

AUSTRALIAN POTATO INDUSTRY NEWSLETTER

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Improving the efficiency of irrigation

The following article is an edited presentation given at the Potato 2005 conference. A full transcript is available in the Conference Proceedings (see p16 to obtain a copy).



Laying tape at planting

Following a water shortage during drought in 2004-05, we tried 33ha of potatoes under drip tape with continuous log moisture monitoring and 9.1ha under solid set irrigation after smaller initial trials with both technologies in 2002-03 and 2003-04.

The trials were part of the Water for Growth government incentives program which allowed us to try new irrigation systems.

This program meant we could get a rebate of 40% up to a total of \$16,000 on drip tape and a 25% rebate to a total of \$10,000 on the solid set micro sprays. There was also a 50% rebate to a total of \$2,000 on moisture monitoring equipment.

Managing the new systems Drip tape

We used a planter with larger diameter rollers to lay the tape at planting so it was already installed should rain unexpectedly stop us from getting the tape in after planting. The rollers allowed the tape to run out smoother with joiners, and a tape placement tube with press wheel gave accurate depth control. The tape we use has a three-year life, an emitter output of 0.8 litres /hr and with emitters spaced at 30 cm and at a depth of 25mm. Instead of

using moulders to hill the rows behind the planter, we attached a box moulder, which formed a more consistent hill for the tape to be laid in.

When mains and sub mains were hooked up, we had to work out how much water to put on considering the flow was underground. We installed netafim's irriwise moisture monitoring equipment - three tensiometers (one at 15cm depth, one at 25cm, one at 35cm) linked to a radio transmitter that is picked up by the radio receiving antenna on our shed. The antenna is linked to a computer which converts the tensiometer readings into an easy-to-read graph.

I calibrated by irrigating to saturation at 30cm depth and recorded the lowest (wettest) reading on the computer. Then I let the ground dry out to where there was enough moisture for the crop to grow should I miss a day's irrigation and read the highest (driest) reading.

At harvest, we used the McCain's tape lifter to lift the tape and netafims wrapper to re-roll it after pulverising the tops to stop them from wrapping around the rollers in front of the machine.

In 2004-05, the average yield of the 32.3ha under tape was 24.5 tons / acre which was over the average of our over head irrigated crops.

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Chips



Potato 2005 -National Potato Conference Report

Levy Payers Meeting

The Annual Levy Payers Meeting was held at Cowes, Phillip Island, Victoria on 20th September in conjunction with the national potato conference – Potato 2005.

A financial report was presented and the investment strategy and future direction of the R&D program discussed. No major issues were raised.

New R&D strategic plans are being developed for the processing and fresh sectors in time for the next financial investment period – 2006-07.

The financial plan and information about the progress of projects can be found in this years Potato Australia.

Simon Drum Industry Services Manager HAL

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It's that time of the year again

It's Christmas, when we reflect on the year that was and look ahead. Once again, I would like to thank those people who make the potato publications possible, most importantly, you our readers, who continue to read our articles and who send feedback in if we need to make changes. I also thank your Technology Transfer Manager for the industry, Leigh Walters, who brings together complex issues, often seen through several different people's eyes, collates them and sends them on in good shape to me. Then there's the backbone of the publications, the Advisory group who provide important feedback from each State, story ideas, relevant issues and guidance. Our special thoughts go to Bruce Fry and his family for his speedy recovery and return to full health in the New Year. Nigel Crump has kindly filled in in Bruce's absence.

Our distributors in each State are also all important, ensuring you get copies of either Eyes on Potatoes or Potato Australia as well as State literature regularly – thank you for your efforts!

For all of us who love the cartoons that appear regularly in our publications – thanks go to John Fennell who always seems to get to the humourous nub of any topic in his drawings.

Last but not least - Thank you also to the advertisers who contribute to the magazine and ATM-Sprinta who unfailingly turn the articles and photos into a well designed, printed entity.

For all our subscribers, growers and others in the industry, have a good Xmas and New Year and keep safe and well over the holiday period.

Kind regards, Cathy Sage Editor



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Tape roll and rollers

continued from page 1

Comparing the two systems - w			
For drip tape	Against drip tape	For solid set	Against solid set
Efficient water use (50%-60% savings) compared to gun	Early weed control more complicated without water above ground	Easier installation than tape – no need to change planter	Increased blight risk – leaves wet longer
50% Fuel / diesel electricity savings compared to gun	Labour, time required for setup	Can leave irrigation to last minute before next rain	Evaporation issue – water applied above ground
Can leave irrigation to last minute before next rain	Birds, wire worm can damage tape	Ideal for hills, misshapen paddocks – can water to saturation, no runoff	If you roll the poly pipe it doesn't last as long. Towing to next season's paddock better.
Yield comparable to gun but with better cooking grades, solids, uniformity		Diesel savings 40%-50% compared to irrigator	
Less stressful in irrigation season – fully automated, no shifting irrigators all day		Water savings of 25%-35%	
Minimises blight risk – water not on leaves		Once installed, one-man operation	
No safety issues with water spraying on roads		Can apply liquid fertiliser accurately through system	
More accurate fertiliser application – to root zone		Minimal nutrient leaching and water runoff	
Less soil water logging – more absorbed; better environmentally			

Solid set micro sprays

To set the sprinklers up in 2002-03 and in a preferred box pattern, we had to pull out the established lengths of poly pipe that were 12-13 rows apart, using a poly reeler. We joined the lengths together, then had three people, one in front cutting a hole in the pipe, the next following and pushing a barb in then a third plugging the sprinkler hose in, then hammered the pole that the sprinkler was mounted to into the ground. The holes were nine metres apart, our measure being a 9m length of steel that we moved along as we went. We were able to set up 2.8ha - 3.2ha of solid set sprays a day using this method.

To irrigate the paddock, we watered about 2.3ha at once, 3-5 hours at a time, depending on the weather. Sprinkler output is about 5mm / hr.

At harvest, we disconnected the sprinklers and pulled them out so we could drag the poly out of the way using a ute.

In 2003-04, we tried the sprinklers on the hills, where they work best because we could water the paddock to saturation point and not have any water run out of the paddock. To move the solid set, all we had to do was run the poly out, find the holes from the previous year and hook the sprinklers up.

In 2004-05, we staggered the sprinklers to avoid misses due to wind. The sample of potatoes was terrific, but tonnage was lacking at 18 tons to the acre.

Kain Richardson

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AUSVEG CEO Resigns

Euan Laird, Chief Executive Officer of AUSVEG resigned in late August for family reasons.

Euan Laird joined AUSVEG in April 2003 to manage operations on behalf of the AUSVEG Board and in a very short time made significant contributions to shaping the organisation and the new vision for the vegetable industry.

It is very unfortunate to see Euan go and he will be missed. He has given great vision and drive to the industry and set up a strong national organisation to support vegetable growers.

"The last two and half years have been incredibly rewarding experience and I have enjoyed working with growers, staff and the AUSVEG Board," Euan said.

"I am proud to have been able to provide a positive contribution to the future direction of the industry and wish all participants success in dealing with the many challenges ahead."

Euan's resignation follows a successful national industry workshop in Melbourne, funded by the Australian government and the vegetable industry, to take stock of the industry's current crisis situation and to set directions for long term sustainability.

Euan is leaving the position for family commitments only. He should be proud of his achievements and we wish him all the best for the future.

Michael Badcock

AUSVEG Chairman

The variety okbook

Considering the wide range of fresh potato varieties now available, it is important for consumers and the industry to know which are suited to particular uses.

Without this, consumers may not get the results they are looking for from their potatoes. In the face of competition from rice and pasta, disappointed consumers are not what the industry needs. The following table presents an alphabetical list of varieties, characteristics and relative values for different cooking methods.

Compiled by Graeme Wilson, Sherilyn Lauder and Tony Slater, Department of Primary industries, Victoria, from a variety of industry and consumer sources.

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VARIETY	CHARACTERISTICS		COOKING VALUE						
	SHAPE	SKIN	FLESH	BOILED	SALAD	MASH	BAKED	ROAST	FRIES
ATLANTIC	round	white	white	*	nr	*	**	***	***
BINTJE	long oval	pale yellow	light yellow	***	***	**	**	**	**
BISON	round	rich red	white	**	**	**	**	***	nr
CARLINGFORD	round oval	cream	white	**	**	*	**	*	nr
COLIBAN	round	white	white	*	*	**	***	**	**
CRYSTAL	oval	cream	cream	**	*	**	**	**	**
DELAWARE	oblong	white	white	**	**	**	**	*	**
DESIREE	long oval	pink	pale yellow	***	**	*	*	**	*
EXTON	round	white	white	**	*	**	**	**	*
KENNEBEC	oval	white	white	**	*	**	**	**	***
KESTREL	oval to oblong	cream and purple	cream	**	*	**	**	**	*
KING EDWARD	oval to pear	cream & pink	cream	**	*	**	***	**	**
KIPFLER	long (thin)	yellow	light yellow	**	***	nr	*	**	nr
LUSTRE	oval	white	white	***	*	*	**	**	*
MONDIAL	long oval	pale yellow	pale yellow	**	*	*	**	**	nr
NADINE	round oval	cream	white	**	**	*	*	*	nr
NICOLA	long oval	yellow	deep yellow	***	**	**	*	**	*
OTWAY RED	round	red	white	***	**	**	**	***	*
PINK EYE	round oval	cream & purple	yellow	**	**	*	**	**	**
PINK FIR APPLE	knobbly finger	pale pink	yellow	**	***	*	*	*	**
PONTIAC	round	pale red	white	***	**	**	**	**	nr
PURPLE CONGO	knobbly finger	purple	purple	*	**	*	**	**	*
RED LA SODA	round	crimson	white	**	*	**	**	**	nr
RED RASCAL	round flat	crimson	cream	**	**	*	**	**	*
ROYAL BLUE	oval oblong	blue	cream yellow	**	*	**	**	**	*
RUBY LOU	oval	pink	cream yellow	**	*	**	*	**	**
RUSSET BURBANK	long	russet	white	*	nr	*	***	**	***
SEBAGO	oval	white	white	**	**	**	**	**	**
SHINE	oval	white	white	**	nr	***	**	***	*
SONIC	round oval	white pink eyes	cream	**	nr *	**	**	**	***
SPUNTA			pale yellow	**	**	*	**	**	
	long	pale yellow	white	***	**	***	**	**	nr *
TOOLANGI DELIGHT	round	purple		**	**	***	**	**	**
WHITE STAR Key: Excellent ***	oblong Good ** Fa	cream air * Not recom	cream	^^	^ ^	^^^	**	^ *	* *

Phosyn Analytical

Little known potato facts

- A potato supplies about 30% daily requirement of Vitamin C
- Potatoes with skin on are a good source of potassium
- Potatoes are not just carbs. Each provides only 10% of the recommended daily intake of the carbohydrates needed for energy
- They are a valuable source of B group vitamins, particularly B6, thiamine and niacin
- They contain strong antioxidant phenolics compounds offering protection against some diseases
- Potatoes are rich in minerals, particularly potassium, and low in sodium. They provide a desirable balance for a healthy diet.
 Other important minerals include iron and magnesium.
- They are a source of high quality protein.

Potatoes are not fattening

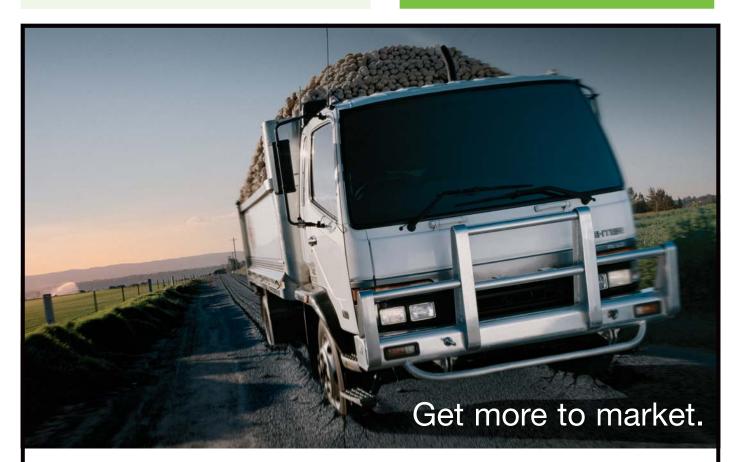
Carbohydrates are an important nutritional component and provide a preferred source of energy for the body. Potatoes will help fill you up as they have a high satiety value, which means you will feel satisfied between meals. The energy density of potatoes is low and it is able to displace fatty materials from the diet, thus reducing energy intake without a feeling of emptiness. Rather than reduce nutrient-packed foods like potatoes, look for ways to swap nutrient-poor fatty and sugary snacks. It is important to note that the nutritional content of potatoes will change with cooking method, with steaming and microwaving probably retaining the most natural content.



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As good as it gets— an analysis of the fresh potato value chain

Recently, while doing some supply chain work on fresh potatoes for HAL, I had that vague uncomfortable feeling of something being not quite right!

The problem was quite straightforward ... if you're a grower in Australia, and it doesn't really matter what you're growing, you are getting less today than you were ten years ago for doing the same thing. So how can we trap more value for the grower? Are there inefficiencies in the supply chain, which if removed, would deliver a better return?

Of course, the problem isn't as simple as the grower getting less, significantly less when adjusted for inflation, but that the cost of labour and all other inputs have increased. It doesn't take Einstein to figure out that something's got to give. Not only has revenue decreased, but margins are being squeezed unmercifully. So, how have we got here and more importantly, what does the future hold?

The reality - a profound lack of competition

Australia is a unique market ... I'll try not to bore you with the tyranny of distance and sunburnt country routine, but we can't ignore these facts. We aren't close to anything ... we aren't even close to each other! And this poses some interesting problems. However, some of the stuff we achieve in this country, given our land mass and the very small population are pretty remarkable.

The fact there aren't many of us and we are really spread out creates some logistical problems. By and large, we have them sorted out ... we do have some of the most efficient road transport in the world ... don't get me started on rail and rail gauges! In Australia, one of our biggest problems is that we suffer from a profound lack of competition.

In transport, brewing, dairy and retail to name a few, we only have a couple of really big players. In building products, we only have a couple of really big players.

In other industries, consolidation is the order of the day. Look at childcare, wholesale to foodservice, paper, media, pallets, packaging, wine, pubs, telecommunications.

So it got me and experts I asked thinking, why should growers be exempt from these market pressures? The collective wisdom on that is there is no reason why growers should be exempt from these pressures and in fact, this is possibly the root of many of their problems!

The big players

If you're in the potato (or any fresh produce) business you have to deal with the mass merchants. Mass merchants (Action, Aldi, Coles, Franklins and Woolworths) and the large Independent Chains (AUR, FAL, Foodworks and IGA) probably control well in excess of 80% of the market for fresh produce.

So if you're a grower, like it or not, you are probably dealing with the big boys. You may not deal with them directly, but it is likely that some of your produce is finding its way on to their shelves.

These guys are, for the most part, efficient operators. From their annual reports, the margin on food is running at around 3% - sure, on fresh produce its higher, but the risk of loss through shrinkage (because this stuff rots and customers and staff do rob you!) is also higher. So, their supply chains must be efficient ... or they are dead in the water! If you do not co-operate with these guys, they will find someone else that will! They are actively trying to reduce the number of suppliers of fresh produce, because they are sick to death of herding cats! It's just too much trouble to deal with so many growers and merchants.

During the course of this study, the subject of shrinkage came up. A guy who knows told me that 100 tonne of potatoes at harvest shrinks (through damage, rotting and other forms of loss) to 85 tonne, on the retailer's shelf. Think about this – growers are getting about \$400 per tonne. At retail, potatoes are going for \$1,000 to \$2,000 per tonne (\$1 to \$2 per kg). If there is 15% shrinkage, that shrinkage is experienced predominantly by the retailer – and 15% of \$2,000 is \$300 per tonne! And yes, the grower still gets \$400 per tonne.

Taking advantage of the other 20%

One place where there is supply chain inefficiency and opportunity to remove cost is in the other 20% of the market. This is the stuff that is sold through wholesale merchants or agents at markets all around the country. During the study, we found that fresh produce could flow through the hands of two or three merchants and this was not uncommon. So, how could we remove this waste?

Merchants (and markets) play an interesting role. The merchants aggregate supply and demand. In simpler terms, there are lots of growers, and lots and lots and lots of consumers. Growers grow large quantities – consumers use small quantities! Do you, as a grower, want to sell your entire crop in 1, 2 and 5kg lots? Probably not ... add to that, if you're a good grower, you are probably a very poor sales person!

So merchants and markets play a valuable role. The question becomes, do they take more value than they create? You'll have to answer that question for yourself but the do-it-yourself way can actually waste you time when it would be better spent on what you do best.

What is your real business?

The question is can you, a grower, perform all the functions of a merchant as well as the merchant can? And, while you're at it, can you still focus on what you do best? Because this is the only way you

can remove this waste. Here's a simple fact ... if you want more money you'll have to add more value. If you want the merchant's margin, you'll have to do the merchants work!

Clearly there is lots of consolidation going on out there... and I don't mean in Australia, but world-wide. The Australian retail market is very consolidated that's why Coles and Woolworths moved into liquor and petrol and convenience, and pharmacy has been threatening. It's the only way they can deliver growth to their shareholders.

However, what will happen if a truly global retailer comes to Australia? We already have Aldi. I know, they reckon they are only just breaking even and they have a very small percentage of the market. Did you know that Aldi's global business is bigger than Coles and Woolworths combined?

Some out there are suggesting that Wal-Mart will buy Coles and that Carrefour will buy Woolworths. I know it sounds fanciful ... but if that happens in five years time, you'll look back and realise that today was the good old days.

This consolidation is evident not only in retail but in wholesale and in growing too! If you want to deal with the big boys, you have to be a big boy too! Size matters for reasonable terms of trade ... but you knew that!

The imported food train

There is another train coming down the track ... it might seem a long way off, but I believe Australian growers are going to have to deal with it.

The train is more and more imported fresh produce. Frankly, our international trade-partners will not accept our quarantine laws forever and I doubt that our politicians have the intestinal fortitude to stand up to this pressure. The playing field is going to get more level, and you don't have to like it but you do have to cope ... and don't rely on the government to help you out!

Yes, it's all doom and gloom ... but only if you want to do what you've always done. As US Army Chief of Staff General Eric Shinseki said "If you don't like change, you're going to like irrelevance a lot less."

Opportunities

So, where are the opportunities for Australian growers ... you'll have to do more for less and it will have to be better than you're doing it today. Why, because you'll have to compete with growers in countries with a lower cost-base than ours. Just look at what the Chinese have done to the garlic market (and almost any manufactured goods you care to think of)!

The big opportunity is in marketing. With the exception of WA, potatoes have not been advertised for more than a decade. Let me tell you, if you ignore your customers, they will ignore you! The guys that sell rice and pasta are always advertising and promoting their products in store. Why do produce growers think marketing does not apply to them?

There is little or no branding out there and where it does exist, it is very unsophisticated. On a recent trip (October 2005) to Europe I saw branded potatoes, I saw organic potatoes, pesticide-free potatoes all selling at a premium. I saw baby new potatoes sell at almost \$7 dollars a kilo at retail – in Australia, I saw these same potatoes being left in the ground and yes, I took photographs, because I thought no one would believe me! Wake up guys ... consumers pay a premium for branded products. Supermarkets stock strong brands ... look at Coke, look at Kellogg's, look at Whiskas and Pal!

So, yes, there are opportunities out there ... but you, the grower, will have to go after them and go after them hard. Right now, you have options ... get big, get niche, get a brand or get out! And remember, as long as you have options, you have control. When you still have control, that's as good as it gets! Today, you still have some control.

Tom Rafferty

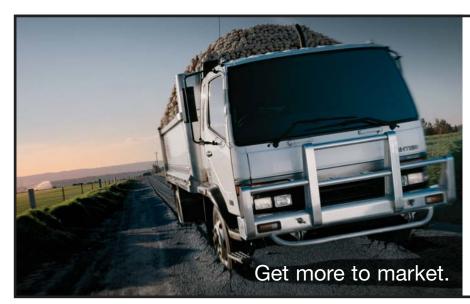
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Potato IAC

As the Processed and Fresh industries are now running their own R&D programs, the Potato IAC has split into the Processed Potato IAC and the Fresh Potato IAC. Each committee will meet as required to address the needs of their programs. Even though the Potato IAC is split into two, there will still be a number of common projects.

The Processed Potato IAC met with Processing R&D Sub-program Leaders and new staff at the national potato conference at Phillip Island, Victoria. The Fresh Potato IAC met in Melbourne in the same week.

PPR&D - Processing

The Phillip Island meeting was a chance for Sub-program Leaders to update the committee on progress and future activities, and provide a forum for issues to be discussed.

It was terrific to see so much happening, the enthusiasm of the group and meet some of the new potato researchers who have started work in the program. The committee was keen to attract new researchers to the industry and we are starting to see this happening.

Breeding Program

The committees were briefed on the reasons for HAL's decision to phase out support for the breeding program. Committee members voiced their concern about the way the issue was handled by HAL.

Communication Review

A workshop was held with Socom, the public relations company carrying out the review, to gain greater insight into the potato industry's communication needs and help Socom prepare a phone survey of industry participants.

Outcomes of the review will be considered later this year.

Potato Value Chain Analysis - Fresh

Earlier in the year the committee looked at a five year marketing strategy by Market Equity. Discussions highlighted that a further investigation of supply chain issues was needed before taking the next step. STO Supply Chain was contracted to analyse the potato supply chain.

STO Supply Chain findings showed the potato supply chain was effective, efficient and that fresh potatoes in Australia do not have supply chain issues, they have marketing issues. (See page 6)

In the current environment, it would be hard to gain support for a marketing levy, so the committee has decided to investigate how R&D levies might be used to create a platform on which commercial stakeholders might build informed and targeted marketing programs. This approach has been used successfully by VegFed in New Zealand. Outcomes to the investigation will be considered later this year.

John Gallagher Chairman

How can the vegetable Industry secure its future?

Securing the future of the vegetable industry will not be easy or occur quickly. To succeed the industry must act more cohesively up and down the supply chain, to grow domestic and international markets, develop points of differentiation and strengthen collaborative networks at the production level and across the supply chain.

These findings are the crux of the Taking Stock Report released this month by AUSVEG and the Australian Government under the Vegetable Industry Partnerships Project. This project evaluates the current viability of the vegetable industry and provides a road-map forward for a prosperous future.

In particular, the consultants conducting the research - Kiri-ganai Research- urge the vegetable industry to invest in its leadership, build trust across industry organisations and work together to increase markets and market demand. Major institutional changes may be required to achieve a greater capacity to cooperate.

An early draft of the Taking Stock Report was considered by a workshop of 70 industry representatives and ten government officials in early September. The most common issue for concern was not industry efficiency, profitability or sustainability, but lack of ongoing, constructive communication between all sectors along the supply chain.

The Taking Stock Report pulls no punches, suggesting 20 key areas the industry must consider in the areas of competitiveness, profitability, sustainability, self reliance and resilience.

It also highlights the limited time growers, processors, retailers and others in the supply chain have to reflect on their performance as an important ongoing part of managing successful businesses.

This, suggest the consultants, will require a shift in culture that values learning from continually comparing performance domestically and internationally. To do this, growers must be prepared to share information and see that the benefits will outweigh the perceived costs. Kiri-ganai Research points to the improvements in the dairy industry based on sound benchmarking as an example of what trust can achieve.

Following the release of the report, key strategic areas for industry action, challenges relating to these areas and suggested industry responses and options for action were developed in the Setting Directions Report. This report was worked on at a joint industry-government meeting on 31 October 2005.

A final project report in December will outline recommendations for action by the industry and Government. Look for a summary of this report in the next edition of Eyes on Potatoes.

A draft of the Taking Stock Report is available on the AUSVEG website (www.ausveg.com.au), and a copy of the Setting Directions Report should be posted on the website before the end of the year.

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Potato late blight – **being prepared!**

A Potato Late Blight Incursion Management Plan and Pest Risk Analysis have been commissioned by HAL so the industry will be prepared if new strains of the potato late blight (PLB) organism (*Phytophthora infestans*) reach Australia. These will form part of the National Potato Industry Biosecurity Plan being developed by Plant Health Australia and the Australian potato industry.

Australia is one of few potato-growing countries that does not have the new aggressive strains of *Phytophthora infestans* damaging potato crops in North America, Europe, Africa and Asia. In Australia, PLB is a localised and sporadic problem which is effectively managed with metalaxyl fungicides. However, overseas experience indicates that if the new strains were to arrive in Australia, they will probably show resistance to metalaxyl and PLB would become a serious problem for potato growers (see Eyes on Potatoes June 2005).

Work on the plan by Department of Primary Industries Victoria scientists and the potato industry is well under way. We are analysing the risk of new strains being introduced into Australia, the likely





Late blight infected potatoes from Scotland

occurrence and severity of disease and potential economic impact. We have determined what strategies need to be in place to manage disease and limit the spread of new strains.

The Climex model has been used to predict the likelihood PLB establishing under Australian weather conditions. So far we have identified a number of fungicide treatments and spraying regimes that need to be registered to improve disease management options. A list of on-farm management recommendations is also planned.

This project runs in parallel with an international collaboration between Australia and Papua New Guinea where PLB has been particularly severe in the past two years. Currently, Australian potato varieties are being tested in PNG for resistance to PLB.

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R&D Strategic Plans

The current industry research & development plan which guides Levy R&D investment covered the period 2001-05. HAL and the Potato IAC's (fresh and processed) are currently in the process of reviewing the plan that will set the direction for investment over the next five years.

Fresh

The Fresh Potato IAC has already commissioned or has access to many of the studies necessary to underpin the development of a new plan. These include, but not limited to:

- Global Germplasm Investigation (March 2006)
- Consumer Market Analysis (March 2005)
- Value Chain Analysis (September (2005)
- Communications Audit (October 2005)
- Industry Partnership Program (November 2005)
- Fresh Potato Marketing Information Platform (Dec 2005)
- Global Vegetable Benchmarking Study (March 2006)
- Biosecurity Plan (Draft Complete)
- Mandatory Code of Conduct
- Five Year Review of Potato Agronomy Research (Potato 2005)
- Seed Export Opportunities Investigation

A number of these reviews have not yet concluded. Preliminary outcomes of the Global Germplasm investigation and recommendations from the Communications Audit and Fresh Potato Marketing Information Platform will be presented to the IAC in December.

At the March 2006 IAC meeting, the situation analysis of the fresh potato industry will be reviewed and the Fresh Potato 2006-2010 Strategic Plan completed.

Processed

The processing industry has already sorted out most of its commitments over this coming period (2006-2010) and incorporated them into the Processing Potato R&D program. The remaining issues awaiting outcomes of studies include breeding, communication and biosecurity.

The final details for the Processed Potato 2006-2010 Strategic Plan will be addressed at the March 2006 IAC meeting.

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Food label poll confirms consumers want right to choose



Consumers want clear food labelling that will abolish misleading claims about where food is grown, a recent Auspoll consumer survey revealed.

More than 95% of Australian consumers say current labelling on food products with terms such as 'Made in Australia from local and imported ingredients' is misleading.

When presented with a label like this many consumers think it means the food is grown in Australia. However, this is not necessarily the case. If more than 50% of the value of any food product is added in Australia, it can be labelled Made in Australia regardless of where the ingredients come from.

The survey showed that consumers care which country their food is grown in and would support compulsory labelling on all unpackaged and packaged food that gives them information about exactly which country the food was grown in.

Consumers also supported the notion of a label that says Australian Grown and spells out in percentage terms the proportion of the contents grown in Australia and the proportion grown overseas.

Current labelling restricts consumer choice about buying Australian should they want to.

The Australian Government's Food Regulations Ministerial Council met in late October to vote on the new country-of-origin labelling proposal provided by Food Standards Australia, New Zealand.

We were very pleased with the changes made to unpackaged foods but not packaged.

Therefore the vegetable industry was asking the council to vote No to the FSANZ proposal. The two could not be separated and we were concerned that if the regulation was accepted there would be no further work on improving packaged food labelling. But that has all changed since an announcement by Christopher Pyne, the Parliamentary Secretary to the Minister for Health and Ageing.

Christopher said that as the Australian Government representative assisting with Food Policy, he proposed to direct Food Standards Australia New Zealand (FSANZ), under the powers available to him under Section 11 of the Food Standard Australia New Zealand Act 1991, to consider the feasibility of extending country of origin labelling to products with two or less 'whole food ingredients', including a regulatory impact statement, costs benefit analysis and consultation with stakeholders, with a report to the Ministerial Council by the end of March 2006.

This now clears the way for the Food Regulation Ministerial Council to accept the current FSANZ proposal which will lock away the gains made in unpackaged food.

AUSVEG will encourage FSANZ and the Food Regulation Ministerial Council to work collectively to deliver what consumers and industry want – labelling that provides consumer information about where packaged fruit and vegetables were grown.

The Australian Governments' strong lead on this issue is a positive step in the right direction and AUSVEG welcomes Minister McGauran's and Christopher Pyne's efforts in helping to break the impasse.

For more information on the country of origin campaign visit www.ausveg.com.au

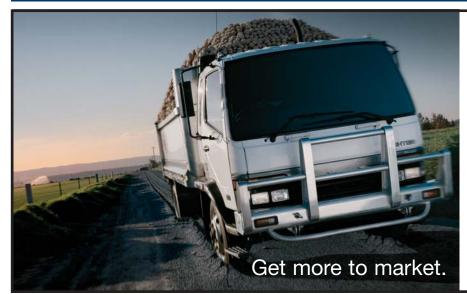
Michael Badcock Chairman, AUSVEG ☎ (03) 9544 8098

Latest R&D reports The following is a list of HAL Final Reports released in the past three months.

Monitoring of Potato Crops for
Insect Movement on a District Scale PT02045
Potato evaluation trials - Simplot PT04018
Supply chain handling systems
for premium potatoes PT02015

The reports are available in hard copy form only and cost \$22 in Australia or \$US30 outside Australia including GST and postage. Summaries of projects and an order form can be found on HAL's internet site at – www.horticulture.com.au. Select **Project results** then **Potato** and use the search engine to find reports of interest.

For people not connected to the Internet, phone HAL on (02) 8295 2300.





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Tasmanian growers **take**McDonalds **to the farm**

McDonalds Australia senior management recently took a trip to the farm to view first hand how growers do business in Tasmania. The trip also gave growers an opportunity to talk directly to their major client and find out what McDonalds needs.

The trip on 22nd August grew out of an initial Tasmanian Farmers & Graziers meeting with McDonalds during the TFGA Fair Dinkum Food Campaign in July, where issues surrounding the cut in contract with Simplot for supply of processed potatoes were discussed and areas of opportunity opened.

On the trip, McDonalds Managing Director/CEO, Mr Peter Bush and four senior managers met with TFGA Vegetable Council Chairman, Ian Young, Potato Council Chairman, Ted Forsyth, Simplot Process Potato Growers Chairman, Philip Richardson and McCain Potato Growers Chairman Phillip Beswick.

The meeting allowed both parties to explore common areas and set foundations for a future relationship that would benefit the industry.

The day started with an informal morning tea hosted by the Young family on their property Elphin Grove at Sassafras and an explanation to the McDonald's group of ramifications to local growers and Tasmanian communities of the contract cuts. Three farm visits were on the agenda, where a "nothing hidden" and "see it as it is" picture was given of the potato industry in Tasmania. It became evident to the McDonalds team that Tasmanian growers were unique in that they grew other crops and relied on those crops as pivotal to preserve soils and good land management. It also became clear that the size of the Tasmanian family farm, the topography and diversity could not be compared with the larger potato only growers of New Zealand and mainland Australia.

Peter Bush acknowledged that growers were competent, well up with modern trends, farmed with passion, pride and enthusiasm and that McDonalds and growers needed to work together for the future and explore new ventures.

We learned that McDonalds needs a product that meets their quality standards and surety of product to maintain and grow their business. There is also the possibility of quality Tasmanian vegetables to be grown for their new menus in the healthy choices range.

Since then, the commitment by McDonalds and TFGA to continue to work together has been maintained with constant communication. Both parties have been involved in the AUSVEG managed Industry Partnerships Program. During the Fair dinkum Food Campaign, McDonalds had made offers of financial support to the Tasmanian vegetable industry in Tasmania. This offer is yet to be taken up in real terms, but the expectation is that it will be and that it will be put to good use for benefit all round.

Denis Leonard

Executive Officer

Tasmanian Farmers & Graziers Vegetable Council

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McDonalds management visited several properties near Devonport



David Addison discusses the finer points of producing processing potatoes with McDonalds Senior Manager



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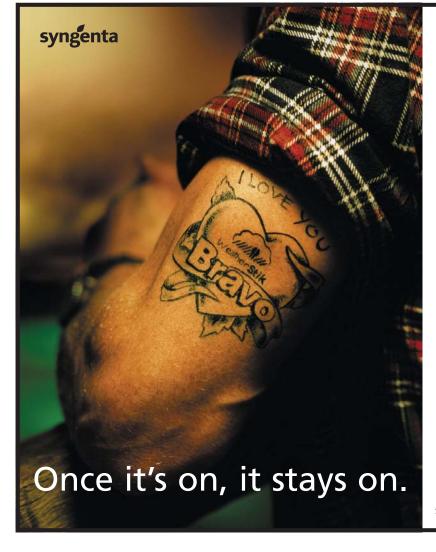
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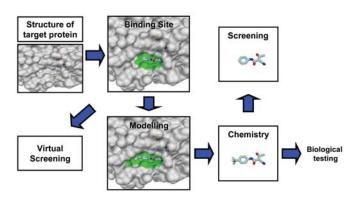
Getting a crop protection product to market – a ten year investment

Bayer CropScience re-invests 10% of its annual global turnover into research and development activities. In 2004, this investment was about AUS \$ 1.2 billion.

This article outlines the long path from discovery of potential molecules to development of a commercial crop protection product, with reference to local activities leading to the registration of the Bayer Cropscience fungicide, Walabi®. Each year hundreds of thousands of potential molecules are identified by various techniques, but only a handful of these ever make it through all development hurdles to become a commercial product.

Discovery

Discovery involves identifying molecular structures that may have activity on key target proteins in plants, insects or fungi. One process involves generating computer models of molecules that will fit the binding sites of target proteins (Figure 1), which requires detailed knowledge of the structure of the target site. Once a fit has been "virtually" created, the molecule can be synthesised into a real compound and tested against



actual targets through a process known as screening.

Figure 1: The pathway to product development through protein structure determination

Screening

Once a candidate structure has been identified, it is tested to confirm its effect against various targets. In recent years screening has become automated and miniaturised, allowing testing of minute chemical quantities (2 milligrams or less!) against specific target proteins. The High and Ultra High Throughput Screening methods allow between 30,000 and 150,000 compounds to be tested per day for activity on key proteins. Successful compounds are tested against a range of living targets (weeds, insects, fungi etc). For a new insecticide, about 30,000 insecticide compounds undergo primary testing each year.





Figure 2: High and Ultra High Throughput Screening allow between 30,000 and 150,000 compounds to be tested per day for activity on key proteins.

About 10% of those compounds progress to secondary testing. Similar screening processes occur for herbicides and fungicides.

Mammalian and Environmental Safety

From early in the second year of development, toxicological and environmental evaluations begin and continue for the whole development period. At this point about 1% of the originally discovered molecules stay in development, with 99% rejected through screening.

European Field Trials

Field trials start after about two years of screening trials. Now only one in five

thousand (0.02%) of the originally discovered molecules remains, due to rejection through screening or on toxicological or environmental grounds.

Several seasons of global field trials are completed before any trials begin in Australia. In this time, about 80% of remaining candidate





Plant pest & disease Diagnostic Service Crop Hygiene Services DPI Knoxfield: 03 9210 9356 Accurate diagnosis, rapid turn around compounds are rejected, leaving only two of every 50,000 original molecules still in development. One in every two remaining compounds will be rejected during field development.

Australian Development

If preliminary global results are favourable and the compound is thought to have potential for the Australian market, a local development program begins.

Field trials are conducted over several seasons in major crop growing areas, to define and refine the optimum use pattern. The simplest development program occurs when only one crop and target is under consideration. For example, Walabi® SC Fungicide development trials began in potatoes in 1995 incorporating sixteen efficacy trials against target spot (Alternaria solani). Trials were done in the major potato production areas of Australia.

Crop safety is evaluated in the most important or sensitive varieties. Issues such as compatibility with other agricultural chemicals and different types of application equipment are examined by small plot trials and larger trials using grower equipment. Residue trials measure residues in the crop and crop products.

Fourteen Bayer CropScience research and development specialists conduct most Australian trial work, although government and contract

research trials may also be required. All trial results contribute to development of the "directions for use", which are incorporated into a product label.

Obtaining a Registration

When the proposed use pattern has been sufficiently tested (which typically takes four to five seasons), trial data and other product information are submitted to the Australian regulatory body, the Australian Pesticides and Veterinary Medicines Authority (APVMA). Experts in the APVMA and State governments carefully review all aspects of the application over about 18 months for a new active ingredient, following which the product is registered and launched into the Australian market.

For a new compound, if everything has gone smoothly approximately AUS \$ 200 million will have been invested globally in bringing it to the marketplace, of which up to AUS \$ 2.0 million are local costs, and the process will have taken about 10 years from the discovery of the molecule to commercial release.

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Today and Beyond



Potato 2005



Phillip Island came alive in September with about 350 growers, company representatives, researchers and various policy and government representatives converging on the Continental at Cowes for their National Potato Conference.

They came to hear the latest industry developments, talk to colleagues and make contacts. There was also plenty of opportunity to see what sponsoring companies had to offer and have a good time. Given the late night sessions in the pub, down the beach and in the flower bed there was a mix of individual goals for the conference!

Attendees came from all over Australia, including eight from across the Tasman and a few from as far away as the U.K.

Tony Pitt Convenor Conference summary



A conference perspective

It was excellent to see a wide range of people with a mix of young, and old, and experienced and new at Potato 2005 in September. In accepting the job of pulling together a summary, it was a daunting task but I now accept the saying - "experience is something you don't get until just after you need it!"

A number of consistent messages came through. Conference themes were around tomorrow's trends, promoting product, organised management, technical issues, water and opportunities for families. A number of consistent messages were delivered.

Tomorrows Trends

Neville Norman, Economics Professor, Melbourne University, put some challenging and questioning views on economics and how we should view things. He concluded that potatoes are very similar to many other agricultural products in relation to markets and trends. Consumption is rising but imports are increasing and while expenditure has grown on food, the percentage of the budget spent on food has decreased.

He said that while threats from imports exist, so do opportunities for export. Sales are likely to remain stable in volume of potatoes and this provides a springboard to grow from but we need to be proactive to build on it.



David Higgins, one of the UK's top three growers, provided us with insights into the U.K. and European industry with a very familiar story - reduction in grower numbers, increasing yields, increasing sales to processors, falling fresh sales, increasing price pressure and increasing import competition in some segments. He also identified future trends, with processed product continuing to grow and opportunities for:

- new varieties, niche products, differentiated products, organic product
- prepared and semi-prepared products
- healthy eating trends

Efficiency will continue to increase with better varieties, improved resistance to pests and diseases and higher yields.



16

Eves on Potatoes



Bank, provided many of the same messages as Neville and David. Agriculture's contribution to the economy is growing and productivity is increasing. Farming has become more complicated, and to small operations, very challenging. But size isn't everything and better mid-size farms can outperform larger operations. Variations in performance highlight the potential. It is important to do sensitivity analyses and look at ranges of values (also emphasised by Neville Norman).

Roger also listed characteristics of productive and successful farms, with another consistent theme of working together and being prepared to share information in groups.



David Antrobus again reinforced many of these same issues. He also emphasised that we as an industry have a number of strengths, but so do our competitors and the challenge for us is to do better. Challenges for processing companies are to be innovative with new products and maintain their competitiveness. There are opportunities but it will not be easy.

Promotion

A lot of what was discussed was also relevant to promotion.

Dean Harris from Market Equity talked about What's Hot & What's Not - future trends and promotion. We have been told what consumers think and what they want. We need to respond as an industry to

- improve consumers' knowledge
- meet their requirements for healthy food, different foods and quality.

Potatoes are a product viewed as a staple and this gives us opportunity but also perceptions to overcome. He described how promotion works in New Zealand,

value of the product, improving the experience for consumers, promoting the value of potatoes and better



Management

Several speakers spoke on management issues. Bob Gaussen, Produce and Grocery Industry Ombudsman, talked about the dispute resolution process for produce and grocery industry members. Importantly he discussed that the dispute resolution process can work and after three years and over 140 cases, only five were unresolved.

and better understand the market.

John Martin from the Australian Competition and Consumer Commission described its aim as protecting the competitive process not protecting competitors. He touched on the market power of chains and country of origin labelling and indicated the new Food Standards code would have some impact. He also indicated that collective bargaining can be acceptable on a case by case basis and this can have some application to our industry. Euan Laird, former CEO of AUSVEG provided an update and overview on the Horticultural Code of Conduct and outlined various proposals.



Potato 2005 continued

Stuart Bailey from Workplace Victoria discussed workplace safety issues and the role of Workplace Victoria. He said OH&S is a major issue we all have to deal with and it is not

just about working in the business but on the business. OH&S is an important issue for all businesses.

Technical Issues

A wide range of technical issues were discussed and many of these do relate to future trends in farming. Precision Agriculture is about the future and how we will operate as well as how we use the technical information we already have. Birchuip Cropping Group farmer, Andrew Weidemann, described how precision farming has changed his operation. The challenge is to not only collect information but to use it.

Allison Lees (Scottish Crop Research Institute) and Robert Faggian (DPI Victoria) talked about the exciting use of DNA testing as a new tool and its vital exciting potential in forecasting disease risk. This important management tool needs to be used in the future.

Brendan Rodoni, DPI Victoria, outlined the



importance of viruses, in particular Potato Virus Y, and the threat it poses as well as problems in managing viruses and options for control. Mark Holland, AGWEST Plant Laboratories, discussed the benefits

of virus testing in relation to seed production in Western Australia.

Seed schemes do provide the industry with one method of disease protection and management through use of certified seed which has been monitored and tested.

Varieties can also be used for disease management and Allison Lees and Tony Slater, DPI Victoria, provided an overview of the breeding programs in Scotland and Victoria. Interestingly, these seed programs both focus on future trends and needs, targeting genetic improvement, novel traits and crops, disease resistance and quality. For Australia there is a need to meet some specific Australian conditions and problems.

Dolf de Boer, DPI Victoria, and Phil



Brown, Tasmanian Institute of Agricultural Research, summarised the past five years of pathology and agronomy research and indicated that these projects had been generally issue specific. Increasingly, they said, the focus is on prevention and management not so much curing problems. Paul Frost, President of the Processing



Potatoes Association of Australia, described how the new Processing Potato R & D program has a much narrower broader focus on a few major diseases with research being properly resourced, rather than as before, too many projects being tackled with not enough money. combining agronomic and disease issues in one large project with short, medium and long term goals.

In the practical arena, Doris Blaesing, Serve-Ag, has used existing knowledge to put together the Manual on Best Handling Practice and stepwise guide for seed storage. Methods and practices already exist and can be applied to improve handling and quality and consequently productivity. This project highlights the importance and potential to improve our practices and productivity by better extension of existing information to industry.

Water use

This is obviously one of our major issues for the future. Charles Thompson, a member of the HAL project, Maximising returns from water in the Australian Vegetable Industry,



discussed the complex area of water trading and key issues. These need to be considered when buying or selling water. Craig Bradley provided background on the National Water Commission and projects

being developed, emphasising the national focus on water and its importance.

Kain Richardson, a Ballarat grower, gave



us an example of the potential to improve what we do and showed how we can use water more effectively. In his case drought was the initial driver. As an industry we have not used irrigation technology as extensively as some other agricultural and horticultural industries but there is potential to save water and increase yields and quality. Opportunity exists to use different methods for different circumstances and improve our bottom line.

There is significant potential to increase the low level use of reclaimed water and South Australia has led the way, according to speaker Daryl Stevens, from HAL's Reclaimed Water in Horticulture project.

Family Life

We had three very different descriptions of how three businesses operate to maintain a family life with the family farm, in what we have heard throughout the conference, is an increasingly complex environment. Graham Ramsay, a Fresh and Crisping grower from Bundaberg Queensland, described how within the extended family farm, each family member manages an area suited to their own personal skills and where none have the skills, outsourcing. Paul and Linda Myers, seed growers from Warragul, Victoria diversify and maintain two intensive operations which combine to produce a year round operation which allows them to employ labour and

provide consistent year round employment. Whereas Wayne Tymensen, a crisping grower from Coralyn Victoria, achieves some economies of scale by pooling resources with another crisping grower.

The final morning also saw some discussion on genetic improvement, varietal evaluation and research and development. Several key points were made during this session

- Industry needs to get involved in assessment
- There is a need to look at the whole value chain in research and development
- There is a need to look at best practice in everything we do including research and development.

Where to in the future – a summary of conference messages Advantages

- We have a product that consumers want
- We have a product that has health benefits
- Spending on food is increasing
- Potatoes are a staple food item and there is a stable market
- Potatoes are a value for money product
- Our industry is a significant contributor to the economy
- It is a highly developed and experienced industry
- We produce a high quality product
- The industry has a good clean image

Challenges

- Potatoes are a staple food item and not seen as exciting or versatile
- There are increasing cost and price pressures
- Produce shopping has become more complex for consumers
- To work together with fellow producers









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Potato 2005 continued

- It is a more complex environment in which to farm
- Water management
- Maintain the family farm in an increasingly complex environment
- Managing Occupational Health and Safety issues
- Managing the use and perceptions of recycled water
- Rising energy costs

Opportunities

- Growth of niche markets
- Potential for new and differentiated products
- Increased potential for further productivity increases
- Potential to improve quality
- Potential to improve disease resistance
- Export product to other countries
- To respond to market signals we know what consumers think
- To work together with fellow producers and learn from each other
- Organise and cooperate as an industry with the consequent ability to impact on government policy
- Promote the value of potatoes
- New tools to improve productivity and management
- To get more research information to industry
- Use of reclaimed water

Potential to Triumph

- Increasing imports and globalisation
- Compete effectively against low cost countries such as China
- Exotic pests and diseases
- Endemic pests and diseases
- Diminishing resources in Research Development & Extension

In summary, while the industry, like other agricultural and manufacturing industries finds itself under significant pressure with costs and prices, there would also seem to be some significant opportunities and potential. The outlook from the information presented here can be optimistic. Not many industries can look forward to a relatively stable demand market. The challenge for the potato industry is to respond to the signals and trends.

As Patch Adams said "Any nation of people who can eat vegemite can achieve great things"

Rob Dimsey

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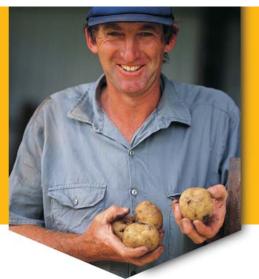
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Australia's best known *Rhizoctonia* treatment is now available in liquid formulation

At the time of going to print an application for registration of Rizolex Liquid was before the APVMA. Registration may have occurred since then. Status of registration can be verified at www.sumitomo-chem.com.au



Potato 2005 continued

Prizes and Competitions Industry lucky draw prizes

The Conference Prize of two nights at the Continental, Phillip Island, was won by Barry Oldaker of Ballarat. Gary Willis of Thorpdale won the Nufarm-donated Green Label Johnny Walker Scotch and Greg Marson of Koo Wee Rup, a Monceren Applicator donated by Elders. Incitec's offer of two nights at the Marriott Melbourne was won by Michelle Connell from Simplot Foods.

Six prizes of picnic rugs and sets went to other lucky delegates. A special prize was awarded to Luke James (ViCSPA) for the best promotional use of a cap.... He wore it constantly throughout the conference!

Poster awards

1st Prize for best poster went to Barbara Hall and Trevor Wicks, South Australian Research and Development Institute (SARDI), for their contribution Potato Viruses in SA, with 2nd prize to Robin Harding and Trevor Wicks, SARDI for Black Dot - Reducing the Incidence. A special thank you went to Department of Primary Industries, Victoria Plant Standards Branch for their poster Facilitating Market Access for Koo Wee Rup Potatoes. Another went to WA Department of Agriculture for their poster series and highly professional presentation.

Special thanks goes to DPI Victoria for their extensive contribution of posters.

Dinner competition

Caroline and her team from DPI Victoria provided a very entertaining start to the conference dinner by organising a table competition. Each table was given a number of stimulating potato quizzes to complete. The room was full of potato words that normally don't find their way out of the packing shed or laboratory...!

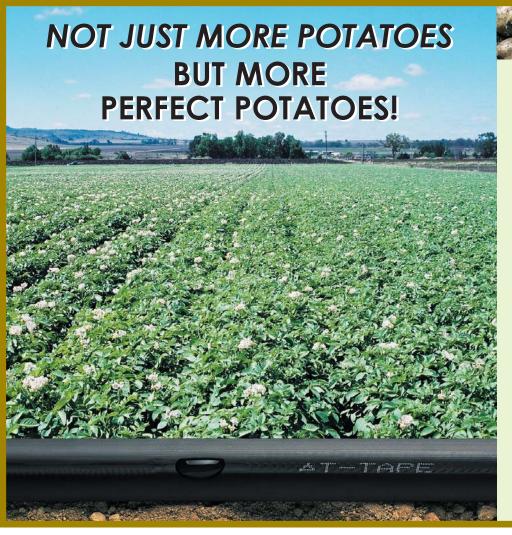
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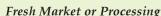
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The Wireworms won the quiz and a Mr Potato head full of chocolate.





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SPAG report

- Seeking industry comment on proposed seed certification changes

The current National Standard for the Certification of Seed Potatoes defines tolerances for broad categories of pests and diseases (Viral diseases and Other diseases). The Seed Potato Advisory Group (SPAG) considers it important to include a more detailed list of pests and diseases in the standards for both field and tuber inspections to clarify the situation. SPAG is seeking comment from industry on the proposed changes.

The following is a proposed list of pests and diseases that will form part of the National Standard for the Certification of Seed Potatoes. It details diseases which can result in crop rejection as well as those that need to be noted on Field Inspection Reports but will not by themselves lead to crop rejection or down grading.

The level of infection of a crop with fungal and bacterial diseases can be arrived at by carrying out visual counts. However, the true incidence of some viral diseases in crops can only be identified through laboratory testing. An example is PVS and to a lesser extent PVX and PVY. If these diseases are suspected, a laboratory test must be carried out to complete inspections.

Diseases and Tolerances to be included in Field Inspections 1 and 2.

Beet Curly top virus

Polyscytalum pustulans

Potato Virus V

Some diseases mainly infect underground parts of the plant. If detected at field inspection, they will be noted on the inspection report to alert growers and those undertaking tuber assessments, as representative counts can only be obtained during tuber assessments. Other diseases are not considered significant to the processing industry but are of major importance to the fresh market industry. These diseases are still considered by the National Standard but can be excluded (with written agreement from the buyers) from the standards used in the processing industry.

All comments are to be received by the end of March after which time the proposal will be revised and presented for endorsement to AUSVEG and the Potato Processors Association of Australia. Comments on the list should be directed to your state SPAG member: Western Australia (Mark Holland – Ph: (08) 9368 3505), Victoria (Keith Blackmore - Ph: (03) 5962 9043), Tasmania (lain Kirkwood - Ph: (03) 6421 7698) South Australia (John Fennell, Secretary – Ph: (08) 8389 8840), and New South Wales (David Carter - Ph: (02) 4832 1495).

		Fina	al inspection ra	ating
	Causal organism	R3	R2	R1
Zero Tolerance Diseases (Quarantine Diseases from National Pota	ato Industi	ry Biosecurity	Plan)
Brown rot	Ralstonia solanacearum	0%	0%	0%
Ring rot	Clavibacter michiganensis sepedonicus	0%	0%	0%
Potato Cyst Nematode	Globodera rostochiensis or pallida	0%	0%	0%
Late blight A2 mating strain	Phytophthora infestans	0%	0%	0%
Potato Spindle Tuber Viroid	Pospiviroidae	0%	0%	0%
Potato Wart	Synchytrium endobioticum	0%	0%	0%
Potato Mop Top virus	Mop Top Virus	0%	0%	0%
Smut	Angiosorus solani	0%	0%	0%
PVM	Potato Virus M	0%	0%	0%
Phoma leaf spot	Phoma andina	0%	0%	0%
Tobacco Rattle Virus	Tobacco Rattle Virus	0%	0%	0%
PVS (Andean strain only)	Potato Virus S	0%	0%	0%

This list of zero tolerance diseases will by necessity have to change if the status of any diseases on the list changes. Such changes will be notified by Plant Health Australia and communicated to growers through Eyes on Potatoes and/or Potatoes Australia.

0%

0%

0%

0%

0%

0%

0%

0%

0%

		Fina	I inspection rati	ing
	Causal organism	R3	R2	R1
Fungal Diseases -				
Fusarium Wilt	Fusarium sp	2%	0.25%	0.1%
Verticillium wilt	Verticillium dahliae / albo-atrum	2%	0.25%	0.1%
Bacterial Diseases –				
Blackleg	Erwinia carotovora ssp.	2%	0.25%	0.1%
Vine Rot	Erwinia sp.	2%	0.25%	0.1%
Total fungal and bacter	ial diseases#	2%	0.25%	0.1%
#Bacterial and fungal disea	ases are treated in the same category and ha	ave a maximum	allowable tolerand	e

BCTV

PVV

Skin Spot

Reportable fungal diseases *

Rhizoctonia Rhizoctonia solani To be noted at field inspection. Assessed at tuber inspection Pink Rot Phytophthora erythroseptica To be noted at field inspection. Assessed at tuber inspection Late / Irish Blight Phytophthora infestans To be noted at field inspection. Assessed at tuber inspection To be noted at field inspection. Assessed at tuber inspection Leak Pythium sp. Sclerotinia Sclerotinia sclerotiorum To be noted on field inspection report

Target Spot Alternaria solani To be noted on field inspection report

Reportable bacterial diseases *

Common Scab Streptomyces scabies To be noted at field inspection. Assessed at tuber inspection

Virus Diseases - if virus diseases are noted in the field the results can be confirmed by serological testing **Final inspection Rating**

This hopeodon rading		• •	•••	
Potato Leaf Roll Virus	1%	0.1%	0.01%	
Potato Virus Y	1%	0.1%	0.01%	
Potato Virus X	1%**	0%	0%	
Potato Virus A	1%	0.1%	0.01%	
Potato Virus S	1%**	0%	0%	
Potato Virus T	1%	0.1%	0.01%	
Tobacco Mosaic Virus – Serological testing required	1%	0.1%	0.01%	
Potato Yellow Dwarf Virus - Serological testing required	1%	0.1%	0.01%	
Tomato Spotted Wilt Virus	1%	0.1%	0.01%	
Purple top Wilt	1%	0.1%	0.01%	
Total virus diseases	1%	0.1%	0.01%	
Total diseased plants	2.0%	0.25%	0.1%	

Insect Pests - if the following pests are detected in the paddock serological virus screening can be carried out.

Aphids Myzus persicae etc Noted on field inspection report Thrips Thrips tabaci etc

Leaf hoppers various

Diseases and Tolerances to be Included in Tuber Inspections - all counts are % by number

Causal organism

Fungal diseases

Root Knot Nematode

Ba

Black dot	Colletotrichum coccodes	***
Powdery Scab	Spongospora subterranea	2%
Fusarium Dry Rot	Fusarium sp.	2%
Gangrene Dry Rot	Phoma exigua var foveata	2%
Late / Irish Blight	Phytophthora infestans	2%
Pink rot	Phytophthora erythroseptica	0.25%
Rhizoctonia	Rhizoctonia solani	***
Silver Scurf	Helminthosporium solani	***
acterial diseases		
Soft rot	Envinia sn	0.25%

Meloidogyne sp.

** Latent viruses show no or limited visual symptoms in the paddock and serological testing is only capable (within practical limits) of detecting 0.34% using a 300 leaf sample.

2%

- Soft rot Erwinia sp 0.25% 2% / 4%(Tas only) Common Scab Streptomyces scabies Nematode
- *** The tolerance for these diseases may be negotiated between the seed grower and the seed buyer. The tolerance should relate to the number of tubers in the sample, with levels of the disease present as per the guide in the publication "Product Description Language" (ISBN 0731143574)

* Reportable diseases - these diseases will not necessarily result in crop rejection or down grading. However, the Certifying Authority reserves the right to reject the paddock based on poor crop performance

as a result of these diseases.

State | D-UP

New South Wales

Good rains have fallen across New South Wales in recent months. Farm dams are full, livestock are fattening on the lush pastures and broad acre crops are thriving. The state's major water storages are filling up and irrigation allocations have increased. Most potato crops have required little irrigation with the favourable growing conditions. Fresh potato prices also firmed from \$450/tonne in July to \$600/tonne in November.

The Dorrigo late crop was dug in May and June. Crop yields were good. After an ordinary start to the harvest, the fresh market picked up in June. In the Riverina, the late crop was harvested from July to late September. Crop yields were average. Ware sales were steady over winter and digging finished two months earlier than last year. The Maitland early crop was harvested during November. Yields were down following the dry weather in the district.

Sowing of the early crop in the Riverina district was completed in August. Fresh and crisping areas are similar to last year, while French fry areas are down due to reduced processor demand and later factory delivery schedules. With above average rains since winter, growing conditions in the Riverina have been excellent. Digging will start in late November and good crop yields are expected.

The early crop in the Dorrigo district was planted in August and September. Crop areas are similar to last year. Growing conditions have been excellent. Disease pressure is low despite the humidity. Harvesting will start in mid-December with high crop yields expected. Fresh demand remains firm with no crop carry over from the Atherton and Bundaberg districts in Queensland.

Planting of the mid-season crop at Guyra started in October and finished in November. Sowing was delayed by wet weather. Seed crop areas are back to normal despite slow Queensland sales over winter. Sowing in the Crookwell district started in mid-November and will continue until mid-December. Planting in the Orange district started in late November and will finish mid-December. Seed areas are expected to be similar to last year.

Stephen Wade
District Horticulturist
NSW Department of Primary Industries

Victoria

Potato planting is currently in full swing throughout all districts of Victoria, with most growers having good planting conditions and crops on time and growing well. Overall, good rainfall during the winter/spring period has filled dams and provided good water storage. Most growers are expecting a reasonable growing season.

Certified seed sales in Victoria last season were strong. Although the area planted for certified seed this season is expected to be down on last year.

The national potato conference, "Potatoes 2005", was held at Phillip Island in Victoria (18th -21st September). The conference was well attended with 350 delegates. From all reports, those who attended found the conference very informative and enjoyable.

Nigel Crump Plant Pathologist Department of Primary Industries

Queensland

Plantings on the Atherton Tableland were down on last year. An extended period of overcast days and drizzle, saw some crops suffering from slimy stalk but they still managed to produce an average yielding crop although tuber size was slightly reduced. Yields tended to improve through the season with some farmers producing fresh market crops of 50 t/ha. Prices have generally been average to good this year. Insect and disease pressures have tended to be low although moth numbers were starting to build and white fly was present in some areas.

Some early plantings on the Upper Tablelands were touched by frost, but no real damage was done.

Export and varietal plantings were similar to last year and are expected to follow a similar trend next year.

Bundaberg continued to have good growing conditions with minimal pest and disease pressures. Crops produced were of average yield with good quality tubers.

While water was an issue for the season, crops planted in the Lockyer Valley were of good quality and produced well, with some growers achieving very high yields. Washed, brushed and reds all gained good prices. Pest and disease levels generally remained low, although in some areas there were high but controllable levels of moth and helicoverpa. White fly levels have also been lower this year. Some recent rains have delayed harvests but at the time of writing this was not yet seen as a major problem. There is still need for further summer rains to put some good flows in the creeks and recharge aquifers.

Some early planted crops on the Darling Downs suffered a tough life. They started with very hot conditions, followed by strong winds and a hail storm to keep things interesting. Even so the crop has grown well and is expected to produce an average yield. Later crops have had much easier conditions and all indications are that they will yield well with high quality tubers. Disease pressures have been low all year as have most insect numbers. Although Potato tuber moth numbers have at times been high, beneficials have been able to keep them under control. Rain in the district has tended to appear as patchy storms. As in the Lockyer Valley there is still need for further follow up falls.

Michael Hughes Extension Agronomist Department of Primary Industries & Fisheries

Western Australia

The fresh market variety White Star has recently successfully completed its fourth year of commercial testing. White Star has been placed on the Potato Marketing Corporations preferred variety list. It is a variety suited to production in winter months in Western Australia and it produces a large tuber size, improving pack out for growers. Consumer assessment of the taste of White Star has been very positive, with 89% rating its taste good to excellent.

A reduction in yield for crops on the coastal plain from Perth to Myalup occurred, mainly due to poor weather conditions. Frost, hail and strong winds have reduced yields with some varieties being less affected than others. *Mondial* which averages about 50 t/ha to 55t/ha was least affected. However the average yield for Nadine was reduced from 50 t/ha to 35t/ha and Royal Blue from 35 t/ha to 25t/ha. Crop damage caused by the inclement weather has caused an increase in early blight (target spot) and *Sclerotinia* infections. North of Perth in the Lancelin region, there was less frost damage although severe wind damage combined with cold wet conditions has promoted scab in some areas. On some farms, the yield of *Atlantic* has been reduced by up to 50%. Processing tuber quality appears not to have been adversely affected.

In the Busselton region, cold wet weather affecting the south west region has slowed growth of crops for crisping and fresh varieties. It is estimated yields will be about 10% lower than average for *Nadine, Delaware*, Ruby *Lou* and *Atlantic*. Yield of export seed crops in the region is expected to be average. A wet spring has delayed some ground preparation and planting in the Manjimup-Pemberton region. Above average rainfall caused delays in sowing of up to four weeks because of boggy conditions and plantings have been restricted to well drained higher land.

Professor Paul Struik, from the University of Wageningen in The Netherlands will be visiting Western Australia in February 2006 as guest of the Department of Agriculture. Professor Struik is a world renowned potato physiologist working on maximising yield of small round seed, disease resistance, varietal selection and seed systems. During Professor Struik's 10 day stay in WA, he will meet with seed potato growers, packers and exporters, focusing on best practice agronomy for production of seed and seed storage. Professor Struik will also provide a valuable contribution on the direction of seed potato research for the WA potato industry as well as for the Department of Agriculture.

Rachel Lancaster
Research Officer
Department of Agriculture (WA)

South Australia

The winter rainfall pattern was in general below average, with conditions continuing into early spring. In October the weather has been very mild, with well above average rainfall recorded in many districts and higher then average humidity levels. Isolated thunderstorms with heavy rainfall and high winds have added to the variable mix of conditions in some districts.

These events have slowed planting of the processing crop in the South East with about 50% finished and with most planting to be completed by the end of November. Water logging from high rainfall after planting or at emergence has resulted in about 40 hectares being replanted, with more area being monitored for emergence levels. The total area planted will be down slightly due to uncertainty in the market place from international and regional competition from other processors.

Some ware crops have achieved row closure three weeks after emergence as a result of the mild, wet and humid growing conditions. Disease levels recorded have been minimal, which is a good sign considering the changeable weather and rapid crop growth. The total area in crop appears stable but there is a degree of ongoing uncertainty in this industry segment as well.

Murraylands crops are generally very healthy but some have wind and minor hail damage that has led to increased monitoring for fungal diseases. The mild weather is promoting rapid top growth, indicating good yield potential at this early stage.

The seed industry on Kangaroo Island has begun planting with previously mentioned weather and climate events adding to the challenges. Planting should be complete by end of November.

The Adelaide Plains was flooded severely on 8 November. A total of 340ha of field vegetables went under water, 200ha of which were fresh market potatoes. The potatoes had been sprayed off for harvest in the prime time for the region to supply the market. The crop was a total write off, which was particularly disappointing because prices were favourable at the time. Primary Industries and Resources South Australia has been assisting with the emergency response program for affected growers in the area.

Bob Peake Horticultural Consultant Rural Solutions SA

Tasmania

A very wet spring throughout Tasmania has delayed planting by as much as several weeks and is causing considerable frustration among growers and the industry. With more rain forecast, there is likely to be a considerable delay to the start of the season. These delays could result in a disrupted flow of fresh potatoes to factories in the New Year.

Fortunately the excellent quality of seed from last season has meant few problems with seed have been reported. Even pre-cut seed is reported to be holding up very well. The only issues have been with fresh cut seed, which has had to be put back in cold store.

The heavy rain has also delayed harvest of early fresh market potatoes and supply over the past few months has been difficult. However, recent harvest of yellow fleshed potatoes should start to ease the situation in the coming weeks.

Simplot in collaboration with the Department of Primary Industries Water and Environment (DPIWE) and the Tasmanian Farmers and Graziers Association (TFGA) has launched a new series of grower business groups throughout the State. The groups, which will be grower driven, are aimed at improving growers business skills and achieving a globally competitive industry in the face of increased sourcing of french fries from outside Australia.

The Tasmanian State government has contributed \$420,000 through the Work Force Development Program to assist 45 vegetable and potato growers in identifying their skill and training requirements and provide 10 hours of one-on-one consultancy and \$5,000 towards further training.

lain Kirkwood Agricultural Officer (Potatoes) Department of Primary Industries, Water and Environment

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