

EYES ON POTATOES

A U S T R A L I A N P O T A T O I N D U S T R Y C O U N C I L N E W S L E T T E R

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Tassie growers

enthusiastic about discussion groups

A number of new discussion groups have been formed across the north of Tasmania to try and emulate the success of a group at Boat Harbour, set up last year by Rob Wilson of Serve-Ag. Since the group began, the Boat Harbour growers have increased both their yields and crop management knowledge.

I facilitate new groups at Sassafras and Wesley Vale in the North West, as well as a group based around Cressy and Longford in the State's Northern Midlands. Another group in the Wynyard area has been set up by Serve-Ag agronomist Jason Lynch. The groups mainly consist of growers for McCain Foods and have been well supported with technical advice from Les Murdoch of McCain and his team of field officers as well as local agronomists from Serve-Ag and Agronico.

The groups consist of five to 12 growers and at their first meeting the group's objectives are identified. For example:

- achieving a pre defined yield
- understanding the factors that influence the sustainability for potato production in their region
- understanding the factors that are limiting yield
- gain a better understanding of the economics

Once the objectives have been identified, growers select and prioritise topics for discussion. As most of the groups met for the first time in early to mid October,



topics such as soil preparation and effective crop nutrition strategies have been high on the agenda as well as seed treatments and weed management strategies.

Visits to local seed cutting operations and cool stores have been well attended. In order to prevent sprouting, growers have been encouraged to consider taking their seed out of cool store, warming it up, cutting it and then putting it back into cool store until they are ready for planting.

While all participants grow potatoes for processing into French fries, there are opportunities to discuss other crops.

The uniting factor with all these groups has been the willingness to share ideas and provide support to each other, which is backed up by the company they grow for.

At the end of the season it is hoped that by comparing yields, management techniques and financial returns, growers will be able to identify those areas that have contributed to higher returns and those that may have inhibited returns.

Growers interested in joining a discussion group should speak to their local field officer, agronomist or contact me.

Roger Tyshing
Industry Development Officer
☎ 0438 943 984
✉ tfga.rtyshing@bigpond.com



Tassie growers discuss soil preparation, seed treatment, weed management and effective crop nutrition strategies.

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Changes to the Editorial Support Group

Editorial support group member for Victoria, Andrew Henderson, will depart the group after this edition of *Eyes on Potatoes* due to a change from specialising in potatoes to a more general horticultural communications role.

Andrew's insight into topics of interest and industry issues and opportunities have provided a wealth of information for several issues of *Eyes on Potatoes* and *Potato Australia* since the editorial support group was established in 1997.

We thank him for his considerable commitment to and interest in making the potato publications relevant and interesting.

Andrew will be replaced by Bruce Fry, a horticultural extension specialist in Agriculture Victoria based at Colac. Bruce is in close touch with the potato industry and has 24 years' experience in potato seed certification, breeding, research and extension.

The editorial support group plays a major role in *Eyes on Potatoes* and *Potato Australia*, identifying content, sourcing stories and following up to ensure the Editor receives articles by deadline, particularly for *Eyes on Potatoes*.

Cathy Sage
Editor

EYES ON POTATOES



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Editor

Cathy Sage
SageWords
PO Box 1246
Kensington VIC 3031
Ph: (03) 9328 5310
Fax: (03) 9328 5312
[✉ sagewords@a1.com.au](mailto:sagewords@a1.com.au)

Co-Editors

Jo Curkpatrick
Span Communication
Ph: (03) 9328 5301
Fax: (03) 9328 5302
[✉ span@office.net.au](mailto:span@office.net.au)
Diana Wolfe
Wolf Words
Ph: (03) 9328 5305
Fax: (03) 9328 5306
[✉ wolfgirl@a1.com.au](mailto:wolfgirl@a1.com.au)

Assistant Editor

Leigh Walters
South Australian Farmers Federation
PO Box 6014
Halifax Street
Adelaide SA 5000
Ph: (08) 8232 5555
Fax: (08) 8232 1311
[✉ lwalters@saff.com.au](mailto:lwalters@saff.com.au)

Advertising Manager

Target Media has relinquished its advertising management arm. Our new advertising manager is Michael Bailey, ATOM publishing.
Ph: (03) 6334 3577



Advisory Group

The advisory group provides editorial support in identifying issues, organising content and ensuring the newsletter meets grower needs.

Stephen Wade (NSW)
NSW Agriculture
Ph: (03) 5883 1644
Fax: (03) 5883 1570
[✉ stephen.wade@agric.nsw.gov.au](mailto:stephen.wade@agric.nsw.gov.au)

Michael Hughes (QLD)
Department of Primary Industries
Ph: (07) 4095 8229
Fax: (07) 4095 8258
[✉ hughesm@dpi.qld.gov.au](mailto:hughesm@dpi.qld.gov.au)

Bob Peake (SA)
Primary Industries and Resources SA
Ph: (08) 8724 2913
Fax: (08) 8723 1941
[✉ peake.bob@saugov.sa.gov.au](mailto:peake.bob@saugov.sa.gov.au)

Linda Wilson (TAS)
Department of Primary Industries,
Water and Environment
Ph: (03) 6421 7642
Fax: (03) 6424 5142
[✉ Linda.Wilson@dpiwe.tas.gov.au](mailto:Linda.Wilson@dpiwe.tas.gov.au)

Bruce Fry (VIC)
Department of Natural Resources and Environment
Ph: (03) 5233 5500
Fax: (03) 5233 1920
[✉ Bruce.Fry@nre.vic.gov.au](mailto:Bruce.Fry@nre.vic.gov.au)

Peter Dawson (WA)
Agriculture Western Australia
Ph: (08) 9892 8461
Fax: (08) 9841 2707
[✉ pdawson@agric.wa.gov.au](mailto:pdawson@agric.wa.gov.au)

Distribution

The following people are responsible for sending out the newsletter in their state. Please send any corrections to mailing lists to the Assistant Editor.

Stephen Wade (NSW)
NSW Agriculture
Ph: (03) 5883 1644
Fax: (03) 5883 1570
[✉ stephen.wade@agric.nsw.gov.au](mailto:stephen.wade@agric.nsw.gov.au)

Tina Hill (QLD)
Queensland Fruit & Vegetable Growers
Ph: (07) 3213 2482
Fax: (07) 3213 2480
[✉ thill@qfvg.org.au](mailto:thill@qfvg.org.au)

Suzi McIver (SA)
South Australian Farmers Federation
Ph: (08) 8232 5555
Fax: (08) 8232 1311

John Rich (TAS)
Tasmanian Farmers & Graziers Association
Ph: (03) 6331 6377
Fax: (03) 6331 4344
[✉ jrich@tassie.net.au](mailto:jrich@tassie.net.au)

Tony Pitt (VIC)
AG-Challenge
Ph: (03) 5623 4788
Fax: (03) 5623 4596
[✉ agchallenge@qedsystems.com.au](mailto:agchallenge@qedsystems.com.au)

Jim Turley (WA)
Potato Growers Association of WA
Ph: (08) 9481 0834
Fax: (08) 9481 0834
[✉ potatoga@iinet.net.au](mailto:potatoga@iinet.net.au)

Eyes on Potatoes is distributed free to all participants of the Australian Potato Industry with assistance from Horticulture Australia and the Potato Levy.



Internet Search Tip

Some internet pages are quite long and trying to find what you want can be slow going. Individual pages can be searched using the **Find** option under the Edit menu in Microsoft Internet Explorer or the **Find in page** option in the Edit menu in Netscape Navigator.

Industry welcomes new certification standards



Thorpdale potato shed



world's biggest seed producers and it is an achievement the USA hasn't been able to pull off yet. The standards provide for consistency in descriptions and grading standards and uniformity in export standards and should improve market access.

Seed potatoes must be inspected twice in the field and again when the tubers have been graded and packed.

In the growing crop the inspectors look for viral, bacterial and fungal diseases and check for

varietal purity. To meet minimum standards the crop must have less than 2% total defects.

Certified seed growers need to have a hygiene program in place for machinery, equipment and sheds after every crop, to minimise disease spread.

Crops that don't meet the standards cannot be sold as certified seed and, depending on the season will usually receive a lower price on the open market.

Keith said: "We work with the inspectors to address common problems. The ViCSPA Seed Scheme has been very successful for over 60 years and both the growers and ViCSPA have a common aim of producing quality certified seed.

"By embracing the new national standards the entire Australian potato industry will benefit from common standards recognised both in this country and internationally."



Keith Ingleton overseeing the grading of seed potatoes at Thorpdale.

The new National Seed Certification Standards have been in place for a year now, providing a single framework for describing and certifying potato seed regardless of its state or origin.

Eyes on Potatoes asked certified seed grower and Director of the Victorian Seed Potato Authority, Keith Ingleton of "Blackwood Park" at Thorpdale, for his thoughts on how the new standards might affect his operations.

"I welcome the new national standards, but I don't expect they will change our operations greatly because we were already working to the ViCSPA standards" he said.

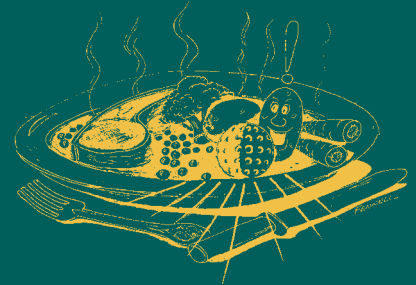
"Being common to all states, the standards will allow us to move seed freely within Australia and eventually lead to efficiencies in the administration of seed schemes."

The new national standards put Australia alongside Canada and Holland, the

Stray Golf Balls

Foreign objects in the paddock can sometimes be taken in with the potatoes at harvest time and become a physical hazard. In past QA articles we have talked about the need to watch out for empty stubbies that have been discarded by passing drivers. In a recent edition of the American magazine *Potato Grower*, they also warn of golf balls in the paddock. They recommend you tell your neighbours and family not to hit golf balls into paddocks that are to be used for potato production.

So if you are a keen golfer take care where you hit your balls!



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Potato R&D Committee Update



Geoff Moar talks to R&D Committee members and Stephen Wade from NSW Agriculture (3rd from left)

The Potato R&D Committee met at Barooga (NSW) on the Murray River during September. This gave the committee the opportunity to visit Geoff Moar's farm at Oaklands and John Doyle's at Berrigan.

John also hosts the NSW variety evaluation trials and the committee took the opportunity to have a look at these and talk to Roger Kirkham, the national Potato Breeder and local agronomist Stephen Wade.

The region consists of a small number of mainly medium to large farmers with a trend towards fewer farmers that are growing less for the fresh market and more for the processors.

Changes at Horticulture Australia

With the appointment of the new Managing Director, John Webster, the implementation of the new structure and systems has been proceeding smoothly.

Under the new company each industry group (in our case potatoes) has an Industry Advisory Committee (IAC), which is a committee of the company and acts as a linkage between the company and its member.

The Potato R&D Committee has proposed to the Australian Potato Industry Council that the IAC be the members of the Potato R&D Committee and that this arrangement be reviewed after the first year.

Potato Breeding Program

Jonathan Eccles reported to the committee the breeding review was still in progress and will hopefully be concluded by the end of the year.

Communication plan reviewed

The committee reviewed the national Communication Plan. An updated version will be available from Horticulture Australia.

Potato R&D Plan

The final changes to the Potato R&D Plan were agreed and the decision made to present the plan to the Australian Potato

Industry Council at their November meeting. The plan will then become available from Horticulture Australia for those putting forward funding proposals in the next round.

Concept Development Proposals

Of the 30 concept development proposals submitted, 20 were supported for further consideration. Project Leaders of the successful projects will now be requested to submit a full application by the end of November for the committee to consider in March.

The new concept development proposal forms introduced by Horticulture Australia were found to be a lot better for the committee members and hopefully a lot easier for R&D groups. The change was in direct response to industry concerns.

The next meeting is planned to be held in Devonport in March and will include representatives from the New Zealand Potato R&D Committee.

Dr Jack Meagher
Chairman

☎ (03) 9836 1943

online Seed information



ViCSPA and Seed Potatoes Victoria have a joint internet site with useful information on seed certification and a seed directory you can search by variety and location.

Check it out at:

www.vicspa.org.au.



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Latest R&D Reports

The following is a list of Horticulture Australia Final Reports released in the past three months.

A comparative evaluation of different materials used for cut tuber seed treatments	PT00033
Innovative transport and disease control systems: Potato exports to Asia	PT97031
Potato pink rot control in field and storage	PT97004
Remote sensing as an aid to horticultural crop recording and husbandry	VG97011
Sustainable crop management for potato farms on the Atherton Tableland	PT402
Trace element requirements of vegetables and poppies in Tasmania	PT320

These are available from Horticulture Australia for \$22 in Australia or \$US30 outside Australia including postage. To obtain reports send a cheque or money order with a note quoting the project name/s and project number/s to:

Ms Sharron Baker
Horticulture Australia
Level 1, Carrington Street
Sydney NSW 2000
☎ (02) 8295 2300
Fax: (02) 8295 2399
✉ horticulture@horticulture.com.au

Alternatively, reports can be purchased through the Horticulture Australia internet site at www.horticulture.com.au.

No Briefs



Due to the lateness of the APIC and AUSVEG meetings the briefs will be included in the March edition.



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Options for Potato Growers

Potato growers have a range of options when it comes to choosing a quality assurance system for their business. While this means that there is an option for each business depending on where it sits in the supply chain, it can also cause great anxiety for many growers as they choose or maintain a system they hope will be the best long-term choice.

One thing is for certain – new national food safety regulations that apply to processors, wholesalers and retailers will mean that for all growers some form of audited system will be inevitable.

Why do growers have to implement a system?

New national Food Safety Standards became enforceable from February 2001.

Growers and packers are specifically exempted from meeting the Food Safety Standards, except when they conduct some form of processing on farm or sell direct to the public.

However, growers and packers are implicated in the Standards because a food business such as a processor, wholesaler or retailer is required to take all practicable measures to ensure it only accepts food that is protected from the likelihood of contamination. Contamination is further defined as "... a biological substance, chemical agent, foreign matter or other substance that may compromise food safety or suitability."

This flow-on effect is underway and retailers such as Woolworths/Safeway and Coles are well down the track with over 90% of packers and wholesalers who supply direct to their Distribution Centre certified to an acceptable system. The big task now is for those direct suppliers to put Approved Supplier Programs in place for their suppliers. This is where the difficulty over what option is the most suitable is most apparent.

There are other reasons for implementing some form of food safety, quality or management system into a business apart from legal or customer requirements. Self interest is a great motivator and most businesses that have a system will openly admit to unexpected benefits such as reduced waste, downtime, rejects and repacking. One decent sized problem avoided each year is often enough to justify the cost of implementing and maintaining the system, in many cases.

The options

The following table summarises the current options, what they cover, what they cost, who they apply to and audit issues. The key issues are as follows:

Approved Supplier Programs

are those developed by individual retail, wholesale, food service or processor customers to address specific food safety and possibly quality hazards. Some of these programs are at a level below Freshcare and some like McDonalds and airline caterers may exceed the requirements of SQF 2000^{CM}.

Freshcare is a relatively recent addition. It is an externally audited Code that is based on HACCP methodology rather than including a HACCP plan as part of its requirement. It is a prescriptive approach designed for businesses that are indirect suppliers to retailers and direct suppliers to packers and processors. Over 4000 growers have participated in Freshcare training to date.

SQF 2000^{CM} and SQF 1000^{CM}

both include Codex HACCCP plus additional requirements from ISO 9000. SQF 2000^{CM} is the most widely accepted Code in use in horticulture in Australia with over 2000 certifications. SQF 2000 is acceptable for direct and indirect suppliers in all cases except for direct suppliers to Woolworths. Both Codes have recently been amended to bring the documents into line with international requirements.

Woolworths Vendor Quality Management Standard (WVQMS)

is mandatory for all Woolworths direct suppliers. It is available by invitation only and focuses on the product quality and safety of individual products. Includes a HACCP plan and the need for an (unspecified) Approved Supplier Program.

Hazard Analysis Critical Control Points (HACCP)

is an internationally recognised preventative approach to manage food safety hazards. It is an auditable code in its own right and it forms the basis of a number of other codes because of its capability and credibility.

ISO 9000 and ISO 9000 plus HACCP

are most likely to apply to only the largest businesses in the potato industry and even then may be beyond what the company requires. Applies mainly to large processors.

Other programs being considered at the moment include the European retailers Good Agricultural Practice program (Eurepgap) and a range of environmental programs.

For further information you can contact me or visit the ANZFA internet site at www.anzfa.gov.au.

Richard Bennett
Program Manager – Quality and Food Safety
Horticulture Australia
☎ (03) 5831 3919
✉ bennetr@mcmmedia.com.au



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Table of QA systems options/market acceptance and anticipated costs

System		Scope			System Structure / Acceptance / Cost				Audit Process		
Name	Covers Food Safety	Covers product quality to customer needs	Covers Govt to Govt requirements	Uses the full HACCP process	Uses some HACCP Principles	Market Acceptance	Anticipated Cost (\$) X – set up* Y – ongoing annual #	Certification/ Verification by External Audit Body	Buyer/ Agent or Vendor Audit	AQIS Audit	Anticipated Cost (\$) X – set up Y – ongoing annual
Approved Supplier	It can	It can	No	No	Yes	1-7 maybe for indirect suppliers; suit A,C	Determine with packer, agent or buyer	No	Yes	No	Consult packer, processor, agent or buyer
Freshcare	Yes	Yes	No	No	Yes	2&7 for direct suppliers; 1-7 for indirect; suit A & C	A, C 6-800 A,C 1-300	Yes	Maybe	No	A,C 4-500 A,C 4-500
HACCP	Yes	No	It can	Yes	N/A	2-7 for direct suppliers; 1-7 for indirect; suit A-E	A-C 1-2000 D, E 2-4000 A-C 1-300 D,E 2-500	Yes	No	No	A-C 600-1000 D, E 700-1500 A-E 4-600
SQF 1000	Yes	It can	It can	Yes	Yes	Retailer acceptance unknown; suit A-E	A, C 1-2000 E 1-3000 A,C 1-300 E 2-500	Yes	May be	No	A-C 400-800 D, E 700-1500 A-E 3-500
SQF 2000	Yes	Yes	It can	Yes	N/A	2-7 for direct suppliers; 1-7 for indirect; suit A-E	A-C 2-4000 D, E > 4000 A-C 3-500 D,E 4-800	Yes	No	No	A-C 600-1000 D, E 700-1500 A-E 5-800
Woolworths VQMS	Yes	Yes	N/A	Yes	N/A	By invitation to 1; acceptable to 2 & 3 for direct suppliers	A-C 2-4000 D, E > 4000 A-C 3-500 D,E 4-800	Yes	May be	No	A-C 600-1000 D, E 700-1500 A-E 4-600
ISO 9000 / HACCP	Yes	Yes	It can	Yes	N/A	1-7; suit E	X > 5,000 Y can be expensive	Yes	N/A	N/A	Consult Audit Bodies
ISO 9000:2000	May	Yes	May	No	No	Not generally required E	Consult Audit Bodies	Yes	N/A	N/A	Consult Audit Bodies
AQIS Cert Assurance	No	No	Yes	No	No	Overseas Governments	Consult AQIS	No	No	Yes	Consult AQIS

Suppliers

1. Woolworths
2. Coles Myer
3. IGA (Davids)
4. Wholesalers for 1-3
5. Wholesalers other than Supermarkets
6. Independents
7. Processors

Growers/Packers

- A 1-2 permanent person Growing
- B 1-2 permanent person Growing / Packing
- C 2-5 permanent person Growing
- D 2-5 permanent person Growing / Packing
- E > 5 permanent person

- * before any Subsidy
include verification testing / consultant review time if needed

This table developed by McAlpine Management Services P/L 0417 042 818 and updated by R Bennett & G McAlpine for 'Eyes on Potatoes'



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Bins Sent Back For a Good Cause

Seed Potatoes Victoria has written to potato merchants, agents and major traders in Victoria and South Australia to express concern about the state of some of the second hand bins delivered to seed farms.

Seed growers have the right to send bins back to the owner at the owner's expense if the bins have not been properly cleaned. The past season in particular has resulted in an increased number of complaints from seed producers about the poor disinfection procedures used for some bins. Some bins have been returned at the owner's expense.

Seed potato production in Victoria is of a high standard compared to overseas schemes. We have much better control of many major disease problems compared with other parts of the world. Up until now we have been able to keep diseases such as bacterial wilt, potato cyst nematode and potato spindle tuber viroid away from seed farms. Inadequately cleaned bins moving onto seed farms is clearly one of the high risk mechanisms for destroying the future integrity of our seed scheme.

One option that has been discussed within the Victorian seed industry is to completely ban the use of second hand bins for the packing of certified seed. Certified seed then would have to be delivered in new bins, bags or in bulk. Such a decision would not be popular with large sections of the industry who use second hand bins for seed to keep down their production costs. However a complete ban may well be the option if the current state of bin hygiene does not improve.

Seed Potatoes Victoria

PHA Board Representative

Brian Newman, Chief Executive Officer of the Australian Vegetable and Potato Growers Federation (AUSVEG) has been re-elected to the Board of Plant Health Australia. Brian is a management consultant, producer from central Victoria and the Secretary for the Australian Potato Industry Council, AUVeG Potato Group and Potato R&D Committee.



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OH&S forum considers seed piece treatments

Occupational Health and Safety (OH&S) concerns about the use of potato seed piece treatments, especially in confined spaces, were considered at a forum in Tasmania in September.

The forum brought together 23 people from all sectors of the industry to look at the problems faced by operators and to discuss ways to prevent problems occurring in the future.

The forum discussed the various seed treatments that were available, their properties and application, as well as the move towards increased usage. The dust created during application and later handling of the treated seed was also identified as being a problem with some seed cutters refusing to use chemicals. Technical advice about the chemicals used in the industry and the OH&S issues including risk management and legislative requirements were provided by Mick Burn from Burnie TAFE and Trevor Marshall from Workplace Health and Safety.

A continuing theme was the need for good quality seed and if seed was healthy, chemicals should not be necessary. It was pointed out that chemicals were not a replacement for good management. Good quality seed healed well, even if a treatment was not used. Chemicals were often only cost-effective on poor quality seed. The question was also asked as to whether the chemicals were really necessary as a lot of diseases were soil borne, not seed borne.

The forum accepted that coolstore operators have the OH&S responsibility because liability lies with the owners of the coolstore and seed cutting operations. Risk assessments may need to be done by experts on an 'operation by operation' basis.

There was also recognition that more research was needed into the health risks of using these chemicals and especially the cocktails of two or more chemicals mixed together.

It was recommended that coolstore operators and seed cutters need to obtain as much information as possible about the chemicals and other seed treatments being used. However it was also suggested that industry get together and fund a study to identify the hazards.

In addition, employees should receive appropriate training and possibly accreditation in chemical usage and that both employers and employees take the proper precautions when using chemicals.

Participants in the forum were made aware that protective equipment, although necessary, was a last resort in risk management. Other actions such as elimination, substitution or isolation of the source of risk (in this case, not using or not needing to use chemicals or dusty products) or the use of controls such as dust hoods and extraction fans or administrative control methods, such as improved training or a combination of these actions should be considered. Monitoring of exposure levels by blood testing employees annually to check chemical levels was also suggested as an option.

Roger Tyshing

Vegetable Industry Development Officer Tasmania

☎ 0438 943 984

✉ tfga.rtyshing@bigpond.com

Tasting Championship



Kym Weir the President of the Crookwell Potato Association presents Brenda Proudman first prize for the 5th Australian Potato Tasting Championship at Crookwell. The annual event was held in September this year and attracted about 60 keen potato connoisseurs. Such a culinary classic may even someday challenge the major wine events!



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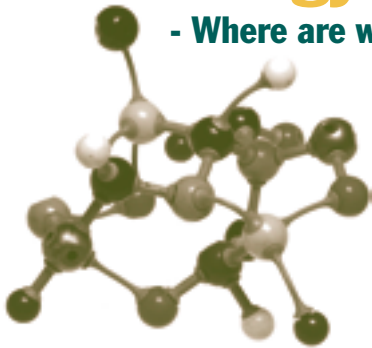
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Gene Technology

- Where are we at?



Gene technology is one of the great scientific breakthroughs of the 20th century. It has the potential to revolutionise agriculture and horticulture in much the same way as the introduction of irrigation, improved soil fertility management, mechanisation and control of weeds, pests and diseases.

Major change from new technologies though sometimes results in uncertainty as it can test our beliefs as to what is acceptable. History is littered with examples of new technology initially being shunned by individuals and sometimes, whole communities. When we are confronted by major change it is quite common for people to question and debate the issues involved before accepting and adopting the change in some form. This is a healthy process in any open society.

A challenge for the potato industry is not be “spooked” by people with extreme views. Gene technology has an enormous amount to offer the potato industry.

There are no plans to release any genetically modified potato varieties without industry support and approval from the Office of the Gene Technology Regulator and the Australian and New Zealand Food Authority.

We do have a research program and the intention is that this work will continue. Therefore we can afford to wait, contribute where we can to the debate and be ready to use the technology in acceptable ways when society is ready to move forward in this area.

Is it safe to eat GM food?

Consumers in the USA have been eating GM products since 1994 and elsewhere in the world, including Australia, since 1997. There are no reports of GM foods causing any adverse effects.

There is no scientific evidence to indicate that GM foods are any more or less safe than conventionally grown foods and this has been reported by the Food and Agriculture Organisation of the United Nations (www.fao.org) and the European Union (<http://europa.eu.int/comm/research/quality-offlife/gmo/index.html>). The EU report resulted from a 15 year survey involving some 400 research teams and costing US\$ 70 million. ANZFA have also prepared a brief on GM foods and the consumer (ANZFA Occasional Paper No.1). None of these reports are suggesting that no controls are required, but that the existing procedures are satisfactory.

It needs to be remembered that selecting and removing undesirable characteristics from breeding lines is a normal part of the evaluation process.

Brief history

The first genetically modified crops were commercialised in the USA in the mid 1990s with the introduction of the FavrSavr tomato. Since then there has been a rapid adoption by farmers, with about 44 million hectares grown worldwide in 2000. This is an area about twice the size of Victoria and half the size of NSW. The forecast for 2001 is to reach 50 million hectares. Commercialisation of broad acre crops such as canola, soybean and maize with attributes such as herbicide and insect resistance are the most widely grown. Some horticultural crops have been commercialised in the USA, such as tomatoes with improved shelf life, squash and paw paws with resistance to virus, and potatoes with resistance to both virus and insects.

Potato gene technology in Australia

Australian researchers have been developing gene technology for potatoes over the last 10 years. Some of the early research was conducted by Peter Waterhouse and colleagues at CSIRO in conjunction with a private industry partner. This was to develop company owned cultivars with resistance to Potato Leaf Roll Virus (PLRV) and Potato Virus Y (PVY) and to a lesser extent with reduced tuber bruising. Calgene Pacific (later Florigene), a private biotech company, also had a small potato project looking at increasing tuber numbers.

It wasn't until the early 1990s when a partnership between the Institute for Horticultural Development - Agriculture Victoria (IHD), CSIRO Plant Industry, Australian Potato Industry Council (APIC) and Horticulture Australia was set up to develop gene technology for the Australian potato industry. The partnership provided the opportunity to combine the skills of IHD (the home of the national breeding program and a source of researchers with skills in biotechnology) and CSIRO (who already had skills in potato biotechnology) and work with industry to tackle problems that have proved difficult to deal with using traditional technologies.

So far the IHD, CSIRO, APIC and Horticulture Australia partnership has completed two projects and recently commenced a third. The first project (1993-1996) developed the necessary platform technologies and industry nominated the cultivars that should be worked on. These cultivars were to be the ones used in the fresh market component of the National Potato Improvement and Evaluation Scheme (NaPIES). Ten cultivars were nominated and workable systems were developed for *Sebago*, *Crystal* and 80-90-5.

The second project (1997-2000) developed a population of transgenic (genetically modified) lines containing resistance genes to Potato Leaf Roll Virus (PLRV), Potato Virus Y (PVY) and both viruses. The genes we used were effective in glasshouse experiments and in a small trial, in the

What regulations are there in place?

Gene technology is one of the most regulated areas of science. Before a research project can start it is evaluated by an Institutional Biosafety Committee (IBC) and the Office of the Gene Technology Regulator (OGTR) who assess the research and advise as necessary. To conduct field trials, permission from the IBC and a licence from the OGTR are required and at a State government level permission is required from the relevant Environmental Authority and Department of Agriculture. The local Shire or Council also needs to be informed. All applications for field trials are subject to public scrutiny and the locations of field sites, with very few exceptions, need to be disclosed. Both Agriculture Victoria and CSIRO disclose full details of field trial sites (www.ogtr.gov.au).

Commercialisation

When research reaches the stage of commercialisation the Australian and New Zealand Food Authority (ANZFA) evaluates the product for food safety. As of September 2001, only four products have been approved for general release by the Office of the Gene Technology Regulator (OGTR). These are colour modified and long-life carnations and herbicide-tolerant and insect resistant cotton. Other crops, while not currently approved for release in the environment, may appear in imported food or food ingredients. A number of crops such as potatoes, soybeans, canola and maize have been approved for consumption or are currently being assessed by ANZFA.

New cultivars arising from our projects can only be commercialised after a thorough evaluation by the OGTR and ANZFA

field. We also developed technologies that gave us 'freedom to operate' from an intellectual property perspective.

The current project (2000-2004) is about doing more detailed analysis in the glasshouse and after consultation with industry and approval from the regulatory authorities, further field trials. We are also developing technologies to remove the antibiotic marker gene whose sole purpose is to select engineered lines. Now that we have developed reliable systems to transfer genes to potato, the opportunity exists to explore other industry problems that could be helped with gene technology, for example enhanced disease resistance would be very useful.

Industry position

The industry does not have a formalised policy on this issue but our reading of the industry position based on the workshop at Potatoes 2000, media releases from various industry participants and other discussions, is that most industry participants have a fairly simple approach to the issue.

For industry, the marketplace rules regardless of whether potatoes are produced for the fresh or processed markets. If buyers do not want potatoes that have been produced using the new gene technologies then growers will not grow them and processors will not process them. When the public becomes more accepting of the technology then industry will reassess its position.

Unlike many other sectors of the community, farmers and other industry participants are generally more accepting of new technologies in food production. Utilising new technology has always been an important way of remaining profitable in business.

The raging debate

There is no question that gene technology is new, exciting and an extremely powerful tool that can improve potatoes in ways that are difficult or impossible with conventional methods. Despite these advantages, there is considerable concern within society that needs to be addressed. This will only occur through education and public debate.

We are dealing with a very new science, which is technically difficult to understand and therefore it is to be expected that people have concerns.

Much of the discussion to date has been very emotive and unfortunately this can lead to incorrect conclusions. Public debate and education needs to continue. Where possible we should be encouraging a balanced debate and rejecting extreme views that lack any real basis in truth.

Challenges ahead

Our greatest challenges include:

- Raising the quality of the debate

- Increasing community understanding and confidence in the adequacy of the regulatory systems to safeguard health and the environment
- Reminding people that the new technologies could help reduce chemical usage through the adoption of resistant varieties and overcome many problems that affect the quality of the food they buy in the store.

This will not be easy.

The authors would like to acknowledge the contributions of Daniel Isenegger, Department of Natural Resources and Environment - Agriculture Victoria and Peter Waterhouse, CSIRO Plant Industry.

James Hutchinson
*Research Scientist – Biotechnology
Agriculture Victoria*
☎ (03) 03 9210 9222
✉ james.hutchinson@nre.vic.gov.au

Leigh Walters
*Technology Transfer Manager
Australian Potato Industry*

Internet resources

The internet is a great source of information about gene technology and the following sites provide useful information. Horticulture Australia, through their web site has an electronic newsletter called GMO (Guiding Meaningful Options) which provides up to date and relevant information.

- Office of the Gene Technology Regulator
www.ogtr.gov.au

- Australian and New Zealand Food Authority
www.anzfa.gov.au
- Biotechnology Australia
www.biotechnology.gov.au
- Horticulture Australia
www.horticulture.com.au
- TomorrowsBounty – Farmers for the Benefits of Biotechnology
www.tomorrowsbounty.org
- Australian Gene Ethics Network
www.geneethics.org
- Greenpeace
www.greenpeace.org.uk

Labelling

A contentious issue in the use of gene technology in food has been whether there should be compulsory labelling of GM content in foods. Late in 2000, a new national food standard was gazetted requiring labelling of food and food ingredients produced using gene technology. There are some exemptions, such as highly refined foods (eg sugar) and where GM product is unintentionally present at less than 1% (www.anzfa.gov.au). The new requirements will come into force in December 2001.

National Conference

Potato Business & Marketing

21st to 23rd August 2001, Mount Gambier, South Australia

To mark the 30th anniversary of the Australia's first potato industry conference held in Mount Gambier, a national conference dedicated to the business and marketing of potato products will be held on Wednesday 21st to Friday 23rd August 2002 in Mount Gambier, South Australia.

The aim of the conference is to act as a catalyst for the development of a national marketing strategy to support more effective promotion and market growth. Case studies from other industries highlighting the benefits of a coordinated approach will be presented. The conference will also focus on the development of business management skills with issues being discussed including business planning, electronic marketing, building the human resource, hi-tech finance and record keeping.

International produce marketing experts from USA and New Zealand will support a highly qualified team of presenters from Australia to deliver key market and business information to the industry. Dorinda Hafner, the exciting unofficial face of the potato industry, has been invited to follow on from her memorable

performance at Potatoes 2000 in Adelaide. Dorinda will be tantalising your taste buds with exciting cuisine.

The conference will be held in Mount Gambier, South Australia with two days of talks, discussion sessions and workshops, a conference dinner on the Wednesday evening and an optional Field Tour on Friday. The Field Tour will visit marketing success stories in the region, including the world famous Coonawarra Wine district, to look at how they developed successful marketing strategies.

People and organisations with a vested interest in a profitable and sustainable Australian potato industry should attend. This is your opportunity to obtain information on the potato supply chain, how to improve profitability and productivity as well as being an integral part of establishing a national marketing strategy for the future. Organisers are expecting around 250 delegates from Australia, with expressions of interest received from New Zealand, South Africa and South America.

The conference is proudly supported by Horticulture Australia and Limestone Coast Tourism. The South East of South Australia Potato Group and key national industry representatives have been active in providing support to the conference program development. Horticulture Australia has commissioned national consumer market research to obtain critical information that will provide a platform for the conference.

Sponsorship packages, including trade display and advertising, are being finalised. Limited space is available so allocation will be based on a "FIRST IN" basis, so be early. Registration papers will be sent out in the March edition of Eyes on Potatoes.

Anyone wanting further information on sponsorship or registration can contact;

Jan McIntyre
The Conference Manager
☎ 08 8723 2624
☎ 08 8723 2624
✉ tourism@thelimestonecoast.com

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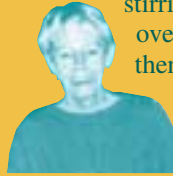
Garlic Potatoes



A great recipe popular with both adults and children alike. Can be served with all grills and terrific with barbeques. Everyone comes back for seconds.

Ingredients: • 60 g butter • 6 large potatoes (2Kg cubed) • 2 cloves of garlic, crushed • $\frac{1}{2}$ c of grated cheddar cheese • 2 tbs of parmesan cheese • 1 tbs of chopped fresh rosemary

Method: Preheat oven to moderate 180°. Heat butter in a shallow pan, then add garlic and potato. Cook for 5 mins, stirring frequently. Transfer mixture to a shallow, ovenproof dish. Sprinkle with cheese and rosemary then bake for 45 mins or until potato is tender.



Enjoy!

*Shirley Young
Stowport, Tasmania.*

World Potato Conference - China April 2003

The fifth World Potato Congress is to be held in Kunming, China from the 20th to the 25th April, 2003.

The aim of the Congress is to bring together and provide information to potato growers, researchers, processors, traders, suppliers of machinery, equipment and services and other industry people, including Government representatives. This gathering of people from around the world provides an opportunity to discuss and exchange information on a wide range of potato related issues.

Chinese agriculture is expanding in most commodities and the potato is one of the crops claimed to be a pillar of the economic development in rural areas. Kunming is located in the Yunnan Province which has a population of around 42 million people. The present area under potato production is around 300,000 hectares with an annual production of around 4.2 million tonnes.

It has been suggested that a post-congress tour, including farm visits, may be able to be arranged, if a tour group can be formed.

Growers and industry people who may have an interest in attending this congress are invited to register such interest with me;

John Rich
*Executive Officer
Tasmanian Farmers and Graziers Association.*
☎ (03) 6331 6377
☎ (03) 6331 4344
✉ john_rich@bigpond.com

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ROUND-UP

State

Tasmania

The Tasmanian potato industry has received more than its usual share of publicity over the last few months and the industry is certainly relieved to have price negotiations behind it. The three year contract agreed between growers and processors has put a level of stability into the industry at least for the short term.

The quality of potatoes grown for processing last season was generally very good, with the stored potatoes processing well. Yields were generally average with plants in some crops producing a large number of stems due to problems with physiological age of the seed. This was particularly a problem of early crops in the North East which resulted in small tubers being produced. Southern areas struggled due to climatic conditions. Harvesting conditions were ideal over most of the state, although some areas in the south had a wet harvest period causing some losses.

Planting for the 2001/02 season got off to a good start with sufficient planting of *Shepody*, *Kennebec* and *Ranger Russet* set to commence processing on schedule. October rains delayed the planting of the majority of the *Russet Burbank* crop until November. The area planted with *Ranger Russet* has been increased this year and *Shepody* area reduced.

Frosts mid season and lack of water reduced yields for the fresh market last season particularly in the south of the state. The most significant result of these conditions was a shortage of *Pink Eye* and *Bismark* certified seed for early commercial plantings.

Seed quality out of cool storage was good and McCains reports that seed quality responded to their seed improvement program. Both processing companies have introduced incentives for early dug seed next season. The number of registered seed growers is up for the coming season.

Linda Wilson
Seed Potato Production Officer
Department of Primary Industries, Water and Environment

Queensland

All potato production areas in Queensland have had a very good year. Prices have been reasonable to high, as have the yields and quality achieved by growers.

The north Queensland planting were one of the largest in years. Some of the early season crops gained high prices, but it was not an easy crop to grow, with seed problems and rhizoctonia being the main issues faced by growers. The main season *Sebago* crop consistently produced good yields of high quality tubers, and gained reasonable prices. Insect and disease pressures have been low to moderate. A number of the early main season crops had to be sprayed off to ensure tubers remained within market specifications. The non-*Sebago* and export markets have remained stable, and there has been a good demand for washed reds.

The Bundaberg fresh market crop has also had a very good season producing high yielding quality crops. Early rain was timely and followed by a very good growing season. Insect pressures, while moderate to high have been well managed.

The Lockyer Valley has had a dry spring with warm growing conditions, which has brought higher than expected yields of quality tubers. Insect and disease pressure has been low throughout the season.

The season has also been a good one for processing crops. Bundaberg has produced some very good crops. Although some of the early Lockyer Valley crops were wind affected they dug well, as have their later season crops. The Darling Downs crops have grown well with timely rainfall changing a dry tough season into a very good one. These crops are bulking up and expected to perform well.

Michael Hughes
Extension Agronomist
Department of Primary Industries

South Australia

The spring season has been wet with mild temperatures. Generally, the rain has not delayed planting, only interrupted it and made the task frustrating.

Planting of the French fry crop in the Lower South East is progressing well and is 50% completed. The total tonnage for this season should be near 85,000 tonnes.

The planting of the ware crop is progressing well in the other regions. Some low lying areas have been lost due to waterlogging, but generally the rain has created few problems. The Mallee, Riverland and Upper South East have had several very severe frosts which have caused some plant damage.

The spring seed planting on Kangaroo Island is based on the shallow loam soil types and this maybe delayed for a week or two, as the growers wait for the soil to dry out.

Generally the start to the season looks promising.

Bob Peake
Senior Consultant Potatoes
PIRSA Rural Solutions

New South Wales

Digging of the main fresh market and seed crops in the higher Tableland's districts started in February and finished in August.

Production was down due to the reduced plantings of ware potatoes and the dry conditions experienced over summer. There was a very strong demand for Certified seed, with most growers selling all their seed during the harvest.

Digging of the late ware crops in the Coastal and lower Tableland's districts started in May and finished in July. Crop yields were average. Only those crops in the northern districts that were side dressed following the "big wet" in March (up to 1000 millimetres) had good yields. Ware prices averaged \$25 to \$30 a fifty-kilogram bag, a \$380/tonne increase on last year.

Digging of the late ware crop in the Riverina started in June and finished in October. Crop yields were also down, especially in the *Coliban* crops, which has suffered from seed piece break down following the hot, humid weather in February. Farm gate prices for bulk, dirty potatoes averaged \$350 to \$400 a tonne, a \$100/tonne increase over last year.

Planting of the early crops in the Coastal and lower Tableland's districts started in July and finished on time in August with the dry conditions. Crop areas are similar to last year. The dry, cool weather over the last three months has reduced potential yields, with high yields only expected from those crops that have received supplementary irrigation.

Sowing of the early crops in the Riverina also finished on time in August following the dry conditions. Fresh crop areas are down, while crisping and French fry areas remain similar to last year. With the warm temperatures in August and September, most crops emerged earlier than usual and have achieved good establishment. The mild conditions since October have encouraged crop growth and reasonable yields are expected when digging starts in December.

Stephen Wade
District Horticulturist
NSW Agriculture

Western Australia

I'm sure everyone will join in congratulating Laurie Eldridge on his 22 years of outstanding service on the executive of the Potato Grower's Association. Although Laurie has retired from this position don't think he has retired from potatoes! *Bindaree Downs* is still in full swing and Laurie, of course, will still be active in the Albany Zone of the WA PGA.

The strong sales and improved quality in the fresh market seen earlier in the year have continued through winter and spring. In the past season farmers averaged \$457 per tonne up \$32 on last season. Total sales up 6% on last year to 46,441 tonnes.

Western Potatoes and the Department of Agriculture have formed the potato varieties commercialisation group to co-ordinate the commercial development of new varieties. Most of the varieties will come from NaPIES but other breeding houses are welcome to submit suitable varieties for testing. Contact Terry Freimond on 08 9335 8999 for specifications.

Jim Turley of the PGA organised a seed seminar at Manjimup in June. Growers left knowing a lot more about insurance matters than when they arrived.

The Manjimup Apple Export Syndicate (MAES) French fry processing plant has commenced operations. The plant has a capacity of 10,000 tonnes. The CEO is Doug Grewar, who has taken over from Don Gear.

And Yes! Our name has changed back to the Department of Agriculture (DoA). Can you remember what it used to be?

Ros Pilbeam has joined our team at Manjimup to add specialist pathology skills.

The Vietnamese project? A survey of Vietnamese crops has identified some production constraints. These constraints will be tested in field experiments this season. Jo Embry, an economist (DoA), has won an Australian Youth Ambassador position and is now based in Vietnam for 11 months to gather important economic information. Tom Fox, a WA grower, visited in October and showed Vietnamese farmers how to cut seed. He demonstrated his techniques on freshly imported WA seed.

Peter Dawson
Project Manager, Potatoes
Department of Agriculture

Victoria

Around Ballarat and the Otways, good October rains have filled most dams, in contrast to last year. Planting should proceed on schedule in these areas, but the rain will probably delay planting on the Koo Wee Rup Swamp and hold up the schedule for early deliveries to the crisping companies. There have also been some problems with stored crisping potatoes, which have shown a high incidence of both *Fusarium* dry rot and soft rots. The soft rots may have been a result of excessive irrigation under last season's very dry conditions.

Prices for Victorian McCain's growers have been confirmed. On top of the \$4/tonne increase for 2001, growers will receive an additional \$18/tonne in 2002 and a further \$9/tonne in 2003.

The Victorian Potato Growers' Council has supported the idea of a statewide survey for potato cyst nematode (PCN), provided that (1) there are protocols in place to deal with incursions; (2) there is a system of market access based on property freedom of PCN; and (3) the survey covers the whole State. The Growers' Council is also pushing for a nationwide PCN survey.

A variety commercialisation program proposed by the Department of Natural Resources and Environment and Horticulture Australia has been opposed by the Potato Growers' Council. Their main concern is that private companies would reap the rewards of research levies on growers and processors, that there would be an emphasis on appearance rather than cooking or eating quality and that control of the industry would shift from growers to a few private individuals.

Contract prices for certified seed have been released. In general, they have undergone a 6% rise, which corresponds to the increase in production costs as monitored by Seed Potatoes Victoria over the past year. Diesel, labour and chemicals were the main factors contributing to the rise in costs.

Certified seed of many varieties is currently in short supply, due to the very dry season last year, and the amount sold is expected to be down. The dry year also induced some eelworm and potato moth damage.

Nine laboratories are currently authorised by the Victorian Certified Seed Potato Authority (ViCSPA) to supply plantlets and minitubers throughout Australia. Inspections by ViCSPA have shown that the labs are meeting quality expectations and progressing well.

ViCSPA will be conducting further training for certification officers in inspection and variety identification in December. In the meantime, the Authority is updating its records system to cope with the new crop ratings system under the new national seed standards.

Andrew Henderson
Communication Officer
Agriculture Victoria, Knoxfield

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