

potatoes

australia

October/November 2016



Peter Corcoran

Fighting for sustainability
in northern Victoria

Jason Cresswell

Young grower

Focus on soil health

New R&D underway

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Contents

October/November 2016

Regulars

- 5 Chairman & Interim CEO messages
- 7 Editorial

Features

- 12 Young grower profile: Jason Cresswell
- 28 Peter Corcoran: Fighting for sustainability in Victoria

News

- 15 Save the date: Hort Connections heads to Adelaide

Industry update

- 27 Promoting beneficial bacteria
- 30 Solar power: 10 questions to ask before you buy
- 32 Regional updates
- 34 Young Potato People

R&D

- 8 Future soil health investment on the agenda
- 9 The National Potato Levy at work
- 10 Targeting potatoes to younger consumers for long-term growth
- 11 Supporting Tasmania's potato industry
- 14 Producing premium potato foods in New Zealand
- 16 Ask the industry
- 17 Correction: Value of potato imports and exports
- 18 Strategic Investment Plan discussions underway
- 20 Benefits of whole farm software
- 21 Powdery scab: A major challenge for potato growers
- 22 Project reflection: Managing white-fringed weevils
- 24 The Front Line: Late blight – An ever-present threat
- 26 The challenge to control blackleg in potatoes
- 31 Improving marketable yields of processing potatoes in Canada





HORT CONNECTIONS

Combining

NATIONAL
HORTICULTURE
CONVENTION



15-17 May 2017

Adelaide Convention Centre

AUSVEG Chairman and Interim CEO messages



Geoff Moar

AUSVEG Chairman

In exciting news for potato growers, AUSVEG and PMA Australia-New Zealand (PMA-ANZ) have joined forces to deliver what will be the premier event in Australian horticulture.

I am pleased to confirm this event, to be held at Adelaide Convention Centre from 15-17 May 2017, will be known as Hort Connections. Through this landmark collaboration between two of Australian horticulture's leading organisations, delegates can look forward to networking with an even wider range of industry members, from growers to whole-of-supply-chain companies.

We are currently in discussions with other industry bodies to co-host Hort Connections, in an effort to further unite the horticulture industry. We will continue to provide you with updates as this ground-breaking event takes shape.

While the industry is eagerly anticipating this event, there are also continual developments in the world of potato research, with a selection of new levy-funded projects underway. It is pleasing to see Horticulture Innovation Australia's support for both the fresh and processing potato industries by commissioning several new projects that focus on the important area of soil health.

These projects will help growers improve the management of diseases such as Powdery scab and present plenty of opportunities for growers to learn about the latest findings from researchers.

Importantly, one project in particular will focus on collating soil health information previously developed for domestic and international potato industries to help growers easily access information to drive productivity

improvements on-farm.

On a final note, AUSVEG would like to congratulate Dr Jessica Lye, the Victorian winner of the 2016 Rural Industries Research and Development Corporation (RIRDC) Rural Women's Award. Dr Lye, who is known to many of you as AUSVEG National Manager – Science and Extension, was nominated for the national award, which was presented by Federal Minister for Agriculture and Water Resources, the Hon. Barnaby Joyce MP, at a recent dinner held at Parliament House in Canberra.

It was a delight to see Dr Lye recognised for her tireless biosecurity work for both the potato and vegetable industries, particularly in her efforts in helping growers to understand and implement more stringent biosecurity practices on their farms.

I would also like to take this opportunity to congratulate the South Australian winner, Potatoes SA CEO Robbie Davis for her achievements, as well as the 2016 national Rural Woman of the Year, Sophie Hansen of Orange, New South Wales, and all other state and territory winners.

This award allows women to be recognised for their leadership and provides an opportunity to make a greater contribution to Australian agriculture. The potato industry in particular is very fortunate to benefit from the knowledge of these leading women.

Geoff Moar
Chairman
AUSVEG



Simon Bolles

AUSVEG Interim CEO

As the peak industry body for vegetable and potato growers, AUSVEG is committed to highlighting your issues of concern to all levels of government.

This was achieved recently when I, along with AUSVEG Chairman Geoff Moar and the AUSVEG Public Affairs team, visited Canberra for a series of meetings with key political figures from all sides of politics. This included Tasmanian Senator Jacqui Lambie, who is a strong advocate for the horticulture industry, Australian Greens Senator Janet Rice and the Hon. Joel Fitzgibbon MP from the Australian Labor Party. It was also a pleasure talking to Minister for Small Business, the Hon. Michael McCormack, Assistant Minister for Agriculture and Water Resources, Senator the Hon. Anne Ruston, and the Secretary of the Department of Agriculture and Water Resources, Daryl Quinlivan.

We were given the opportunity to advocate on a variety of issues affecting horticulture. Our meetings regarding the backpacker tax contributed to the government's recent announcement that it will be reduced to 19 per cent, which is significantly lower than the proposed tax of 32.5 per cent. In addition, issues with rogue labour hire firms and concerns about water access and infrastructure were also discussed.

These in-depth, wide-ranging discussions proved to be extremely fruitful and the dialogue from all parties highlighted that we have a common interest when it comes to the future of the horticulture industry. AUSVEG will continue these discussions in the coming months to provide a voice on

behalf of our growers.

In other industry news, Horticulture Innovation Australia is moving into an important phase of its Strategic Investment Planning (SIP) process. Both the fresh potato and processing potato industries are currently undergoing SIP consultation, with a range of workshops being held across the country. The SIP outlines the priorities for levy-funded projects being undertaken over the next five years, and we encourage growers to get involved in the process to highlight the key areas of investment.

Speaking on the future of the industry, it is great to see two young leaders of the potato industry, Peter Corcoran and Jason Cresswell, featured in this edition of *Potatoes Australia*.

The challenge to entice younger generations to work in the potato industry has been well-documented. The lure of the city and the tough conditions on the land deter many who are born and bred in the country from following in their family's footsteps.

However, both Peter and Jason provide a fresh perspective on the industry and have a number of ideas on how young growers can forge successful careers in horticulture. With this attitude, the pair will succeed and there's no doubt they can have a positive influence on others seeking a promising and enjoyable career in the potato industry.

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**FRONT COVER:**

Peter Corcoran

Photograph by Ian Mckenzie

Welcome to the October/November edition of *Potatoes Australia*. This 36-page publication features a number of local and international R&D project updates to keep you informed about what is happening in the local and international potato sphere.

We're very excited to announce that Hort Connections – the premier horticulture event of 2017 – will be hosted by AUSVEG and PMA Australia-New Zealand Limited (PMA-ANZ) at the Adelaide Convention Centre from 15-17 May. The latest on this groundbreaking partnership can be found on page 15.

Kicking off this edition's R&D news is an overview of several potato levy-funded projects that will be up and running in coming months with a focus on soil wealth research (page 8). The 2016 Strategic Investment Planning process has also been launched for both the fresh and processing potato industries and we provide more detail on this process on page 18.

The editorial team has delved into the archives and uncovered the results from a levy-funded Tasmanian Institute of Agriculture (TIA) project that focused on managing white-

fringed weevils on-farm (page 22), while the Potato Processors Association of Australia takes a look at the latest in whole farm software for growers and the greater supply chain (page 20).

On the seed potato front, we take you to the Apple Isle with TIA Seed Certification Officer Leonie White, who explains the Tasmanian Potato Seed Certification Scheme and the role it plays in the industry (page 11).

International R&D updates are also included in this edition, with *Potatoes Australia* hearing from Plant & Food Research Limited (PFR) across the Tasman. Based in Palmerston North, New Zealand, PFR scientist Marian McKenzie discusses the research being conducted to provide consumers with desirable potato-based, added-value products (page 14).

Prince Edward Island's Agronomy Initiative for Marketable Yield for the processing industry is also discussed on page 31.

Meanwhile, UK's Agriculture and Horticulture Development Board (AHDB) has released the results from its potato Consumer Tracker survey (page 10). Still in the UK, there have also



20

Benefits of whole farm software

been new discoveries made in relation to Blackleg in potatoes (page 26).

We head up to Victoria's Mallee region and speak to cringing potato grower Peter Corcoran about the harsh weather conditions he faces and the challenge to entice young people into the potato industry (page 28).

Our young grower is Jason Cresswell, a trained fitter and turner who returned to his farm at Quamby View, Deloraine in Tasmania after his studies. Jason explains why he enjoys working on the farm, and offers his perspective on the future of the potato industry on page 12.

We hope you enjoy this edition of *Potatoes Australia*.



11

Seed certification in Tasmania

SEND US YOUR STORY
IDEAS AND LETTERS!

Potatoes Australia is always on the lookout for local and international potato R&D projects, leading growers and industry news to profile in the magazine.

If you have a great idea for a potential article or a letter to the editor, let us know!
Email info@ausveg.com.au or call 03 9882 0277.



Future soil health investment on the agenda

SOIL WEALTH AND HEALTH IN POTATOES IS HIGHLY IMPORTANT, AND WITH THIS IN MIND, SEVERAL NEW PROJECTS FOR THE FRESH AND PROCESSING POTATO INDUSTRIES HAVE BEEN ANNOUNCED. THE PROJECTS WILL EXPLORE HOW TO IMPROVE MANAGEMENT OF DISEASE, AND ENGAGE WITH POTATO GROWERS TO COMMUNICATE THESE FINDINGS AND EXPLAIN WHAT IS BEST IN TERMS OF ON-FARM PRACTICE.

Horticulture Innovation Australia is throwing its support behind new soil projects for the potato industry, with an aim to identify where the knowledge gaps are in terms of future soil health investment.

It has recognised Powdery scab in potatoes as having a significant impact on the potato industry (see more on page 21). This has led to the recent project tender, *Exploring Spongospora suppressive soils in potato production* (PT16002).

Powdery scab disease of potato is caused by *Spongospora subterranea*. Symptoms include raised wart-like growths on tubers that, when dried out, develop into powdery or slightly sunken scabs.

Infection also causes small galls to form on potato roots. Once the pathogen is established in the soil, it can survive for many years as thick-walled resting spores (cystosori).

Symptom severity on potatoes and disease development can be influenced by varieties, environmental factors and soil characteristics. Limited management options are available to control the disease and the ability to identify and characterise *Spongospora*-suppressive soils would be advantageous.

The intended primary outcome is to confirm the

presence of a soil(s) with characteristics that suppress *Spongospora* diseases of potato. If suppression is demonstrated, the project will aim to identify the mechanisms for suppression and determine if suppressive properties of the soil are transferrable to non-suppressive soils.

Value in existing research

Research conducted within *Parent Project for APRP2 program* (PT09039), as part of the sub-project APRP2 – *Soil Health/disease mitigation program* (PT09026), identified Common scab suppressive soils of potato.

This research was able to demonstrate the ability to transfer the biological components of Common scab suppressive soils to soil that had been sterilised, in addition to being able to destroy the suppressive component through treatment of the soil.

Initial characterisation of markers of the suppressiveness of the soil was also undertaken during that project.

Identifying opportunities

Request for Proposal: Navigating the wealth of soil health information and identification of opportunities (PT16003) will involve collating

and assessing the wealth of soil health information previously developed for the potato industry domestically and internationally.

It will also take into account information produced from other crop commodities and industries to identify opportunities for future focus. The aim is to exploit this area to drive productivity improvements.

The objectives of the project are to:

- Conduct a review of soil health R&D across the potato industry, identifying knowledge gaps for future funding and collaborative opportunities.
- Develop a plan for future investment in soil health improvement for the potato industry.
- Package information from the review of soil health R&D for delivery to industry via the current industry delivery channels.
- Prepare extension and communication materials and be involved in industry extension and communication activities as required.

The intended primary outcome is to allow potato industry stakeholders to better utilise soil health information/R&D on-farm and develop a plan to further drive productivity improvements in soil health management.

Delivering information

The Australian potato industry has a history of investment in soil health research. There has also been considerable investment in the Australian vegetable industry in this area, producing a range of reports, guides and fact sheets.

These projects build on that work and complement *Soil condition management – Extension and capacity building* (VG13076) – known more commonly to the industry as the Soil Wealth project, which has a focus on delivering integrated information on vegetable soil management.

Project funding is determined through the assistance of Strategic Investment Advisory Panels for Pool 1 (levy-funded projects).



For more information, please visit horticulture.com.au.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007

THE NATIONAL POTATO LEVY AT WORK

WHO PAYS THE NATIONAL POTATO LEVY?

The levy is paid by growers who produce and sell either fresh or processing potatoes in Australia.

- The charge is set at 50 cents per tonne for fresh and processing potatoes and must be paid by the producer of fresh potatoes or the owner of processing potatoes.

The Federal Government also provides funding in addition to grower levy payments. Once paid, these funds are managed by Hort Innovation.

HOW IS LEVY MONEY INVESTED?

There are now two pools with different funding priorities.

Pool 1 is funded by grower levies with contributions from the Federal Government. This pool has a **one to five year scope** and will invest in applied R&D designed to directly benefit growers. This includes pest and disease management and biosecurity matters, with findings communicated through a variety of channels including *Potatoes Australia*.

Pool 2 has a **one to 15 year scope** and matches strategic co-investment funds with at least \$20 million, at the Pool's maturity, of government seed funds annually. This pool aims to address multi- and cross-industry challenges and opportunities of strategic and long-term importance to Australia's horticulture industries.

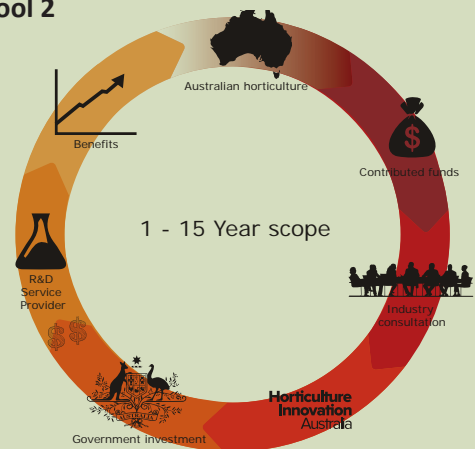
Five 'Foundation Funds' have so far been established in Pool 2 and will work with an expert panel to direct strategic projects. They are:

- **The Leadership and People Development Fund**
- **The Fruit Fly Fund**
- **The Asian Markets Fund**
- **The Green Cities Fund**
- **The Health, Nutrition and Food Safety Fund**

Pool 1



Pool 2



HOW CAN GROWERS GET INVOLVED?

Potato growers play a fundamental role in advising on the allocation of both levy and co-investment funds, and will be engaged in extensive consultation with Hort Innovation in regional grower meetings, industry-specific consultation programs and individual grower and grower group consultation.

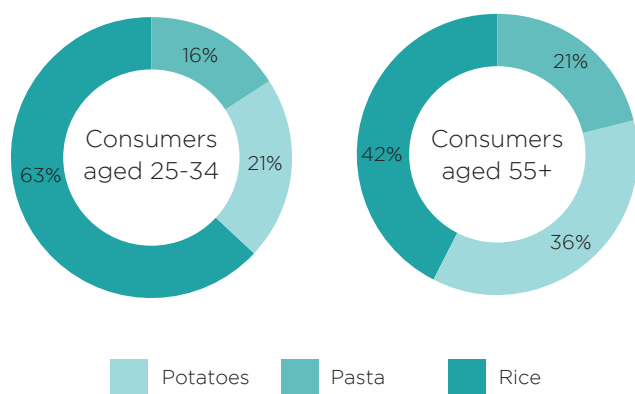
Growers can also submit ideas for R&D projects via Hort Innovation's Concept Portal at horticulture.com.au/concept-proposal-form.

For more information about the National Potato Levies, visit ausveg.com.au/rnd/thelevysystem/potatolevy.htm.

Targeting potatoes to younger consumers for long-term growth

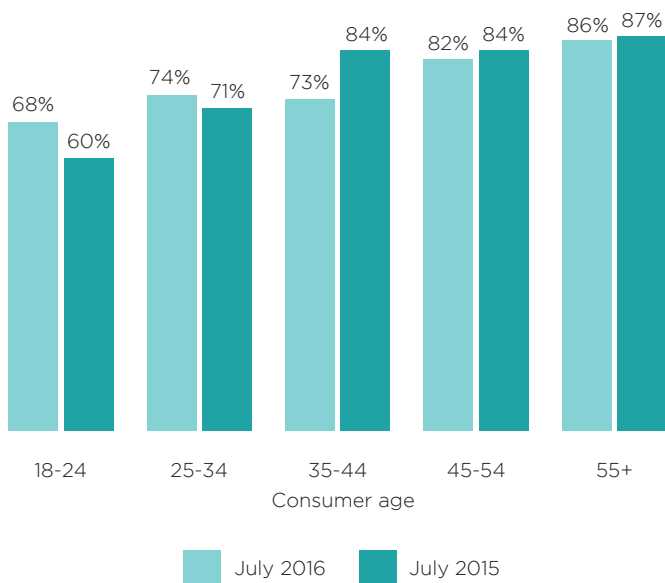
THE UNITED KINGDOM'S AGRICULTURE AND HORTICULTURE DEVELOPMENT BOARD (AHDB) CONSUMER TRACKER STUDY HIGHLIGHTS CLEAR DIFFERENCES BETWEEN CONSUMER AGE GROUPS WHEN IT COMES TO THEIR ATTITUDES TOWARDS POTATOES AND HEALTH. THE RESULTS OF THE ONLINE SURVEY, CONDUCTED BY UK MARKET RESEARCH COMPANY YOUNGOV, SHOW THE NEED TO COMMUNICATE THE HEALTH BENEFITS OF POTATOES TO YOUNGER CONSUMERS.

WHICH DO YOU THINK IS THE HEALTHIEST OPTION?



Source: AHDB Consumer Tracker conducted by YouGov, July 2016. Please note, some numbers may not add up to 100 due to rounding.

CONSUMERS WHO EAT FRESH POTATOES AT LEAST ONCE A WEEK



Source: AHDB Consumer Tracker conducted by YouGov, July 2016.

The AHDB Consumer Tracker reports on trends such as lifestyle and cooking behaviour to understand how these factors influence in-home meal choices and food purchases.

Attitudes are collected via a YouGov online survey, with the potatoes section of the July survey completed by 1,025 UK nationally representative respondents aged 18-64. The potatoes survey is conducted twice a year and the latest round of fieldwork was conducted from 11-29 July 2016.

Attitudes in consumption

The latest survey found that 62 per cent of those aged 25-34 think that potatoes are healthy, compared to 76 per cent of those aged over 55. This younger age group is also the least likely to know that potatoes are salt-free, low in sugar and naturally fat-free.

In general, younger consumers have a higher level of apathy towards potatoes. This is something that needs to be addressed as not only are there differences in consumer attitudes, but differences in consumption.

Maintaining sales

Although there has been an increase in the number of young consumers who eat fresh potatoes at least once a week since last year, the industry needs to ensure that they don't carry their less frequent consumption of fresh potatoes into later life. This will help maintain sales volumes in the potato category, which are currently growing at 1.4

per cent year-on-year in the United Kingdom.

There is also a bigger hurdle for potatoes, in the image of carbohydrates. Forty-eight per cent of consumers aged 18-24 agree that carbohydrates are fattening, compared to 35 per cent among those aged 55 and over.

However, there is still scope to improve the perception of potatoes. When compared to rice and pasta, potatoes come a clear second when consumers are asked which is perceived to be the healthiest option, and this is particularly noticeable in the younger age group.

Potato advantages

Compared to potatoes and pasta, fewer consumers believe that rice is fattening. Consequently, people are also less likely to think that removing rice from your diet will help weight loss. The strengths of potatoes in terms of health include being a source of fibre and having useful vitamins/minerals, as well as being highly versatile.

These research findings play a key role in AHDB Potatoes' *More than a Bit on the Side* campaign, which promotes the health benefits of potatoes to younger consumers.

Through the lovepotatoes.co.uk website, it also provides meal inspirations for quick, convenient meals – a need that the Consumer Tracker study has shown consumers are looking for. Given the results from this survey, AHDB has a big opportunity for long-term sales growth in the category of younger consumers.



For more information, please contact AHDB Consumer Insight Analyst Rebecca Hughes at rebecca.hughes@ahdb.org.uk.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007



Supporting Tasmania's potato industry

THE TASMANIAN POTATO SEED CERTIFICATION SCHEME PLAYS AN INTEGRAL ROLE IN THE POTATO INDUSTRY, WORKING CLOSELY WITH ORGANISATIONS SUCH AS HORTICULTURE INNOVATION AUSTRALIA AND PROCESSING POTATO COMPANIES SIMPLOT AND MCCAIN FOODS. IN THIS SECOND EDITION OF THE SEED CERTIFICATION COLUMN, TASMANIAN INSTITUTE OF AGRICULTURE SEED CERTIFICATION OFFICER LEONIE WHITE EXPLAINS THE SCHEME AND THE WORK INVOLVED.

Direct linkages with industry form a key element of the Tasmanian Institute of Agriculture's (TIA) vision to enhance the sustainability and productivity of Tasmania's agriculture sector.

The Tasmanian Potato Seed Certification Scheme is one of the ways that TIA directly engages with industry, delivering this service at the request of and with strong support by growers, processing and fresh market industries.

Industry support

TIA has three highly trained professional officers who work on the Scheme and inspect crops and harvested tubers for disease and purity throughout the growing season. This work includes a virus testing program, where all second generation crops are tested for the two most common viruses in the state – Potato virus S (PVS) and Potato virus X (PVX). Every couple of years, crops are also tested for Potato virus Y (PVY), which has not been detected in the state to date.

TIA staff also help maintain the competitive advantage of Tasmania's potato industry through research funded by

Horticulture Innovation Australia on diseases, and by monitoring for the Tomato potato psyllid (TPP). TPP is the carrier of the destructive Zebra chip disease, which would pose a significant threat to the industry if it reached the state.

High quality seed production

Tasmania is recognised for its abundance of fresh water, clean air, rich fertile soils and relative virus and disease-free status. The Scheme, which runs under the guidelines of the Australian National Standards, helps to maintain this reputation by ensuring the production of high quality seed with low disease levels and genetic purity. It is essential in maintaining the viability and integrity of the Tasmanian potato industry, including the sale of seed to other states and international markets.

The rich and fertile growing areas in Tasmania span from the north-west as far as Smithton, the northern region covering the Scottsdale area, the Midlands area around Longford, and the southern end of the state as far down as Woodsdale.

Supporting growers

The industry supports around 40 to 50 potato growers each season who grow anywhere between 1-25 hectare fields, and together produce around 600 hectares of seed potatoes for both processing and fresh market industries.

The processing sector is the backbone of the Tasmanian potato industry with the production of French fries for the Australian retail and fast food market. Tasmania is home to two processing companies – Simplot Australia has a processing plant at Ulverstone and McCain Foods (Aust) has a plant at Smithton.

Active contributions

Processing companies, the largest users of potato seed in Tasmania, are key supporters of seed certification. These companies actively contribute to innovation in the sector and have introduced a system that uses nursery growers to grow early generation seed. This has resulted in a significant reduction in virus spread throughout the state.

The fresh market industry makes up the remainder of

the sector and TIA holds a list of seed growers who supply certified seed of different varieties for fresh market production, with some heritage varieties dating back to the 1800s. The cultivars included in the program can be made available to the public with the grower's permission.

The Tasmanian Scheme is overseen by the Tasmanian Seed Potato Advisory Committee (TSPAC). This group was formed to provide advice on decision making and outcomes within the Tasmanian industry. The Committee consists of fresh market industry representatives, processing industry representatives and TIA staff.



For more information, please contact Leonie White on 03 6421 7648 or email leonie.white@utas.edu.au.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007



Young grower profile

Name:

Jason Cresswell

Age:

30

Location:

Deloraine, Tasmania

Works:

Quamby View

Grows:

Potatoes, carrots, poppies, cereal crops

How did you first become involved in the potato industry?

I have been brought up being involved in farming life and am passionate about it, working with my Dad who has run our family farm, and his father before him. I returned to work full-time on the farm after finishing school and completing my trade certificate. Over the years, I have learnt and developed the skills needed to be involved in the industry.

What is your role in the business?

I work alongside my Dad to

coordinate the planting, growing and harvesting of our crops and the day-to-day running of our farming operation.

How would you describe your average day at work?

I find the work to be fulfilling, enjoyable and rewarding. With farming, one of the good things is being able to see the rewards of the hard work and planning that goes into each crop.

What do you enjoy most about working in the potato industry?

There is always something new to trial and test, whether

it is the crop variety, fertiliser application or the use of different machinery. The trialling and results of these different things make growing potatoes both a constant challenge and learning experience.

What are the biggest challenges you face working in the industry?

Definitely Mother Nature! If it isn't too hot, it is too wet or too windy or too dry, making tasks like irrigation and spraying difficult.

Photography by Belle Young.



Where do you see opportunities for growth in the Australian potato industry?

Developing and growing better potato varieties that are more suited to storage. Also, I believe that lower input costs would help to grow the industry further.

As a potato grower, what is your biggest achievement so far?

Being awarded the 2015 Rabobank Simplot Young Potato Grower award. (Although I have not yet participated in the Farm Managers Program. It has been deferred to next year as

the timing did not permit for it to happen this year).

If you weren't working in the potato industry, what would you be doing?

I would most likely be a fitter and turner, which is what I trained to be after finishing school and prior to returning to work on the farm.

Where do you see yourself in five years?

Farming – working and expanding the business and passing the knowledge that I have gained on to my children.





Producing premium potato foods in New Zealand

AS CONSUMERS BECOME MORE DISCERNING ABOUT THE FOODS THEY PURCHASE, A RESEARCH TEAM FROM THE NEW ZEALAND INSTITUTE OF PLANT & FOOD RESEARCH LIMITED (PFR) IN PALMERSTON NORTH IS FOCUSING ON THE BEST WAYS TO DELIVER PREMIUM POTATO FOODS TO NEW ZEALAND'S DOMESTIC AND INTERNATIONAL MARKETS. PFR SCIENTIST MARIAN MCKENZIE PROVIDES A SUMMARY OF THE INSTITUTE'S WORK.

The New Zealand Institute of Plant & Food Research Limited (PFR) Premium Potato Foods program covers a wide breadth of research areas including sensory, food ingredients, bioactives, nutrition and health, and developing new products from waste streams.

It was established in response to the New Zealand potato industry's goal of significantly increasing domestic consumption and the export of New Zealand's potatoes by 2025. The aim is to provide consumers with desirable potato-based, added-value products.

All potato research at PFR links strongly into its potato breeding program, which has traditionally been a valuable resource of germplasm for the development of high yielding, disease-resistant potatoes with good post-harvest storage traits. In this research, PFR is tapping into its germplasm to help the industry develop added-value products.

One approach is to screen lines from the breeding program for cultivars with low glycaemic impact (GI). This is a complicated area, as many factors can affect the GI of a product and this is particularly

so for potato, which consumers traditionally see as a high glycaemic impact product.

However, the preliminary research has highlighted several potato lines bred by PFR that possess a trait in their cellular make-up that might potentially lower glycaemic impact. Further experiments are planned to investigate the biochemical basis for this trait and to test the identified potato cultivars by feeding samples to consumers while monitoring their blood glucose responses in real time.

Catering to consumers

In another piece of research, germplasm from the breeding program is being used to develop an understanding of potato flavour, including what flavours consumers like and what potato metabolites are responsible for those desired flavours.

To this end, the team has recently conducted a 120-person consumer trial, where participants tasted 12 different potato cultivars, recorded the flavours they could taste and scored how much they liked the overall flavour.

The initial results are encouraging in that it appears

consumers are able to discern different flavours in potato, and have clear preferences for the flavours of the different cultivars. This is valuable information, as sensory research is more commonly conducted on highly flavoured products such as fruits.

Consumers don't necessarily think of potato as having a great deal of flavour, but it is clear that when they are asked to consider flavour, they are able to distinguish between different cultivars and say what they like and what they don't. This information will be combined with metabolite data from the same samples, providing a picture of which compounds correlate with the flavours consumers like. This knowledge will be fed back into the breeding program to help breed cultivars with consumer-desired flavours.

Further research

PFR is also investigating the production of bioactive compounds from several different potato lines from the breeding program. A number of potentially high-value metabolites have been identified, including compounds

in the phenolic family. Experiments are in progress to confirm the concentrations of these compounds in potato tissue and their health benefits.

PRF's research on processed convenient formats of potato has led to work with commercial partners, and researchers see that adding health-beneficial components, while technically challenging, may offer new outlets for potato in the future.

PFR's Premium Potato Foods program moves potato from a production focus to one that adds value in market by addressing the future needs of consumers.



For more information, please contact Plant & Food Research Australia Business Development Manager, Silvia Estrada-Flores at Silvia@plantandfood.com.au.

This research was funded by AGMARDT and PFR's Core Research funds.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007

Save the date: Hort Connections heads to Adelaide

THE BIGGEST EVENT IN AUSTRALIAN HORTICULTURE NOW HAS A NAME – HORT CONNECTIONS. THIS HISTORIC CONFERENCE AND TRADE SHOW, TO BE HOSTED BY AUSVEG AND PMA AUSTRALIA-NEW ZEALAND LIMITED, WILL BE STAGED AT THE ADELAIDE CONVENTION CENTRE FROM 15-17 MAY.

AUSVEG and PMA Australia-New Zealand Limited (PMA-ANZ) have announced that Hort Connections, the ground-breaking national event for the horticulture industry, will be held at the Adelaide Convention Centre in May 2017.

Hort Connections officially combines the National Horticulture Convention and PMA Fresh Connections, the premier events of two of horticulture's leading organisations, AUSVEG and PMA-ANZ, and will be co-hosted by Australian Organic.

PMA-ANZ is an affiliate of the Produce Marketing Association (PMA Global), the leading global fresh produce trade association serving member companies around the world and every segment of the fresh fruit, vegetable and floral supply chain.

The date has been set for the event, taking place from 15-17 May 2017.

The legacy continues

AUSVEG Chairman Geoff Moar explained the significance of

Hort Connections, the world-class event for Australia's horticulture growers and whole-of-supply-chain companies.

"Hort Connections is a joint initiative between AUSVEG and PMA-ANZ to deliver an industry event that will not only continue the positive legacy from our respective conventions, but provide even more value to our growers and industry members," Mr Moar said.

"Hort Connections is already attracting tremendous attention from local and international industry members and is set to become the most significant horticulture event in the Australasian region.

"We are looking forward to working with PMA-ANZ to deliver this event, which will help build a more unified horticultural industry and attract interest from all across the globe."

Key collaboration

AUSVEG has been working closely with PMA-ANZ Chairman John Said, retiring Chief Executive Officer Michael

Worthington and incoming CEO Darren Keating to plan Hort Connections.

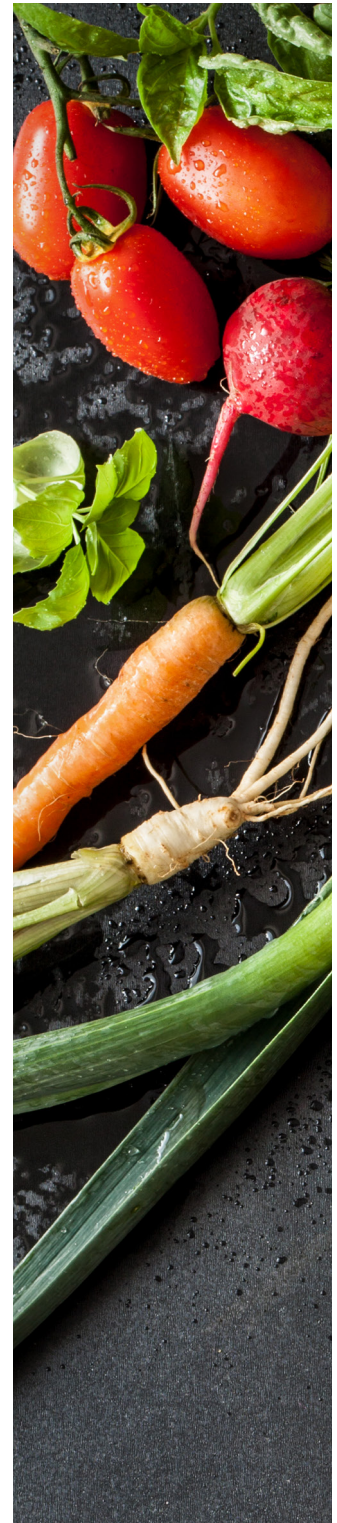
According to Mr Said, Hort Connections will bring the entire industry together at one world-class event.

"(This will allow) a wider range of horticulture growers and fresh produce supply chain members to forge strong business networks and gain valuable insights into the entire industry," he said.

AUSVEG and PMA-ANZ are also in discussions with other industry groups to co-host the event in an effort to further unite the horticulture industry.



For more information, please contact AUSVEG on 03 9882 0277 or info@ausveg.com.au. Further details will be published in upcoming editions of *Potatoes Australia*.



THE ULTIMATE MACHINE FOR GROWERS

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"The IMANTS Rotary Spader allowed us to reduce two passes prior to cultivation, and fumigate at the same time" Pete, South Australian Potato Farmer





with Scott Mathew

SINCE ITS LAUNCH A DECADE AGO, THE SYNGENTA POTATO PARTNERS PROGRAM HAS RECENTLY UNDERGONE ANOTHER REVAMP TO HELP POTATO GROWERS GAIN INDUSTRY KNOWLEDGE AND ACCESS THE LATEST PRODUCTS. SYNGENTA TECHNICAL SERVICES LEAD SCOTT MATHEW EXPLAINS WHAT THE PROGRAM CAN OFFER GROWERS.

I have had a few of my regular potato agronomists call me recently about the revamped Syngenta Potato Partners program and they wanted to get a little update on the program.

How did the program begin?

Potato Partners was first launched in 2006 after several meetings with some of the key potato industry stakeholders, including Syngenta, who at the time were a little worried about where the Australian processing potato industry was headed.

Syngenta sought to take its comprehensive crop protection portfolio for potatoes and provide growers with the tools to produce sustainable, premium potatoes, year-on-year. Potato Partners was then created, giving growers access to quality products that cover crop establishment, the

growing stage, harvest and then desiccation and post-harvest, as well as before-market access to new technologies and innovations.

What were the aims of the program?

The program was developed to assist growers in meeting some of their major production challenges by improving their cash flow, productivity and yields.

It has provided a launch pad for the development of a number of innovative products for the potato industry, such as Ridomil Gold® 480SL, Amistar Top® and Boxer Gold®.

Potato Partners is based on three pillars: products, innovation and support. Through the program, Syngenta offers proven performance with trusted, quality brands as well as providing access to new

technologies like the AMISTAR In-Furrow and the Syngenta Potato nozzle while providing technical resources and local expertise.

What is new in the Potato Partners program for 2016?

Potato Partners 2016 will see a number of additional benefits

added to the growing list of program features, including invite-only workshops and training sessions, and individual technical support.

This year, growers gain access to a redesigned Syngenta potato nozzle, which helps to deliver products in the most efficient and effective way possible.



For more information or to ask a question, please contact your local Syngenta Territory Manager, the Syngenta Advice Line on 1800 067 108, visit syngenta.com.au or email *Potatoes Australia*: info@ausveg.com.au. Please note that your questions may be published.

The R&D content for this article has been provided to *Potatoes Australia* to educate Australian potato growers about the most relevant and practical information on crop protection technologies and their on-farm applications.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007

Correction: Value of potato imports and exports

AUSVEG WOULD LIKE TO ADVISE THAT AN ARTICLE ENTITLED *POTATO TERMS OF TRADE: FIRST QUARTER 2016*, PUBLISHED ON PAGE 16 OF THE AUGUST/SEPTEMBER 2016 EDITION OF *POTATOES AUSTRALIA*, CONTAINED INCORRECT DATA PERTAINING TO THE VALUE OF AUSTRALIAN POTATO IMPORTS AND EXPORTS. AUSVEG SINCERELY APOLOGISES FOR ANY INCONVENIENCE THIS ERROR MAY HAVE CAUSED. THE CORRECTED DATA SOURCED FROM *GLOBAL TRADE ATLAS* IS AS FOLLOWS.

Table 1: Potato and Potato Produce Exports (\$AUD Millions)

Product	Q4-14	Q1-15	Q2-15	Q3-15	Q4-15	Q1-16	Q2-16
Frozen prepared potatoes	2.87	3.92	3.49	3.09	2.46	3.15	2.75
Non-frozen prepared potatoes	0.1	0.08	0.06	0.32	0.34	0.24	0.49
Flakes, granules and pellets of potatoes	0.02	0.02	0.02	0.1	0.02	0.01	0.04
Seed potatoes	0.11	0.58	0.88	0.7	0.05	0.76	1.14
Flour and meal of potatoes	0.02	0.06	0.08	0.06	0.02	0.09	0.1
Frozen potatoes boiled in water	0.06	0.03	0.09	0.05	0.16	0.15	0.02

Table 2: Potato and Potato Produce Imports (\$AUD Millions)

Product	Q4-14	Q1-15	Q2-15	Q3-15	Q4-15	Q1-16	Q2-16
Frozen prepared potatoes	42.88	28.65	35.06	34.4	36.25	35.03	33.38
Non-frozen prepared potatoes	2.07	1.71	2.03	2.58	2.14	2.34	1.56
Flakes, granules and pellets of potatoes	0.86	1.15	2.36	1.89	1.44	1.49	1.57
Seed potatoes	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Flour and meal of potatoes	0.03	0.03	0.03	0.04	0.03	0.05	0.17
Frozen potatoes boiled in water	0.07	0.14	0.05	0.06	0.03	0.08	0.07

- Potato imports rose 23 per cent in Quarter 1 2016 when compared to Quarter 1 2015.
- In Quarter 1 2016 when compared to Quarter 1 2015:
 - Frozen prepared potato imports rose 22 per cent;
 - Non-frozen prepared potato imports rose 37 per cent.
- During Quarter 1 2016, Australia imported around AUD\$38.99 million worth of potato produce.



For more information, please contact AUSVEG. Phone: 03 9882 0277 Email: info@ausveg.com.au

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007

Horticulture
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Strategic Investment Plan discussions underway

HORTICULTURE INNOVATION AUSTRALIA RECENTLY STARTED ITS STRATEGIC INVESTMENT PLANNING (SIP) PROCESS FOR BOTH THE FRESH AND PROCESSING POTATO INDUSTRIES. THE SIP LAYS THE FOUNDATION DECISION-MAKING IN LEVY INVESTMENTS AND REPRESENTS A BALANCED VIEW OF STAKEHOLDERS IN THE INDUSTRY.

Horticulture Innovation Australia (Hort Innovation) has launched its 2016 Strategic Investment Planning (SIP) process, with consultation events for both the fresh and processing potato industries recently held across two cities.

The fresh potato consultation events were held from 25-26 August in Sydney, while processing potato industry members met from 25-26 August in Sydney and 1 September in Melbourne.

Meanwhile, Hort Innovation hosted the potato industry Strategic Investment Advisory Panel (SIAP) at its Sydney head office on 26 August.

At this meeting, Hort Innovation provided the panel members with an induction outlining the objectives, governance and scope of operation of the panel. Included in this session was an overview of the Hort Innovation funding model, innovation process and procurement framework.

The panel then gained an understanding of the current potato industry research and development (R&D) investments. The process for

developing the next Potato Strategic Industry Plan was then discussed, followed by the industry's short-term investment priorities. A number of areas were identified for near-term investment, including the focus on important areas like disease, biosecurity, extension and communication, among others.

These investment opportunities will also help shape the SIP, given their importance to the broader potato industry.

Grower roadshow and consultation

As part of the process for producing a new SIP for the potato industry, Hort Innovation has engaged specialist consultancy agency McKINNA et al to meet with growers and industry to accurately reflect the industry's funding priorities for R&D in the next five years.

McKINNA et al will be hosting grower roadshows in each Australian state in mid-to-late October to allow growers to share what they believe are the important areas for R&D investment. These roadshows

Strategic Investment Advisory Panel – Fresh

Name	Organisation	Location
Daryl Lohrey	Lohrey Pastoral	TAS
John Doyle	Doyle's Farm Produce Pty Ltd	NSW
Ben Dowling	Dowling AgriTech	SA
Pennie Patane	Patane Produce (WA) Pty Ltd	WA
Andrew Lamont	Oakville Produce	NSW
Frank Rovers	F. & K.L. Rovers	Vic
Geoff Moar	Geoff Moar Family Trust	NSW
David Nix	D.G.Nix	QLD
Tim Heysen	Heysen Partners	SA
Terry Buckley	Buckley Farms	SA
Ken Morley	Solan (SA) Pty Ltd.	SA
Sam Humphries	KR & JM Humphries	SA

Strategic Investment Advisory Panel – Processing

Name	Organisation	Location
Allan Smith	Snack Brands Australia	NSW
Anne Ramsay	PPAA	Vic
Brett Pemberton	Pepsi-Co	NSW
Frank Mulcahy	Simplot Australia Pty Ltd	TAS
Josh Opas	McCain Foods (Aust) Pty Ltd	Vic
Paul McBeth	Marvel Packers	Vic
Peter Hardman	Simplot Australia Pty Ltd	TAS



CALENDAR

8 November 2016

Farm Biosecurity 2016

Where:

Lilydale Lakeside Campus,
Victoria

What:

Farm Biosecurity 2016 is a must-attend event for primary producers and businesses with farm biosecurity responsibilities. The event will address farm biosecurity in a practical and informative series of workshops and lectures. Sessions will address emerging threats and how to minimise the likelihood of an outbreak.

Further information:

Please contact the Biosecurity Centre of Excellence on 03 8892 2530 or visit boxhill.edu.au/event/farm-biosecurity.

15-17 May 2017

Hort Connections

Where:

Adelaide Convention Centre,
South Australia

What:

A joint initiative between AUSVEG and PMA Australia-New Zealand Limited (PMA-ANZ), and co-hosted by Australian Organic, Hort Connections is a combination of the National Horticulture Convention and PMA Fresh Connections. This premier event will deliver a world-class program and trade show to growers and whole-of-supply companies alike.

Further information:

Please contact AUSVEG on 03 9882 0277 or email info@ausveg.com.au.

are a great opportunity for growers to have their say on the priorities for levy investment in the potato industry. There has already been much discussion around industry profitability, business skill development and exporting, as well as the traditional R&D and extension areas.

If growers are unable to make it to a roadshow, McKINNA et al will be interested to hear your views on priority areas for levy investment in the potato industry. Interested growers and industry members can email strategicinsights@mckinna.com.au to have their voices heard.

Next steps

The process for developing the next SIP will be drafted soon and include R&D investments. The collection and analysis of data will help guide the thinking around the SIP process prior to discussions with the SIAP. The panel will meet again in November 2016 to further the strategic planning process.

BACKGROUND ON MCKINNA ET AL

McKINNA et al is a specialist strategic planning consultancy with over 30 years of advisory experience in the global agrifood arena. The consultancy has delivered projects across virtually every agrifood sector, from commodities to Australia's leading brands, spanning 'paddock to plate'.

Company principals Catherine Wall and Dr David McKinna both have hands-on experience in commercial agrifood businesses as well as advising government, industry and most of the major food companies in Australia in areas such as market analysis, supply chain analysis, export market development, industry development, marketing strategy and strategic planning.

Dr McKinna was the quiet achiever behind significant food industry strategies for meat (MSA), dairy (Big M, Rev), retail (Woolworths, The Fresh Food People) and was the architect of many industry export strategies for horticulture.

"Our strategic planning method has been honed over many years – it is simple but highly effective. It's a top-down approach, where we engage with industry to identify the most critical burning issues impacting their businesses, then collaborate to build a strategic response around that," Dr McKinna said.



For more information, please visit horticulture.com.au or contact Hort Innovation Potato Relationship Manager Christian Patterson on 02 8295 2382 or 0433 896 753 or email christian.patterson@horticulture.com.au.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007

**Horticulture
Innovation
Australia**



L-R: Angus Galloway and Jacob Clarke.

Snack Brands Australia is currently trialling LiveFarmer® with growers, while Simplot will pilot Agridata® this season. Both products offer a whole farm software package with full traceability, cost management and a platform for full integration across the supply chain.

Mark Delana of LiveFarmer® outlined the system's features.

"LiveFarmer® is a complete farm management system where inputs, outputs and assets are recorded and then next step activities can be scheduled and managed," he said.

"The system over time develops crop schedules and prompts the right person at the right time to undertake the next steps.

"The user is able to configure what they see on their own 'dashboard' and, if desired, what their staff, suppliers and processors are able to view and access from their personalised database."

Value of data recording

Snack Brands Australia views the greatest benefit of LiveFarmer® as building data on the historical use of farmland, which will be important for the industry

to demonstrate long-term responsible farming practices.

"There is value in recording general agronomic practices such as nutrition rates, seed size, supplier and spacing. This allows a review of what is working well and what needs rethinking," Snack Brands Australia Agronomy Development Manager Michael Hicks said.

Snack Brands grower James Fahey is a LiveFarmer® user and considers that the greatest advantage to his business is the efficient collection and supply of data to his independent Quality Assurance (QA) auditor.

"The benefit for me is that I can enter details as I go on my smartphone, and when I get home it's also synced to the software on my iPad," he said.

"The program has all the chemical details preloaded which saves me considerable time and allows easy supply of information to the QA program.

"Some of the features are beyond our needs, but I am keen to explore the system where staff can scan on and scan off on an electronic time clock which is then linked to the payroll."

Meanwhile Agridata® has been used by Simplot in the United States for the past 10 years, with around 30 million hectares recorded and

Benefits of whole farm software

THE RAPID ADVANCEMENT OF SMARTPHONES, TABLET TECHNOLOGY AND CLOUD-BASED DATA CAPTURE IS FACILITATING THE DEVELOPMENT OF SOME EXCITING TOOLS FOR GROWERS AND THE GREATER SUPPLY CHAIN. IN THIS COLUMN, THE POTATO PROCESSORS ASSOCIATION OF AUSTRALIA LOOKS AT SOFTWARE THAT DELIVERS WHOLE FARM DECISION AND TRACEABILITY SUPPORT.

managed using this software. Users in the United States cite the greatest value as having everything together in the one place and the power of tracking your cost of production and saving time in compiling data for various audits.

"It's a pretty versatile system; it does all the conversions and equations for you. And if you are out in the field and can't remember something, you just pull out your phone," US grower Derek Wanders said.

Grower trials

Simplot Seed Potato Field Officer Angus Galloway said Agridata® will enable Simplot to more efficiently track compliance and environmental sustainability into the future by collating chemical inputs and water use information.

"It is a very easy-to-use system that uses a smartphone app and desktop management tool. Agronomists are able to create recommendations from the software, which then become work orders for growers," he said.

"A small number of growers will be selected for a small trial this season and once we are confident we will roll it out further."

In this article, PPAA has discussed two options available

to growers and the wider industry. There are others although it depends upon users' requirements.

For growers looking for an independent review of software, Horticulture Innovation Australia has funded a review of options available to meet QA requirements. Although QA focused – rather than whole farm – the report offers a useful checklist and guide for functionality features.

The 2015 report *Evaluation of quality assurance software for the vegetable industry* by Belinda Hazell of TQA Australia Inc (Project Number: VG13082), suggests that one size may not fit all. A copy of the report can be found on the AUSVEG website (ausveg.com.au).



For more information, please contact Anne Ramsay on 0400 368 448 or at ppaa.eo@gmail.com.

This communication has been funded by Horticulture Innovation Australia Limited using the National Potato Levy and funds from the Australian Government.

Project Number: PT15007

Horticulture
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Powdery scab: A major challenge for potato growers

POWDERY SCAB FIRST APPEARED IN AUSTRALIA IN THE 1920s BEFORE REACHING EPIDEMIC LEVELS IN THE 1970s, AND IT IS STILL A SERIOUS PROBLEM FOR POTATO GROWERS TODAY. *POTATOES AUSTRALIA* HAS PRODUCED THIS UPDATE TO EXPLAIN HOW GROWERS CAN IDENTIFY AND MANAGE THE DISEASE.

Powdery scab is a significant problem for the Australian potato processing industry since its arrival on our shores in the 1920s, and it is spreading worldwide with no known infection process.

Caused by the fungus *Spongospora subterranea*, root infection is invisible to the naked eye and is generally accompanied by root galling and tuber lesions. These tuber lesions are the well-known symptoms of Powdery scab, and can sometimes be confused with the symptoms of Common scab.

Root galls are small white growths of callous tissue on the plant roots, and plants may develop tuber Powdery scab but not root galls, and vice versa. The pathogen survives for long periods of time in the soil, with reports of it lasting 10 years or more.

Symptoms of Powdery scab in potatoes first show as small raised pimples beneath the skin. The scabs then appear on tuber skin with a ragged, papery edge and dry, powdery tissue on

the inside. Scabs are often more numerous at stem-end and may produce tumour-like growths in the eyes.

Disease transmission

Powdery scab is associated with cool and wet conditions, in temperatures less than 15 degrees Celsius. It can be transmitted by infected seed tubers and infested soil into new ground.

Seed tuber-borne inoculum may be less likely to transmit the disease if the soil is already heavily infested, while paddock history (previous potato crop infection) can provide a guide to the probability of infection, depending upon the susceptibility of the potato variety planted.

Powdery scab can also be spread through dung if cattle eat infected potatoes, so it is recommended to avoid feeding infected tubers to stock as the pathogen can spread elsewhere on a farm.

Disease management

It is crucial that growers take steps to minimise the threat of the disease. If Powdery scab infection is suspected, growers need to make sure they have correctly identified which type of scab is present, and have their paddock tested using options such as the DNA-based soil testing service PreDicta Pt – trials in southern Australia have shown it to work well for identifying Powdery scab infection.

Growers are also advised to plant in warmer conditions where possible, as this results in quicker growth and limits the time for infection to occur.

Risk reduction

To reduce the spread of disease, growers need to remain vigilant in terms of maintaining good on-farm hygiene policy, particularly when handling seed and in the packing shed. It is advised to keep machinery clean and plant tubers shallower in the hills, as this

may also help reduce risk of Powdery scab infection.

Growers are also advised to increase crop rotations. Every 3-5 years is suggested as a minimum between potato crops to achieve substantial reductions in soil inoculum.



The topic for this article was selected following the results of PT13013 *A review of knowledge gaps and compilation of R&D outputs from the Australian Potato Research Program.*

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007



White-fringed weevil adult on a potato leaf.

Project reflection: Managing white-fringed weevils

IN THIS ARTICLE, WE LOOK BACK ON A THREE-YEAR LEVY-FUNDED PROJECT THAT AIMED TO IMPROVE THE MANAGEMENT OF WHITE-FRINGED WEEVILS IN POTATOES. DR PAUL WALKER FROM THE TASMANIAN INSTITUTE OF AGRICULTURE SPOKE TO *POTATOES AUSTRALIA* ABOUT THE OUTCOME OF THE TWO-PART PROJECT.

The white-fringed weevil (*Naupactus leucoloma*) is a major pest of potatoes in Australia. Grubs live in the soil where they can cause devastating damage to the roots and tubers of crops.

Originating from South America, the weevil was first discovered in New South Wales in 1932 but probably did not enter Tasmania until the mid-1980s.

Increasingly, potato growers are relying on the application of pre-plant insecticide sprays to prevent white-fringed weevil grub damage. However, the application of such sprays may be unwarranted if densities of white-fringed weevil grubs are too low to cause economic damage.

Project flashback

In response to this issue, Horticulture Innovation Australia

Limited commissioned a three-year project that aimed to improve the management of white-fringed weevil grubs. The project was based at the Tasmanian Institute of Agriculture and led by Associate Professor Geoff Allen, with Dr Paul Walker conducting the research.

The project ran for three years, from 2011-14, and had two objectives. They included the evaluation and extension of an existing white-fringed weevil grub sampling plan to Tasmanian potato growers as well as conducting novel research to determine how white-fringed weevil grubs detect the presence of host-plant roots in the soil.

To make informed decisions on the need to spray insecticides, it was necessary to accurately determine the density of white-fringed weevil grubs present in a paddock

using a reliable sampling plan. While such a sampling plan had been developed for mainland potato crops, it had not been tested for Tasmanian populations of white-fringed weevil, nor was it adequately extended to all Tasmanian potato growing districts.

Research findings

Dr Walker spoke to *Potatoes Australia* about the findings from the project and the opportunities for further research.

“While we found evidence that the grubs could detect the presence of host-plant roots (using a favoured host – lucerne) there was no evidence that they could discriminate between the presence of different types of host-plants (such as lucerne and sorghum – an unfavoured host). Also, the orientation of white-fringed

weevil grubs to potato roots or tubers was very weak,” Dr Walker said.

“This and other experimental evidence suggested that white-fringed weevil grubs either randomly searched the soil for food or at best used very general, ubiquitous soil-borne compounds (possibly carbon dioxide) to orient towards roots.

“This was a disappointing outcome for us as we hoped to find a specific suite of compounds emanating from roots or tubers that may have acted as attractants or deterrents to white-fringed weevil grubs, as had been found by overseas research on other soil insect pests.”

Project positives

Dr Walker said the extension part of the project produced more promising results.

“The sampling plan developed



White-fringed weevil grub in potato.

on the mainland was found to be suitable for adoption in Tasmania and should be used to determine the risk of damage to potato crops in fields before planting, particularly when following a long rotation of pasture with legumes (as previously known from research on the mainland)."

He added that laboratory results from this project also suggested that the susceptibility of tubers to white-fringed weevil grubs differed when they were offered a choice of tubers from five potato varieties commonly

grown for the fresh market.

"Follow-up research on this would be of interest, to test the susceptibility of varieties grown for both the processing and fresh markets, under in-field conditions," Dr Walker concluded.



For more information, please contact Dr Paul Walker at paul.walker@utas.edu.au.

The project, *Improving management of white-fringed weevils in potatoes*, was funded by Horticulture Innovation Australia Limited using the Processed Potato Levy and funds from the Australian Government.

Project Number: PT09027

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Late blight: An ever-present threat

IN THIS EDITION OF *THE FRONT LINE*, WE LOOK AT THE POTENTIAL BIOSECURITY THREAT OF NEW STRAINS OF LATE BLIGHT ARRIVING IN AUSTRALIA. THE DEVASTATING EFFECTS OF LATE BLIGHT ARE VERY FAMILIAR TO POTATO GROWERS AND THE DISEASE HAS CAUSED SOME CATASTROPHIC DAMAGE IN ITS 150-YEAR EXISTENCE – MOST NOTICEABLY THE IRISH POTATO FAMINE. AUSVEG BIOSECURITY COORDINATOR CALLUM FLETCHER REPORTS.

Globally, Late blight (*Phytophthora infestans*) is the most destructive pathogen of potatoes – it is responsible for the annual loss of 15 per cent of all potato production. To put this into an economic context, the damage the disease causes the United States every year exceeds US\$3 billion (approximately AUD\$3.96 billion).

In Australia, it is believed that Late blight arrived on our shores in the early 1900s. In the present day, potato growers must remain vigilant as the potential arrival of newer, more virulent strains of the disease are a serious biosecurity threat, particularly as these strains are already present in potato growing areas throughout the world.

Two types of Late blight

Late blight is divided into two mating types, A1 and A2. Australia is in a reasonably good position, as the strain of Late blight found here is an old line of A1 that has now probably disappeared from most parts of the globe through displacement by more aggressive strains.

The biosecurity threat that Late blight poses is that these new and aggressive strains could become established here.

These threats take two forms: newer forms of A1 that are resistant to some fungicides, and the A2 mating type which would potentially allow sexual reproduction with the existing A1 strains currently in Australia.

Global spread

Both the A1 and A2 types originated in Mexico, but it was the A1 type that spread globally, beginning in the early 1840s and immediately causing so much damage to the Irish and other European potato growing industries (see the breakout box for more information).

Beginning in the 1980s, the A2 type also began to spread out of Mexico – first to Switzerland, northern Europe, Japan and Korea. By the early 1990s, it had become common across North America.

A destructive duo

When the A1 and A2 types reproduce, there are two consequences. Firstly, the new combinations of genes allow for the development of new strains. This causes newer, more virulent strains of the A1 type that are able to develop resistance to fungicides like metalaxyl.

Secondly, mating produces



A CAUSE OF REVOLUTIONS

The arrival of Late blight in Europe, most likely from potatoes for feeding passengers on schooner voyagers from the United States, had a massive political and social impact.

It began in 1845 with the catastrophe of the Great Irish Famine; its effects were to have future consequences that would reverberate throughout the British Isles, Europe and the world. Ireland was hit particularly hard because it was heavily reliant on potatoes to provide the majority of calorie intake of its population, but the arrival of Late blight also affected the more diversified crop systems throughout Europe.

In 1846, with the failure of the second harvest in Ireland, mortality from the effect of Late blight grew rapidly. Few people actually perished from starvation, but they died from hunger-related diseases. The famine lasted for four years and at the end of it, Ireland had lost 20 per cent of its pre-famine population of eight million. One million had died and the rest of the decline was a result of mass-emigration and low birth rates.

Protective measures

Attempts to combat the food shortages resulted in different policy approaches. Many European governments decided to impose protectionist trade measures to keep scarce produce in the country.

The British chose to follow a free trade policy and repealed the Corn Laws, which were a tariff on grain imports. This shifted power from the landowners in the country to the merchants in the cities and further stimulated the move towards trade and globalisation.

Late blight's arrival in Europe coincided with a failure of the wheat and rye harvest due to a rust outbreak. The two stresses caused subsistence crises, where people faced the risk of potential death, and very high grain prices.

The price rises resulted in waves of panic, popular unrest and revolts throughout Europe that led to the revolutions of 1848. There is a strong correlation between the societies that suffered through these food price rises and those that went on to experience political conflict and contribute to the wave of revolutions in 1848.

oospores, which are a much hardier type of spore. Unlike the asexually produced spores that are destroyed when weather conditions are too hot, cold or dry, these oospores are able to overwinter in soil for years and be unintentionally transported by being picked up in soil on farm boots or sticking to farm equipment.

Sexual reproduction results in the newer strains of Late blight found outside of Australia. Along with chemical resistance, the newer strains are also able to thrive in a greater range of temperature (3-27 degrees Celsius, as opposed to 8-23 degrees Celsius for the older strain) and only require a much shorter period of time in ideal wet conditions (around four hours) to infect the plant.

Threat to Australia

Late blight could arrive in Australia through windblown spores or oospores transported on clothing, through soil on equipment or on illegally smuggled crops. Its survival in a greater temperature range means that a wider area of Australia could potentially be affected by the arrival of the new strains.

New strains also have different host preferences, and

it is believed that there are between 89 and 117 known host species for Late blight. These include commercial crops such as potatoes, tomatoes, capsicum and eggplant and weeds such as kangaroo apple and black nightshade.

Once it arrives, the new strains of Late blight could rapidly spread through airborne means and then establish in volunteer crops or overwinter in plant debris or soil for years. It would have a significant economic impact on the growing industry, both in terms of spray costs and restrictions on trade. The cost of chemical control on new strains overseas is about three times that of Australia.

Major trading partners, such as New Zealand, are free of these exotic strains. As a result, they may choose to limit or suspend cross-border trade if the new strains of Late blight arrived in Australia.

The new aggressive strains of A1 and A2 oospores of Late blight found around the world could potentially cause major epidemics and total crop losses in Australia. Grower awareness and good farm biosecurity will go a long way in protecting Australian agriculture from any possible future incursion.



The topic for this article was selected following the results of PT04010 *Late Blight Management* by Dr Jacqueline Edwards, Department of Primary Industries.

Any unusual plant pest should be reported immediately to the relevant state or territory agriculture agency through the Exotic Plant Pest Hotline: 1800 084 881.

For further information, contact AUSVEG National Manager – Science and Extension Dr Jessica Lye or AUSVEG Biosecurity Coordinator Callum Fletcher on 03 9882 0277 or jessica.lye@ausveg.com.au or callum.fletcher@ausveg.com.au.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007

The challenge to control blackleg in potatoes

A PROJECT DEVELOPED BY A NUMBER OF ORGANISATIONS, WITH FUNDING FROM THE SCOTTISH GOVERNMENT AND THE UK'S AGRICULTURE AND HORTICULTURE DEVELOPMENT BOARD (AHDB) POTATO GRANT, HAS LED TO NEW DISCOVERIES CONCERNING BLACKLEG IN POTATOES.

Blackleg is a common bacterial disease in potatoes, and has been detected across all sectors in the UK.

The majority of blackleg in Scotland is caused by *Pectobacterium atrosepticum*. In other countries, blackleg can also be caused by *Pectobacterium wasabiae*, *Pectobacterium brasiliensis*, *Pectobacterium carotovorum*, *Dickeya solani* and *Dickeya dianthicola*. *Dickeya* spp. has become a problem in the United States in the past year.

Blackleg symptoms include seed or seed piece rotting before emergence (blanking), wilting and senescence of stems and plants and the classic black slimy stem rot arising from the rotting mother tuber. This black slimy rot is typical for *P. atrosepticum*, but doesn't always appear from *Dickeya* spp.

Tough season in UK

Speaking at Potatoes in Practice, the UK's largest field-based potato event held on 11 August, Scotland's Rural College (SRUC) potato consultancy and researcher Dr Stuart Wale said it had been a difficult year for controlling blackleg.

"There is a very nice relationship with the colder and wetter the June is, the more blackleg there is around and this year June was not great. To help the industry we are going to need a good autumn," Dr Wale said.

Although weather plays a major role, there have been

new discoveries made in relation to blackleg incidence.

Routes of blackleg contamination of high grade potato seed stocks by Pectobacterium species, a Scottish Government and AHDB project, provided further insight into the disease.

Project findings

While the final report is yet to be finalised by AHDB, the project uncovered a number of factors relating to blackleg.

Dr Wale, who worked on the project along with James Hutton Institute researcher Professor Ian Toth and Deputy Head of Science and Advice for Scottish Agriculture (SASA) Professor Gerry Saddler, revealed some of the key findings, including:

- There is no evidence that new strains of *Pectobacterium* are responsible for the increased levels of blackleg seen in Scotland over recent years.
- Mini-tubers were found to be free from any pectolytic bacteria. This suggests that the likelihood of blackleg bacteria initiating from *P. atrosepticum* contamination of mini-tubers is limited.
- Monitoring on pre-basic farms showed contamination by pectolytic bacteria could not be detected until it reached a certain level.
- In the experimental plots, there was an indication that contaminated mother tubers are not the only source of blackleg disease.
- Even in drier conditions, tubers are contaminated by

Pectobacterium spp. in the field with wet weather helping to both spread and initiate disease development.

Dr Wale added that blackleg is not a random event but is clustered geographically, with high and low spots that change from year to year.

"This suggests that blackleg problems are not farm or local area associated across years, but when problems do occur they are often accompanied by other blackleg problems in that area. The reason(s) for this is so far unclear," he said.

Further control activities

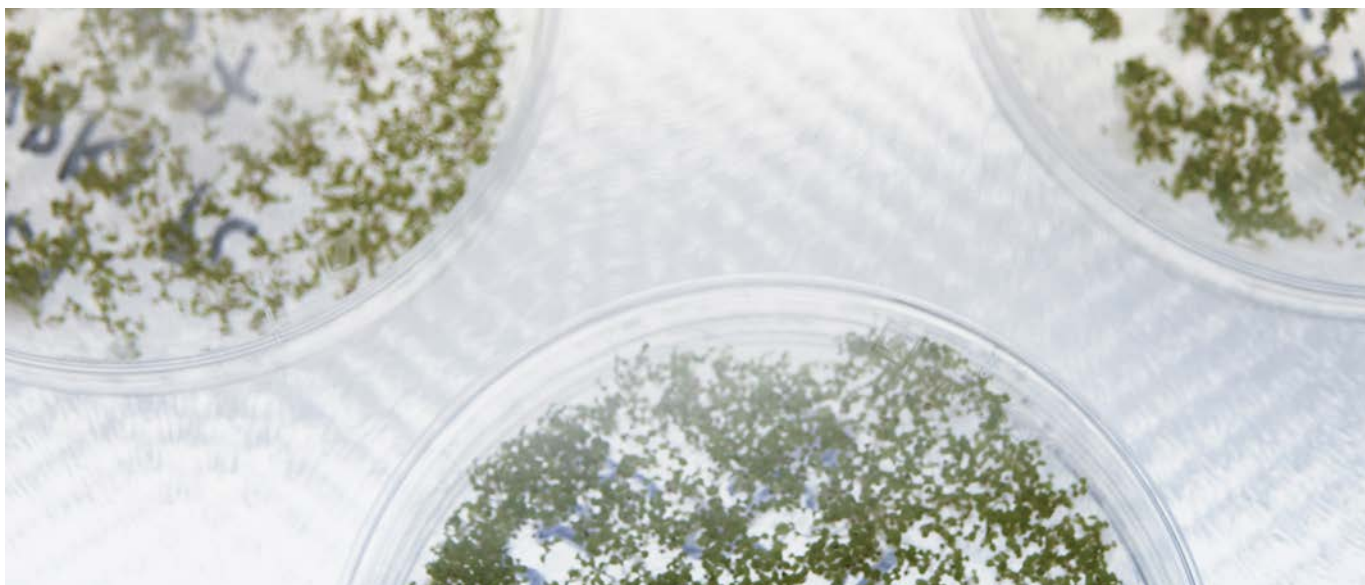
Dr Wale said there are a plethora of novel attempts to control blackleg in potatoes. These include introducing bacteriophages (a virus specific to the pathogen) to kill the bacteria and UV treatment of seed tubers (the main source of inoculum).



For more information, please visit potatoes.ahdb.org.uk.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007



Promoting beneficial bacteria

GLOBAL AGRIBUSINESS, BAYER, HAS INTRODUCED THE FIRST PRODUCT IN ITS BIOLOGICS RANGE TO AUSTRALIAN GROWERS. SERENADE PRIME IS BASED ON BENEFICIAL BACTERIA, AND IS SUITABLE FOR USE ON FARMS WHERE SOIL HEALTH IS THE PRIMARY FOCUS.

The science of biologics in agriculture is a rapidly emerging technology for sustainable crop management. Bayer has become very active in this space through the launch of one of its flagship products in Australia, Serenade® Prime, which is based on beneficial bacteria.

Testing from a collection of over 20,000 separate strains of the soil bacteria *Bacillus subtilis*, the agribusiness has identified and developed one unique and highly potent strain, QST 713.

A mutual relationship

Applied early in the crop cycle, the beneficial bacteria colonises new root systems and increases the biochemical exchange activity at the soil/plant interface. The relationship which then forms between the bacteria and the crop plant is mutually beneficial – the bacteria enhance the interface between the soil and the plant roots enabling better nutrient exchange, and in return the plant provides a food source

for the bacterial colonies in the form of root exudates.

The active agents in Serenade Prime are the intact endospores of the highly active QST 713 strain of the *Bacillus subtilis* bacteria. These endospores are extremely tough 'survival stages' of the bacteria which can remain dormant but viable in extreme conditions for long periods.

When applied in proximity to actively growing young roots, the endospores in the product can sense root exudates from growing roots from up to 13 centimetres through the soil matrix. When this signalling is strong, the endospores are stimulated to germinate. They then grow multiple flagella (small tails) and can swim through soil towards the roots where they colonise the surfaces of young roots and root hairs. This occurs very rapidly (usually within two days).

Better plant and soil health

This behaviour occurs in a zone in the soil around the

plant root systems called the rhizosphere by ecologists. In the rhizosphere, plants and bacteria develop mutually beneficial (symbiotic) relationships if conditions are right and when the interactions are in balance, both the plants and the bacterial populations in this zone are healthier as a result.

The end-result of a successful colonisation is a dense productive layer of live bacteria around the root surfaces providing a dynamic interface between the plant roots and the soil resources.

This often (but not always) results in yield benefits in crops. However, yield differences are frequently less important than some of the other effects seen in trials. Often the most significant benefits have been with uniformity, maturity and quality of produce. Differences in finish of produce and post-harvest life have also been recorded in some crops, through improvement of crop quality.

Dominant strain

In the rhizosphere there is extremely vigorous competition among various species and strains of microbes for colonisation sites on the roots, and it is the success at competing for these sites which determine how effective each different microbe is.

The QST 713 strain is by far the most potent strain of *Bacillus subtilis* that Bayer has identified to date. After a well-timed application, this strain effectively dominates colonisation of roots.

Shelf life is similar to conventional crop protection products (generally two years). The product is compatible with most commonly used pesticides and fertiliser products, with minimal influence by pH, temperature or UV variations.



For more information, visit bayer.com.au.



Fighting for sustainability in northern Victoria

THEY BREED THEM TOUGH IN THE MALLEE, A REGION KNOWN FOR ITS DRY, EXTREME WEATHER. VICTORIAN CRISPING POTATO GROWER PETER CORCORAN IS BASED IN THE TINY SUNRAYSIA TOWN OF BANNERTON. HE SPOKE TO MICHELLE DE'LISLE ABOUT THE IMPACT OF THE VOLATILE CONDITIONS ON-FARM, AND THE CHALLENGE OF RECRUITING YOUNG PEOPLE TO WORK IN THE POTATO INDUSTRY.

Self-described as being a 'low-key' crisping potato grower, Peter Corcoran manages to keep an upbeat attitude despite working among the harshest conditions in Victoria.

Tucked away in Bannerton, 13 kilometres south of Robinvale, the Cora Lynn Swamp born and Mallee bred grower runs Corcoran Bros, an operation that includes six full-time employees plus input from his semi-retired father, Peter Senior. Uncle Kevin is also still involved in the business, assisting with the paperwork.

The younger Peter runs the majority of the company's day-to-day operations, whether it is laying groundwork, irrigation or fertigation, quality control, maintenance and overseeing employees and their work.

Peter worked on the farm on the weekends as a child, and left school at 15. He couldn't imagine doing anything else.

"I started that young I wouldn't know," Peter said, when asked what he'd be doing if he wasn't in the potato industry.

After a pause, he added, "I'd probably be an engineer or something, but I was born and bred into the potato industry."

After 16 years of full-time work, Peter's dedication to the industry has been recognised by Smith's Snackfood Company, naming him Grower of the Year three times since 2007.

Weathering the conditions

Victoria's Mallee region is known

for its unforgiving climatic conditions, and it is a challenge Peter faces on a daily basis.

"The environment has become a very large factor here in the Mallee. The weather is the controlling factor among everything really, with our sustainability," Peter says.

"There was one section at the start of the season where we had severe temperatures of up to 47 degrees Celsius at planting, then we've had the crop in and grown by the time the frost came, in late May and June.

"Also, being sand, we're almost a hydroponically grown crop these days. Everything that the plant needs, I control and input that."

With no rainfall recorded in Bannerton at all this

growing season along with the temperature difference, it makes a grower's life difficult.

"Between irrigation (which is non-stop) and input of micronutrients, having the soil biology right and also the whole spectrum of growing the crop in the weather pattern we have, and having everything intertwine and come on at the right time, is a challenge," Peter explains.

An uncertain world

It is becoming increasingly harder to entice young people into the potato industry, something that Peter acknowledges.

"With the profit margin being as small as it is these days, especially in family businesses, it's hard to get



Photography by Ian McKenzie.



younger guys to come into the potato industry – a lot harder,” he says.

“Even getting staff, young kids, to come and work is hard. With the challenge of the weather, you never know if you’re going to be there in 20 years, or 10 years even.

“Supermarkets play such a huge role these days, whether it’s through a pack out facility or not, so having larger profit margins would be more viable for kids. I know that in areas where land and water are so expensive now, and having such a small profit margin, it’s not really viable to come in it from new. Especially when you’ve got to have such a large quality of control in spuds. You’ve got to have higher quality or you may not be there next year.”

Looking ahead

Despite the challenges and setbacks experienced as a grower, Peter relishes working in the potato industry.

“I enjoy the everyday challenges. It comes down to the weather with what inputs we put in and how it can change the growth period. There’s never a dull moment – if there’s something not growing right in the crop, it’s a machine that has broken down!”

Peter is a contract grower as well, and that comes with its benefits.

“Being a contract grower, we’re sort of lucky that we do know what we’re going to get – that is a good thing. I supply Smith’s Snackfoods and they are the majority of my work. It

is good having that; we always know that as long as I supply the quality, we have a good market,” he says.

Building on success

In addition to the accolades received from Smith’s Snackfoods, Peter has marginally increased the size of the business in the last 10 years.

“That (increase) has come down to quality – having consistent quality and supplying spuds at the time that I do,” he says.

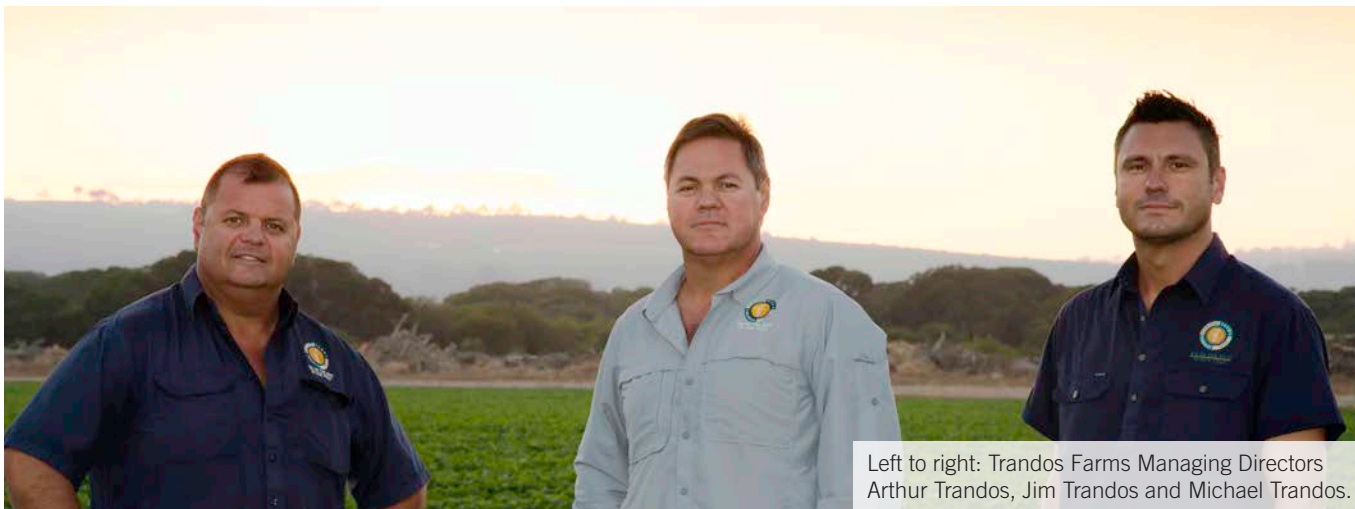
The work is unrelenting, with Corcoran Bros (which also grows a majority of its own seed) running all year round.

“We work 12 months a year here. We harvest for eight

months a year, so between harvesting we’re either planting, doing inter-row works, fertilising or irrigating – every day, seven days a week. I also grow 3,500 acres of cereal crops in between and have a couple of trucks on the highway, so I am running them as well,” Peter says.

Peter has three children – two boys, and a girl – and it is hoped that one day they will follow in his footsteps, continuing the family’s involvement in the Victorian potato industry.

“I’d like to have my children come onto the farm, of course. I want the business to be sustainable into the future.”



Left to right: Trandos Farms Managing Directors Arthur Trandos, Jim Trandos and Michael Trandos.

Solar power: 10 questions to ask before you buy

THE BENEFITS OF SOLAR ENERGY IN AGRICULTURE ARE WELL-DOCUMENTED. SOLAR HAS REPORTEDLY HELPED VEGETABLE AND POTATO GROWERS BECOME MORE PROFITABLE AND REDUCE A FARM'S ENVIRONMENTAL IMPACT. WHEN LOOKING FOR A SOLAR PARTNER, SOLARGAIN COMMERCIAL RECOMMENDS THAT CLIENTS ASK THE FOLLOWING QUESTIONS.

1. How long has your company been in the solar energy market?

In an industry where many companies come and go, it's recommended you choose a retailer that's been trading (under the same name) for a minimum of five years.

2. Is your company in the top 20 list of solar power providers for national market share?

Most of the better companies in Australia will be ranked within the top 20 in terms of national market share. These companies are more likely to invest in their own business, have greater after-sales support and operate longer into the future.

3. How does your company compare to others in commercial solar?

Installing commercial solar power is different from residential installations. As such, ask your prospective retailer how they rank among commercial installers – they should be able to provide examples of past installations they've completed.

4. Are you AS/ANZ 9001:2008 quality and AS/ANZ: 4801:2001 OH&S certified?

Don't settle for companies with anything less than these internationally-recognised certifications.

Both ISO9001 and AS/ANZ4801 provide an assurance that the retailer you're dealing with is invested in quality and safety. These certifications (different from solar industry specific ones) are maintained through intense scrutiny and independent auditing of all policies and procedures by a third party.

5. Who do you have preferred supplier relationships with?

Look at the nature, quality, size and – most importantly – longevity of the company's preferred supplier relationships. When a solar power retailer is denoted a 'preferred supplier' it generally means they are perceived to provide services of higher value to customers than competitors. Look at the types of organisations that refer to the solar retailer as a 'preferred supplier'.

6. Do you have an internal (not contracted) service division to provide after-sales service?

Solar power retailers should have internal resources to handle any service or maintenance issues you encounter with your system.

7. Have you conducted an analysis of interval data (not energy bills) in order to make your system recommendation?

Solar power systems only

produce energy during the day (which fluctuates depending on the time of day), so knowing when you actually consume energy is essential for designing an effective solution. For commercial customers, an analysis of your interval data (your usage broken up into half-hourly increments) is required to determine both system size and financial returns.

8. Are your panels on the Bloomberg Energy US tier 1 manufacturers list?

There are three 'tiers of quality' used to rank solar panel manufacturers and their products. Solargain recommends that you do not bother with products that fall below tier 1 (the highest grade) for commercial installation.

9. Do both the inverter and panel manufacturer have offices in Australia to support their product locally?

Some solar power retailers will answer 'yes' to this when what they really mean is that there is an office in Australia from which the wholesaler operates (the company which imports products into Australia). If the wholesaler is no longer around and the manufacturer does not have a presence in Australia, you must then attempt to claim your

warranty entitlements from an overseas entity. This is not easy. Instead, choose products from manufacturers with their own presence in Australia.

10. Have you ever been prosecuted by the Australian Competition and Consumer Commission (ACCC) or had a legal case brought against you that was upheld?

Some of the biggest solar retailers in Australia have been fined by the ACCC for fraudulent conduct or have been caught offering inducements for positive online referrals. It pays to do a bit of background research on your prospective solar power retailer.

Final word

Ultimately, the quality of products, industry relationships, an Australian presence and reputation are all factors that should be included in your research.



For more information, please contact Keith Lynch (West Coast) on 0458 600 566 or Jusuf Tekesic (East Coast) on 0478 020 851 at Solargain Commercial or visit solargaincommercial.com.au.



Improving marketable yields of processing potatoes in Canada

THE PRINCE EDWARD ISLAND (PEI) POTATO BOARD, CAVENDISH FARMS AND THE PEI DEPARTMENT OF AGRICULTURE AND FISHERIES HAVE Banded Together to create the Agronomy Initiative for Marketable Yield (AIM). Project Lead Ryan Barrett spoke to *Potatoes Australia* about the initiative's objectives and the extension work that is being undertaken.

The Agronomy Initiative for Marketable Yield (AIM) is a collaborative program that aims to improve marketable yields of processing potatoes as well as the profitability of potato growers in Prince Edward Island (PEI), while improving environmental sustainability of the industry.

Three working groups have been established, comprising of both growers and industry resource personnel. These groups will focus on the key areas of soil health, seed management, and science and technology.

As AIM Project Lead, Ryan Barrett's role will be to consult with the working groups to brainstorm projects of an applied research or extension nature, and then find the right research/agronomy partners to collaborate on those projects. Some projects will involve field trials, while others will involve extension

opportunities with both large and small groups of growers addressing specific topics.

Project one

The first project, undertaken at the start of Canada's growing season, focused on comparing small, whole seed versus cut seed for commercial potato production.

"Whole seed production/planting is common in other areas, but PEI has generally used cut seed," Mr Barrett explained.

"We feel that there may be much to gain by having a healthier, most consistent seed with a more consistent plant population in the field, so we are looking at both research and extension opportunities in this area."

Other priority areas include building soil organic matter, assessing different crop rotations for economic

value, soil health and potato yield, precision agriculture applications for soil management/improvement and improved seed handling.

"We will be embarking on a number of extension projects over the winter months and launching some new research/demonstration projects in the 2017 growing season," Mr Barrett said.

Building knowledge

AIM's current focus is on improving marketable yield of processing potatoes for PEI potato growers, while ensuring improved profitability and enhanced environmental sustainability.

"We plan to draw on both local expertise as well as potato/agricultural knowledge from elsewhere in North America and the world," Mr Barrett said.

"We also plan on making research reports and extension

documents readily available via the internet to our growers, and there would be an opportunity for growers in other regions to access this information if they find it valuable for their production system.

"We have a lot to learn from other areas, and I'm sure there are things that growers in other regions can learn from us as well."



For more information, please visit peipotato.org.

This communication has been funded by Horticulture Innovation Australia Limited using the National Potato Levy and funds from the Australian Government.

Project Number: PT15007

**Horticulture
Innovation
Australia**

Regional updates

South Australia



AUSVEG SA is currently working on a number of issues to benefit vegetable and potato producers throughout South Australia. We recently met with South Australian Treasurer, the Hon. Tom Koutsantonis MP, to put forward a number of proactive initiatives to help develop the South Australian horticulture industry. These include potential grant and loan schemes for growers to invest in more

efficient practices and putting forward shovel-ready water infrastructure investments.

Agriculture has not been traditionally proactive in putting forward ideas for government, which is something AUSVEG SA wants to change by actively engaging in the budget process for next year. While we are still in initial discussions, we are hopeful of progressing a few of our key projects at the state level in the coming years.

A pressing issue for AUSVEG SA at the national level has been the introduction of a 19

per cent tax on working holiday makers by the Australian Government. AUSVEG SA has been at the forefront of industry efforts to fight the proposed 32.5 per cent tax through our participation in the AUSVEG national submission to the Federal Government's Working Holiday Visa Maker review.

We have also supported national lobbying efforts here in SA by attending the recent consultations held in Adelaide as part of the review run by Deloitte as well as participating in considerable media interviews

on the issue. We support the efforts which have been made by AUSVEG at the national level, including delegations to Canberra and a significant overall lobbying effort, and are pleased this has achieved a workable result for industry.

Jordan Brooke-Barnett

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Victoria - seed



Seed growers have had a good year with most lines of seed cleared early with very few rejections.

The Oakville situation has impacted on growers who are suppliers of that group. Some seed payments stalled, pending the satisfactory wind-up of the Oakville group of companies. The issue of who controls the Oakville PBR varieties, the management and ownership of

seed in storage and where it will be used, has yet to play out and growers in the system urgently need some clarity and direction at this time so close to planting.

The National Seed review has provided a welcome opportunity to cast a critical eye over the seed potato industry. While we are fortunate to work in a very good and established system of seed certification, there will always be something that is worth a second look. Whether you are a certified seed grower, customer or merchant, SPV would urge you to make a comment on any issue you might have regarding seed.

This may be as diverse as regulations, quality standards, marketing issues, PBR price, returns and viability, as well as terms of trade.

SPV is looking at improving communications with seed buyers and as such is planning a grower's trip to South Australia to meet with some of the key players. The trip will be over three days, taking in the key growing areas of SA and meeting with SA groups.

The current management of PBR varieties and the long lead-up time to commercialise varieties has emerged as a huge problem, and costs seed

producers by cutting into any profit margin. In view of this, SPV has spent time and money on developing a grower contract to provide growers with a template to negotiate with. Please contact SPV to access the template and tailor the contract to your individual position.

Dean Bone

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Tasmania



September 2015 saw growers irrigating paddocks to perform ground preparation heading into the driest spring and summer recorded in Tassie. Farmers around the state have invested millions of dollars in recent years buying water and irrigation equipment and for most, it certainly paid dividends in being able to see crops to their potential. That is until seven inches of rain at the end of January turned crops from bumper yielding storage grade quality to the lesser valued processing product in a matter

of days. One town in Tassie had spuds floating along the road side!

Fortunately, other growing regions were spared the wrath of water and top soil loss and produced a quality storage product.

February, March and April were again dry and, as if someone turned on a tap at the end of April, we again went from one extreme to the next, with three months of constant rain and very few windows of opportunity to harvest. This period culminated in June flooding that again caused significant losses in potato growing regions. Some landholders reported crop losses in the tens of thousands of dollars.

Move forward to September

2016 and it is now not uncommon for professional potato contractors to be planting yet still trying to harvest the remainder of last year's crop. Potato growers have stepped up to the challenge of being ever more efficient and productive.

In terms of every aspect of growing the crop in Tasmania, there is new technology and practices being adopted every year and it should send a clear message to the rest of the supply chain that Tasmania is an efficient and sustainable place to farm. Many of our growers are well travelled and compared to other potato growing areas around the globe, Australian consumers can feel confident that what they are eating is nutritious and safe.

As always we battle with ever-

increasing costs and lower profit margins, but there is demand for Australian grown produce and all growers around the country should realise that after many hard years of lobbying and awareness campaigns, the consumer wants our food.

On the eve of another planting season, growers are optimistic that this will be a good year. On-farm water storages are full and there has been plenty of time available for pre-season maintenance and planning. We just don't need any more big dumps of rain.

Peter Skillern

Tasmanian Farmers & Graziers
Association President
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Victoria



AUSVEG VIC has had numerous discussions with growers uncertain of how the sale of Oakville will impact on their business. Questions have included: How will this sale affect growers who had contracts with Oakville; what payments will be made against

outstanding debts; and what rights do growers have in any upcoming negotiations?

The sale has been finalised with Mitolo Group, with further details relating to the subsequent commercial arrangements to be released shortly.

However, it has been reported that a number of growers have been presented with new contracts. AUSVEG VIC

would urge all potato growers impacted by the sale of Oakville to seek the appropriate legal advice prior to signing any new agreement.

AUSVEG VIC, in conjunction with the national Peak Industry Body, will continue to monitor the situation and has asked the ACCC to ensure that it does not result in decreased competition within the industry.

If you would like to discuss

this, or any other matter, please contact AUSVEG VIC on 0437 037 613 or info@ausvegvic.com.au.

Kurt Hermann

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New South Wales



The weather pattern in southern NSW has been of extreme wet. Potato growers in the Crookwell area are still being challenged by long periods of wet coupled with cloudy days and little wind, therefore hindering the potato paddocks from drying out before the next rain events hit.

After a recent meeting held by the members of Crookwell Potato Association, all growers in attendance reflected that the 2016 crop was very difficult

to lift with moderate losses experienced. However, the potatoes themselves handled the wet ground very well and a high standard of seed quality was once again sold into many commercial growing areas.

For a small group of growers and members, it must be said how resilient and positive we all are. The recent meeting was well attended, everyone had a smile on their face and greeted each other enthusiastically, no doom or gloom to be seen or heard. It rubs off onto other people and makes you look forward and not back.

Many older retired growers

were also in attendance and all had their input. Old times were remembered with names and dates of yesteryear being told as if it was yesterday. It was so gratifying to be sitting at that meeting and hearing the trials and tribulations of men no longer involved in the potato industry, but very much involved in our own potato growing community.

We may not have a large contingent of certified seed growers on the front line, but we have a wonderfully strong army of supporters. Crookwell potato growers are proud of their heritage and it shows when

growing and harvesting a crop isn't easy. I am sure the future of certified potato seed growing in the Crookwell district will be here for a very long time as the recent meeting showed that potato growing is definitely in the blood.

Matthew Gay

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Website: seedpotatoes.com.au

Queensland



Queensland's potato production is focused in the key growing areas of the Atherton Tableland, Bundaberg, Killarney and Eastern Darling Downs and the Lockyer Valley.

This issue's report comes from the Atherton Tableland, an agricultural region of around 620 square kilometres, inland from Cairns in Far North Queensland, which is between 500 metres and 1,200 metres above sea level.

Growers are currently seeing the highest prices for fresh potatoes for about 60 years without having the crops to take advantage of them.

The weather across the whole Tablelands has been unfavourable over the winter months with no winter temperatures to speak of, only one frost reported on the Upper Tablelands and relatively high temperatures at night. Most of the harvest will be below four tonnes/hectare (10 tonnes/acre) because with the warmer weather the plants have not set as many potatoes. This compares with a typical yield of around 20-45 tonnes/hectare.

Plantings of fresh potatoes are also down around one third to one half on the Upper Tableland due to poor prices retailers offered to suppliers last season. Spuds were ploughed in because growers operate on such small margins that they couldn't afford to harvest at the prices on offer.

Further uncertainty has been caused by Oakville Produce

Pty Ltd going into receivership in May. The company has now been sold but uncertainty about the future continues. It is likely that prices paid to those growers who have crops will continue to be high for some time. Given the extremely cold and wet conditions and disease in other states, it is likely all fresh potatoes from Atherton Tablelands will sell well. However, in the face of the ongoing turmoil, some growers may decide not to plant future crops.

The growers who have planted this year have had trouble getting seed and have had to settle for second best – the Sebago variety which produces about half the tonnage of other varieties. It is expected that Sebago will disappear from the district eventually in favour of Valour, Bianca and Golden Delight which can produce the

tonnage necessary to cover input costs.

On the Lower Tablelands, temperatures and humidity are higher. The Lower Tablelands experience no frost and can plant in winter (April-August). These growers are in mid-season and will harvest from now until the end of October. Kipflers, Dutch Creams and Midnight Purples are among the niche varieties grown.

Those growers across the Tablelands who are contracted to processors like Smith's Snackfood Company are not reporting any major difficulties with production.

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Stu Jennings

Doesn't time fly when you're having fun?

It would seem as though spring has sprung. We are getting plenty of rain and sun which, as most know, is a pretty good combination for making things grow – and in our business it's important to get those potato plants reaching for the sky!

One thing that we probably don't spend a huge amount of time thinking about is the potato itself. I don't mean the growing or marketing of the potato, but the actual spud. How often do you stop and think about how amazing this thing is?

There's a lot of talk today about 'superfoods'. In my view, the potato is the only true superfood. Surely no other food is used in so many ways. Apart from all the different ways to cook and eat it – mashed, chips, boiled, chips, gnocchi, chips, roasted, chips, hash browns and of course chips – the humble potato can be used outside of the kitchen for so many useful purposes.

Spuds have been used in schools for years inspiring many a budding artist, saved many lives from hunger in the days of the depression and have even been looked at as a means of delivering a heat-stable oral vaccine for Hepatitis in third world countries!

I Googled 'amazing things to do with potatoes' and came up with quite a list of uses including removing stains on hands, removing tarnish on silverware, keeping ski goggles from fogging up, relieving puffy morning eyes, holding a floral arrangement in place, restoring old leather shoes, making

a hot or cold compress for aches and pains, and of course making that decorative stamp!

When you consider all this, it's hard to understand why people in recent years have questioned the place of potatoes in their shopping cart!

Next time you are in the tractor and had about enough of whatever you're doing, remember that you are growing a true 'superfood' and if there is another famine, you won't go hungry – and your shoes will be shiny!

All the best,

Stu



@youngpotatopeps



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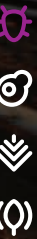
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