of the Year Award

Sponsored by Bayer CropScience



Bayer CropScience



[From left] Rick Horbury, Research and Development Officer for Bayer Crop-Science; Western Australian Minister for Agriculture, Kim Chance; and Bayer CropScience Researcher of the Year 2008, Dr Sandra McDougall.

2008 winner: Dr Sandra McDougall (NSW)

Dr Sandra McDougall has worked on vegetable industry-related research projects for more than 10 years and is committed to helping growers integrate R&D outcomes in their production operations. Sandra's focus has been in IPM systems and she has been involved with National Vegetable Levy funded projects since 1997.

"This is a wonderful honour and very much appreciated, though I don't believe I am the best scientist working with the vegetable industry. Research is a collaborative process, particularly with applied research. I work with some excellent growers, consultants and researches in each state—so it is hard to say what is 'mine'. I would like to acknowledge NSW DPI, which pays my salary and has been incredibly supportive of the national work I do. My thanks also to my husband, a fellow researcher who looks after the children whenever I am traveling," said Sandra.

"Vegetables are essential to health and life. We should be proud of working in the industry. I look forward to continuing to work towards broad adoption of IPM. Know what is in your crop and make an informed decision about whether the pests that are present are being controlled by beneficials or whether some other action is needed, and if so, choose the best option for the situation."

Brisbane Produce Market Innovative Marketing Award

Sponsored by Brisbane Markets Limited

BRISBANE



2008 winner: Odeum Produce (WA)

Odeum Produce has worked closely with growers and major retail organisations over the past seven years to develop innovative marketing solutions.

In 2001, Odeum Produce introduced the peeled onion to help boost consumer confidence in a falling market. Since then, many other businesses have incorporated this processing technique into their operations.

In 2004, Odeum Produce introduced Western Australia to pre-cut pumpkins, allowing the vibrant pumpkin flesh to be displayed on-shelf. Specially developed shrink-wrap film provided sufficient breathability to extend the shelf life of the finished product to more than seven days.

"It was a great privilege and honour to win the Brisbane Produce Market Innovative Marketing Award," said Aubrey Freemantle, Chief Executive Officer for Odeum Produce.

"Winning the award proved that the commodities Odeum Produce offers have been winners. The direction we are heading is a clear and open road to success. Our thanks to Sam Calameri for nominating us for the award."



AUSVEG Chairman's Award

Sponsored by AUSVEG Ltd



2008 winner: Peter Cochrane (Vic)

An Executive Member of the Vegetable Growers Association of Victoria and President of the VFF Horticulture Group, Peter Cochrane has grown vegetables for more than 30 years in Devon Meadows, Victoria, in partnership with his wife.

"This is a real surprise and quite an honour; thanks to AUSVEG and to all the people who have served on committees with me. I'd also like to acknowledge the support of my wife, Julie. Without her support, I wouldn't be able to attend the meetings that I do, because she stays home and runs the farm," said Peter.

"All farming industries need strong industry associations to represent the best interest of growers. The vegetable industry has been good to me and my family and my wanting to give something back was one of the reasons I became involved in industry associations.

"Our son Phillip is now working on the farm so anything I can do to make the industry viable and sustainable helps secure his and other young people's future who are entering the industry. I urge other growers to become involved in the agri-political side of business as the rewards are many." va



[From left] AUSVEG Chairman David Anderson; Western Australian Minister for Agriculture, Kim Chance; and AUSVEG Chairman's Award 2008 winner, Peter Cochrane.

GROWING WITH NELSON











We help you grow by offering products that meet your needs

Nelson's complete line of advanced design pivot sprinklers provide the perfect combination of features to irrigate a multitude of crops.

With Nelson's 3000 Series Pivot Products, choosing the right sprinkler configuration for your crop type, soil type, system type, and water and energy needs couldn't be simpler.

Choose the product that best suits your needs, and maximise your crop using Nelson's complete line of advanced design pivot sprinklers.

For more information, please contact Nelson Australia Tel: **1300 856 368**

info@nelsonirrigation.com.au



Westside story

Taking time away from their farms proved to be a worthwhile investment for participants of a grower tour to Western Australia, writes Dianne Fullelove.

An all-female group of Queensland and South Australian growers visited their counterparts in Western Australia in May to share information and build networks. The tour provided a unique opportunity for growers to venture off farm, and learn more about production, marketing and business management. It exposed growers to supply chain management practices in different vegetable systems, as well as other primary production sectors.

The tour resulted from collaboration between Growcom, Queensland Department of Primary Industries & Fisheries, and AUSVEG, to address the growing need for leadership and relationship development within the industry. The tour focused on providing opportunities for growers to interact on a state basis.

From leafy crops to aquaculture

Growers visited farms in Baldivis, Gingin and Wanneroo, discussing production and marketing issues relating to tomatoes, leafy crops, carrots, and potatoes. New techniques in hydroponic growing and large-scale carrot growing were subjects of lively discussion.

A visit to an aquaculture facility at Challenger TAFE in Fremantle was a highlight. There was also plenty of opportunity for networking at the vegetablesWA 60th Anniversary Dinner at the end of the tour.

"I was quick to respond for a grower's tour over to Western Australia. I believe the more growers work together to enhance communication, the stronger the industry will grow as a whole," said tour participant and Queensland grower Lisa Crooks.

"While I have had the pleasure of meeting some growers from the west, it was a wonderful chance to meet more, observe, and learn. With great, motivated travel companions, I feel even more motivated to think outside the square. As growers, don't hesitate and make time to take advantage of opportunities when they come your way."

The more growers work together to enhance communication, the stronger the industry will grow as a whole.

The growers gained a great deal of insight into production in Western Australia, forming new friendships and business relationships. They thank the following for organisation and hosting of the tour: George McDonald, Growcom; Dianne Fullelove, AUSVEG; David Ellement, vegetablesWA; lan McRoberts, Challenger TAFE; and Western Australian growers Maureen Dobra, Alex Norman, Danny Trandos, Sam Calameri and Dene Lampard. va



Members of the group are given a tour of a Wanneroo greenhouse by grower Danny Trandos [front right].



her Baldivis property.

Record crowd at Demo Farm opening

Hard work pays off at the successful launch of a Demonstration Farm that compares standard crop varieties with newer varieties.

THE BOTTOM LINE

- A Demonstration Farm was opened in the Sydney Basin in May, with more then 350 people attending.
- It is expected that there will be three seasonal vegetable variety demonstrations at any one time, which will compare current standard varieties with new varieties.
- The farm will rely on recycled and harvested water for irrigation, and demonstrate the benefits of recycled organic composts in commercial vegetable production.

ore than 350 people arguably the largest crowd at a Sydney Basin vegetable field day—gathered for the successful launch of the New South Wales Department of Primary Industries Field Vegetable Demonstration Farm at Richmond on May 30. The two-hectare farm was opened by Renata Brooks, Deputy Director-General for Agriculture at NSW DPI.

Seasonal scope

The Demo Farm is the concept of Leigh James, Field Vegetable Horticulturist at NSW DPI, Richmond. "The idea is to have three seasonal vegetable variety demos that compare current standard varieties with new ones about every 15 months or so," said Leigh.

"These will be the carrot to get growers to turn up. But while growers are there, we'll show them environmentally sustainable farm practices such as better water, soil, nutrient, pest and disease management as per EnviroVeg guidelines. All sectors of the vegetable industry have been calling for this project to happen for several years."

Ebenezer vegetable grower, Ace Agronomist, and finalist for the



[From left] Leigh James; John Aquilina MP, Member for Riverstone; Tally Matthews; Bart Bassett, Mayor of Hawkesbury City; and Renata Brooks, Deputy Director-General for Agriculture, NSW DPI. Image supplied by Kylie Pitt from the Hawkesbury Gazette.

2008 Landmark Young Grower of the Year award, Tally Matthews, welcomed the large gathering. "This project is an across-industry venture and has a lot of support, but we need backing from funding bodies if new technologies are to be installed, demonstrated and assessed here if sustainable farming practices are to be more commonly adopted on vegetable farms," he said.

About 20 crop protection, seed, nursery, irrigation, machinery suppliers, resellers and service providers exhibited to the crowd, which included growers from Maltese, Chinese, Cambodian, Italian, Vietnamese, Sudanese and Anglo backgrounds.

Talks by relevant specialists were given on rotation to five

groups about drip irrigation, KISSS sub-surface irrigation, recycled water, recycled organic composts, and crop monitoring for pests and diseases.

Collaborative effort

The Demo Farm is a collaboration between individuals and organisations such as NSW DPI, Sydney Markets reseller Ace Ohlsson, and crop protection, seed, fertiliser and irrigation companies. Local growers, such as Wilberforce's Peter Muscat, have donated farm implements to help the project. Tally has been a key supporter of the project, as has Bill Yiasoumi, Irrigation Officer at NSW DPI, Richmond.

Prior to the launch, a zucchini field day was held on the farm,

with more than 40 growers attending a comparison trial of 38 different varieties. "I don't think any grower could find fault with this crop. I'd be proud to have it on my farm," said Mario Muscat, grower and Chairman of the NSW Free Growers Horticultural Council.

The Demo Farm will rely on recycled and harvested water for irrigation and demonstrate the benefits of recycled organic composts in commercial vegetable production. It is intended that the farm will become EnviroVeg accredited, acting as a useful resource for growers participating in the scheme. va

Code Red

Despite there being opportunities for Australian growers to export to Asia, Australia's vegetable industry is facing some stiff competition from China, according to a project conducted by AVIDG.

THE BOTTOM LINE

- A project conducted by AVIDG investigated current trends in China relating to international trade in fresh and processed vegetables.
- China's vegetable product exports have increased by 150 per cent in the past decade.
- There are niche markets in China that Australian growers can target, to export premium produce.

For more information visit:

www.avidgroup.net.au to
download the report from the
Global Comparative Analysis
Foundation Project, or visit
www.ausveg.com.au/levy-payers
Project number: VG07150
Keywords: Comparative analysis

A Global Comparative Analysis project has shown that, when compared with China, the Australian industry must move quickly to improve its international competitiveness. The project involved extensive on-ground research within China and was completed with the involvement of the Vegetable Industry Exporter Network, which includes some of Australia's leading vegetable exporters.

The project focused on China and investigated current trends relating to international trade in fresh and processed vegetables. The findings show a steady growth in international trade in vegetable products, dominated by supply from China, whose exports have risen from US\$2bn to US\$5bn over the past 10 years.

"While international trade is expanding, Australian vegetable exporters are losing market share overseas and imports are rising. Australia's exports have fallen by 50 per cent since the peak in 2003 and now represent less than 10 per cent of the industry's GVP," said AVIDG Chair, Richard Bovill.



China has low labour costs and supportive government policies on rural development that have helped to sustain this growth. China continues to gather momentum as a major vegetable exporter, increasingly driven by large well-resourced businesses that are addressing issues relating to productivity, environmental constraints and food safety.

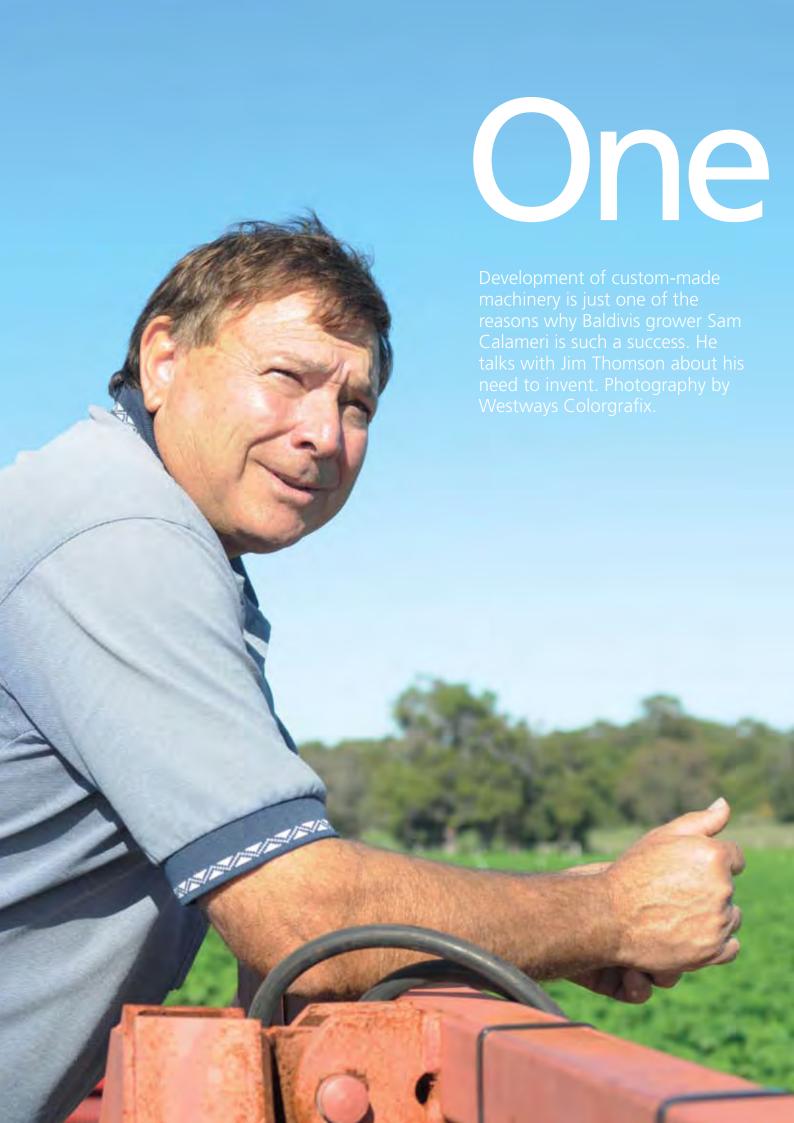
The study also found that China presents few opportunities to Australian vegetable exporters.

Small niches exist for premium offerings in affluent urban areas.

"Having internationally competitive Australian vegetable supply chains is one of the key strategic imperatives outlined in the industry's strategic plan, VegVision 2020," said Richard.

The Vegetable Industry Exporter Network and Horticulture Australia Limited will now consider the report's findings and the options for a strategic response by the Australian industry.





of a kind

or Sam Calameri, winner of this year's Bill Steven's Award of Excellence, necessity has been the mother of invention. Located in Baldivis, one hour south of Perth, Sam farms carrots and potatoes on his properties, where he and his family own 88 acres and lease another 40 acres.

As Sam does much of the growing on his own, he's been forced to develop equipment and techniques to help him keep pace with his workload. While this initiative has led to the construction of tailor-made equipment, he'd like to see the industry support technology development more broadly in the future.

Smart cookie

"We invent items that suit our farm all the time," said Sam. "We do it to help make our life easier."

To date, Sam and his business partner Charlie Blogna have invented a potato harvester and a mobile fertigator, and have altered their potato cropping rakes to suit the property's dimensions.

I'd like to see more levy funds invested in technology and the shortage of skilled labour.

"We built our own harvester based on how we grow potatoes. With a conventional potato harvester, you drag it with the tractor. The tractor is in the crop, doing damage, while the harvester is being pulled behind," said Sam.

"We said, 'No, we don't want any of this. We're going to build our own harvester, a self-propelled unit that digs two rows at a time, from the front, so the weight of the machine does not damage the product.' "

The idea was inspired by a trip to Bologna, Italy, where Sam and Charlie saw a similar machine developed for tomatoes. The unit took Sam and his staff six months to build, with parts sourced from around the globe.

"It's custom-made, so if my neighbour's harvester broke down and he needed to borrow mine, he couldn't —its dimensions do not suit his growing pattern," said Sam.

The mobile fertigator has been developed for use when crops are established, so the machinery does not damage them. The system can be transported to any of the farms, where it is attached to the irrigation. It holds 2,000 litres and can be manned by one person. Additionally, it has a protected section, which means the operator is effectively working indoors.

"It also means that there's no worry about losing fertiliser when we're pouring it into the mixing tank," said Sam. The unit is used weekly—in two days it services the entire farm.

In-house expertise

While Sam takes care of the growing side of the business, Charlie, who is Sam's nephew, ensures the rest of the farm continues to function. A bonus is that Charlie has a varied skill-set, including experience as a welder, which means he can maintain the farm's machinery.

"There is a lot of expertise. The other day, one of our machines broke down; we had a mechanic here and an engineer. The mechanic fixed it up straight away," said Sam.

It hasn't been a concerted effort

on Sam's part to hire seasonal staff with other skills. Rather, Sam has done what many growers do—turned to his family.

"It's a family business, but everyone who works here has another trade—electrician, cabinet maker, engineer; they come to help on the land. We need assistance only at harvest time, and though we pay top dollar to bring them in, we get the job done," he said.

"Without them, I don't know if we could have continued so far. It's very hard to get skilled labour, especially in harvesting. They have to work here for a while, learn the trade. The harvesting period lasts 20 weeks for carrots and 16 weeks for potatoes. We harvest from Monday to Wednesday, so they have the rest of the week to work their other jobs."

Encroaching sprawl

Sam has been in Baldivis since 1974, when his company, Baldivis Market Gardens Pty Ltd, was founded. Since then the company, now known as BMG Harvesting the Knowledge, has bought parcels of land, usually 10 acres at a time. As a result, BMG now has five titles, which means that as the encroaching urban sprawl surrounds the properties, land parcels can be sold off.

On the main property, Sam has leased acreage to a Japanese grower, Yoshihisa Okuma, who grows cherry and grape tomatoes in a protected cropping environment.

"It was an alignment of Japanese growers with Australian growers; the Department of Agriculture and Food introduced us. Yoshihisa was very keen to



grow tomatoes in Australia but couldn't afford to purchase land. We have a five by five lease, and we gave him first option to buy. He has 35 years experience, and has already built a top-end brand, Momoko," said Sam.

Ten years ago, Sam and Charlie stopped growing two crops—cauliflowers and onions—because they were too labour-intensive. They made an effort to become more efficient and innovative. The development of farm-specific machinery has been a part of that.

"Another example is the way we form beds. Simple things, like instead off running up nine times in the bed with the tractor, we do it three times using a bigger implement. Even with the spraying, we used to have a little sprayer, but we've shortened our spraying time by using a bigger unit," said Sam. Since changing the way they farm, Sam and Charlie have reduced their wage

costs by 20 per cent.

Crop rotation has increased yield and decreased expensive input costs such as fuel and fertiliser. In the case of chemicals, usage has reduced by 50 per cent.

What does the future hold? While the urban sprawl will have an effect, Sam and Charlie have no immediate plans to sell their land. More immediately, Sam would like to see more of the National Vegetable Levy invested in technology projects, so that growers do not have to rely purely on their own initiative, as is the case with BMG.

"The levy has worked pretty well for us in the past few years, and while research and development is important, I'd like to see more money being invested in technology and the shortage of skilled labour." va

Custom designs

Sam Calameri and Charlie Blogna have had cause to develop and build a number of custom-made items for use on-farm. They include:

- Potato harvester: Inspired by a tomato harvester they saw in Bologna, Italy, the potato harvester is a self-propelled unit that digs two rows at a time, from the front, so the weight of the machine does not damage the product. The unit took six months to design and build.
- Mobile fertigator: For use when crops are established, this
 unit has a protected section, which means the operator
 effectively works indoors. The unit is attached to the
 irrigation where it is used for the application of fertiliser
 and trace elements.
- Potato cropping rakes: Conventional cropping rakes have been expanded three-fold to ease the workload for Sam, who works the fields on his own.

Many languages, one voice

Growers from around Australia made great progress at the first National LOTE Grower Forum, writes AUSVEG's Hannah Burns.

he inaugural National LOTE Grower Forum was a resounding success for Vietnamese. Chinese, Arabic and Cambodian growers, as well as researchers and representatives from Horticulture Australia Limited (HAL), **AUSVEG and Rural Industries** Research and Development Corporation (RIRDC) who attended the meeting in Perth on 31 May.

The forum, an initiative of the strategy Communicating with Vegetable Growers who speak a LOTE, included short presentations about the National Vegetable Levy R&D Program and process, RIRDC, HAL and EnviroVeg.

Clear communication

Growers discussed preferred communication channels, the purpose of an active communication network and opportunities for engaging in broader industry events. Participants also recalled past R&D outcomes that have been useful and suggested funding priorities for next year's levy investment.

Joe Elbustani, cucumber and tomato grower and President of New South Wales Greenhouse Association said, "It was great

to meet with growers from other areas and discover that we all share similar issues. I hope that everyone who attended takes what they learnt and discussed back to their communities to get everyone on board and make a change for good in the industry".

Other representatives included Terry Ha, Carol Soo and Tony Har from the Australian Chinese Growers Association of NSW, Boran Huot and Lanh Ngo from the Australian Cambodian Growers Association of NSW, Don Pham and Tommy Le from the Vietnamese Farmers Association Queensland, and Sen Thach, Phan Van Le and Phuong Van Vo from South Australia.

New involvement

A newly-formed Vietnamese grower group from the Wanneroo area in Western Australia was represented by David Tran and Thang Le. "We are most grateful to have been invited to attend this forum, because many of our members do not know much about the levy or what information is available to them through the R&D program," said David.

Kim Nguyen, Secretary of



Attendees at the the forum were given the opportunity to workshop priorities for input into next year's National Vegetable Levy investment.

the Vietnamese community group in Carnarvon, Western Australia, who grows tomatoes and capsicum in partnership with her husband, Hoa, agreed. "I have learnt a lot about the way the industry works and the R&D program, and look forward to taking this information and sharing it with other members of the community," she said.

The LOTE strategy aims to build a foundation for better communication and networks among growers from non-English speaking backgrounds and the rest of the

industry, and eventually integrate with the overarching National Vegetable Industry Communication Strategy.

Growers who attended the forum have made a commitment to play a key role in the communication network among growers from a LOTE background on a national level. As the project progresses, the network will continue to grow, involving many people who work with LOTE growers and others who are keen to see improved communication channels within the industry.

"ALZON 46-The cheapest and most popular nitrogen in agriculture

- is now designed for Irrigated horticulture"



Alzon 46 is pure, double stabilized nitrogen made for the fertilization of irrigated crops, crops grown in sandy soils or for production of crops where nitrogen availability is critical to high yields. Alzon 46 can be spread straight from the bag, blended with other products or fertigated straight out with your irrigation water- it is 100% soluble and ready to use- **pure and simple.**

Alzon 46 contains nearly 4 times the nitrogen as NPK Compounds- and the nitrogen is designed to

feed for up to 4 months so no side-dressing of nitrogen is needed-image the savings in fuel and labour!

For your nearest Distributor, or to order direct: Phone 0414 255586





C ALL OR EMAIL FOR A FREE BROCHURE TODAY- AND SEE FOR YOURSELF HOW ALZON 46 CAN HELP YOU!!

Seaweed is no small-fry

An untapped market for sea vegetables could be a new opportunity for Australian growers looking to change or diversify their production, writes Barbara Hall.

eaweed, known in industry Ocircles as sea vegetables, could be Australia's next big growth industry. In 2006-2007, Australia imported 5,000 tonnes at a cost of \$14 million, and if a Rural Industries Research and Development Corporation (RIRDC) 2008 report is any indication, we could be eating a lot more marine macro algae in the future.

Diverse product

Barry Lee, Sydney scientist and engineering consultant, has written two seaweed-related reports for RIRDC. The 2008 report identifies food research applications for seaweed and seaweed products, especially as human food. Since 1997, when the first report was released, enterprising Australian companies have emerged for both harvesting wild stocks and growing marine macro algae.

"The main differences between then and now are the consumer opportunities: food products, stock feeds, roles in cosmetics and vitamin and mineral supplements, and the emerging opportunities for growers," said Barry.

"Markets are growing more sophisticated. In 1997, there were no pharmaceutical applications for seaweed in Australia. Established uses are now in cosmetics, printing inks, paint, pharmaceuticals and food processing. Many varieties of sea vegetables contain Carageenan, an excellent, well-established additive, which adds textural viscosity, especially to meat and dairy products."

So which areas look the most

promising? According to Barry, all of them have potential for huge growth.

"It's possible Australians would accept it in salad mixes, with our appetite for Japanese convenience foods using sea vegetables. On the industry side, Australian farm and growing industries have the opportunity to cooperate with aquaculturists to develop integrated agriculture," he said.

Exploring options

While ongoing land-crop trialling on saline properties in Western Australia and Victoria have not been successful so far, Barry feels the book should not be closed yet. There is a range of issues, mostly to do with balancing the chemical properties of the host waters. Marine ecologist Dr Pia

THE BOTTOM LINE

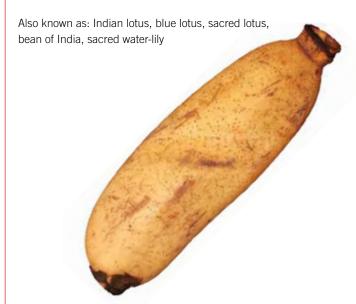
- Seaweed, also known as sea vegetables, is an emerging industry in Australia, with growing markets in food supply, cosmetics and dietary supplements.
- Land-based seaweed farms may be viable in the future, but more work must be done on balancing the chemical properties of the host water.
- Australia imports nearly all its seaweed, in 2006-2007 the cost of this was \$14 million.
- For more information contact Barry Lee, Industry Consultant Email: <barrywlee@ozemail.

or visit www.rirdc.gov.au/ reports/AFO/08-009sum.html to download the 2008 RIRDC report, Sea Vegetables: Potential as a marine vegetable and other opportunities.



Asian Vegetable Profile

Lotus root (Nelumbo nucifera)



Background

The lotus, cultivated for at least 3,000 years, has been revered in many parts of Asia since ancient times. It is often used as a symbol of fertility, beauty and tranquility.

The lotus displays the different stages of growth simultaneously—bud, flower

and seed pod. Lotus flowers are thermogenic—they generate their own heat and can maintain a temperature of around 30°C, even when the air temperature falls much lower. The seeds can stay viable for a long time; there are reports of thousand-year-old lotus seeds being successfully germinated and grown.

Where and how does it grow?

The lotus is cultivated not only in Asia but also in Russia and parts of Africa. It grows in shallow water and mud, in full sun, in tropical and subtropical areas. In Asia, it often grows in roadside ditches, or it can be interplanted with rice or other crops.

The roots form a series of long, smooth tubers in the mud, usually 15 to 25 cm long. Both the stems and the tubers have large, hollow air passages, which is how the roots survive in still, muddy water. Tubers are usually harvested at the end of summer.

In Northern Queensland, lotus is being used in conjunction with aquaculture; lotus plants remove excess nutrients from water contaminated with fish waste, which can then be recycled.

Preparation and cooking

All parts of the lotus plant can be eaten, including leaves, petals and seeds. The seeds can be eaten raw after peeling and removing the bitter core. They are also boiled, grilled or even candied and eaten as a snack food. Lotus seed paste is used as a filling in steamed Chinese buns as well as mooncakes, but tubers are the most commonly eaten part of the plant.

Lotus roots have a mild, slightly nutty flavour. They absorb the flavours of sauces and other ingredients, and can be extremely flavoursome. They also stay crisp and crunchy after cooking, adding an interesting texture as well as flavour and appearance.

All parts of the plant are used in traditional oriental medicine. However, there is little experimental data relating to their effects on health. The tubers, primarily composed of starch, contain Vitamin C and a variety of micronutrients, while the seeds are high in protein, fats and sugars. va



For more information contact: Jenny Ekman, New South Wales Department of Primary Industries Email: <jenny.ekman@dpi.nsw.

Winberg, who is preparing a RIRDC paper on a range of possible culture methods, explains that seaweed requires macro and micronutrients and is vulnerable to mineral contaminants.

Harvesting from the ocean is currently the only economical production method but one which Pia and others suggest is not viable long-term because of the environmental harm of large-scale wild harvesting. In Australia, government-regulated beach harvesting is done in parts of Tasmania.

Barry is enthusiastic about the success story of Marinova,

a company which harvests and processes seaweed and exports its fucoidan extracts for pharmaceutical, dietary supplements and cosmetic uses. He is also impressed by the steps being made towards culture methods for large scale production by Pia's company, Sustainable Seafood.

"I don't think it's wise to identify tank-based systems as the key," said Pia. "The technology is young and the costs of the various production systems vary greatly. There is a range of options for seaweed culture in Australia that need to be investigated. They include pond culture, tank culture and sea-based culture in proximity to nutrient sources, such as nutrient run-off or farmed fish cages. Production costs have to be weighed against the broad range of potential markets; therefore, the selection of seaweed species is very important."

Sustainability is crucial

For Pia, it is imperative that this emerging market is sustainable.

"The issue is supply of healthy, clean product. Australia can do this. By growing rather than harvesting we can avoid pollution, pest species of seaweed and damage to the environment.

Saline land doesn't have the same minerals and nutrients as seawater. The first step is to use natural seawater and focus on smaller markets," said Pia.

"Currently, Australia imports nearly all its seaweed. Increasing transport costs and our great distance from other markets are going to be prohibitive. Growing our own seaweed makes sense. Just as we prefer to buy and eat our own vegetables and fruit, there's no reason why we shouldn't relate to our food from the sea the same way we relate to our land-sourced food." va

Avoid the silver lining

Silverleaf whitefly is still a major pest for many growers, but research into tolerant vegetable varieties is underway, writes Emily Webb.

he tolerance of Australian varieties of cucurbitsmainly zucchini, pumpkin and cucumber—against silverleaf whitefly (SLW) is largely unknown, but Amanda Annells, Senior Horticulture Officer at Gascoyne Research Station, Department of Agriculture and Food WA, has been at the helm of a project to determine whether some varieties are more susceptible to the pest. The project also aims to determine whether these varieties can be managed successfully within an integrated pest management (IPM) program.

A key component identified by the project is the use of resistant varieties of vegetables to reduce SLW population numbers, as part of the overall IPM strategy.

Stop the loss

Crop losses caused by SLW can be debilitating, and this is an issue for growers nationally.

"Potentially, up to \$30 million worth of production across Australia is being lost due to SLW damage," said Amanda.

"SLW can cause significant crop losses by direct feeding damage and through the transmission of plant viruses. The spatial distribution of SLW, the development of insecticide resistance, the range of cultivated and weed hosts, and subsequent rapid population increase, combine to make satisfactory control of SLW difficult using chemicals alone."

Comparative trials conducted by Amanda and her team in Carnarvon were held in late-2007 and early this year. In the two zucchini trials, seven varieties were assessed: Blackadder, Hummer, Mamba, Midnight, Panther, Radiant and Shimmer.

"Panther consistently had less silvering than other zucchini



varieties, even though it usually

varieties, even though it usually had the highest number of SLW adults present," she said.

Panther was also the most

likely to have some form of host plant resistance because, while it showed the least amount of leaf silvering, it was the most attractive variety for adult SLW.

For pumpkins, the trials showed that among the eight varieties—Brians Grey, Canesi, Jarrahdale Large, Kens Special Hybrid, Queensland Blue, Sampson, Sunset QHI and Sweet Grey—Kens Special Hybrid, Canesi and Sunset QHI had the least amount of leaf silvering and were the most unattractive landing host for adult SLW.

Control costs

It is estimated that in Queensland, SLW has caused 40 per cent production losses, with an increase in pesticide usage a direct result. A project carried out in Queensland identified suitable IPM components for key vegetable crops in the state, including brassicas, beans, sweet potato and pumpkin, and developed management strategies for the pest.

"There was already anecdotal evidence from growers in Queensland and Western Australia about SLW and pumpkin varieties prior to this research. They indicated that they might not grow Jarrahdale-type pumpkins in the future because the cost of controlling SLW was too high," said Amanda.

"The results from these trials will assist growers to make more informed decisions about which varieties of pumpkins and zucchinis to grow."

THE BOTTOM LINE

- An R&D project is underway to better understand the tolerance levels of Australian cucurbits varieties to silverleaf whitefly (SLW), which are currently not well known.
- Panther, a variety of zucchini, had less leaf silvering than other varieties, despite SLW being attracted to it.
- Three pumpkin varieties— Kens Special Hybrid, Canesi and Sunset QHI—had the least amount of leaf silvering and were the most unattractive landing hosts for adult SIW.

For more information contact:
Amanda Annells, Senior
Horticulture Officer, Gascoyne
Research Station, Department
of Agriculture and Food WA
Email: <aannells@agric.wa.
qov.au>

Phone: 08 9956 3336 or visit www.ausveg.com.au/

levy-payers

Project number: VG06011 Keywords: Silverleaf whitefly

R&D preview

Nutrient management of leafy Asian vegetables



Project number: VG07153

Start date: January 2008 **End date:** January 2011 **Project leader:** Sophie Parks, Plant Physiologist, New South

Wales Department of Primary Industries **Email:** sophie.parks@dpi.nsw.gov.au

Phone: (02) 4348 1900

fficient nutrient management in the production of leafy Asian vegetables is important to minimise production costs, prevent nutrient run-off and ensure that produce is of a high quality.

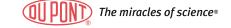
An excess of nutrients such as nitrate can be taken up and accumulated by plants, which can reduce vegetable quality by, for example, lowering the Vitamin C concentration and increasing the risk of soft rots. Additionally, there may be a food safety concern, as diets high in nitrates have been associated with some cancers.

Currently, there isn't much information about appropriate fertiliser strategies for Asian vegetables. This project aims to improve nutrient management, particularly of nitrate, for leafy Asian vegetables. Nutritional requirements for a range of species will be determined experimentally, and guidelines for nutrient standards will be developed for when leaf analysis is carried out during production.

Consultation with commercial laboratories will assist in the development of protocols for plant analysis, while protocols for simple, on-farm leaf tests will be developed using existing nitrate tools. Growers and agronomists will receive training for testing and interpreting test results, to help improve crop nutritional management.

A new insecticide that's harsh on key caterpillar pests but soft on beneficials.

That's advanced thinking.



From humble beginnings, the Bundaberg Fruit and Vegetable Growers Association now represents an area that lays claim to the title "Salad Bowl of Australia". BFVG Executive Officer Matt Dagan takes a walk down memory lane.

Bundaberg association sparkles in its diamond anniversary

outcomes for growers in the region. This included a concerted effort to look beyond local markets towards intra- and interstate opportunities. First, however, locals required convincing that this shift would not be at the expense of food shortages for the people of Bundaberg.

Expansion of the industry occurred rapidly; by the early 1980s, the region was the biggest producer of tomatoes. Establishment of the Queensland Department of Primary Industries and Fisheries Bundaberg Research Station in 1986 gave the area another boost.

them with information, training and other services and promote their industry in a way which results in its overall expansion and success".

BFVG supports a number of charitable organisations and events, including sponsorship of the Queensland Life Education Van, which visits regional schools to educate children about how to make the right choices in life.

BFVG has maintained an active presence at the annual Bundy in Bloom festival, distributing free fresh produce to the crowds at the parade event. The association has also worked in conjunction

The Bundaberg Fruit and Vegetable Growers (BFVG)
Association had its beginnings 60 years ago; on Friday 1 October 1948, The *Bundaberg Newsmail* reported that "Vegetable and Fruit Growers organised ... and formed an association to be known as the Bundaberg and District Fruit and Vegetable Growers Association." The meeting was convened by Mr J Kelly who was later voted in as the first president.

Rapid growth

While cultivation farming in the lower Burnett region around Bundaberg (about 350 km north of Brisbane), first occurred in the 1860s, it wasn't until 1878 that horticulture was featured in the local newspaper—to announce the Bundaberg show exhibition. In those days, transport of goods was difficult, so produce was grown on individual properties for local consumption. Early market garden farming included irrigating by hand, taking produce to auction rooms and hawking door-to-door.

The formation of the association was driven by committed individuals striving to get better



The region has been at the forefront of innovation in Australian horticulture, with advancements in technology and practices including machinery, mechanical planting and harvesting aids, packing shed equipment, irrigation, chemicals and fertilisers, transport systems and integrated pest management.

Reaching out

In 1997, BFVG changed its structure from an association to a registered cooperative. Its vision is to "represent members and their interests as fruit, vegetable and nut growers, obtain and provide

with Community Health during National Nutrition Week events in recent years.

In a bid to spread its message further afield we are now targeting other community events such as the Relay for Life cancer fundraiser and Country to Coast fun run.

With tremendous opportunities for local students to remain in the region through employment, training and further education within the production horticulture industry, BFVG has developed and implemented a schools-to-industry program.

In 2002, BFVG was the





Ron Simpson, previous BFVG Chairman and Life member [left], with then Prime Minister Roh Hawke

recipient of the Queensland State Government's 'Minster's Training Initiative Award' from the Minster for Employment, Training and Youth. This was a result of delivering a training program for regional horticulture. The association was a finalist in the 2007 Queensland Primary Industries Week Awards in the 'Service to Primary Industry' group.

Looking ahead

The BFVG Biennial Gala Industry Dinner will be held this year on Saturday 20 September. This year the night will celebrate 60 years of the association, whose grower members now represent a collective industry worth more than \$350 million annually, providing

The Bundaberg area has become the salad bowl of Australia, injecting some \$750 million into the economy.

employment and economic prosperity for many support services within the region and around the country

Accelerated horticultural growth is occurring in the region with production and investment confidence driving unprecedented industry expansion and development. This rapid expansion brings with it unique issues and topics for a regional industry to handle.

The Bundaberg area has be-

come the salad bowl of Australia. With more than 30 different commodities of nutritious vegetables, fruits, nuts and herbs, the region plays a vital part in the nation's food security and injects some \$750 million into the economy.

BFVG is at the forefront of strategic oversight of the local industry, providing leadership to ensure business investment is sustainable and commercial confidence continues to deliver profitable results. BFVG performs key roles, which include:

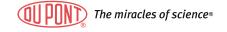
- acting as a communication and information centre for members
- delivering training and up-skilling for growers and industry employees
- addressing members' regional issues at a local level
- maintaining a high profile at community, industry and government levels for active promotion of the local industry
- ensuring effective partnerships with other industry and government bodies.

BFVG continues to evolve with the local industry and bolster horticulture through its information hub; media representation; service to growers; training and research projects; industry contact; grower representation on government, industry and community committees; and industry promotion. va



An insecticide with a completely new mode of action for long lasting protection.

That's advanced thinking.



Demand for supply chain tour

A tour through Perth's supply chain partners proved to be a hit with growers and the perfect opportunity to visit a Woolworths Distribution Centre.

THE BOTTOM LINE

- A grower tour, organised by vegetablesWA, incorporated in the three main points of the supply chain—market floor, supermarket distribution centre and retail outlet.
- A visit to the Woolworths DC near Perth Airport was the highlight for many growers.
- By storing less produce at the Woolworths DC and delivering it more frequently, the process from farm to retail outlet usually takes about two days.

t was a difficult offer to refuse, a guided tour through the Woolworths Distribution Centre in Perth—all 66,000 square metres of it. For many who attended the grower tour on 30 May, it was the highlight of a day that included visits to Perth Market City and a comparative look at Woolworths and Coles retail outlets.

To market, to market

More than 23 growers, researchers and industry personnel participated in the tour, which began at Perth Market City.
There they were met by Perth Market City Chief Executive Office, Mike Donnelly.

Mike explained that Perth Market City is a government-owned market, the last of its kind in Australia once the Melbourne Markets are privatised. He talked growers through the history and structure of the organisation, including its support of existing marketing campaigns, such as the 'Go for 2 & 5' campaign.



Yatron Yalda [left] from Woolworths discusses the step-shelf system with tour participants at the Woolworths concept store at Southlands Shopping Centre.

"The main goal is to increase the consumption of fruit and vegetables," said Mike. The market will soon open the Fresh Ideas hall, which will house working demonstrations on cooking with fresh produce to communicate new methods to consumers.

David Ellement, Western
Australia IDO and tour leader,
mentioned that the 'Go for 2 &
5' campaign, which originated
in Western Australia, ran for 18
months in that state, increasing
the consumption of fresh fruit
and vegetables by 0.7 serves per
person per day. "It stopped for a
year and in that time dropped 0.4
serves, so the message needs to
be constant," he said.

John Mercer, wholesaler at

Perth Market City and member of the Australian Vegetable Industry Development Group, met the tour group on the market floor and talked them through the daily workings of the market and pertinent issues for growers—rising input costs, urban sprawl, and the difficulties of starting small operations.

"Larger farms are more viable; it used to be that you could start a farm with five acres, but that's not so easy to do anymore," he said.

Worth the trip

Next stop was the Woolworths Distribution Centre near Perth International Airport, where growers were met by Colin Hudgson, Business Manager Produce: Mathew Trichet, Buyer and Marketing Produce; and Yatron Yalda, Business Manager Produce.

When the centre opened in November 2004, it was produce only, with dry goods introduced in early-2005.

The DC services all 79
Woolworths stores in Western
Australia. It has more than 70
loading docks, where it receives
goods daily from 5.00 am until
10.30 am. For quality assurance
reasons, produce is chosen
randomly; it needs to meet specifications, otherwise it is rejected.
After 10.30 am, the receiving
docks become dispatch. Produce
is usually two days from field to
store. Delivery to retail stores is
daily, while most regional stores



Tour participants walk through the market floor at Perth City Markets.

The processes in place ensured that produce was kept at its peak from harvest through to the display shelves.

receive produce six days a week.

An automated ordering system introduced three years ago ensures that stock levels meet demand. It also helps with forecasts of supplies and orders, and avoids overstock.

The centre is three times the size of Subiaco Oval, and receives 7.5 million produce cartons per year. Produce is stored in coolrooms of three different temperatures (2°C, 7°C or 13°C depending on the commodity), or -24°C for frozen goods.

"Produce sources fluctuate with each commodity, but it runs from local, to national, to international," said Yatron. Imports do not exceed five per cent.

For many growers, the Woolworths DC was the day's highlight.

"We are a supplier to another major supermarket chain, and the processes within the distribution centres are similar, yet still very impressive. It was great to see the major chains supporting local growers with the amount of quality West Australian grown produce available to the consumer," said grower Paul Bogdanich from Gingin West, WA.

"The processes in place ensured that produce was kept at its peak from harvest through to the display shelves."

Compare and contrast

The final portion of the tour involved a visit to retail outlets. The group visited a newly refurbished Woolworths concept store in Southlands Shopping Centre.

The layout was open, with light fittings above the produce displays, not walkways. Produce was presented in a mix of loose and retail ready.

The use of grower crates was explained, as was the labeling system, which clarifies to consumers where the produce has been sourced from.

The step-shelf system keeps less produce on display, allowing more stock to be stored in the cool room to extend shelf life. However, daily deliveries from the DC keep stock to a minimum. As a result, less funds are tied up in produce, which frees cash-flow for shop fitouts and advertising. It also means a reduction in produce shrinkage—retail shrinkage was about 12 per cent, while shrinkage in the DC was lower.

After Woolworths, a trip to the Coles retail outlet in the same shopping centre was made, so growers could compare store layouts and produce displays.

The tour gave grower a great understanding of the processes within the supply chain, while providing fantastic network opportunities.

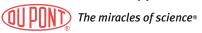
"The tour was a great initiative by the team at vegetablesWA and we look forward to further tours covering other aspects of the industry," said Paul. va

Coming soon

Coragen. Advanced thinking, superb results.



RYNAXYPYR[™]





On-farm assistance makes a difference

A passion for the environment and reducing pesticide usage on-farm is what drives Gosford researcher Dr Leigh Pilkington, discovers David Jarwood.

Pr Leigh Pilkington, a research scientist who sees himself as "an environmentalist, rather than a greenie", is working to expand the use of integrated pest management (IPM) by Australian growers.

"I want to see agriculture practiced in a more intelligent way, and have pesticides used only when they are needed," he said from his base at the Gosford Horticultural Institute, NSW Department of Primary Industries.

"The aim is to get growers to use pesticides less and, when they do use them, to do so in a targeted, thoughtful fashion that preserves pesticide efficacy for when it is really needed. This will also reduce residues that might be on our foods and flowers."

Leigh is Treasurer of the International Organisation for Biological Control of Noxious Animals and Plants – Asia and the Pacific Regional Section. He balances his time spent in laboratories by visiting growers on-farm, and counts himself lucky that he doesn't work only in laboratories, devising theories and not seeing how they are utilised.

The day *Vegetables Australia* spoke with him, he'd worked with a group of Cambodian growers



almost a halfway point between conventional and organic growing, which makes it appealing to the middle market.

west of Sydney, assisting them in insect identification, monitoring techniques and the many other aspects of IPM.

Leigh, 32, is a graduate of the University of Canberra. In 1997, he joined the Agricultural Scientific Collections Unit, NSW Agriculture, as part of the fruit fly monitoring team.

Global experience brought home

Leigh's passion for the environment and other cultures saw him travel the world in 1999, taking part in volunteer conservation activities.

In Thailand he undertook an informal environmental impact statement for proposed tourist activities in a remote village on the border of Thailand and Burma. Mapping of clearing activities of Australian wattle in waterways took place in South Africa. In Germany Leigh spent time with Landschaftsphlegervorbund, a government organisation similar to many landholder groups, with an emphasis on environmental issues. In Greece he monitored endangered loggerhead sea turtles, and he tracked condors with the United States Fish and Wildlife Service, which was the

highlight of the year. Finally, several environmental impact statements were prepared for proposed tourism activities in Fiji.

Leigh said the use of IPM is gathering momentum, due primarily to pesticides no longer being as effective because of increased insecticide resistance.

Another important factor is that consumers are looking for alternatives to the pesticides of conventional growing, which provides a commercial incentive for growers to consider IPM.

Leigh said that consumers were looking for something that would sit between conventional and organic; produce labelled as grown under an IPM system would fill that niche.

"In Europe, people pretty much demand that chemicals are not used any more," he said.

"I see IPM as almost a halfway point between conventional and organic; this makes it appealing to the middle market, from a cost perspective."

i

For more information contact: Dr Leigh Pilkington, Research Scientist, Gosford Horticultural Institute, NSW DPI Phone: 02 4348 1953

Email: <leigh.pilkington@dpi. nsw.gov.au>



Dr Leigh Pilkington career timeline

1997	Graduated Bachelor of Applied Science (Resource and Environmental Science) from University of Canberra
1998	Research Assistant with University of Sydney, Orange
1999	Conducted various environmentally-based volunteer positions around the world
2003	Graduated PhD from University of Sydney—project title Australian Lucerne Yellows: Pathogen, Vector and Control
2004 – 2005	Post-Doctoral scholar at the University of California. Involved with the biological control agents associated with the glassy-winged sharpshooter

2006 – present Research Scientist with NSW DPI at the Gosford Horticultural Institute

Pass the baton

After two years of scoping studies and direction setting, the AVIDG has reported to industry about how to increase competitiveness in a global market and build consumer demand. Here's a recap of the AVIDG's seven Foundation Projects.

On 1 July, the Australian Vegetable Industry Development Group (AVIDG) held its 'Report to Industry' in Sydney. Key vegetable industry stakeholders gathered to hear the outcomes of projects undertaken by the group during the past two years. The AVIDG project has now concluded, which means it is time for industry to continue the group's work by embracing change to become more competitive, sustainable and profitable.

The seven Foundation Projects completed by the AVIDG were:

- 1. Development of a vegetable industry strategic plan
- 2. Leadership and industry structures
- 3. Industry information and decision support frameworks
- 4. Industry benchmarking
- 5. Business skills development
- 6. Global comparative analysis
- 7. Market development.



Development of a vegetable industry strategic plan

In September 2006, VegVision 2020, the industry's strategic plan, was launched. The plan established a vision for the industry to "double the 2006 value of fresh, processed and packaged vegetables in real terms by stimulating and meeting consumer preferences for Australian products in domestic and global markets".

The plan recognised that no simple solutions will assure industry success in a competitive business environment. Instead, the industry must adopt a multi-pronged approach to improving competitiveness and meeting consumer demand. This approach included understanding consumer needs and preferences, meeting and exceeding consumer expectations, looking for opportunities to remove cost from and add value to supply chains, implementing improvement programs, and increasing the skill-set of industry personnel.

VegVision 2020 identified five strategic imperatives to improve the profitability and sustainability of the industry. These were:

www.avidgroup.net.au.

- 1. Delivering to changing consumer preferences and increasing demand
- Market recognition for Australian quality, safety, reliable supply and innovation
- 3. Internationally competitive Australian vegetable supply chains
- 4. Advanced industry data and information systems
- 5. Visionary leadership and change management

The AVIDG funded the development of an economic business case to help the industry invest in areas that are most likely to generate high return for National Vegetable Levy and matched Australian Government research and development funds.

02

Leadership and industry structures

Two projects were undertaken to examine this area. These found that the fragmentation of industry structures weakens the unity of purpose required for the industry to succeed in competitive domestic and international markets. There were at least 62 organisations servicing growers' needs and an additional 29 organisations servicing the value chain beyond the farmgate.

Close to 180 industry stakeholders were involved in the two projects, which considered what leadership and structural arrangements the industry needed to remain competitive. A common theme was growers' desire for a unified voice through a national body. Also important was the capability of national industry organisations to engage effectively with value chain businesses and associations.

The industry's complex structure and a lack of clearly identified proposals to improve its effectiveness remain a concern for many industry members. As a result, all industry, particularly its overarching leadership and institutions, has a role to play in improving industry structure.



In response to the increasing pressures of globalisation, this project investigated the processing industry's capacity to innovate and improve its methodology, and whether new products and services valued by consumers could be introduced. Coles, Simplot Australia and vegetable suppliers to Simplot in Tasmania participated in the project.

The project demonstrated that improvement of value-chain performance lies between chain partners, not within businesses that make up the chain. It found that industry and businesses require quality and timely information to make well-informed business and policy decisions. This information already exists within business, so it becomes a matter of collaboration to reduce cost and add value for customers.

This project included a framework and methodology that is suitable for use by other vegetable industry value chains to perform their own analysis.

ABARE survey

The vegetable industry lacks reliable information that could assist with strategic decisions for investment of industry resources in research and policy areas. In response to this, the Australian Bureau of Agricultural and Resource Economics (ABARE) was engaged to undertake a survey of Australian vegetable growers.

The survey established a reliable baseline data set of industry financial performance to assist investment decisions in R&D, marketing,

extension and policy. This information helped the Australian vegetable industry better understand long-term trends relating to the financial performance of growers and key issues affecting industry viability.

In May this year, Horticulture Australia Limited (HAL) announced that the vegetable industry has allocated levy funds to continue the farm financial survey in 2008, 2009 and 2010.

Market Information Audit

In November 2006, a Vegetable Industry Export Network (VIEN) was formed. The network brought together seven of Australia's larger vegetable exporters and provided a voluntary mechanism for industry to work collaboratively to prioritise export market opportunities and identify opportunities for growth.

China was identified not only as a competitive threat to the profitability and sustainability of the Australian vegetable industry's domestic and export markets but also as a potential opportunity—one that is currently poorly understood.

A Market Information Audit provided both a context and information to inform the industry where it could focus its efforts to compete successfully for export markets in an increasingly competitive global business environment.



DG timeline of events

June 2005:

AUSVEG convened a crisis summit to raise awareness about the problems in the Australian vegetable industry. The Australian Government committed \$200,000 to initiate an industry stocktake and setting directions project under the Industry Partnerships Program through the Department of Agriculture, Fisheries and Forestry (DAFF).

July - Nov 2005:

In compiling the Taking Stock and setting directions report, more than 160 individuals and organisations from all sectors of the vegetable industry were consulted. They included growers, processors, exporters, retailers, suppliers and industry bodies.

Aug 2005:

Vegetable growers participated in a tractor rally arriving at Parliament House in Canberra as part of the Fair Dinkum Food Campaign.

Aug 2005:

The Australian Government committed a further \$3 million to implement the outcomes of the Taking stock and setting directions report.

Nov 2005:

The Taking Stock and setting directions report recommended seven main project themes where future industry investment could be directed to improve the long-term profitability, competitiveness and sustainability of the industry. The seven project themes were:

- 1. Development of a vegetable industry strategic plan
- 2. Leadership and industry structures
- 3. Industry information and decision support frameworks
- 4. Industry benchmarking
- 5. Business skills development
- 6. Global comparative analysis
- 7. Market development.

March 2006:

Peter McGauran, the then Minister for Agriculture, Fisheries and Forestry, created the Australian Vegetable Industry Development Group (AVIDG) to oversee the implementation of projects in line with the seven Foundation Project themes.

The Minister appointed Tasmanian vegetable grower Richard Bovill to chair the group. A further eight members from the vegetable industry supply chain were appointed to the group. When the group concluded its tenure on 30 June 2008, these members

- Wendy Erhart, Withcott Seedlings Co-Owner
- Peter Cochrane, VFF Horticulture Group President
- Michael Badcock, Tasmanian vegetable grower
- Nigel Steele Scott, HAL Chairman
- Ian Pavey, Fresh Produce and Retail Executive
- Sergio Canale, Executive General Manager, Supply Chain, Simplot Australia
- John Mercer, Mercer Mooney WA
- Andrew McDonald, Department of Agriculture, Fisheries and Forestry

April – June 2006: The first Foundation Project, 'Developing a long term strategic plan for the vegetable industry', was composed.

June 2006:

The industry's strategic plan, VegVision 2020, was completed.

April - Aug 2006: Work began for the second Foundation Project, 'Improving leadership and industry structures'.

Aug 2006:

Scoping began for investment in remaining Foundation Projects.

June 2008:

Individual projects under the Foundation Project themes were completed and the outcomes released at a 'Report to Industry' event held in Sydney.





Industry benchmarking

This project investigated continuous improvement as a way of increasing the performance of businesses and business alliances in the Australian vegetable industry.

Continuous improvement can include reducing costs or adding value through the systematic review and improvement of productivity in the supply chain.

A framework has been developed that vegetable businesses can use to assess their individual business performance. The framework is available to all vegetable industry participants and is accompanied by an implementation plan that documents a proposed schedule of priority activities and programs.

05 Business skills development

Under the Business Skills Development Foundation Project, a People Development Investment Plan has been developed to help the industry access existing business skills, leadership programs and funding sources.

Industry has a role to play in facilitating personnel who participate in courses and programs, and addressing a small number of gaps in training programs. Industry can also help participants overcome barriers to adoption.

A search tool has been created on the AUSVEG website that allows industry participants to search listings of business skills, leadership and training programs. The 'Learning' page on the website enables the program list to be searched by region, type of training and training provider.

The People Development Investment Plan will be tabled at a Vegetable Industry Advisory Committee (IAC) meeting in September 2008. Recommendations in the report will be considered along with findings of a separate review into the industry's investment in industry development. For more information about this project, see page 52.



Global comparative analysis

This project, initiated by the AVIDG and funded by the National Vegetable Levy, has shown that the Australian industry must move quickly to improve its international competitiveness.

The project involved extensive on-ground research within China and was completed with the involvement of VIEN. The project investigated current trends relating to international trade in fresh and processed vegetables.

The findings show a steady growth in international trade in vegetable products, dominated by supply from China, whose exports have risen from US\$2 billion to US\$5 billion over the past 10 years.

While international trade is expanding, Australian vegetable exporters are losing market share overseas and imports are rising. Australia's exports have fallen by 50 per cent since a peak in 2003 and now represent less than 10 per cent of the industry's GVP.

China continues to gather momentum as a major vegetable exporter, increasingly driven by large, well-resourced businesses that address issues relating to productivity, environmental constraints and food safety. China has comparative low labour costs and supportive policies on rural development that have helped sustain this growth.

In September 2008, the IAC is scheduled to consider proposals for the implementation of strategies identified in the plan. The IAC is likely to make recommendations to HAL regarding the steps the industry should take to address its global competitiveness. For more information about this project, see page 27.

07/

Market development

A Vegetable Industry Export Business Plan was developed to identify five key strategies that the industry should implement to help it compete against China in the domestic and third-party markets, and develop export opportunities for Australian vegetable products to China. In light of this, in September 2007, the IAC recommended that levy funding be invested to:

- oversee the export business plan activities including, but not limited to, the Global Comparative Analysis Study of China
- secure funding for future initiatives identified as a result of the Global Comparative Analysis project and market development activities outlined in the export business plan
- provide commercial input into industry R&D processes and investment decisions
- provide input regarding trade, market access and industry development policy formulation to the peak industry body and government.

Domestic Marketing Strategy

One of the most significant projects commissioned by the AVIDG was the development of an overarching domestic marketing strategy and implementation framework aimed at increasing the value of Australiangrown vegetables purchased by domestic consumers. The strategy recognised that while a wide range of government and non-government groups are already investing significant sums of money in marketing and related activities, different tactics must be applied to achieve the VegVision 2020 aspiration of increasing the value of vegetables in the Australian domestic market.

The marketing strategy and its Implementation Activity Plan set out priorities to optimise industry impact from its investments. First, the industry must develop its capability to engage government and industry stakeholders to leverage existing resources to fund and implement value-generating marketing strategies on a long-term basis. Development of strategic and professional relationships between the production sector, governments and value chain participants will be critical for achievement in this area.

As the industry builds momentum and key relationships, it is likely that alternative funding mechanisms, such as voluntary investment by commercial businesses or a statutory marketing levy, will be investigated.

In September 2008, the IAC is scheduled to consider what aspects of the domestic marketing strategy implementation plan should be funded by levy resources.

Take the challenge

The AVIDG's work has confirmed that the Australian vegetable industry faces challenges to its competitiveness in the global market-place. While international trade in fresh and processed vegetables is growing, the Australian industry is losing market share overseas and imports are rising.

The AVIDG's investment in the seven Foundation Projects has found there are examples of excellence within the industry, as well as opportunities to improve industry performance. Future growth will require satisfying consumer demand for quality Australian vegetable products.

There are no simple solutions that promise industry success in a competitive business environment. Instead, the Australian industry must adopt a multi-pronged approach to meeting consumer demand. Additionally, industry sectors must collaborate more effectively to develop new products and better understand consumers.

While much foundational work has been completed, the benefits of the AVIDG's work will not be fully realised until the outcomes of the seven projects are adopted by industry.

The design and implementation of the Foundation Projects involved the active participation of many businesses and organisations across the vegetable industry and throughout the value chain. The industry has had a large hand in shaping the projects and now has responsibility for their implementation in the long-term.

If the vegetable industry leadership accepts the challenges posed by the global marketplace and actively pursues the initiatives that have been launched, the future looks bright. va

THE BOTTOM LINE

- After two years of scoping studies and developmental projects, The Australian Vegetable Industry Development Group (AVIDG) held its final report to industry earlier this month.
- The group completed seven Foundation Projects to help ascertain the best course of action for the industry to improve its commercial value and competitive.
- The onus has now fallen on the Australian vegetable industry to continue building on the foundational work AVIDG has completed.

For more information visit:
The AVIDG website,
www.avidgroup.net.au, and
download reports about
Foundation Projects and their



Ask the industry

Welcome to *Ask the industry,* a column prepared exclusively for *Vegetables Australia* where Syngenta Technical Services Lead Phil Hoult responds to questions, concerns or problems you might have about crop protection solutions.

Why are some chemicals unable to be mixed together for single-pass application?

With pressure on input costs such as fuel and a need for growers to conserve both labour and money, the question of mixing pesticides in the spray tank for a single-pass application is becoming more relevant.

Tank mixes with different herbicides, insecticides, fungicides, spray adjuvant and foliar fertilisers are now commonplace on most farms. When products are mixed outside of what is recommended, or too many products are mixed at once, there is an increased chance of compatibility problems occurring. This may lead to efficacy problems or instances where the tank mix resembles lumpy

sludge—not the original products you were hoping to apply.

A number of incompatibility forms can occur, as detailed below:

- Biological: Two or more products may be antagonistic to the activity of each other and their effectiveness may be reduced. While the incompatibility usually cannot be seen in the tank mic, it often leads to poor results in the field.
- Physical: Two or more products react adversely and cause a resultant settling out of a precipitate (the spray mix is lumpy), which causes blockages in the spray tank, filters or spray nozzles. A chemical

reaction is sometimes the cause of this.

 Effective: Two or more of the products have incompatible methods of application, modes of action or crop safety.

Even when two products are stated as being compatible in a tank mix, things can still go wrong. Usually this occurs because of:

- Water quality: Some products may break down rapidly in alkaline or high-pH water, or precipitate out in muddy or saline water.
- Formulation quality: Some formulations may not always be of the same quality, despite having the same active ingredient.
- Environmental conditions:
 If some products are stored in very hot conditions for

long periods the quality may deteriorate.

- Water volumes: In many cases, if a lower water volume is used for spraying, there is a higher probability of physical incompatibility.
- Mixing order: Some products react with other products if they are not mixed in the correct order.

Always read the label for mixing instructions, to check for incompatibility warnings, and to determine if two products can be mixed. If in doubt, ask the manufacturer. va



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

It's nearly time to fly

There's still time for growers of all ages to apply for the levy-subsidised tour to the USA—but hurry!

The Vegetable Industry
Advisory Committee (IAC) has
endorsed a tour by vegetable levy
growers to the USA in October
2008. Ten growers will leave Sydney Friday 17 October and return
Friday 31 October. AUSVEG will
appoint a tour leader.

The tour—open to all vegetable levy payers, with no age restriction—will include visits to farms in the prime California vegetable growing regions of Salina Valley/Watsonville and Santa Maria. Visits to retail outlets, distribution and processing facilities in California and Florida are also on the itinerary. The second major

component of the tour is attendance at the Produce Marketing Association (PMA) Fresh Summit Conference in Orlando, Florida.

Participants from similar tours in previous years have gained benefit from:

- their exposure to a range of on- and off-farm business practices
- developing networks and participating in forums with Australian and overseas growers
- learning about technological innovations, and the latest farm techniques and practices.

Tour costs are substantially sponsored by the levy, though growers will be required to contribute \$2,850. All air (including to and from tour departure point Sydney) and land travel, share accommodation, registration at the PMA conference and some meals are included.

Application forms can be obtained from AUSVEG, the AUSVEG website, or the vegetable Industry Development Officer in your state. Applications close on Friday 25 July 2008.



For more information visit: www.ausveg.com.au

Take a leaf out of their book

A new guide could help growers meet consumer demand for fresh cut lettuces with extended shelf lives, discovers Brea Acton. ncreased consumer demand for fresh cut lettuce and salad mixes has seen the pressure rise for Australian growers to find new ways of extending the shelf life of lettuce. Agronomist Mike Titley says that post-harvest factors have become very relevant for many growers.

"Traditionally, growers saw the post-harvest handling of vegetables as someone else's responsibility," said Mike. "Now, because supermarkets and end users are demanding that lettuce be received at 4°C, growers have to pay more attention to postharvest conditions."

With this in mind, Mike and a team from Applied Horticulture Research (AHR) developed a best practice training guide for the Australian lettuce industry. Optimising Yield and Shelf Life of Iceberg and Cos Lettuce aims to provide a set of strategies for growers to increase the shelf life of Cos and iceberg lettuce, with an emphasis on understanding environmental impacts on yield and quality.

The guide was just one component of an 18-month project, which also involved running grower workshops around Australia and developing an interactive training program to

support growers with implementation. The guide and training course were developed by a team including Mike Titley, a specialist in crop scheduling; Dr Jenny Jobling, a post-harvest physiologist; Dr Gordon Rogers, an expert in crop physiology; and Brad Giggins, a specialist in field crop experiments and Integrated Pest Management.

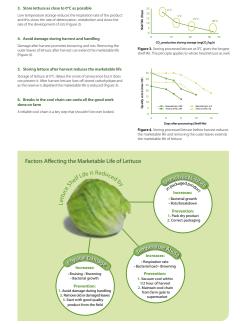
Back to front

The guide begins with postharvest handling, drawing attention to one of the most important factors in the life of a lettuce.

"We started at the finished product end, and used that as the corner stone. We're saying that anything growers do, from planting the seeds or seedlings, to crop scheduling, to irrigation and fertilising, will impact on its post-harvest life," said Mike.

Post-harvest handling attempts to delay the onset of ageing, or senescence, by maintaining the living product. Even after harvest, lettuce continues to live off stored carbohydrates and water. Harvesting lettuce at the correct time will contribute greatly to its shelf life. For example, harvesting too early means not enough carbohydrate has been stored, while harvesting too late means





Optimising Yield and Shelf Life of Iceberg and Cos Lettuce guide timeline

July 2003 July 2003 to May 2006 June 2006 September 2006 to October 2006 February 2007 March 2007

Event

- Commenced VG03092: Post Harvest Improvement in Iceberg and Cos Lettuce to Improve Shelf Life
- Trials on commercial farms take place with assistance of One Harvest
- Testing in processing plants
- VG03092 concludedSubmitted formal report to HAL
 - Submitted formal report to HAL
 - Commenced VG06034: Best Practice Manual and Training Guide for the Australian Lettuce Industry
 Began writing articles and planning the guide and workshops
- uary 2007 Optimising Yield and Shelf Life of Iceberg and Cos Lettuce guide published

March 2007 to September 2007

End of 2007

- Training workshops with growers in Hay, Cowra, Sydney, Gippsland, Melbourne, Perth, Virginia, Stanthorpe and Devonport
- VG06034 Project concluded
- Final report to HAL

that the onset of senescence has already begun in the field. Other factors, such as vacuum cooling the lettuce within half an hour of harvest and storing lettuce at around 0°C, will also increase quality and shelf life.

The guide addresses other important agronomic areas impacting on shelf life and quality of lettuce, including crop nutrition, irrigation and water management, plant density, crop scheduling (including predictions about yield and harvest dates), and variety analysis.

Team effort

Almost all of the data for the training guide came from an initial R&D project, conducted between 2003 and 2006, to measure post-harvest improvements in iceberg and Cos lettuce. To get accurate results, Mike and his team conducted on-farm trials in Toowoomba, Lockyer Valley, East Gippsland and Robinvale.

"We don't have access to private research farms. The growers we worked with allowed us to work on their farms and put our trials in their commercial crops," said Mike. "It was a multi-discipline approach. We had agronomists, plant protection people and lettuce seed breeders working on the project, as well as post-harvest specialists."

Irrigation methods, crop sched-

growers through the workshops conducted as part of the project, as well as internal and public mailing lists to reach lettuce growers nationally.

Wayne Stockton, National Sales Manager at Boomaroo Nurseries,

Anything growers do, from planting, to crop scheduling, to irrigation and fertilising, will impact on the product's postharvest life.

uling and length of growing period were all assessed in these trials. Post-harvest conditions were also evaluated, with all products subjected to commercial production, transport and processing.

"We didn't just do trials on harvesting the lettuce. We also took those lettuce heads, shredded them, put them in a bag and measured them. We were looking not only at the effect of yield but also that of shelf life," Mike said.

Difficult to measure

Since being published in 2007, the guide has been distributed to

delivers seedlings to growers and attended one of these workshops early last year.

"We've tried to implement some of the suggestions in the guide, such as the information on transplanting schedules. We learned that it's better to increase our planting numbers after Christmas—when people have traditionally begun tailing off their orders—to account for the slowing growth of lettuce from mid-January onwards," he said.

Mike says one of the challenges with a project like this is not being able to monitor the long-term

implementation of the guide with growers. With no future plans for the guide, there is little way to gauge industry response.

"Our aim in this project was getting growers to implement some of the findings—and that's very hard to measure."

THE BOTTOM LINE

- The Optimising Yield and Shelf Life of Iceberg and Cos Lettuce guide, published last year, is the culmination of two R&D projects.
- The guide contains information about the entire growing process, from planting to harvesting, and how growers can prolong shelf life of fresh cut product.
- Workshops around the nation were held to communicate these findings to lettuce growers.

For ww pay

For more information visit: www.ausveg.com.au/levy-

Project numbers: VG03092, VG06032

Keywords: Postharvest, best

For a copy of the Optimising Yield and Shelf Life of Iceberg and Cos Lettuce guide, contact Lynn Christie at AHR Email: <|ynn@ahr.com.au>

Phone: 02 9527 0826

ECONOMIC OUTLOOK

Conservative budget will have limited effect

In light of Federal Treasurer Wayne Swan delivering the new Labour government's first budget in May, Economist Ian James asks how important the budget is when it comes to management of the economy.

A great deal of media coverage was devoted to the delivery of the annual Federal Budget in May. The Federal Budget is a statement of forecasts of Australian Government revenues and expenditures for the upcoming financial year, though it also includes estimates of revenues and expenditures for outlying years. It is essentially an accounting document, which begs the question—why the emphasis on economic outcomes?

The budget acts as a judgement on the economic performance of the government—it is one of the few economic instruments that the government can employ to influence the direction of the economy. It provides a guide as to the policy direction of government, and specific measures taken in the budget can have a large impact on individuals and companies.

Despite this, the budget is relatively small bickies compared with some other forces shaping the Australian economy. Many of these, which come from outside Australia, are beyond the control of the Australian Government. The government's economic performance is better judged by its ability to facilitate the necessary adjustments, which usually lie outside the budget, to allow the Australian economy to adjust to new world realities, including

Asian economic growth and the world credit crunch.

Resources boom a selective success

The change in economic policy direction in China and India, and their consequent economic growth, has fuelled a massive increase in demand for Australia's mineral and energy resources.

The impact of this development on Australia has generally been positive—huge increases in incomes and wealth, record employment growth, surging business profits and overall prosperity. However, there have been costs, in part to do with increased world oil prices, a rising Australian dollar and a deluge of imports.

Moreover, the benefits and costs have not been evenly distributed. While some sections of the Australian community have benefited handsomely, others have not. Vegetable growers are more concentrated in the latter. With diesel and fertiliser costs through the roof, labour tight and little noticeable increase in returns per unit, growers have been caught in a classic cost/price squeeze.

The government's policy response to rising energy costs is more critical to the health of the Australian economy than the budget. While this is a highly emotional issue, particularly for Australians living in regional

areas, nobody really believes that the Australian Government has the power to change the fundamentals of world oil markets. However, the country's leaders are expected to respond to these realities with appropriate vision and policies.

Global credit crunch

The issue of loans with slack credit checks in the United States led to the sub prime credit crisis of late-2007, early-2008. The impact of this spread through world financial markets, which virtually froze as financial institutions around the globe tightened lending. Australia was impacted, with some notable Australian companies facing difficulties in raising finance.

Financial markets are a little freer now but we are yet to see the full fallout from this crisis. American economic growth will slow and, despite the offsetting effects out of Asia, it is likely that the rest of the world will catch a cold from the USA's financial sneeze. The management of expectations from a boom to a more subdued economic growth rate in Australia will be a further test for the government.

Assessing the budget

Much of the budget's content had been pre-determined by the government's resolve to deliver



Rising oil prices are one economic factor over which the government has little control. Growers are feeling the pinch of increased fuel and fertiliser costs, without a corresponding change in income.

on its election promises. The fact that the government could fulfil its election promises for tax cuts and still deliver a budget surplus of \$21.7 billion is indicative of how government coffers are awash with money, flowing from the resources boom.

Rural Australia will particularly welcome the Building Australia Fund, which will fund shortfalls in national transport and broadband infrastructure.

From a fiscal management viewpoint, the budget was relatively staid—there was little hint of a radical approach to economic management. It delivered a handsome surplus and some expenditure cuts to assist in restraining inflationary pressures. Most economists would have preferred more expenditure cuts and restraint on tax cuts and family

initiatives, but within the bounds of political reality the budget was a fair job.

The budget scored more highly on micro-economic priorities, with transport, infrastructure, climate change, education and health receiving much-needed attention. The use of the surplus and future surpluses in three nation-building funds to tackle Australia's ramshackle infrastructure is to be applauded. The government has sensibly not tried to fix the deficiencies in infrastructure at a time when resources are fully stretched but will have a reserve fund available to deliver this at a later date.

Rural Australia will particularly welcome the Building Australia Fund, which will fund shortfalls in national transport and broadband infrastructure. Farmer organisations and rural communities concerned about the long-term decline in rural infrastructure lobbied hard for this. Health services are a key concern in rural Australia so the establish-

ment of the Health and Hospitals Fund to finance the renewal and refurbishment of hospitals and health facilities is also welcomed.

Moving on, already

The incoming government needed to show that it had a firm grip on the economy in the face of international turbulence brought on by the worldwide credit crises and galloping fuel prices. While the punters may not have been overly enthused, the negatives were fairly limited. Consumers and businesses may change their economic behaviour but this will probably be because of nonbudget concerns, such as high debt levels or soaring oil prices.

The budget delivered what the government promised. It erred on the side of fiscal conservatism, putting aside funds for major infrastructure developments when resources in the economy are less strained. However, by the time you read this article, the budget will have faded into insignificance. The Rudd government's economic performance will be judged more by its ability to guide the adjustment of the economy to rising energy costs, slowing world economic growth, climate change and a carbon neutral economy than the 2008 Federal Budget. va

THE BOTTOM LINE

- While the Federal Budget received a great deal of media coverage, many forces shaping the Australian economy, such as world oil prices, are beyond the control of the government.
- This year's budget was responsible, with an eye to funding major infrastructure developments when resources in the economy are less strained.
- While the resources boom has been positive for many Australians, vegetable growers have suffered increased input costs as a result of this boom, with little change to income derived from produce.

Investment Plan to support development of leadership and business skills

A year-long plan has been completed to help the industry meet its people development needs.

Vegetable growing in Australia is a diverse industry with differences in business sizes and commodities produced, as well as the level of value-adding and targeted markets.

In addition to this complexity, the industry faces a number of challenges. Access to water of sufficient quantity and quality is a major concern, made worse by the current drought in some areas and the long-term implications of climate change. The industry is not immune to the impact of labour shortages affecting all industries, which has placed a premium on labour-saving techniques and devices on farms. Other challenges include increased competition in the domestic market from imports, particularly processed vegetables, and the need to inform consumers about the safety and quality of locallyproduced vegetables.

In light of these challenges, achieving sustainable business growth in the 21st-century business environment requires new strategies, business models and knowledge. To be competitive in the marketplace requires a long-term commitment to developing the industry's people resources through increased skills in leadership and business management.

To achieve this outcome, the Australian Vegetable Industry Investment Plan in Leadership & Business Skills Development has been released as part of the Australian Vegetable Industry Development Group (AVIDG) launch. It provides a road map for the industry to invest long-term in increased human capacity. People development is not only about training but also providing learning experiences to create change.

Overcome barriers

The plan has resulted from a year-long project conducted by Dianne Fullelove, People Development Coordinator for AUSVEG. The process involved talking with industry members about their needs for better business management and leadership skills.

There are many barriers to increasing participation in skill development, which the plan aims to overcome by encouraging and developing programs that are customised to the industry with case studies and relevant data, based on hands on learning, including grower visits and study tours, and convenient in time and location.

The investment plan recognises that the vegetable industry has finite resources that need to be focused in strategic areas if they are to improve industry competitiveness. The plan includes



People development is not only about training but also providing learning experiences to create change.

alternate funding sources to subsidise skills programs, so that the industry's resource base, the National Vegetable Levy, is targeted to specific areas of need.

Existing programs

The investment plan incorporates some of the existing leadership programs currently available to vegetable growers. The Australian Rural Leadership Program and the Nuffield Farming Scholarship have received sponsorship this year through the National Vegetable Levy. Growers John Said from Victoria and Tim Harslett from Queensland, respectively, are participating in these programs this year. Nominations are now open for the 2009 programs.

Vegetable growers participated in the Produce Executive Program in Victoria in May, with subsidy from Horticulture Australia Limited. This worthwhile program is recommended to all growers for 2009.

Grower tours have occurred to Western Australia and New Zealand, while future tours are planned to Queensland, Melbourne for the 2009 Vegetable Industry Conference, New Zealand and the United States. All growers are encouraged to participate in these opportunities and should contact AUSVEG for further details.

Tailored support

A business management program, Growing Business, has commenced, specifically for vegetable growers. The first program is being held in Melbourne in July and August with courses in other states later in the year. Response

Learning has partnered with AUSVEG to present the program, which is a hands on way of learning, based on the skills identified in grower surveys in 2007.

Contact Wendy Hall at Response on 07 3357 4400 to participate.

Additionally, the AUSVEG website now hosts a database of business management and leadership programs, which growers can access through the new 'Learning' page on the public website. Courses are catalogued according to region, training provider and type of course, and provide information about trainer contacts and enrolment details.

The investment plan sets the path for re-engagement of the vegetable industry with skill development in business management and leadership, provides a map for immediate changes and signposts the steps that should be taken to increase people capacity for the vegetable industry. va

THE BOTTOM LINE

- To help the industry face its challenges, an investment plan for leadership and business skills development has been released.
- The plan will tailor new and existing programs to meet the specific needs of vegetable growers.
- A new business management program, Growing Business, will be held in Melbourne in July and August this year, with other states to follow.

1

For more information:

Copies of the investment plan can be found on the AUSVEG website, www.ausveg.com.au, or the AVIDG website, www.avidgroup.net.au

Phase in

There are two consecutive phases for achievement of the aims outlined in the Australian Vegetable Industry Investment Plan in Leadership & Business Skills Development. The phases, to be implemented in 2008/2009, are outlined below:

Program—Phase 1	Outcome
Appoint People Development Manager	Coordinate people development activities
Facilitate participation in existing business management and leadership programs	Leverage current programs which meet, to an extent, the identified industry needs
Design and implement a national leadership program	Strategic leadership program to develop future leaders for vegetable industry
Design and implement a business management program	Includes financial, business, people and marketing skills delivered at a strategic level
Facilitate grower tours	Domestic study tours
and visits	Young Growers to New Zealand
	Tour to Horticulture NZ conference and farm visits
Program—Phase 2	
Program—Phase 2 Design and implement a regional leadership program	ence and farm visits
Design and implement a	ence and farm visits Outcome Regional leadership program focused on leadership skills for local growers to improve
Design and implement a regional leadership program Facilitate participation in existing business management	ence and farm visits Outcome Regional leadership program focused on leadership skills for local growers to improve business leadership General business training supported by a database of suitable

AROUND THE STATES

Victoria



Victorian growers recognised nationally

The Australian Vegetable Industry Awards 2008 were incorporated as part of vegetablesWA 60th Anniversary Dinner celebrations held in Perth on 31 May.

A group of Victorian vegetable growers travelled to Western Australia and attended the dinner, where Western Australian Minister for Agriculture Kim Chance MP presented awards to three Victorian winners—Peter Cochrane, Peter Schreurs and Chris Millis.

VGA Victoria extends its heartiest congratulations to all the winners.

New year, new look

VGA Victoria has achieved a major milestone with the launch of its new-look promotional logo "Vegetables Victoria". This new attitude to marketing highlights the VGA's move to be more relevant and responsive to the needs of all Victorian vegetable growers. It is also a means to encourage growers to participate in industry activities by renewing or joining for the 2008-2009 membership year.

It is alarming that recent industry articles have stated that vegetable growers are represented by state associations with no direct connection with their membership or central trading markets.

VGA Victoria is located at the Melbourne Markets, adjacent to the trading floor where growers sell produce on a daily basis.

Vegetable growers are an integral part of trading operations at the Melbourne Market located in West Melbourne and they intend to continue this involvement when the market is relocated in 2011.

Other interstate central markets have excluded grower sellers or separated the growers' selling floor from the main trading building. The Victorian tradition will continue at Epping with a growers' section provided as part of the trading floor, allowing growers the continued opportunity of selling their produce.

National Expo

Planning for 2009 Werribee National Vegetable Expo has commenced in conjunction with the Australian Vegetable Industry Conference to be held in Melbourne from 5 to 8 May 2009.

The vegetable expo showcases new seed varieties and static displays by industry suppliers.

Our Executive Committee has endorsed the recently completed HortiSafe program prepared by Melbourne-based Mentor Training. This program contains four stand-alone training courses covering all aspects of "Occupational Health and Safety on the

Further information can be obtained from the VGA Victoria office.

Tony Imeson

Executive Officer VGA Victoria Address: Mail Box 111, Melbourne Markets 542 Footscray Rd, West Melbourne VIC 3003 Phone: 03 9687 4707 Fax: 03 9687 4723

New South Wales

Growing the Business



Address: Level 10, Elizabeth St Sydney NSW 2000 Phone: 02 8251 1885 Fax: 02 8251 1752

Northern Territory



Horticultural Association

Address: PO Box 2207 Palmerston NT 0832 Phone: 08 89 83 3233 Fax: 08 89 83 3244

Queensland



Address: Floor 1, 385 St Pauls Terrace Fortitude Valley QLD 4006 Phone: 07 3620 3844 Fax: 07 3620 3880



Address: 13/2 Tantitha Street, PO Box 45. Bundaberg, QLD 4670 Phone: 07 4153 3007

Fax: 07 4153 1322

South Australia



Address: 3rd floor, 122 Frome St Adelaide SA 5000 Phone: 08 8232 5555 Fax: 06 8232 1311

Tasmania



Address: Cnr Cimitiere & Charles streets Launceston TAS 7250 Phone: 03 6332 1800 Fax: 03 6331 4344

Western Australia



Address: Horticulture House 103 Outram St, West Perth WA 6005 Tel: 08 9481 0834 Fax: 08 9481 0024

CALENDAR OF EVENTS

July 2008

25 July – 2 August

Young Growers Tour to New Zealand

For more information:

Website: www.ausveg.com.au Phone: 03 9544 8098

25 July

Applications due for Growers Tour to USA and PMA Fresh Summit

Tour to be held 17 to 31 October 2008

For more information:

Website: www.ausveg.com.au

Application forms are available from state vegetable Industry

Development Officers (IDOs)

26 July

NSW Horticultural Industries Dinner 2008

For more information:

Contact event organiser, Kirsty John

Phone: 0438 602 763

August 2008

11-12 August

restaurant 08 Sydney

Royal Hall of Industries, Sydney, NSW

For more information:

Website: www.restaurantevents.com.au

Phone: 02 9331 7507

14-15 August

PMA Fresh Connections Conference

Sydney, NSW

For more information:

Email: john@producemarketing.com.au

Phone: 02 9744 6366

September 2008

19 September

12th Annual Symposium on Precision Agriculture in Australasia

Australian Technology Park, Eveleigh, NSW

For more information:

Website: www.usyd.edu.au/su/agric/acpa/symposium.htm

20 September

Bundaberg Fruit and Vegetable Growers Gala Ball

For more information:

Email: info@bfvg.com.au Phone: 07 4153 3007

October 2008

24-27 October

PMA Fresh Summit International Convention & Exposition

Orlando, Florida, USA

For more information:

Website: www.pma.com/FreshSummit Email: john@producemarketing.com.au

Phone: 02 9744 6366

May 2009

4-6 May



Australian Vegetable Industry Conference 2009

Melbourne Convention Centre, Melbourne, Vic

For more information:

Website: www.vegieconf.com.au Phone: AUSVEG on 03 9544 8098

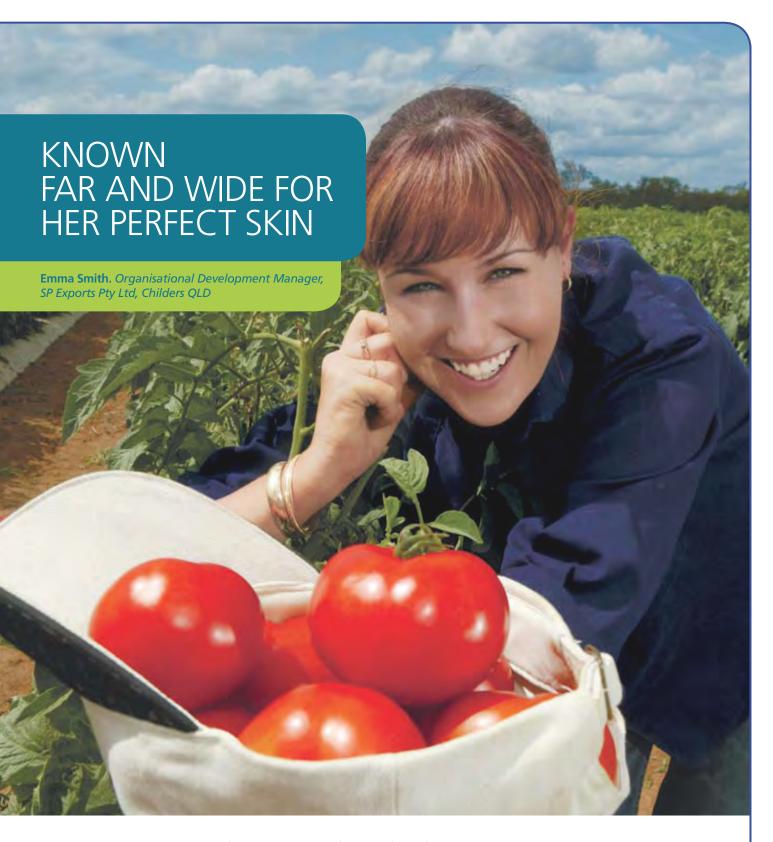
7-8 May

National Vegetable Expo

Werribee, Vic

For more information:

Phone: VGA Victoria on 03 9687 4707



Being a devout vegetarian and part of the largest producers of tomatoes for the fresh market in Australia, Emma knows too well that skin blemishes on her produce just won't do. "The skin has to look perfect," says Emma.That's why she uses the broad spectrum capabilities of AMISTAR® as a part of her crop programme, controlling fungal diseases such as Target Spot and Late Blight.

All the $1\frac{1}{2}$ million 10kg cases of freshly picked tomatoes have to go through a stringent quality assurance programme. So when it comes to preventing blemishes due to Target Spot, Emma says, "AMISTAR is in a league of its own".

Emma is passionate about maintaining SP Exports' reputation for continual customer satisfaction. "It all comes down to producing a consistent top quality product". Not an easy task, but with the help of AMISTAR, this is something that Emma and SP Exports continue to do.



For further information, please contact the Syngenta Technical Advice Line on Freecall 1800 067 108 or visit www.syngenta.com.au

