

# potatoes australia

Informing and connecting  
Australia's Potato Industry  
August 2008



**Neville Beaumont: All in the family**

**Robert Belcher sees the future**

**The Victorian Seed Potato Conference**

**International Year of the Potato 2008**



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**Front cover image:**  
**Neville Beaumont on his farm in Dorrigo, NSW**



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## HAL study tour to the USA

**Applications are invited for funding to contribute to gathering key information, ideas and knowledge that will benefit Australian Horticulture through attendance at PMA Fresh Summit in Florida, USA on the 24-27 October, 2008.**


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Further information about the show can be found on [www.pma.com/freshsummit](http://www.pma.com/freshsummit)

To register your interest for funding, please contact Richard Stephens preferably via email on [richard.stephens@horticulture.com.au](mailto:richard.stephens@horticulture.com.au) or phone 0404 817 903 for an application form and further information.

All applications must be received by HAL by Monday 1 September 2008. 

# AUSVEG

## Chairman's message

Over the last two years the Fresh Potato IAC has been working on a project that looks at the falling consumption of fresh potatoes. Now the project has finished, it is time to ask the industry about the future.

The major levy payers will be consulted to determine their in principle support for a national generic campaign to lift the consumption of fresh potatoes and increase the returns for potato growers. With this in principle agreement, the next phase will be to approach Horticulture Australia Ltd for seed funding and aim for the establishment of a marketing levy. While this will appear to be a long process, about 14 to 18 months, it is critical to consult all participants in the supply chain. The industry has clearly defined this as a priority and it is time to test this with them.

If the marketing and promotion fund is established, it will not attract dollar for dollar funding from the Australian Government, as is the case with research and development.

AUSVEG Ltd, as the peak industry body, is charged with responsibility to consult with the supply chain. In due course your opinions will be sought through *Potatoes Australia* and other AUSVEG communication processes. I am encouraging industry to engage with this task and see how we can make marketing and promotion a key component for the future.

The drought in eastern Australia has eased a little, and production around Australia seems to be increasing. However, the returns of the National Fresh Potato Levy do not seem to be growing. At all first points of sale, 50 cents per tonne is required. This should appear on your sales account.

The recent announcement by the Department of Primary Industries in Victoria of the closure of the Toolangi potato research station will be felt throughout the industry. Their variety development, holding of tissue culture and research is significant. The Department also announced a reduction in up to 50 agriculture science and extension staff. The full impact of these changes on the potato industry is not yet known, but it is obvious that governments around Australia are expecting agricultural industries to become more self-reliant. This means growers will increasingly become responsible for funding of research, development and promotion.

The Horticulture NZ conference has just concluded. I was invited to attend and delivered 'Survive and Thrive', a presentation to the potato group about the Australian potato industry. It was an excellent conference, attended by over 400 horticultural producers. My thanks to the Chairman of the Potato Product Group, Terry Olsen, for the generous Kiwi hospitality.

"Growing a healthy Australia, 2009" will be the theme of our next Australian Vegetable Conference from 4-6 May next year, and is a must for all supply chain vegetable people.

When we have a marketing and promotion campaign, we really can go out and tell the world to eat more spuds.



**David Anderson**  
AUSVEG Potato Group Chairman

## Editor's message

As we were wrapping up this edition, the Department of Primary Industries (DPI) in Victoria announced the closure of the potato research station at Toolangi. This came as the ACCC handed down its price-setting findings, and as Australians were being reminded of our ill-performing economy in line with finance stress in the United States—a state of affairs that economist Ian James guides us through. We heard about Zebra chip disease, a new and debilitating effect originating in North America, that threatens our shores. These grim tidings were however, balanced up with good news for the potato industry.

Just as we prepared to bring you news on the direction of Simplot and the Tasmanian growers, the groups brokered an agreement. We plunged ahead anyway, with writer, Gretel Sneath, producing a snap shot of the dramatic turn of events.

We were pleased to be able to catch sought-after and busy man, Robert Belcher, to get his stance on the forces shaping the current agricultural situation. Robert imparted some very interesting food-for-thought well before the Federal Minister for Climate Change Penny Wong, had handed down the Green Paper.

Also brightening the past month considerably, were the research papers presented at the Seed Potato Conference held in Marysville, Victoria. Here it was clear that science and knowledge transfer can be powerfully transformative of the potato industry and can help keep a considerable amount of adversity at bay. We bring you an overview of the wealth of ideas at the conference, and look forward to presenting you with a comprehensive look at the topics in the near future.

Despite the end of the road for potato research at Toolangi, Tony Slater of DPI, Victoria, has written about the latest cultivars developed at the facility for potential commercial release, eight new milestones for the potato industry.

Finally, we farewelled Matthew Wickham, Potato Marketing Development Manager for AUSVEG. Matthew did a terrific job in bringing marketing issues to our attention and we wish him all the best. Before he left, Matthew delivered us news of the Potato Nutrition Report, which has been inserted into this edition.

Potatoes Australia is committed to keeping up its end of the knowledge transfer bargain, so that you can make the important decisions. That said, we are always keen to hear your views. Enjoy this edition.



**Jenan Taylor**  
Editor  
*Potatoes Australia*

# Fresh potato marketing development

## Potato report dispels the myths

The 'Potato Nutrition Report' fights back against misleading media and identifies specific health benefits associated with eating fresh potatoes.

The comprehensive scientific review, compiled by accredited practising dietitian Dr Trent Watson, responds to confusion over potato nutritional characteristics, dispels myths and clearly defines potatoes as part of a modern diet.

The report links fresh potato consumption with reduced risk of cardiovascular disease, the leading cause of death in Australia, and the potential to reduce the risk of some cancers.

The review positively associates potatoes with healthy body weight, antioxidants, diabetes control, improved bowel health and the benefit of high fibre.

AUSVEG Chairman, David Anderson said, "Many fad diets label potatoes as the poster child for bad food, however, potatoes do not have any intrinsic qualities that will lead to weight gain in a healthy balanced diet.

"The research is undeniable and this report sets the record straight, fresh potatoes are a great natural source of energy containing vital nutrients that everyone can enjoy. With this in mind we need to tell the world to eat more spuds."

Poor diet contributes to many health disorders. The nutritional habit most strongly associated with poor health is the consumption of high fat, particularly saturated fat, and low fibre.

Since potato is a good source of fibre and low in fat, it is perfect for an energy balanced diet and assists in the prevention, and management, of chronic disease.

A copy of the report is included in this issue of Potatoes Australia.

Dr Trent Watson is the principal consultant dietitian of Clued on Food and has completed a PhD at the University of Newcastle in Nutrition and Dietetics.

He is a media spokesperson with the Dietitians Association of Australia and is passionate about providing accurate nutrition, health and lifestyle information, particularly concerning potatoes. [pa](#)

PT06022

### The Bottom Line

- Fresh potato consumption has many health benefits including diminishing cardiovascular disease.
- Poor nutrition contributes to poor health.

Further information can be found at [www.ausveg.com.au/levy-payers/login.cfm](http://www.ausveg.com.au/levy-payers/login.cfm)



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## Zebra chip disease

### Mystery bacteria linked to US potato disease

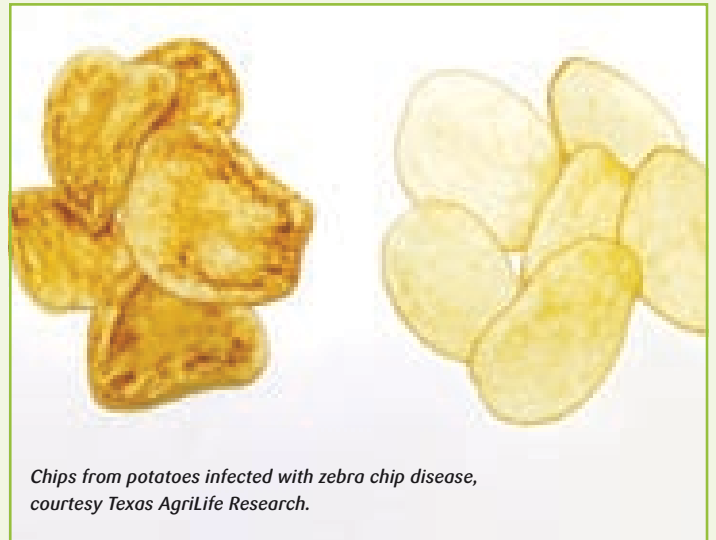
A plant disease scare in tomatoes, which triggered biosecurity bans on New Zealand potatoes, tomatoes and capsicums, has now been linked to a disease in American potato crops.

The potato disease, known as “zebra chip”, has now been discovered in an Auckland spud crop, NZPA has been told. The disease-causing *Candidatus liberibacter* bacteria species disrupted New Zealand exports last month when agriculture authorities revealed its discovery in three Auckland commercial hothouses in January. The announcement by NZ scientists that it was a previously unrecorded form of *C. liberibacter* spooked some key export customers, as it is related to huanglongbing disease – also known as citrus greening.

The warnings also unfortunately coincided with overseas headlines about an unrelated bacteria – salmonella – on tomatoes in America making people sick. Australia blocked imports of tomatoes, capsicum and potatoes, and tamarillos, Fiji blocked tomatoes, capsicum and potatoes – and is now running short of spuds – and Japan also stopped key imports.

Overall tomato exports are worth \$7.3 million annually and capsicum exports are worth \$34 million. Growers are keen for constraints on exports to be lifted by October, when they are due to ramp up harvests from new crops they are now planting. But now the Ministry of Agriculture and Forestry (MAF) has told growers that DNA tests developed in New Zealand show that the bacterium is in Texan potato crops, and is probably the cause of “zebra chip” disease which has been hitting American crops for years. “The liberibacter detected in the USA is the same species as that detected in NZ,” a MAF spokeswoman said. Zebra chip converts part of the starch in a potato to soluble sugar, and when the potato is cooked, causes zebra-like stripes and breaks up the chip. Spread by potato psyllid insects – scientifically known as *Bactericera cockerelli* – the disease is thought to have been introduced to the US 15 years ago from Central America. This insect also mysteriously turned up in New Zealand – found in an Auckland greenhouse in 2006 – and has since dispersed as far south as Nelson.

Zebra chip is a serious problem in regions such as Texas, particularly on species used for manufacture of french fries, and New Zealand technology companies have supplied American growers with NIR (or near-infrared) scanners to screen out affected potatoes. MAF said it had provided American researchers with genetic markers for the bacteria and two laboratories detected it in Texas, in russet norkota potatoes showing zebra chip symptoms. The US has not reported the bacteria causing problems in tomatoes. The identification



*Chips from potatoes infected with zebra chip disease, courtesy Texas AgriLife Research.*

means that trade officials re-negotiating access for NZ fruit and vegetables to overseas markets are no longer dealing with an unknown disease – they have been able to tell customer countries that the bacteria is probably the cause of zebra chip. MAF said that after the announcement that the mystery bacteria was likely being spread by potato psyllids, it was first told of zebra chip symptoms in domestic potato crops. Symptoms resembling zebra chip showed up in potatoes harvested from a breeding trial in South Auckland in May. “These potato tubers tested positive for *Liberibacter* and was our first report of such in potatoes in NZ,” the MAF spokeswoman said. Potato psyllids feeding on spuds weakly infected with zebra chip spread the bacteria to other potato plants. American experts said that controlling the potato psyllids and planting seed potatoes certified free of zebra chip can reduce the spread. [pa](#)

*Global Produce News, 25 July 2008*

## Guns ‘n growers

“Safe and delicious” is how the Chinese labelled their potatoes and other crops produced for consumption during the Olympic Games. The vegetables were grown under rigorous quality assurance conditions and were subjected to security systems the likes of which have previously been unseen in preparation for Olympics meetings.

Lin Yuan, a vegetable grower supplying potatoes, cucumbers, capsicums, mushrooms, tomatoes and other produce to the Olympic Village, told the BBC News that his practices included the use of natural pest management systems, manure rather



## The price bite

Newly released vegetable figures for the June quarter indicate that Canberra consumers are paying the most for their potatoes, while Sydney shoppers are paying less than everyone else in the nation's capital cities. According to the figures, Perth is the place to shop for cheaper carrots and onions.

The average price in Hobart might not be reflective as yet of

Vegetable	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
Potatoes (1kg)	\$1.56	\$2.69	\$2.22	\$2.50	\$2.62	\$2.02	\$2.93	\$2.98
Tomatoes (1kg)	\$3.84	\$3.72	\$3.59	\$4.04	\$4.20	\$4.07	\$5.43	\$3.22
Carrots (1kg)	\$2.39	\$2.20	\$2.39	\$2.08	\$1.59	\$1.78	\$2.72	\$2.41
Onions (1kg)	\$2.48	\$2.57	\$2.41	\$2.51	\$2.12	\$2.06	\$3.22	\$2.55

the supply of spuds in Tasmania, particularly with the renewed popularity of the Kennebec potato.

According to the ABC, Kennebecs are back in high demand because of a consumer trend swing away from yellow fleshed spuds.

The interest is driving prices up and Kennebec variety growers such as Glenn Moore from Jetsonville in Tasmania, have been fielding the sudden influx of calls for them.

“There is an oversupply of some sorts of some of the yellow flesh potatoes, but (not) the Kennebecs”, Mr Moore told the ABC. [pa](#)

## Toolangi research to cease

In a blow for potato breeding, Toolangi potato research centre is one of a number of facilities that will close by the middle of next year as the Victorian Government prepares to streamline its services to farmers.

The restructure is part of an overall reduction of an estimated 70 jobs across Victorian agriculture and science that DPI says is necessary for the department to keep pace with changes affecting farming industries.

DPI secretary Richard Bolt said the reorganisation was part of the Victorian Government's \$205 million Future Farming initiative. “Each year the number, type and location of DPI's projects fluctuates depending on our priorities and those of industry and the Commonwealth – this is normal business

for DPI,” he said. “Importantly these changes will ensure our services to farm sectors will increase.”

“We struggle to attract leading scientists and young people to work at small sites, given that DPI competes in national and global market for skilled staff,” Mr Bolt said and pointed to the increasing use of computer technology and the use of grower properties to conduct trials and evaluations away from DPI research stations, as further reasons for the cuts.

Simon Ramsay of the Victorian Farmers Federation expressed concern for the impact of the restructures on the DPI's science programs and the roll-on effects on related farming communities.

Toolangi, which has been operating as a research facility for more than 60 years, will lose 11 staff to the Knoxfield facility's potato breeding program. [pa](#)

than chemicals and even a sophisticated GPS system to track food from the farm to the fork. Mr Yuan, who produces 17 tonnes of vegetables a day, said those steps had been backed up by the presence of armed guards around his farm in Chang Pin, north of Beijing, in a bid to further ensure food safety. Mr Yuan's farm is one of many such operations that are owned by 36 companies selected by the Chinese Government to provide food for the Games.

The Chinese authorities have been so upset by the outside world's well-publicised fears about the local food, and rumoured plans by Western countries competing in the Games to bring their own supplies in the lead up to the 29th Olympiad, that they put into place a food success system. The scheme is based on farms

growing foods and crops that are virtually free of chemicals and other additives that might not sit well with the needs of athletes. The Chinese also sent emissaries to Australia and a number of other Western countries to study the ways in which to approach cultivating that would suit the needs of foreign visitors.

The widely-publicised measures, and the market-savvy use of the “safe and delicious” labels on the food have boosted visitor confidence in the Chinese produce. The British Olympic Committee declined to bring their own food, the Australians only shipped in snacks such as breakfast cereals and recovery bars, while the Americans openly declared their trust in the quality of the Chinese-grown food being served to their 594 athletes. [pa](#)

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# The Simplot redemption



**After four months of negotiations, potato farmers in Tasmania's north-west have agreed to a major price rise for processed potatoes. The new deal reflects dramatic increases in costs on both sides of the farm gate.**

The term 'Christmas in July' could clearly describe the joy of a large group of Tasmanian potato farmers. Their push for better pay was at the top of their wish-list, and failure to deliver by agri-business giant Simplot would have forced many to turn their back on the industry.

But on 16 July, a representative committee of the Tasmanian Farmers and Graziers Association accepted a revised offer of a 32.5 per cent increase on Simplot's base price, as well as a conditional fertiliser clause protecting them from dramatic diammonium phosphate price hikes. Chairman of the Simplot Potato Grower Group, Stephen Earley, said a majority of growers are 'reasonably happy' with the outcome.

"Our costs have gone up that much and every other commodity is getting price rises so we need returns on our investment," he says.

Last month's breakthrough followed calls for the vegetable processor to vastly improve upon a previous contract offer for the 2008-09 growing season, in order to reflect fertiliser and input costs like diesel and labour. Simplot had offered growers a \$66.50 a tonne increase on the base price for storage Russet Burbanks. Growers believed that offer was about \$20 a tonne below the base price they had expected—or more if incentive payments and whole-of-paddock harvesting was taken into account.

Contracts for their last harvest were set at \$270 a tonne and last year's cost of production came in at \$263 a tonne. While the growers had calculated that an additional 33 per cent was needed to make it worth the effort, Simplot's "final offer" didn't even come close.

Simplot claimed it was being squeezed down on price for its processed products by fast-food outlets and the major supermarkets. Nevertheless, the growers still refused to sign contracts. Some even began seriously considering switching to crops such as poppies and onions which had similar returns with lower inputs. The market, meanwhile, was predicting that the price of whole potatoes could double due to supply shortages.

Fortunately, a resolution was reached, and unlike the notorious negotiations of 2001, which were described by one industry leader as like "dragging a big, wild bull, kicking and screaming every inch of the way", Stephen Earley, said the latest talks were "quite civilised".

"In years past, sometimes we haven't settled until the February of the following year when the potatoes are already in the ground, so this was all pretty subdued with no animosity," he said.

Several days after the agreement was signed, Simplot Managing Director, Terry O'Brien, told ABC Radio that he felt both sides should be satisfied with the outcome.

"The increase is dramatically greater than anything we've seen before, but so too are the costs the growers are incurring to run their enterprises, so we understand that there was a need for this big movement," he said. "But I think the net result is that we've probably paid a bit more than we wanted to and the growers have probably accepted something a bit below their requirement."

The growers acknowledge that Simplot will be feeling the pressure.

"We understand that Simplot have got to raise \$16 million extra to pay for what they buy so they have to get their price up in the marketplace to cover their costs. I suppose they're a bit like us; they're under pressure from the people they supply," said Mr Earley.

Mr O'Brien indicated on ABC Radio that the costs would be passed on to consumers—and that he expected some customers would look for cheaper alternatives as a result.

"Our fear is that some of these costs will take food beyond the point where people will start looking for cheaper options, and slow down purchasing some of our products," he said.

Either way, it's quite staggering to think that the new agreement will be fixed for just 12 months, with growers facing more uncertainty in the future. But Stephen Earley said there's no other way.

"We can't lock in for three years because who would have thought 12 months ago that fertiliser would go up to \$1600 a tonne? It's more than doubled in a year. That's why we can't lock it in any longer without any major clauses in there. There will be growers out there that will be pleased, and others won't like it, but that's how it is," he said.

"At last we know where we're heading for the next 12 months—we can budget for things now and know where we're going, and hopefully, if we have a good season and get good spring rains, we'll have a good crop and everybody will be happy." **pa**

# Dorrigo Dynasty



**Growers such as Neville Beaumont don't just become passionate about farming or the land they live on without a history that shapes things into the way they are.**

Neville Beaumont's grandfather, Albert, travelled from Sydney to Dorrigo, NSW, covering 40 miles a day accompanied by pack horses and a cow for the love of his land and of his farming. The year was 1908 and Albert, a Boer war veteran, was returning to the farm he had recently established in Dorrigo, determined to make a success of it. The long journey was the beginning of a passion for the area which outlived Albert and is sustained in his descendants today.

This drive and spirit remains in Dorrigo with Neville Beaumont who operates a successful potato growing business along with cattle farming and his latest venture, a produce store. The Beaumonts have 3000 acres in Dorrigo, 250 acres of which are used for farming potatoes. They mainly grow Sebago and Kipfler varieties for the fresh market, but also produce Atlantics and the 'Smith's' variety, FL1867 for the crisping market.

Dorrigo is a rich agricultural area located 580 kilometres north of Sydney at an elevation of 760 metres above sea level. The cool climate and rainfall of approximately 1,526.6 mm per year means the red volcanic and grey granite soils on the plateau provides good potato yields. This year in fact, the Beaumonts produced 40 tonnes to the hectare.

Neville has continued the successful family tradition in the region with his wife Carol, sons Scott and Darren and daughter Kylie Raymond, performing various roles within the business. Neville, Carol and Scott work on potatoes and the transportation of their produce; Darren, who has a degree in Rural Science works in fertiliser and grass seed sales; while Kylie meshes it all together through her work at the produce store and in book keeping. The family have a keen understanding of their work and a commitment to the job. Carol who is also Shed Manager on the property, has occasionally called on her mother Jean Wilson, to give them a hand when they have been short of labour, and Jean has always been happy to oblige.

The Beaumont empire has also expanded with Neville and his family purchasing the old Dorrigo butter factory, and turning it into a store, aptly called Beaumont's Produce. Kylie runs the

## GROWER INFORMATION

Producers: **Neville, Carol, Scott and Darren Beaumont, and Kylie Raymond**

Location: **Dorrigo, NSW**

Size: **3000 acres**

Crops: **Potatoes**

Other activity: **Cattle farming**


Soil Type: **Red volcanic and grey granite**

Avg Rainfall: **1,526.6mm**

store with a team of staff who also manage the paperwork for the potato and cattle side of the business. Beaumont's Produce has proven to be a boon to Neville and provides the Dorrigo locals with the opportunity to source supplies from a local businessman rather than a multinational store.

The Beaumonts primarily supply independent retailers and, at times, Woolworths, and use their fleet of trucks to deliver to areas including Lismore to the north and Port Macquarie located further south. All the jobs in the operation are shared, including the driving of trucks which often sees Neville on the road. "I enjoy the driving and getting out and about," Neville said.

With his involvement on the Fresh Potato IAC, Neville has a wide exposure to the issues facing Australian agriculture in general, and is vocal about its future direction. "The biggest threats are the Managed Investment Schemes (MIS) which provide a great amount of money at low interest rates with massive tax breaks. With rapid growth in land prices all over the country the MIS don't have to make a profit out of the crops and therefore they can sell their produce at less than market prices," he said.

Neville is, however, also optimistic of the future of the potato industry. He believes that the key to its success and sustainability is marketing and promotion. For Neville, who is mad about Kipflers and says he would be hard-pressed to find a better-tasting variety, a good start would be to educate people about the diversity of potatoes in cooking. 

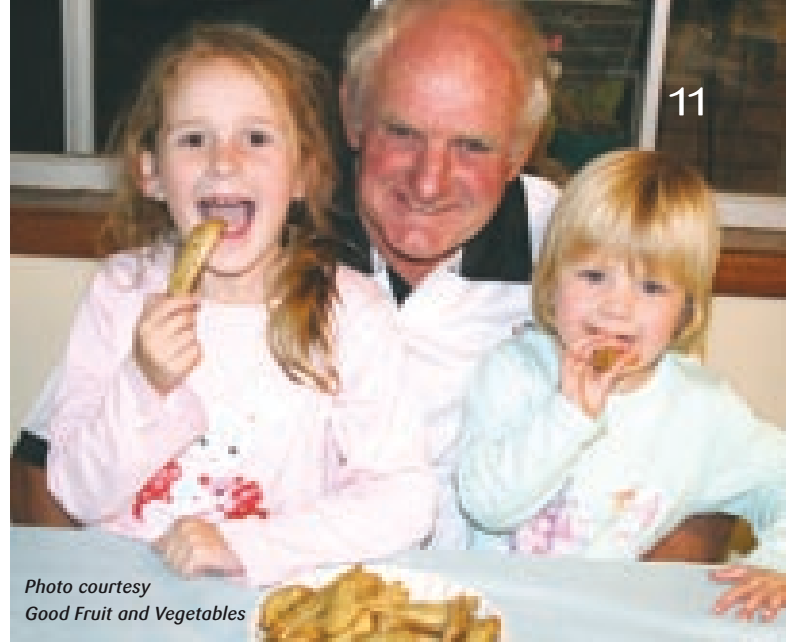


Photo courtesy  
Good Fruit and Vegetables



# Perspective

**For years Robert Belcher, Director of Sustainable Agricultural Communities Australia (SACA), NSW farmer, and resource management activist, spoke of the coming food supply problem. His proactive involvement with natural resources management issues, includes lobbying against the Tamar Valley pulp mill, Managed Investment Schemes and being a sought-after speaker for national agricultural conferences. *Potatoes Australia* asked him where he saw the future for Australian farming.**

**What other major factors, apart from soaring input costs, unpredictable weather patterns and water scarcity, are affecting the sustainability of Australia's primary sector?**

The erosion of private property rights is up there. Over the decades there has been a sustained onslaught on private property rights and small business from all sides of politics. About five years ago, I looked at Malthusian theory (the idea about the world's population in relation to food supply) and the threat that some government policies represented to owner operators. If you couple that with the attitudes that some members of the general Australian public have towards farmers — that we should allow everything to go back to “native vegetation”—it becomes simple to anticipate food shortages.

That kind of agricultural policy also comes back to the aid and fair trade policies of Australia, which beggar some thinking. The best analogy you can look at is if climate change is correct, we could have the Burma [cyclone] scenario more frequently and if we kept up with our current structure of agricultural, aid and fair trade policy as well as with the philosophies of contemporary Australia, then we wouldn't be self sufficient. We could be very short of food when natural catastrophes happen here and in other places.

**With private property rights and small businesses being squeezed, should farmers be wary of corporate agriculture?**

If the sources of finance, if the tax rules, the planning rules, and all the other aspects of infrastructure applies equally to corporate agriculture enterprises, that's fine. But once there are advantages given to some parties over others, the level playing field becomes non-existent. It means that I, as an owner operator, can be taken to the cleaners while the 'corporates' are given an advantage. I've heard that the ACCC recently asked farmers to prove they were being treated unfairly by the supermarket giants. If that's true, it's a fair indication of how institutionalised the monopolies and oligopolies are throughout the middle stages of production, and we've got a real burden to handle. Growers would need to fight hard against that kind of treatment. It's a scenario that has been perpetuated by one government after the other for decades. Around 30 or 40 years ago, the size of the Australian economy was blamed for being too small. It isn't now, so we have a reason to be particularly suspicious of corporate agriculture.

**Managed Investment Schemes (MIS) would fall under that umbrella, and you've been very vocal about lobbying against those enterprises. Can you think of any growth opportunities that MIS might offer struggling farmers?**

Agriculture in Australia has a phenomenal track record for diversity and I'm at a bit of a loss to see how the corporate sector can match that efficiency and inventiveness. The MIS talk of growing almonds or olives in the desert, and then wonder why there's an ever-increasing need for water. They're not doing anything different, but they've got a tax-avoidance scheme to back them. You have to wonder what sort of economy we would have if all businesses were run that way. What is the use of increasing tree plantations if people



are going to be taxed for the water it takes to keep everything going? I can't see any super duper outcomes there.

Plantations are also forcing the price of land up, which makes the price of land unviable for the product being produced. More importantly, the water supply is dwindling. When you connect this back to the fact that the world in the medium to long term is going to need food like at no other time in history, then the ability to supply is going to be inadequate. Decisions made about what's produced need to be market-based not tax-avoidance-based. We don't want a whole lot of people who don't like paying tax making a lot of money from a decision that wipes out a potato-growing area. Potato growers happen to operate in highly fertile, good rainfall areas, which are target areas for these companies, and again it comes down to the question of what is really the great value here. Yes, there are properties that have sold for a \$1 million, and in a space of about 12 months change hands for \$14 million. This is really quite frightening.

### How will carbon trading affect primary producers?

Climate change is a real issue. It is getting warmer here in Australia, and even though our carbon emissions are an infinitesimally small amount, they have doubled. Whether it's from life or from industrialisation is the question. So do you tax small animals or do you take steps to stop the industrial pollution. What is farcical is carbon trading. It's farcical to tax life, and a licence to keep polluting. If a difference to the rate of pollution is to be made, or if it is to be mitigated, then the industrial practices causing it, should be stopped, but there's a mindlessness in some of the attitudes of metropolitan Australia. You only have to look at the spending on freeways for instance, to see it. Not much is happening in terms of alternative transport infrastructures. There are agricultural practitioners who might think they will benefit from emissions trading, but they should look closely at what is happening in Europe. We really need to fight to remain owner operators when it comes to this new scheme, because we don't want to learn what it's like to be renting in our own country.

### What can we expect if prevailing policies and lax attitudes towards agriculture continue?

The Malthusian theory was spot-on in terms of forecasting food trouble, but many people wouldn't see it.

I think the world is increasing by about 3 million people a week, and it's never going to go back the other way. It's easy to work out that we are not going to be able to produce the food to feed the people when the population peaks in around 2050. The bigger picture shows that we're going to have a billion people who aren't going to have enough water. Currently, Eritrea is a classic example of what resource poverty is all about, and that would be the scenario we have when the population reaches 9-12 billion by 2050. It's almost beyond comprehension for most Australians and there are a lot of people, including those in leadership, who refuse to see the significance and value of food. We're going to have to take a stand now for the next generation. I've been around long enough to hear doom and gloom and see other turn-outs, and another turn-out is possible, because food could be the shining light for Australia.

### How do you see food producers overcoming this?

I believe the only way to look at this is to be wholistic. Most farmers are so pressed into commodity groups that they don't get an opportunity as much as they used to to look at the big picture. Knowledge is power. The more you can trigger people's thinking, where they've perhaps been switched off because of pressures or otherwise, the more people realise that they have to pull together. For example, about 80 per cent of the resource-rich part of the Northern Territory has been bought by foster companies using investments schemes, and the agricultural practitioners are just now beginning to scream. It's like what happened in Victoria and Tasmania about 10 years ago. The penny's just dropping for these farmers—it's a bit like there's an army invading but no-one's telling anyone about it and it happening everywhere. If we'd pooled our collective knowledge it might have been different.

So, the first step is to look at what's happening across the whole country and then to look at how all the different practitioners of agriculture fit hand in glove together. Next, the problems we have should be sorted out behind closed doors and what we should do as an image is to appear as one. It's a big ask in some areas, but that, in a nutshell is wholistic thinking, and wholistic strategy, too. Currently, it's not happening. There are a lot of people who've turned a blind eye to some pretty unfair trade practices because they thought they might actually benefit. It is short sighted and we need to rethink the whole game.

For more on these issues visit [www.saca.org.au](http://www.saca.org.au) 

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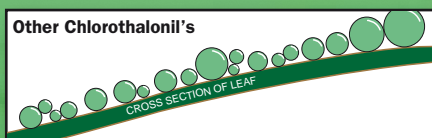
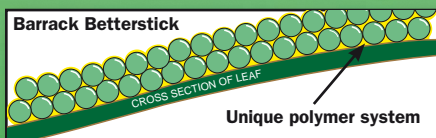
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## CEO's message

I have been acting CEO for AUSVEG since May this year at the invitation of the AUSVEG Directors. I have over 20 years experience across a number of industries and organisations with extensive background in finance and executive management.

In recent times, with the departure of some key staff within AUSVEG, my main focus has been to restructure and reposition the organisation to move forward. Since I have started in this position, AUSVEG has contracted with HAL for ten R&D projects and the partnership agreements for potatoes and vegetables for the 2008/2009 year.

Accordingly, we have restructured the organisation to deliver the outcomes of these projects, and have appointed a Communication Manager to oversee them. This position will replace in part the role of General Manager.

Later this year a vote will be put to the members with a view to change the constitution; when the motion was put forward in July it failed to reach the required 75 per cent and fell short by one vote. The adoption of the new constitution will ensure that AUSVEG is better positioned to deliver greater benefits for growers in the future.

I would like to reassure levy payers and everyone across the Australian potato industry that AUSVEG is committed to serving their interests. Through this publication and our other

communication methods, we will continue to represent growers, connect them and keep them well-informed of R&D initiatives and other issues that are pertinent to the sustainability and profitability of the industry.

Furthermore, we are continuously reviewing the quality of content we provide you. We will be undertaking a reader survey to gather your opinion on what you see as being of most importance in terms of our communication. In the October edition of Potatoes Australia you'll find the readers survey which we'd like you to complete.

We believe it is imperative that we keep you abreast of happenings, particularly in this the International Year of the Potato, an initiative which is of vital importance for the local and international industry.

I am committed to keeping you fully informed of the progress AUSVEG will continue to make through all our communication channels. I look forward to meeting and hearing from you, so don't hesitate to drop me a line at [robert.lawler@ausveg.com.au](mailto:robert.lawler@ausveg.com.au) or on 03 9544 8098.



**Robert Lawler**

Acting Chief Executive Officer  
AUSVEG

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INNOVATION IN IRRIGATION



# INTERNATIONAL YEAR OF THE POTATO 2008 • INTERNATIONAL YEAR

## Conference plants seeds for success



The 2008 Seed Potato Conference was a hit among growers, industry representatives, researchers and other delegates who attended the two-day information-packed event in Marysville, Victoria. Most came to learn, network, catch-up with friends, and even just get away from it all while absorbing new information. The event was organised by a committee that included representatives from ViCSPA, Adie Kriesl from Seed Potatoes Victoria (SPV) and Nigel Crump from the Department of Primary Industries (DPI), Victoria, who issued an invitation to all delegates to actively participate in all discussions.

### Weapons of mass destruction

Following the introductions and a brief history about ViCSPA and the certified seed scheme, the first of a series of indepth presentations on crop uniformity and PCN, began. With growers around the globe suffering from the consequences of price fall-outs, food shortages and other hurdles, it was fitting that a hefty slice of the program focused on addressing the challenges at the farm soil level that have the potential to destroy entire industries. Speakers included John Sarrup, Jon Pickup and Vivian Blok from the UK, Mike Hodda from the CSIRO and DPI Victoria's David Beardsell. The presentations were eye-opening to many delegates, and covered the far-reaching consequences of PCN, how local and international science was tackling the disease (and in some cases winning), prevention, and what growers could do to manage the impact of contamination.

### The gene dream

The line up continued with Melbourne University's Professor Rick Roush presenting on the options that Genetic Modification (GM) practices could give the potato industry in a session that backgrounded the Canadian canola industry and successes with soybeans, cotton and other systems. Other discussions centred on adaptive technologies, finance, and an insightful talk about the next generation of potato farmers from one young grower's perspective.

### Priorities and prizes

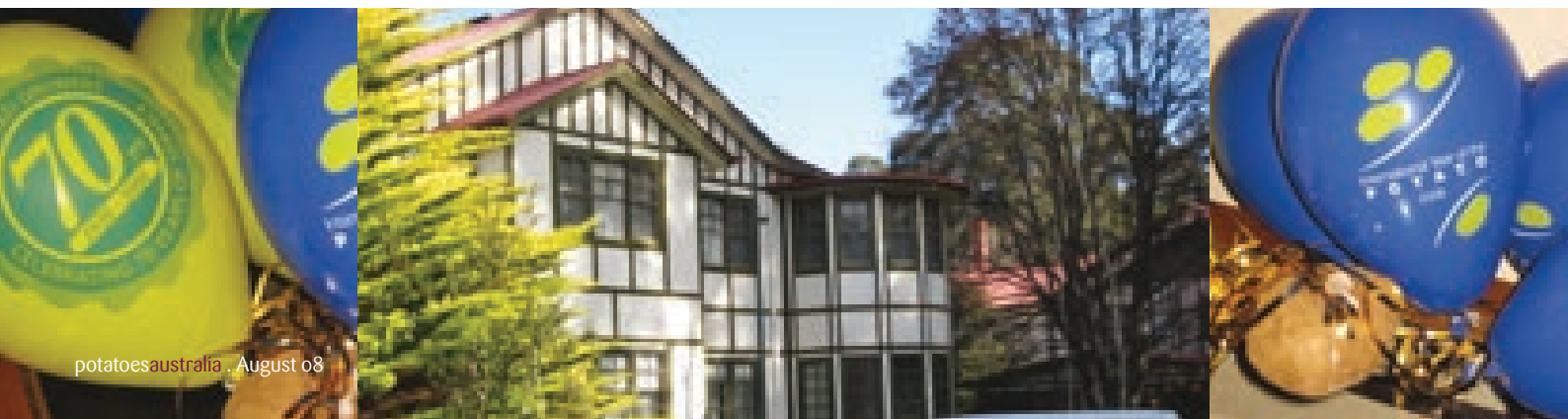
Day two's speakers included Brendan Rodoni and Tonya Wiechel from DPI Victoria, Syngenta's Phil Houlton and Steven York from Water Dynamics. Topics focused on what the potato industry could learn from the cotton sector, the pests and diseases crippling crops both here and overseas, water issues, and highly informative presentations about succession planning and family health awareness. There were also keynotes on better fumigation practices, and evaluating crop health. The event finished with a call for more grower-industry connectivity, collaboration and co-operation.

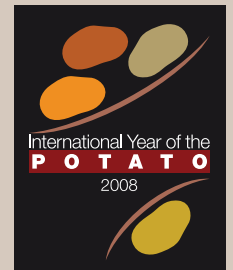
"It was satisfying to see delegates stay until the end and some stayed on an extra night. A show of hands showed strong support for a biennial conference with a similar format to this one," Nigel Crump said.

A program highlight was the industry dinner during which former AFL coach, and motivational speaker, David Parkin, delivered an animated speech about the value of teamwork. The evening peaked with the inaugural Potato Industry Awards, at which industry representatives, Ken Labbett, Graham Rowe, Brian Denney, Daniel Grayling, Frank Rovers and Aaron Tallent received trophies. The awards were a convivial touch to the excellent conference and under scored the often-unacknowledged effort that goes into the potato industry.

Nigel Crump said the entire conference elicited very positive feedback from attendees. "The succession planning and farm family health topics were the most commented, followed closely by PCN and crop uniformity," he added and thanked sponsors Vin Rowe Farm Machinery, Elders, West Gippsland Catchment Management Authority, Syngenta, Dobmac Agricultural Machinery and AUSVEG.

Potatoes Australia will be covering many of the topics in detail in forthcoming editions, but in the mean time, for copies of conference papers, please access the SPV website on [www.spv.org.au](http://www.spv.org.au)





OF THE POTATO 2008 • INTERNATIONAL YEAR OF THE POTATO 2008

## Inaugural Potato Industry Awards



(L-R) Graham Rowe,  
Daniel Grayling,  
Brian Denney,  
Frank Rovers  
and Ken Labbett

The Victorian potato industry has recognised the hard work in the potatoes sector with the launch of a prize at the recent Seed Potato Conference in Marysville. Ken Labbett, Frank Rovers, Daniel Grayling, Aaron Tallent, Graham Rowe, and Brian Denney were the recipients of the new awards announced in front of more than 180 delegates at the conference dinner on 21 June. Nigel Crump, who helped organise the event, said that the awards would be held biennially to recognise the solid commitment by individuals to furthering the industry. "It is hoped that the awards are ongoing and part of future conferences, and that they will become a national prize," he said.

Brian Denney, a certified seed grower from the Otways, was awarded for his contributions to the seed industry and his involvement and on various committees including SPV. "Until last year I never had a day off work from growing spuds. Money and industry integrity is important, but the bottom line should be your health," he said.

Ken Labbett, who grows certified seed potatoes at Clarkes Hill in Ballarat, received the prize for his contributions to research trials

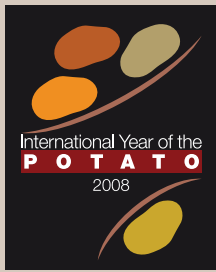
and the local industry. Ken was also recognised for his work with the Processed Potatoes IAC.

Frank Rovers, a grower at Coralynn near Koo wee rup, was recognised for his contributions to the crisping industry through research activities, potato council and the crisping group. He was also commended for being proactive and vocal about PCN support. Frank said he was involved in industry work because he loved doing it. "It's about passion," he said.

Graham Rowe, Manager of Vin Rowe Farm Machinery, received the award for his willing and active involvement in the potato industry through his local and national support of events. "We should all stay in this together and make the industry all it should be," Graham said.

Aaron Tallent, a ViCSPA seed grower from Ballarat received an encouragement award for his "early" contributions to the industry. "Aaron has set a high standard in his limited time as a ViCSPA certified seed grower," said Nigel Crump.

Daniel Grayling, a Certification Officer for ViCSPA in Ballarat also received the award as encouragement and in recognition of his contributions and achievements as a relatively new seed inspector. Daniel is also responsible for seed potato certification along the Murray River near Robinvale and co-ordinates the PCN sampling for western Victoria. **pa**



# INTERNATIONAL YEAR OF THE POTATO 2008 • INTERNATIONAL YEAR

## On track

The International Year of the Potato secretariat in Rome has released the first half year progress report on the UN initiative. Some of the outcomes thus far include:

- A global potato conference in Cuzco, an event which attracted over 100 of the world's leading authorities on potato and research and development for the tuber. One of the many outcomes of the conference was the Cuzco challenge, an entreaty to the world's potato researchers to "formulate a new research agenda that will have a greater impact in reducing hunger and poverty."
- A global awareness campaign to raise the awareness of the importance of potatoes for developing and industrialised nations, and the significance of the spud in helping to alleviate the hardships being experienced with rising food prices.
- The IYP website, as a platform for communicating the initiative and promoting the potato's importance. According to the report, the IYP website consists of more than 750 pages, is linked to 38,000 other pages, had over 200,000 visitors since the beginning of 2008, and is the No.1 United Nations educational site, which makes it an extremely valuable and useful tool for potato-related events for the industry internationally.
- The distribution of the IYP logo, which is now used for commercial and non-commercial purposes in 50 nations. Switzerland and Italy have fostered national recognition of the logo with an IYP stamp and a travelling art show. In the developing world, Botswana has incorporated the logo in its governance of national agriculture, as have other grower groups in Latin America.
- The IYP World Photography Contest which has attracted over 1,500 contestants so far. The winning images will be chosen by a panel of photography experts and will be displayed in Rome in December, along with a number of other IYP art projects.
- The creation of IYP National Committees in China, South Africa, Ecuador and other developing nations with the groups being funded via seed grants from the IYP secretariat. pa



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## IYP dinner dance

Preparations are underway for the International Year of the Potato celebration dinner on Saturday 20 September at Danny's Venue, South Road, Warragul, Victoria. The event will honour the local industry as well as pay tribute to the spud, and promises to be entertaining, with a band and speaker Russell Broadbent highlighting the celebrations.

The evening is being organised by the Thorpdale Potato Group who are well-known for their contributions to the area's potato heritage for, among other things, their potato tours. All proceeds will go toward covering the costs of the dinner dance. Tickets are \$22 each and are strictly limited. With abundant interest shown at the Seed Potato Conference in Marysville, sales are expected to soar, so be fast.

For enquiries, please call Dot Chapman (03) 5634 7566 or Val Murphy (03) 5634 6267. pa

If you have a question that you'd like addressed, please ring the advice line on 1800 067 108 or email *Potatoes Australia*: [jenan.taylor@ausveg.com.au](mailto:jenan.taylor@ausveg.com.au) Please note that some questions may be published.

# Ask the industry

**Ask the Industry is a regular advice column covering issues from resistance management and chemistry to occupational health and safety.**

At the Victorian Seed Potato Conference, Phil Houtt from Syngenta Crop Protection presented a paper titled "Fungicide Application - It's not all up in the air". It generated a great deal of discussion and questions about the application requirements of "in furrow" fungicides to manage diseases.

The adoption of the "in furrow" use of fungicides for the control of soil borne diseases has put a new focus on "best practice" application techniques. These were some of the questions Phil received.

## Can any strobilurin fungicide be used "in furrow" in potatoes?

No, a recent Australian study reports that AMISTAR 250SC is the only fungicide from the strobilurin group that is currently registered to be used as a soil in furrow application for control of Black Scurf (*Rhizoctonia solani*) and suppression of Silver Scurf (*Helminthosporium solani*) in potatoes.

## Is it better to use one or two nozzles to apply the fungicide at planting?

Trial work has indicated there are significant benefits from using two nozzles (see below) to apply "in furrow" fungicide treatments. The 1st nozzle spraying the soil at the bottom of the furrow as it is opened in a 15-20 cm band just before the seed is covered. The 2nd nozzle sprays the soil as the furrow is closing (bow wave). It is important that the fungicide is mixed thoroughly within the mound.

### Best use guidelines for AMISTAR 250SC.

- Apply in 1-3 L of water/100 m of row. Ensure the water volume used is not so high as to wash off any seed treatments previously applied to seed.
- Fit 2 X 100 wire mesh filters in the circulation system, DO NOT fit nozzle filters.
- Use nozzles with a minimum 0.8mm orifice.
- DO NOT apply the fungicide if conditions or seed quality favour bacterial rots as these diseases may be aggravated if seed comes into contact with additional moisture.
- DO NOT apply the fungicide if planting in hot, sandy soils as bacterial rots may be aggravated.
- Care must be taken with any liquid in furrow application.



**Phil Houtt**

# The hurdles that lie ahead

ECONOMIC FORECAST ECONOMIC FORECAST

**The economic backdrop to the International Year of the Potato could hardly have been more difficult. At the year's halfway mark the Australian potato industry is facing a number of key challenges. These will require some deft handling in order to return a reasonable profit from potato growing.**

The Australian dollar is climbing close to parity with the United States' dollar. With many developing Asian countries' currencies tied in some form to the value of the US dollar, this means cheaper imports. While distance and bulk provide some protection to the fresh potato sector, the processed potato side is facing increasing competition. This part of the industry is now part of the globalised market. As with the rest of the processed food sector, potato enterprises will increasingly consider their operations in a global context. This means that they will source wherever it is economic to do so, with the size of operations being a key determinant in operational costs and, hence, sourcing. Growers are caught in a classic price-cost squeeze with low prices and rising input costs. As this article was being written, there was some recognition of this with Simplot Australia announcing a substantial price rise for contracted potatoes. Still, even with this price rise, it would be difficult to find many growers planning a spending spree on luxury goods.

## Operational costs

On the input front, water has been under the media's spotlight and is likely to remain prominent. The first lesson taught to students of economics is that when demand exceeds supply, prices rise. In many parts of Australia, the prospects for the supply side are none too hot. Prices will rise in most areas and potato growers will need to make economic decisions with this in mind. Having water rights is an important capital asset and, where tradeable, judgements need to be made as to its holding value as opposed to its capital realisation. Decisions on this will vary from farm to farm and will depend on the life stage of growers.

While water has grabbed much of the focus the sky rocketing cost of fertiliser is the input causing most pain to potato growers. The reasons for the startling increase in price are under investigation by a Senate Select Committee. There is little competition in the fertiliser market within Australia and there has been little investment in new fertiliser facilities. Import

competition places a cap on the price of domestic fertiliser. The problem is that this cap has largely been removed. There has been an increase in demand for fertiliser across the globe and the price rises being experienced in Australia have also been happening worldwide.

Once again, the classic economics lesson applies. If demand exceeds supply, prices rise. At some point in the future, new sources of supply will be developed that will eventually lead to prices falling back. But supply adjustments take time—and the fertiliser industry will be caught up in the new anti pollution measures being undertaken. In the meantime, however, the days of cheap fertiliser are over.



**Growers will need to adjust to the new regime and should not expect any instant relief from high fertiliser prices, nor too much to emerge from the Senate Committee Inquiry.**

The growers that have held Incitec Pivot shares over the last twelve months can feel relieved that they got a better return from that investment than from their potato operations.

## Economic downturn

In the financial markets, cash is king and debt is passé as the world is gripped in its worst financial crisis since the Great Depression of the 1930's. World credit markets virtually froze in early 2008 as a consequence of lax lending practices. While there has been some relief as central banks and governments worldwide have pumped money into the financial markets to keep them solvent, the fallout is still being felt. Just ask the shareholders in supposedly safe Australian companies who over-indulged in debt, or the average Australian battler who has seen the major Australian banks raise interest rates on their home loans and credit cards beyond those officially sanctioned.

The difficulties being experienced in the financial markets combined with high fuel prices are a potent mix. Consumer demand is weakening and confidence has fallen significantly. Inevitably economic growth will slow and unemployment rise. Although the hope is that consumers will turn back to basic foods they will be much more circumspect in their expenditures.

Despite the weakening economy, inflationary pressures, while easing throughout the year, will remain. It is unlikely that interest rates will fall. Growers who are indebted are likely to see little relief on the interest rate front.



On the global scene the fallout from the crisis in financial markets is likely to see the USA, the UK and other countries enter or sail close to economic recession. As the year proceeds, the crisis is likely to ease, but make no mistake, the problems in financial markets are fundamental and the repair job required significant. If the world gets by without a major economic downturn then it has done well. Further, don't believe the talk that the emerging economies in Asia will save the situation. The truism still holds, albeit less strong, that when the US sneezes the rest of the world catches a cold. Given the interwoven nature of the global financial system, the crisis in the US financial arena will impact throughout the world.

### Industry concerns

Most of the above issues are outside the control of the Australian potato industry. However there are two issues which will loom large over the year where the industry needs to develop policy and take action to protect its future.

The first is bio-security. Grower representative bodies assisted by this author have just delivered a big win for potato growers in the battle to exclude exotic pests from entering the country. Tomato seed imported into Australia will now require a phytosanitary document certifying that it is free of potato spindle tuber viroid. Still, the threat from other exotic diseases looms large and the industry needs to monitor developments and allocate resources to protect it from exotic pests, as well as exotic weeds.

The industry also needs to develop policies towards the inevitable inclusion of the industry in the emissions trading scheme. Most Australians have little idea what this is, let alone the impact it will have on the economy.

**It is easier if you understand it as a tax on pollution, which will mean higher prices for goods.**

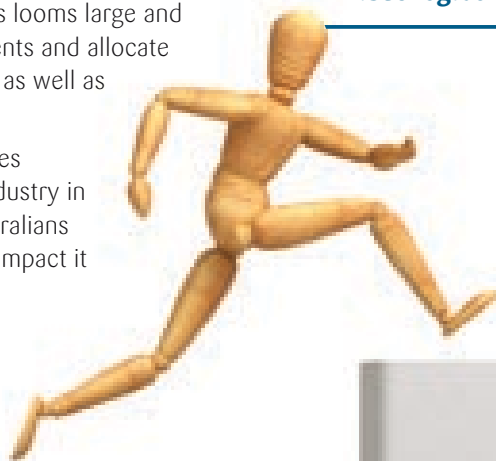
The price increase will be greatest on those goods whose production techniques generate higher pollution. There will be offsets to alleviate the pain this creates. Although agriculture will not be included in the scheme until 2015, because of the difficulties in measuring agricultural contribution to pollution, economic costs will apply from 2010 as other sectors of the economy enter the scheme. The potato industry requires research, such as that focused on the beneficial contribution that is made by potato growers through sequestering carbon into the soil.

The potato industry is facing some daunting economic issues going forward. The industry will be better positioned if it confronts these issues and plans for the future rather than ignore them in the hope that they will go away.

### The Bottom Line

- Pressure on potato growers will continue to increase with import competition.
- Interest rates are not expected to ease in the short term.
- The potato industry's future competitiveness will benefit from research and planning.

Further information can be found at [www.ausveg.com.au/levy-payers/login.cfm](http://www.ausveg.com.au/levy-payers/login.cfm)



# KNOWN FAR AND WIDE FOR HIS EYES

Graham Ramsay. Carrington Farms  
Bundaberg – QLD.



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Apart from the odd game of golf, Graham loves nothing more than harvesting a truly saleable item. And this shows, as he has won the National and Northern Grower for Smiths Snack Food Company two years running.

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# Soils ain't soils

## The saying that “oils ain't oils” can be equally applied to soils and soil organic carbon itself.

Soil organic carbon is a combination of soluble and insoluble chemical compounds and micro-organisms, the latter being the living part of soil. When you receive a soil organic carbon analysis from a laboratory, you can assume that from one to five per cent of that carbon is actually living (and breathing) micro-organisms. These microbes do all the hard work and degrade the soluble and insoluble compounds and release carbon dioxide (and other gases such as methane and nitrous oxide, all greenhouse gases) to the atmosphere.

Soluble organic carbon means carbon that can be easily solubilised and transported in water and it is normally easily and rapidly degraded. Soluble carbon is usually in the form of simple sugars and some carbohydrates and provides an immediate substrate (i.e. energy source) for a wide range of soil microbes. Soluble carbon is largely produced by plant roots as root exudates, or other living organisms that produce exudates. Because of its rapid decomposition, the amount of soluble material only represents about one per cent of the total soil organic carbon at any time.

Insoluble organic carbon comprises well over 90 per cent of total organic carbon in most soils, and contains the chemical compounds normally found in plant cell walls (cellulose and lignin), as well as what is normally found in animal exoskeletons and fungal walls (chitin). Lignin is the third most abundant chemical compound found in plant material, and is an aromatic compound, highly resistant to degradation. Woods contain a high proportion of lignin, hence the reason they are slow to decompose compared to crop residues, which have a much lower proportion of lignin in their chemical structure.

The largest proportion of carbon found in soil

is the stable organic matter fraction (also referred to as humus by some people). This highly resistant stable fraction is actually a complex mixture of compounds produced on the decomposition of sugars, carbohydrates and lignins and is highly amorphous. In some soils, the most insoluble form of carbon is actually charcoal, which has been produced from wildfires and in some cases, very hot burns. In some soils, over 40 per cent of the carbon may actually be in the form of charcoal.

Stable organic carbon can normally be defined as the carbon in soils that is highly resistant to chemical degradation (e.g. high temperature acid hydrolysis in the laboratory), but in some cases it could be carbon that is physically protected in small pores and resistant to microbiological degradation. Clays normally have a higher proportion of resistant carbon than sandier soils due to the mere fact that carbon compounds are protected from microbes in the small pores.

In summary, the chemical structure of organic carbon compounds in your soil have a major influence on their decomposition and ultimate fate of the carbon, the production of carbon dioxide, and the release of associated nutrients, nitrogen (N), phosphorus (P) and potassium (K). **pa**

## Diseases, Pests and Disorders of Potatoes

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Stuart Wale, Bud Platt & Nigel Cattlin

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# Successful succession planning

**“One day, son, all this will be yours.”**

It's a saying that immediately conjures images of a proud father surveying the fruit of his labour, a farm or business, and promising to bestow it on the fruit of his loins, with the expectation the next generation will follow in his footsteps.

The trouble is, the next generation is increasingly declining the offer. And in Australia's farming scene that's often because it comes too late—when children have already established themselves in other careers away from the farm— and without sufficient clarity.

The *Australian Processing Potato Industry Strategic Plan 2006-2011* acknowledges farm succession is one of the most important issues facing the potato industry. It notes the average age of growers has increased substantially and that in the next decade many will want to hand over to their children but, “the next generation are less willing to take over the reins”.

“Australian-born Generation X and Y workers [are] shying away from the repetitive and labour intensive work to ‘softer’ industries of IT, finance, management, marketing and human resources,” the plan states. “As the twin forces of labour shortage and lack of grower succession combine with declining returns, it is apparent that the industry will face some major re-structuring over the next few years with a decline in the number of farms.”

Peter Jacobs, Senior Manager of Agribusiness and Valuations at ANZ Regional and Rural Bank, confirms the trend is well established.

“Only one in two farms is transferred to the next generation,” he says. “In the 1970s it was four in five. This raises important questions: Who will be our future farmers? And how long will the family farm continue to be the model for agriculture?”

However, Peter disagrees the change is due to younger people being “softer”.

“Farmers don’t necessarily want their own children to take the same path they did,” he says. “They strive to give their kids the best possible education so they can have a real choice. Many hope the kids will come back to the farm but they don’t want them to feel forced, like they may have been by their parents.”

Families that do want to continue farming can increase their chances of a successful transition through a well thought-out succession plan, says Dubbo-based consultant and facilitator Lyn Sykes.

“Because Generations X and Y have had access to so much information they want certainty, they want to know what’s happening,” she says.

This means open and honest communication, starting with the will—a subject many children are reluctant to raise with their parents lest they be considered greedy. But delaying this discussion only creates more problems.

“Family members need to know what is in the will so any inequality can be dealt with in advance,” Lyn says.

For instance, any will that leaves a multi-million-dollar property to the son so he can farm it and only token amounts to daughters is likely to be challenged.

“Women today are much less likely to accept gender discrimination in a succession plan,” says Lyn.

Peter says he has seen many great farming families destroyed through arguments and legal challenges over unequal inheritances.

“The problem is this lumpy, illiquid asset called a farm cannot be easily divided,” he says. “And the boom in land prices has created a situation in which there is a disconnect between what the land is worth and how much income it can produce. The kid who wants to farm can’t just buy out the others as easily, so they just decide to sell the whole thing instead and give each a share of the money.” Peter says rather than ploughing all profits back into the land farmers should think about investing in other assets, such as



a share portfolio. In this way they could create separate pools of wealth for the children who did not want to farm.

Lyn co-authored *A Guide to Succession: Sustaining Families and Farms* for the Grains Research and Development Corporation.

It details numerous case studies in which farming families faced the challenge of fairly dividing the estate in their own unique circumstances.

The book also contains detailed advice from accountants, agricultural consultants, lawyers and financial planners.

Copies are available through Ground Cover Direct (free call 1800 110044 or email [ground-cover-direct@canprint.com.au](mailto:ground-cover-direct@canprint.com.au)).

Lyn and Peter agree the best course of action is to call a family meeting and prepare a succession plan as soon as possible.

“People think succession planning is too hard,” says Lyn. “But it’s only going to get harder the longer they leave it. The earlier you start the more options you have and the less likelihood of conflict.”

A good succession plan may keep the farm intact. But more importantly it may help keep the family intact. **pa**



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South Australian Murray-Darling Basin  
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## ATTENTION POTATO GROWERS and INDUSTRY REPS!

**YOU ARE INVITED TO ATTEND A FREE FIELD DAY to hear the results of the project “Assessing crop water use in Potato Crops”.**

This project, supported by the SA MDB NRM Board, has provided support to irrigators in the Mallee, especially those using centre pivots, assisting them to record water use details, monitor soil moisture and understand where water use is distributed throughout the crop growing cycle. This information will ultimately assist irrigators to identify where changes and improvements can be made.

**When:** Wednesday 27th August 2008

**Where:** Parilla Sports Club, Parilla

**Time:** 9.30am

**Program includes:**

• Key speakers on topics of interest • Highlights and results from the “Assessing Crop Water use in the Mallee” project • Site visit to recently planted potato crop for soil moisture monitoring demonstration • Optional Workshop: Weather Data Interpretation • Lunch and refreshments provided.

**For further information contact:** Sarah Kuchel on 8582 4477.

RSVP by 22nd August, to Helen Limu on 8582 4477 or email [helen.limu@samdbnrm.sa.gov.au](mailto:helen.limu@samdbnrm.sa.gov.au)

Sponsored by Horticulture Australia Limited, SA Potato Industry Trust, and the South Australian Murray-Darling Basin Natural Resources Management Board.

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Supporting the Australian Horticulture Industry

# APRP Update



## Tackling the big picture issues

**Opportunities for significant on-farm energy cost savings are already being identified as part of a research project aimed at enhancing the sustainability of the potato processing industry in Australia.**

The HAL-sponsored project, which began in May, will enable the industry to benchmark its production and environmental performance against that of other crop-producing industries. It will also identify practical ways to improve industry performance to reduce production costs, improve yield and enhance environmental outcomes.

The project is being led by Tony Norton, Professor of Agricultural Ecology at the Tasmanian Institute of Agricultural Research (TIAR) and State leader of Natural Resource Management for the University of Tasmania. He said the study represents an important step towards positioning the potato industry to address “big picture” environmental issues.

“Now, more than ever, there is a strong focus on the environmental performance of agricultural industries, the efficiency of resource use, and the extent to which agricultural emissions of greenhouse gases contribute to global warming,” Tony said. “Research shows consumers want to access food that has been produced through environmentally-sound practices. This project will provide an environmental footprint of the processing potato industry.”

Key industry stakeholders were contacted during the initial phases of the project to determine what the main resource management and sustainability challenges facing the potato industry are, and what might be done to deal with them. Input is being sought from scientists (agronomists, soil scientists and agricultural ecologists), growers in four states and relevant government bodies (catchment management organisations, environmental protection agencies).

Tony said the project team has already identified opportunities to improve industry efficiency and to help it to tackle environmental management issues. “Improvements in nutrient management for example could cut costs as well as reduce greenhouse gas emissions and the leaching of nutrients into waterways,” he said. “Reduced impacts on biodiversity such as soil fauna, adjacent native vegetation and downstream aquatic and riparian ecosystems may also lead to significant improvements.”

Strategies for improving industry efficiency and cutting on-farm energy costs will be included in a report which will be made available at the completion of the study in September 2008.

Work is now underway on the performance assessment phases of the project. This involves quantifying inputs and outputs at all stages of on-farm potato production into units that can be compared to production units from other industries. A preliminary comparison of the production performance of the potato industry with that of the onion and broccoli industries will be made as part of the study.

“The project team will also analyse production processes to assess such things as energy use, greenhouse gas emissions, leaching and eutrophication potential, water use efficiency and environmental impacts,” Tony said. “In the case of inputs such as fuel and labour we will be looking at the costs of getting such things to the farm, as well as on-farm usage.”

Tony said independent research in the UK suggests that the potato production may have a significant environmental footprint when compared to many other field grown crops. “It found that around 60 per cent of all emissions resulting from potato production may occur at the farm level,” he said. “Potatoes are unique because of the inputs such as water and storage. Potato seed production, itself, may require four to six years to produce suitable seed. Our study will consider the footprint of these types of aspects in detail over the coming weeks.”

Years of experience in evaluating the environmental footprint of rural industries and land management agencies have convinced Tony of the value of benchmarking in the development of effective production and environmental strategies. He has long recognised benchmarking of the environmental performance of the potato industry as an important priority and has made that clear during input, along with other researchers, into the development of Phase 2 of the Potato Processing R & D Program.

Tony has assembled an impressive line-up of TIAR colleagues for this research project. They include:

- Dr Frank Hay, Research Leader of the TIAR Vegetable Centre within Tasmania.
- Dr Susan Lambert, a Postdoctoral Research Fellow with TIAR Vegetable Centre who is interested in sustainable production of potatoes in Australia.
- Dr Iain Kirkwood, Director of TIAR, coordinates the Australian Potato Research Program (APRP), and is in charge of seed certification activities in Tasmania.
- Dr Leigh Sparrow who is Deputy director of TIAR and Research Leader of the Extension Agriculture Group within TIAR.



(L-R) Dr Susan Lambert, Dr Frank Hay and Prof. Tony Norton

Tony said the project is an important investment by HAL and the research team in the framework that will be needed to tackle 'big picture environmental issues in the future. "Because of the limited time available for this study more comprehensive research will be needed to build on our framework to maximise the benefits to the potato industry," he said.

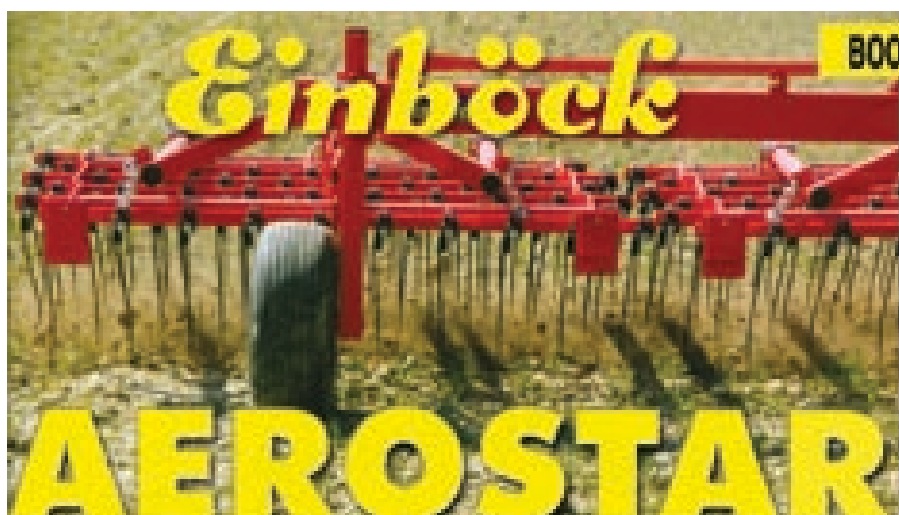
Tony said the study findings will also provide the industry with an opportunity to improve awareness of its environmental performance with governments, community and consumers. "It will help enhance the environmental sustainability of the industry and help improve its competitiveness," he said.

PT07050

### The Bottom Line

- Consumers want foods that have been produced under environmentally-sound conditions.
- The study looks at ways to minimise the environmental foot print in processed potato production.

Further information can be found at [www.ausveg.com.au/levy-payers/login.cfm](http://www.ausveg.com.au/levy-payers/login.cfm)



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# New potato varieties

Words **Tony Slater**

## Three new fresh potato cultivars for potential commercial release

The Department of Primary Industries (DPI) in Victoria is calling for expressions of interest from all capable commercial entities in the fresh potato industry for an exclusive Australian licence to one or more of three new fresh potato cultivars.

The cultivars were developed through the previous fresh National Potato Breeding Program in Toolangi, Victoria which was funded by DPI, Horticulture Australia Limited (HAL) and levy-paying fresh potato growers.

The 'evaluation and exploitation option' rights on offer require completion of market- analysis of the three cultivars, with a view to commercial seed of some or all of the new cultivars being made available to Australian potato growers following their final evaluation during the next two years.

All three have been evaluated at Thorpdale by the Victorian Fresh Potato Evaluation Group which has recommended that they be advanced toward commercial release as potentially elite, mainstream, fresh production potato cultivars due to their

marketable yield, appearance at harvest, cooking quality and absence of significant defects.

All three cultivars are "white-skinned" with white-flesh and have delivered performance results exceeding Sebago in all trials to date. Two of the cultivars have been evaluated for the past four years and are considered as possibilities for the fresh 'brushed' market. The third cultivar has been evaluated for the past two years and is considered as a possibility for the fresh 'washed' market.

HAL and DPI aim to optimise returns to the Australian fresh potato sector by ensuring the maximum grower uptake of one or more of the cultivars. Licences will be offered based on a plan submitted for each cultivar which will detail an applicant's evaluation and commercialisation capabilities, and their proposed strategy to maximise grower adoption in the future.

All licence applications must be received by Thursday 18 September 2008. Information about the application requirements and licensee selection criteria can be obtained through DPI's commercialisation arm, Agriculture Victoria Services Pty Ltd, by contacting Terina Ogden ([terina.ogden@dpi.vic.gov.au](mailto:terina.ogden@dpi.vic.gov.au)).



**Five for re-trial in 2008-09**

In addition to the three new cultivars for potential release, five others have shown sufficient promise to be nominated by the Victorian Fresh Evaluation Group for final industry re-evaluation at Thorpdale this season. These cultivars may also be available to a limited number of capable and interested parties, for evaluation-only purposes, subject to the availability of sufficient material and a DPI material transfer agreement. Please contact Tony Slater (tony.slater@dpi.vic.gov.au) to register potential interest as a trial co-operator.

**Orphans**

Aside from the eight cultivars progressing for further evaluation, all other fresh potato advanced lines that were trialed this year in Victoria are now considered by DPI and HAL as 'Orphans'. Exclusive evaluation and exploitation licence rights for Orphan lines (for Australia or specific states) may be offered to interested and capable parties based on a DPI-invited plan. Please contact Tony Slater for information on the identity of the 2008 orphan lines and to register potential interest in their further evaluation (and commercialisation). Any Orphan lines not earmarked for licensing by 30 November 2008 will not be available to the industry thereafter. **pa**



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# chips

a look at what's new in potato information & technology



## Studies

### Use of potato processing by-products

Five papers investigated various ways of making use of the waste from potato processing operations.

In Canada and the United States approximately 30 million tonnes of potatoes are grown each year. About half of this is by-product, e.g. cull potatoes and potato processing waste, which is not suitable for human consumption. Liquid waste can be applied to crops such as maize, vegetables and grass, under strict environmental monitoring and control. Solid waste and culls are often disposed of in landfills or applied as fertiliser on agricultural land, however, the research described in the first paper (Charmley et al.) has shown that potato processing waste can be used as a high-quality animal feed, principally in beef feedlots. It can replace up to 80 per cent of maize and barley grain without negative effects on animal growth rates or quality, and can actually improve efficiency of animal growth per unit of diet intake.

The second paper (Koen et al.) discusses ways of treating potato processing effluent using case studies to illustrate the issues raised. Particular reference is made to the composition of potato processing effluent, treatment options and financial benefits of efficient treatment processes.

A symposium entitled "Organic waste to resource: recycling nutrients" was held at the joint meetings of the Soil Science Society of America and the

Canadian Society of Soil Science in Seattle, Washington, USA, 31 October–4 November 2004. Six papers from this symposium have been published in the *Canadian Journal of Soil Science* (Larney & Pan) and cover a range of organic by-products, including potato processing. The papers cover nutrient contents, forms and dynamics and discuss soil response to the recycled organic by-products and subsequent crop performance. Other important issues, such as handling, the environment and regulations, are also considered in relation to these by-products.

With worldwide concerns about energy shortages, there has been an increase in research about using potato by-products as an energy source. The paper by Parawira et al. describes a pilot study of a simple two-stage anaerobic digestion process for solid potato waste and sugar beet leaves, both separately and in co-digestion. The latter gave up to 60 per cent higher methane yield, with a biogas of 60–78 per cent methane content.

The fifth paper (Zhu et al.) also investigated a two-stage anaerobic digestion process, producing hydrogen and methane from potato waste. The hydrogen stage operated at a pH of 5.5 for six hours, and was followed by the methane stage at pH 7 for

30 hours and 90 hours, for continuous and semi-continuous flows, respectively. The average hydrogen concentration was 45 per cent and the methane concentration was 76 per cent. The hydrogen and methane yields from the potato waste were 30 and 183 litres/kg, respectively, with an average total energy yield of 2.14 kW h/kg.

**Nutrient cycling in the vegetable processing industry: utilization of potato by-products.** Charmley et al. (2006) *Canadian Journal of Soil Science* 86: 621–629.

**Treating potato processing wastewater.** Koen & Clayton (2007) *Food Review* 34: 36–39.

**Organic waste to resource: recycling nutrients.** Larney & Pan (2006) *Canadian Journal of Soil Science* 86: 585–653.

**Energy production from agricultural residues: high methane yields in pilot-scale two-stage anaerobic digestion.** Parawira et al. (2008) *Biomass and Bioenergy* 32: 44–50.

**Co-production of hydrogen and methane from potato waste using a two-stage anaerobic digestion process.** Zhu et al. (2008) *Bioresource Technology* 99: 5078–5084.



## Research summaries

### Cultivars and plant breeding

Powdery scab is caused by the pathogen *Spongospora subterranea*. The following three papers investigated relationships between soil contamination, disease incidence and severity, and also looked for potentially resistant cultivars.

**Willamette: A chipping cultivar with high yield and specific gravity, low incidence of hollow heart and brown centre, and suitability for fresh-market usage.** This cultivar was selected in Powell Butte, Oregon, and released in 2003 by the Oregon, Idaho and Washington Agricultural Experiment Stations and the US Department of Agriculture-Agricultural Research Service. Willamette is a relatively large, vigorously-growing plant with medium-late maturity. Compared with cv. Atlantic, Willamette tended to have higher yields and fewer internal tuber defects along with lower levels of total glycoalkaloids and vitamin C.

Chipping performance was good after storage at 10°C but not 4°C. Willamette had greater resistance to *Verticillium* wilt and potato leafroll virus, similar susceptibility to early blight, foliar late blight, *Erwinia* soft rot and potato virus Y, and greater susceptibility to tuber late blight and common scab than Atlantic. *Mosley et al. (2008) American Journal of Potato Research 85: 85-92.*

**Varietal susceptibility of potatoes to wireworm herbivory.** This study described a range of experiments, including large-scale field trials, that tested over 2000 tubers from 12 varieties, examining their susceptibility to herbivory by wireworms (*Agriotes* spp.).

Three varieties, Maris Peer, Marfona and Rooster, were significantly more susceptible to wireworm attack than King Edward, Nadine and Maris Piper in laboratory no-choice tests. In choice tests the susceptible varieties had 4.2 holes per tuber compared with 1.2 holes per tuber for the least susceptible varieties. Similar patterns of susceptibility were seen in the field trial. Although Nadine had the highest glycoalkaloid concentration

and lowest wireworm herbivory, over all cultivars the relationship between wireworm susceptibility and glycoalkaloid concentrations was weak. *Johnson et al. (2008) Agricultural and Forest Entomology 10: 167-174.*

**Intragenic crop improvement: Combining the benefits of traditional breeding and genetic engineering.** This discusses the process of intragenic crop improvement, where genetic modification techniques are used but only DNA from the same species is transferred from one breeding line or cultivar to another. The DNA elements being transferred are well characterised so that any inadvertent transfer of undesirable DNA is prevented, which may not always be the case with transgenic technology. Intragenic techniques mean that specific beneficial traits can be transferred or enhanced while undesirable characteristics can be silenced. The paper describes an example of an intragenically-manipulated potato plant where three genes were altered, resulting in tubers that produced French fries with greatly reduced amounts of the suspected carcinogen acrylamide, an enhanced flavour and the absence of discolorations. It argues that intragenic modification is similar to traditional breeding and is unlikely to result in variation that is new to the species. Therefore an updated regulatory system should be adopted so that intragenic crops are considered low-risk and can be cleared for commercial release in a timely and cost-effective manner. *Rommens (2007) Journal of Agricultural and Food Chemistry 55: 4281-4288.*

**Genetically modified organisms in crop production and their effects on the environment: methodologies for monitoring and the way ahead.** This FAO report examines strategies for assessing the effects of GM crops on the environment. It comprises a summary of recommendations from expert groups and 13 papers presented by invited speakers. One of these papers examined approaches and challenges in conducting risk assessment and monitoring in New Zealand, while another looked at hybridisation between wild and cultivated potato species in the Peruvian Andes and biosafety implications

for deployment of GM potatoes. *Ghosh & Jepson, eds. (2006). Expert consultation 18-20 January 2005. Report and selected papers. FAO, Rome, Italy.*

### Nutrition

**Determination of folate concentrations in diverse potato germplasm using a trienzyme extraction and a microbiological assay.** This study measured the total folate concentrations of potato tubers from 67 cultivars, advanced breeding lines, or wild species. There was variation in the folate concentrations and this was dependent on genotype and location. Highest folate concentrations were found in potatoes with coloured flesh. The folate concentration of skin varied from being the same as the flesh to being twofold greater. Folate concentrations tended to increase during a seven-month storage period. *Goyer & Navarre (2007) Journal of Agricultural and Food Chemistry 55: 3523-3528.*

### Glycemic index - a review and implications for the potato industry.

Potato has a number of positive nutritional characteristics: it has no fat, is rich in vitamin C and potassium, and a good source of dietary fibre. However, the starch of cooked potato is rapidly broken down to glucose, which results in a rapid elevation of blood glucose after food products containing potato have been consumed. This leads to a moderate to high glycemic index (GI), a value used as a clinical indicator of the suitability of a food for consumption by diabetics. Ranking of foods by GI is recommended by the World Health Organization and numerous diabetic associations worldwide. An alternative parameter, glycemic load (GL), takes into account the amount of carbohydrate consumed per serving, and because potato tends to have a high moisture content, the GL of potato is generally moderate. GI and GL differ between cultivars and can be modified by processing methods, and GL can be also modified by other components of the meal. Therefore, further research is required to accurately define these values for specific cultivars and processing conditions. *Lynch et al. (2007) American Journal of Potato Research 84: 179-190.*



## Popular articles

### Controlling *Verticillium*: early identification can prevent early die in following years.

*Verticillium dahliae* is the pathogen that causes *Verticillium* wilt, one of the main components of potato early die disease. The fungus is difficult to control because of microsclerotia, which are infective structures that may survive in the soil for up to 15 years. The fungus infects the root tip and travels up the plant, producing a toxin that disrupts the vascular system and stops water reaching the plant leaves. Some potato varieties are resistant to the disease, but Russet Norkotah is very susceptible, with plant death occurring within seven weeks of infection. Because of the long survival period, prevention is particularly important in clean fields. It is essential to identify the disease in first-year potato crops because in subsequent years there can be a rapid increase in infection in the field. Fumigation and other control measures, such as planting certified clean seed, will help to limit spread of the disease, as does cleaning machinery and equipment between potato fields. Another control measure is ensuring that the potato fields remain free of weeds that may also be hosts to the disease. *Verticillium dahliae* infects a wide range of plants, but some strains are more aggressive on potatoes. A survey of 224 seedlots in 18 states in the USA found that 29 per cent had *Verticillium* infection, with two-thirds being the aggressive VCG4A strain. *April 2008, p. 14.*

### Saving good fungicides: fungicide resistance management grows ever more important.

When a pathogen develops resistance to a fungicide, the implications are huge. It may take several seasons for the resistance to be detected, and during that time reduced efficacy will cause significant economic losses for growers. In the past, there was a steady stream of new fungicides coming on to the market, so the loss of one particular chemical due to resistance did not have a major impact. However, the development of new chemicals has slowed dramatically and the costs of launching them have escalated. This means it is very important to protect fungicides so that

they do not lose their effectiveness. Plant pathologists have been particularly proactive in this area, forming the "Fungicide Resistance Action Committee (FRAC)", which helps to form fungicide resistance management strategies and provides recommendations to growers and the industry in general. Because many of the older fungicides have multiple sites of action against the pathogens, they are actually less likely to develop resistance. The multi-site chemicals have been given a FRAC code of M and there are nine classes of M fungicides. In addition there are 43 other FRAC groups and these are rated as high, medium or low risk of developing resistance. The FRAC codes enable growers to identify relationships between fungicide classes and thus the potential for developing cross-resistance. Rotating fungicides between chemical groups is a key strategy in preventing resistance. Resistance management guidelines are available at [www.spudman.com](http://www.spudman.com). *April 2008, p. 16.*

## Snippets from [www.potatonews.com](http://www.potatonews.com)

Listed below is a small selection of the articles that are posted on the Global Potato News website. Please visit the site for further details or follow the links.

### February 2008: Press Release

#### Early start for seed potato virus protection.

Scottish seed growers have found that virus spread by aphids (particularly virus A) is occurring earlier in the season and that consequently insecticide applications will need to begin earlier, even before aphids conventionally associated with virus spread have been caught in monitoring traps. It has been suggested that non-colonising aphids (e.g. cereal aphids) are migrating through potato crops and transmitting the viruses. Aphid control may have to start at plant emergence and continue throughout the season. New insecticide products with fast aphid knockdown are available and can be used with other products to minimise the risk of developing resistance. (*Syngenta UK*).

### February 2008: Feature Articles

#### Potatoes and the latest nutrition

**breakthrough: Resistant starch.** Resistant starch is a type of dietary fibre naturally found in carbohydrate-rich foods, such as potatoes, grains and beans. This starch tends to be formed when these foods are cooled and it appears to "resist" standard human digestion processes. Because the resistant starch is not digested in the stomach and small intestine, the body feels "full" and stimulates release of satiety-inducing hormones. Resistant starch is fermented by bacteria in the large intestine to produce beneficial fatty acids, including butyrate, which may shift body metabolism away from utilising carbohydrates towards using stored body fat for energy.

### March 2008: News Headlines

#### New Zealand: World-first Chip Standards are good for NZers.

A Horticulture New Zealand press release welcomed the launch by The Chip Group of new industry standards for cooking healthier hot chips. The standards focus on the way they are prepared and cooked, and implementation will greatly reduce the amount of oil used in cooking takeaway chips. It was also an opportunity to remind consumers that potatoes contain vitamins and minerals, and are an excellent source of fibre and carbohydrates.

#### United States: Scientist says chemical might not be so harmful.

An external review panel for the Environmental Protection Agency in the USA is drafting recommendations on what is a safe level of exposure to the chemical acrylamide in food. This neurotoxin and carcinogen is formed in food when carbohydrate-rich material that also contains the amino acid asparagine is exposed to high heat such as deep-fat frying or baking. Following the discovery of acrylamide in food in 2002, there has been a huge amount of research into establishing safe exposure rates. In rats, two mg per kg bodyweight per day has been shown to cause cancer. It is thought that the human exposure rate will be set at three mg per kg per day, with most Americans being expected to average an intake of 0.4 mg per kg per day.

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