

| February/March - 2017 |

potatoes

australia



| BRADEY DAVIS - COVER STORY | JAMES WHITESIDE - AUSVEG WELCOMES ITS NEW CEO |
| POTATO INDUSTRY EXTENSION PROGRAM - INTERNATIONAL EXPERT VISITS LOCAL GROWERS |



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14



18



24

CONTENTS

REGULARS

- 05 Editorial
- 06 Messages from the Chairman and CEO
- 32 Regional updates

FEATURES

- 10 Dawn of a new era: AUSVEG welcomes its new leader
- 14 Young grower profile: Bradey Davis
- 24 Grower profile: Mark Pye

INDUSTRY NEWS

- 08 Counting down to Hort Connections 2017
- 34 Young Potato People

R&D

- 09 The National Potato Levy at work
- 12 Managing Common scab in potatoes
- 13 Collaborating with potato growers to deliver long-term, sustainable results
- 16 International potato specialist visits Australia
- 18 Western Australia: Pristine seed the key to a successful future
- 20 Genetically modified potatoes in Australia: A way of the future?
- 21 On high alert: Transforming the risk criteria for Late blight in potatoes
- 22 The Front Line: Black bean aphid
- 26 Gaining an insight into a widespread potato disease
- 27 A prime opportunity for growth in potato exports
- 28 Ask the industry
- 29 Comparison of potato yields in Australia
- 30 United Kingdom prepares to tackle Free living nematodes
- 31 Breakdown of levy projects 2016-17



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EDITORIAL

Welcome to the first edition of our redesigned *Potatoes Australia* magazine! The publication may look slightly different, however it remains as informative as ever with many local and international R&D articles, grower profiles and the latest potato industry news.

The eagerly-awaited Hort Connections 2017 is now less than three months away, and an update on Australia's biggest horticultural event can be found on page 8.

In the meantime, AUSVEG has welcomed its new CEO James Whiteside. Turn to page 10 to read about James' vision for AUSVEG and the wider potato industry.

Horticulture Innovation Australia Relationship Manager Christian Patterson is also profiled in this edition, and he speaks about his role on page 13. A breakdown of R&D projects funded by the Fresh and Processed Potato Levy for 2016-17 can also be found on page 31.

Meanwhile, the Potato Industry Extension Program is in full swing, following a visit from international potato specialist Dr Steve Johnson (page 16). In other R&D news, the Potato Processors Association of Australia takes a look at the potential consumer benefits of genetically modified crops on page 20.

This edition's *Front Line* column (page 22) puts the problematic Black bean aphid (*Aphis fabae*) under the spotlight, while there is also discussion on the management of Common scab in potatoes on page 12.

Heading overseas, we take a look at a web-based US presentation on Sclerotinia stem rot, also known as White mold (page 26), and profile the new risk criteria for Late blight developed by the UK Agriculture and Horticulture Development Board and the James Hutton Institute (page 21).

This edition, we head to northern Tasmania to speak with young grower Bradey Davis from Deloraine about on-farm practice and the future of the potato industry (page 14), while South Australian potato grower Mark Pye chats about his successful businesses in Parilla, his achievements so far and long-term goals on page 24.

Do you have any feedback on the magazine or a great story idea? We would be happy to hear from you! Contact the editorial team on 03 9882 0277 or email info@ausveg.com.au.



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It is with great pleasure that we welcome James Whiteside as AUSVEG CEO.

James brings a vast level of local and global agribusiness expertise to the industry, having worked for Incitec Pivot for 23 years, most recently as Chief Operating Officer of Incitec Pivot Fertilisers. He was also the Chief Executive Officer of Quantum Fertilisers, a Hong Kong-based international fertiliser trading company, and is currently Chairman of Verdant Minerals Limited and a director for Agribusiness Australia.

I am confident that James will lead AUSVEG into the future and ensure we continue to effectively fulfil our role as the national representative for vegetable and potato growers.

I would like to pay tribute to former Interim CEO Simon Bolles, who has acted with astute diligence and professionalism during his time in the role. Simon returned to the AUSVEG Board as a Skills-based Director on 1 February 2017, and we are grateful that he has continued to bring his extensive knowledge of business and corporate finance to the table.

2017 is sure to be a busy year for the potato industry, with the implementation of several new levy-funded R&D projects that are set to benefit potato growers.

This coincides with the development of the next Strategic Investment Plans for the fresh and processed potato industries, which is overseen by Horticulture Innovation Australia (Hort Innovation) and aims to determine the key areas of levy investment over the next five years.

Many of you may know Hort Innovation Relationship Manager Christian Patterson, who meets with growers regularly throughout Australia and works closely with the fresh and processed potato industry Strategic Investment Advisory Panels (SIAPs). These panels provide a voice for the greater industry and offer advice on the key areas of investment in the potato industry.

Growers play an integral role in this process and AUSVEG strongly encourages readers to provide feedback and ideas to Christian to support the industry in its growth and ensure its long-term viability. More information can be found on page 13.

In other exciting news for the potato industry, we are pleased to announce Potatoes South Australia will co-host Hort Connections 2017, a joint initiative between AUSVEG and PMA Australia-New Zealand Limited (PMA A-NZ), which will be held at the Adelaide Convention Centre from 15-17 May.

To kick off the event on Monday 15 May, Potatoes South Australia will join other potato industry partners to support Arris Pty Ltd in the launch of the Potato Industry Extension Forum and Industry Luncheon. This is a unique and highly valuable opportunity for potato growers throughout Australia to meet, network and discuss key issues of importance to their industry.

AUSVEG hopes this will encourage more growers and industry members to attend the Forum and benefit from the great work of the Potato Industry Extension Program.



Geoff Moar

Geoff Moar
Chairman
AUSVEG



James Whiteside

James Whiteside
CEO
AUSVEG

I would like to introduce myself as the Chief Executive Officer of AUSVEG in what is an exciting time for the Australian vegetable and potato industry.

I have always worked in the agricultural industry, since graduating from the University of Melbourne with a Bachelor of Agricultural Science. My career has been in the corporate sector, the last 23 years with fertiliser manufacturer and distributor Incitec Pivot Limited. I was Chief Operating Officer of Incitec Pivot Fertilisers until December 2015. I accepted this role in December 2016, and am really looking forward to working with Australia's innovative and committed vegetable and potato growers to create a successful and profitable future for the industry.

In this edition of *Potatoes Australia*, I have outlined my personal vision for AUSVEG, our plans for a revamped business strategy and my message for Australia's potato growers.

I will endeavour to do my best to communicate with growers, and I also look forward to hearing constructive feedback in regards to AUSVEG's activities and how we can effectively fulfil our role as your national representative body.

As part of our ongoing commitment to providing an effective and representative voice on behalf of the vegetable and potato industry, AUSVEG recently conducted a Public Affairs survey which asked growers about their key areas of concern for the coming year.

The survey considered important issues such as labour, water usage and business costs. The results allowed AUSVEG to gain a clearer understanding of the key issues affecting the industry at present, and will shape how we advocate on the industry's behalf this year and into the future.

In other news, we are excited to welcome Fresh Markets Australia (FMA) and the Central Markets Association of Australia (CMAA) – which together represent Australia's fresh produce markets and their wholesalers – as official trade show sponsors and co-hosts of Hort Connections 2017.

FMA and CMAA join Potatoes South Australia and Growcom as the latest industry bodies to sign on as co-hosts of Hort Connections 2017. This event is a joint initiative by AUSVEG and PMA Australia-New Zealand (PMA A-NZ) and is supported by Irrigation Australia, Australian Organic and Onions Australia.

Hort Connections is quickly shaping up to be the premier event in Australian horticulture and will bring together the largest number of growers, supply chain members, government stakeholders and industry service providers in the Australian horticulture industry to the Adelaide Convention Centre from 15-17 May.

I am particularly looking forward to meeting growers and industry members over three days of networking opportunities. Readers can turn to page eight of *Potatoes Australia* for the latest information on Hort Connections and for further details on how to register for the event.



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FULL STEAM AHEAD: COUNTING DOWN TO HORT CONNECTIONS 2017

Combining the National Horticulture Convention and PMA Fresh Connections, Hort Connections 2017 will bring together the largest number of growers, supply chain members, government stakeholders and industry service providers in the Australian horticulture industry. The event will be held in Adelaide from 15-17 May 2017.

Registrations are now open for delegates wishing to attend the largest event on the Australian horticulture calendar, Hort Connections 2017, which will be held at the Adelaide Convention Centre from 15-17 May.

AUSVEG is extremely excited to launch this event alongside PMA Australia-New Zealand (PMA A-NZ) and looks forward to continuing the positive legacy from previous conventions while providing even more value to growers, retailers and whole-of-supply-chain members alike.

Hort Connections 2017 will be co-hosted alongside a range of horticulture industry bodies including Australian Organic, Onions Australia, Irrigation Australia, Growcom and Potatoes South Australia.

Fresh Markets Australia (FMA) and Central Markets Association of Australia (CMAA) have been named official trade show sponsors as well as co-hosts. The two horticultural bodies return following successful partnerships during both the 2016 National Horticulture Convention and PMA Fresh Connections events.

This ground-breaking event will incorporate world-class speakers, an expansive Trade Show and unparalleled networking opportunities for delegates.

SOMETHING FOR EVERYONE

The inclusion of these industry co-hosts ensures there is something for everyone, with the speaker sessions offering a wide range of highly regarded presenters. These sessions will run in conjunction with the largest horticulture Trade Show yet, with over 200 exhibitors set to showcase the latest in fresh market and horticulture industry technology, innovation and services.

Hort Connections 2017 will provide delegates with an opportunity to come together under the one roof to meet with leading agribusinesses, network with their peers and gain valuable insights into a large cross-section of the fresh food industries.

THE VENUE

The Adelaide Convention Centre is conveniently located on North Terrace, in the heart of Adelaide. The Centre is surrounded by parklands and overlooks the River Torrens, with public transport and a taxi ramp on its doorstep.

It is a short walk from both international and boutique hotels, allowing delegates to easily return to their accommodation after a busy day of networking and visiting the Trade Show. There is also plenty of entertainment located close by for delegates should they have time for a longer stay.

THE PROGRAM

The inaugural joint initiative between AUSVEG and PMA A-NZ will certainly build on last year's record attendance at the National Horticulture Convention, where over 1,500 international and domestic delegates took part in a variety of business, social and networking events.

This year, there will be a series of business development sessions from many areas of horticulture, including vegetables, potatoes, onions, fresh fruit, cut flowers, certified organic growers and the irrigation industry.

Potatoes South Australia will use Hort Connections as a platform with other potato industry partners to support Arris Pty Ltd in the launch of the Potato Industry Extension Forum. Additionally, Potatoes South Australia will host an Industry Luncheon on Monday 15 May, preceding the Forum.

There will also be an important mental health forum, headlined by former Victorian Premier and beyondblue Chairman, The Hon. Jeff Kennett AC.

SOCIAL EVENTS

Returning in 2017 is the DuPont Theme Night, where delegates can relax, dress-up and gather for an entertaining dinner and drinks extravaganza. The theme for this year's event is 'Australiana'.

Also back on the program are the Women in Horticulture and NextGen young grower events. These popular social outings provide a wonderful opportunity for networking and information-gathering in a relaxed setting. The Hort Connections Gala Dinner will follow the engaging speaker sessions and vibrant social program, which will all combine to shape the biggest event on the 2017 Australian horticultural calendar.

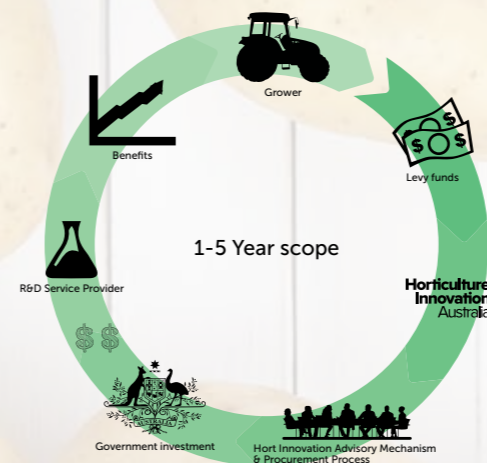
With the inaugural Hort Connections 2017 less than three months away, *Potatoes Australia* strongly encourages all members of the Australian horticulture industry to visit hortconnections.com.au for more information on registration and accommodation details.

INFO

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

THE NATIONAL POTATO LEVY AT WORK

POOL 1



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 Horticulture Innovation Australia.

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



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.

Six '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
- Pollination Fund

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.

This communication has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government. Project Number: PT15007





Photography by Luka Kauzlaric.

AUSVEG CEO James Whiteside at the Melbourne Market.



L-R: James Whiteside, AUSVEG VIC Treasurer Vince Doria and AUSVEG VIC President David Wallace.

DAWN OF A NEW ERA: AUSVEG WELCOMES ITS NEW LEADER

Following a lengthy search, AUSVEG appointed James Whiteside as its new CEO in December 2016. James has an extensive background in agriculture and agribusiness, with over 20 years of experience in the fertiliser industry. He spoke to *Potatoes Australia* about taking on the role of AUSVEG CEO, his plans for the future of the peak industry body and the importance of communicating with Australia's potato and vegetable growers.

James Whiteside has a strong future vision for AUSVEG, the nation's leading horticultural body representing potato and vegetable growers.

As the former Chief Operating Officer for Incitec Pivot Fertilisers, James brings a high level of enthusiasm, industry knowledge and expertise to his new role as AUSVEG CEO. James was also the Chief Executive Officer of one of Incitec Pivot's joint venture companies, Quantum Fertilisers, a Hong Kong-based international fertiliser trading company, and he is currently Chairman of Verdant Minerals Limited and a director for Agribusiness Australia.

As he settles into the role of AUSVEG CEO, James has hit the ground running – identifying the need for an updated business strategy, as well as outlining the challenges the organisation faces and how these can be overcome.

FRESH CHALLENGES

After graduating from the University of Melbourne with a Bachelor of Agricultural Science and entering the world of agribusiness and corporate leadership, James explained what attracted him to the CEO position at AUSVEG.

"I was keen to do something different in my career after having spent a long time working for big commercial organisations. I was looking for a change but was keen to continue to pursue a career in the broader agriculture industry, which is where I feel most comfortable," he said.

"What I liked about AUSVEG was a couple of things: I was taken by the integrity, capability and enthusiasm of the board members that I met. These are people who are giving a life-long commitment to the industry, and I've found that quite inspiring.

"I also think the horticulture industry is a noble one. It makes a wonderful product; an important product for society and in markets that have huge potential to grow. Not only is this important as we deal with the challenge of feeding an ever-growing population, but also because it means that growers' businesses can also grow and prosper.

"There are a raft of opportunities for growers to access new markets, develop new brands and grow profitability through really good, canny marketing, both domestic and offshore. I like that challenge."

DEVELOPING A STRATEGY

Resetting AUSVEG's business strategy is at the top of the to-do list in 2017, and James admits there are a range of challenges he faces in implementing this strategy.

"Some of the challenges, I think, stem from the fact that the industry is extremely fragmented. Not just from a grower perspective, with lots of different products being grown in different regions by growers large and small, but also there is the structure of the industry associations, the way monies are levied and the way those monies are managed. There are a lot of peak industry bodies,

all with a lot in common but with differing views on certain issues," James explained.

"I need to pick my way through all of those complexities and develop an appropriate strategy which addresses the needs of growers, assures the economic viability of the organisation and ensures that we have the right people doing the right jobs to deliver it."

POSITIVE OUTLOOK

James believes there are opportunities for AUSVEG to expand, provided the peak industry body continues to demonstrate that it can deliver value to growers.

"We have an opportunity to expand our range of services, so I think the growth opportunities are significant," he said.

"There's a huge thirst for information. We're probably only scratching the surface now in terms of the work that we're doing in our export program to help growers access some of the export market opportunities. There are a number of opportunities that we will be pursuing pretty aggressively over the next 12 months."

However, meeting Australia's potato and vegetable growers is something James is most looking forward to in 2017. The new AUSVEG CEO said getting to know growers is a privilege and he is inspired by talking to farming operators, both big and small.

"I find those people are really inspiring, and the industry is jam-packed with those sorts of growers. It's important that we can come up with a business that actually delivers the benefits that demanding, high-performing growers want us to deliver," James said.

"What I want is for growers to see us being active in the marketplace, and see us doing things that they think are important. I think if we can do those two things, then growers will by and large be pretty happy with our performance."

James added that communication between AUSVEG and Australia's potato and vegetable growers is a two-way street.

"As much as we want to communicate with growers, we also want growers to communicate with us, because fundamentally we've got to make sure that we're spending our time doing the things that are important to them," he said.



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Common scab. Image courtesy of Florida Division of Plant Industry, Florida Department of Agriculture and Consumer Services, Bugwood.org.

MANAGING COMMON SCAB IN POTATOES

Common scab is a widespread issue that causes a blemish disease in potato tubers. While the incidence of Common scab in Australia has declined in the past five years, the disease is still a problem in the country, particularly for fresh market and seed producers. *Potatoes Australia* has produced this update to explain how Common scab occurs and what growers can do to manage the disease.

Common scab is a prevalent soil-borne disease that occurs in potato growing regions throughout the world.

Caused by the bacteria-like organism *Streptomyces scabies*, young rapidly growing tubers are attacked, which then develop into unsightly corky scab lesions on the tuber surface. The scab is roughly round but can join to form scabbed areas and can be superficial, slightly raised or deep pitted, sometimes extending several millimetres into the tuber.

Other parts of the plant are not affected and no visual symptoms of infection in above-ground parts of the plant are obvious.

Incidence and severity can vary significantly depending upon the season, variety and region. A range of conditions impact the severity of the damage to the potato – affected tubers may show either shallow or deep scabs, or a combination of both.

University of Tasmania Associate Professor in the School of Land and Food Dr Calum Wilson has, over the years, undertaken a number of research projects with a focus on Common scab.

“These projects looked at a wide range of factors and attempted to develop robust disease control strategies. We had projects looking at the effect of irrigation, soil attributes, seed and soil chemical treatments, the importance of clean seed tubers and carryover in soil,” Dr Wilson said.

“In recent years we made some significant breakthroughs with the selection of highly disease-resistant plants from commercial varieties and the use of novel foliar and seed treatments to inhibit disease.”

DISEASE MANAGEMENT

Common scab is promoted by relatively dry soil conditions at tuber set. Improvements in irrigation scheduling during this period by potato growers has assisted in reducing disease incidence.

“Also, planting into more acidic soils will generally reduce disease while neutral or more alkaline soils will increase disease. The application of lime prior to potato planting will certainly exacerbate the disease, so try to avoid liming if at all possible.”

Seed certification and seed treatments are important, according to Dr Wilson.

“It’s pretty obvious that seed-borne contamination is an important source of inoculum for the disease, so making sure you plant certified seed and use appropriate seed treatments where available certainly helps.”

FURTHER ADVICE

Growers are also advised to use less susceptible varieties (if possible) and treat most root crops such as carrots, swedes, beets, radish and parsnip the same as potatoes when planning rotations, as they can also host the disease. The pathogen will survive for long periods in the soil but prior cropping with susceptible plants will increase pathogen levels and subsequent disease risk.

Crop uniformity is recommended – a rapid and even emergence is an important means of reducing the impact of the disease in potato growing areas.

“Another thing that was discovered by the local industry here in Tasmania is that the timing of planting seems to have an effect,” Dr Wilson said.

“The later growers planted the crop, the less Common scab disease they were seeing. No one has actually really tried to dissect that to work out why that’s the case – it may well be that you have a much tighter window when infection occurs and that disease is better controlled in that window.

“You can end up with slight yield penalties with planting later, but you seem to get less disease. This effect may be a localised factor for Tasmania or it may be more widespread; more work is needed to see.”

INFO

For more information, please contact Dr Calum Wilson at calum.wilson@utas.edu.au. 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 was funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

Project Number: PT15007



COLLABORATING WITH POTATO GROWERS TO DELIVER LONG-TERM, SUSTAINABLE RESULTS

Horticulture Innovation Australia (Hort Innovation), using the National Potato Levy and contributions from the Australian Government, invests in a wide-range of R&D projects that aim to improve the future viability of the potato industry and its growers. *Potatoes Australia* spoke to Hort Innovation Relationship Manager Christian Patterson about his role in supporting potato growers, finding out what their long-term needs are and how they can be achieved.



Hort Innovation Relationship Manager Christian Patterson.

Christian Patterson regularly travels around Australia to different potato growing regions in a role that is vital to the long-term success and viability of the country’s potato industry.

As a Relationship Manager at Horticulture Innovation Australia (Hort Innovation), Christian’s role is to ensure that the nation’s growers are aware of developments in both the fresh and processed potato industries, as well as the sweetpotato industry and the Consumer Alignment strategic investment pillar of the vegetable industry.

Christian entered the horticulture industry more than eight years ago, joining Woolworths in its Primary Freight Division. He then moved into the role of Category Manager with Perfection Fresh and Fresh Produce Group before accepting the role of Relationship Manager at Hort Innovation 16 months ago.

A PRIMARY FOCUS

Currently, Christian is working closely with the fresh and processed potato industry Strategic Investment Advisory Panels (SIAPs) to develop the next potato Strategic Investment Plan, which aims to accurately reflect the industry’s R&D funding priorities over the next five years.

“The involvement of these panels is critical to the success of the funding of various projects, as they are the voice of the greater industry and represent a cross-section of industry experts – growers, suppliers and the like,” Christian said.

“That’s allowing us a varied, experienced group to form views and offer advice as to what areas of investment are most important and critical to their respective industry.”

GROWER INVOLVEMENT

One valuable aspect of Christian’s role as Relationship Manager is the ability to visit Australia’s potato growers, who are spread out across the nation.

“My best work as a Relationship Manager is done face-to-face with the growers, and the relationships between those who I do manage to go and see are very strong and robust,” he said.

“I like to take a personal involvement with as many potato growers as possible outside of the SIAPs. These vary from something as simple as a phone call to a road trip, ensuring that I’m touching base at the ground level with our levy-payers. Sometimes the best advice and industry information is gathered when you’re standing in the

field with a grower and understanding the issues at their level.”

He added that Hort Innovation plays a significant role in the adoption of R&D on-farm in the potato industry.

“As the body that invests the levies collected, we’re responsible (along with the SIAPs) to ensure we’re protecting industry, building strong succession plans and supporting industry in its growth and delivering results along the way,” he explained.

“Whether it be from a seed grower to an end-product grower, these are all important spokes in the wheel. The adoption of the R&D that is developed is also very important and has been made possible in conjunction with industry, the SIAPs and Hort Innovation to benefit the industry.”

FURTHER GROWTH

Christian believes there is great potential for growth in the Australian potato industry, with exporting on the radar for many in the industry. Providing support for younger potato growers is also a priority.

“Personally, I think the biggest opportunity for growth is in exports, as long as we can ensure all the checks and balances that are required are in place,” Christian said.

“I also see an opportunity with the younger growers forging their way into the industry. Supporting these younger growers along the way is vital – there’s a lot to learn from these guys and they also need our support from the ground up.”

Australia’s potato growers are able to contact Christian should they require assistance, or need advice on any industry issues. They are also encouraged to become members of Hort Innovation to be updated with regular advancements in R&D.

“I want potato growers to be able to contact me at any time and be safe in the knowledge that they are being heard and that I am also actioning their requests in a timely manner. That is my ultimate goal.”

INFO

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

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Project Number: PT15007





Photography by Heath Holden Photography.



GROWING A SUCCESSFUL BUSINESS



NAME: Bradey Davis
AGE: 29
LOCATION: Deloraine, Tasmania
WORKS: Little Bowerbank (220 hectare cropping and prime lamb production)
GROWS: Potatoes, carrots, poppies, cereals, onions

HOW DID YOU FIRST BECOME INVOLVED IN THE POTATO INDUSTRY?

I grew a five hectare crop of Russet Burbank potatoes in 2008. It was a monster crop. Previously, I knew nothing about potatoes, only that I liked them mashed.

WHAT DOES YOUR ROLE IN THE BUSINESS INVOLVE, AND WHAT ARE YOUR RESPONSIBILITIES?

I run the business. Thankfully I have help with the physical day-to-day running from employees and my younger brother, which allows me time to organise everything from crop rotations, timing of jobs, contract work, crunching numbers to ensure crops which are being grown remain viable or whether better alternatives are available, organise irrigation, fertiliser etc. It's a lot of organising and forward-planning basically.

WHAT DO YOU ENJOY MOST ABOUT WORKING IN THE POTATO INDUSTRY, AND HOW DO YOU MAINTAIN YOUR ENTHUSIASM?

The people I deal with in the industry are great and I enjoy growing the crop. I have a natural enthusiasm and I enjoy what I do. Whenever I get to a point where I'm not enjoying something, I will identify the reason and fix it or change something in the business, therefore enthusiasm is easy to maintain.

WHAT ARE THE BIGGEST CHALLENGES YOU FACE WORKING IN THE INDUSTRY?

Horrendous weather is always a challenge. It's mainly heavy rainfall that makes planting and/or harvesting difficult.

IN YOUR OPINION, WHAT AREAS OF RESEARCH ARE IMPORTANT TO THE POTATO INDUSTRY AND YOUR BUSINESS?

For my business specifically, it is variety research on more profitable, robust varieties. For the potato industry as a whole, maybe research on what consumers want in order to remain relevant.

WHERE DO YOU RECEIVE YOUR ON-FARM PRACTICE ADVICE AND INFORMATION FROM?

An agronomist with extensive experience relative to our business.

WHERE DO YOU SEE OPPORTUNITIES FOR GROWTH IN THE AUSTRALIAN POTATO INDUSTRY?

I think we should advertise chips and gravy more. It's simple, but it's a winner – instant growth for sure. I don't have much knowledge of the broader industry, but to me growth means increased volume or increased profitability so maybe new value-added products to generate sales and interest in potatoes.

AS A POTATO GROWER, WHAT IS YOUR BIGGEST ACHIEVEMENT SO FAR?

Receiving the Rabobank Simplot Young Potato Grower of the Year award in 2012.

AS A RESULT OF RECEIVING THE AWARD, YOU ATTENDED RABOBANK'S FARM MANAGERS PROGRAM (FMP). HOW DID ATTENDING THE PROGRAM BENEFIT YOU AS A GROWER RUNNING YOUR OWN FARMING OPERATION?

I felt the program was perfect for me and where I was in relation to business understanding. Along with gaining knowledge of how to operate a small business, I also took

a lot away from a management perspective in terms of managing my time, co-workers and industry personnel, and also managing myself. The FMP gave me tools to have a clearer outlook on my business and I have been enjoying it ever since.

WHERE DO YOU SEE YOURSELF IN FIVE YEARS?

Still doing what I am doing with no major adjustments business-wise. However, I hope to have implemented more changes to make day-to-day running easier, simpler and quicker.

WHAT IS YOUR VISION OF THE AUSTRALIAN POTATO INDUSTRY IN THE FUTURE?

I think it will remain strong. A growing population needs food.

HOW DO YOU THINK MORE YOUNG PEOPLE COULD BE ENCOURAGED TO STUDY AND TAKE UP JOBS IN THE POTATO INDUSTRY?

I think there is a solid number of young people in the industry at the moment so whatever has been happening is working. I also think that with more technology entering the industry, young people will follow in different capacities.



L-R: Dr Steve Johnson and Terry Buckley inspect a potato crop tube set on Terry's property, north of Mount Gambier in South Australia.



L-R: Dr Steve Johnson, Anna Young, Nella (Swedish research student) and Graham Henman (Dowling Agritech) at a seed potato crop for Dowling Agritech in Penola, South Australia.

INTERNATIONAL POTATO SPECIALIST VISITS AUSTRALIA

Dr Steve Johnson is a potato specialist from the University of Maine who is renowned for his practical knowledge and vast experience in potatoes. He recently visited Australia at the invitation of ViCSPA and Potatoes Victoria for an event held as part of the Potato Industry Extension Program. ViCSPA General Manager Dr Nigel Crump reports on Dr Johnson's visit.

In November, potato growers from Victoria and South Australia were treated to a visit from Dr Steve Johnson, a crops specialist and extension professor from the University of Maine.

During his visit, Dr Johnson spoke to potato growers and industry representatives at evening meetings in Thorpdale, Ballarat and Mount Gambier. He also spent time with growers in each of the regions, looking at crops and discussing individual issues.

Dr Johnson was a keynote speaker at the Australasian Soilborne Disease Symposium in New Zealand and his week in Australia coincided with this conference.

TEACHING THE NEXT GENERATION

Over 20 years ago, through the Victorian Crisping Research Group and with the late Tony Myers, Dr Johnson worked with the fathers and grandfathers of our young growers. It was very interesting to see him impart his knowledge and learnings to the next generation of potato growers coming in to the industry.

Interestingly, Dr Johnson noticed that there is no organisation, such as the former crisping group, working on-farm with growers to address the issues of the day and generally improve potato farming.

At the formal presentations, Dr Johnson presented a range of information including:

- The management of Late blight caused by *Phytophthora infestans*. This included making the right fungicide selection for the stage of crop growth and disease pressure. Inappropriate

selection and use of fungicide or the poor timing of application can be expensive and result in ineffective control. Dr Johnson gave an overview of the predictive modelling used to guide growers in Maine to better manage Late blight. Importantly, Australia only has older strains of the fungal pathogen *P. infestans*, unlike other parts of the world including the United States, which have new aggressive strains that have developed resistance to metalaxyl (Ridomil). The Australian industry needs to ensure that the new strains of *P. infestans* do not become introduced and that our national quarantine and on-farm biosecurity measures remain as effective prevention.

- The management of Pink rot of potatoes caused by *Phytophthora erythroseptica*. Dr Johnson discussed the options for control in Maine, which included Ridomil fungicide but also showed phosphorous acid is effective in reducing tuber-to-tuber spread of *P. infestans* and *P. erythroseptica* during mechanical harvesting and tuber transfer in a situation where the diseases are present at harvest.
- The general importance of seed quality, including physiological age of seed and maximising seed cutting operation to achieve better performing seed. This included discussion on the importance of using certified seed that is known to have low virus levels.

Many growers are looking for new information and know-how to make more informed decisions in growing high yielding crops and gaining better profit margins. Good, successful growers are not

simply "lucky", but they have done their research and taken action to overcome production constraints to improve their yields and quality.

POSITIVE FEEDBACK

There was excellent feedback from the growers who attended the evening meetings with Dr Johnson. Many said it was the most informative event that they have attended for some time.

The free-flowing and wide ranging discussion and interaction between Dr Johnson and the audience was enlightening and extremely informative. During the day, in between formal engagements, growers appreciated Dr Johnson going on-farm and talking with them about what they do, how they do it and learning from an international expert. It was refreshing to see growers picking out their own plant health issues, with many asking: "What is this? What caused this? What can I do about this?" Many questions were answered, and much was learned by all.

An important message here is to seek advice on pest and disease symptoms to ensure a correct diagnosis and therefore ensure the most appropriate control mitigation is implemented. Understanding costs of production is also important, for example planting seed of poor quality can be costly and result in significantly lower returns to the grower.

FURTHER ACTIVITIES

Representatives from the Victorian Farmers Federation (VFF) attended the evening meetings in Thorpdale and Ballarat and presented on the range of services provided by the VFF and Potatoes Victoria. Topics included industrial relations, roll-over protection requirements on ATVs and primary producer registration requirements.

While Dr Johnson was visiting Victoria's potato production regions, he met with representatives of McCain Foods and Snackbrands for general discussion.

While in Australia, Dr Johnson also spent time with researchers from La Trobe University's AgriBio research facility and the

University of Melbourne to discuss various research activities and exchange ideas. Importantly, this included discussion with a group of post graduate students who are providing the next generation of researchers with inspiration and motivation. Previously, Dr Johnson has examined the theses of multiple PhD students from Australia who were investigating disease impacting potato production.

A RESOUNDING SUCCESS

The opportunity to host Dr Johnson has generated a lot of practical knowledge and stimulated much discussion. The engagement with Dr Johnson was an overwhelming success for potato growers and hopefully, through the new Potato Industry Extension Program, the Australian potato industry can do more of these much-needed engagements to truly extend grower knowledge and productivity skills.

The value is unquantifiable in the short-term but critical in terms of knowledge and knowledge extension to all potato growers, which will ultimately lead to a more productive and profitable potato industry. Importantly, there is a pressing need to foster the education of young potato growers to facilitate their transition to being successful and viable potato growers into the future.

INFO

For further information or to discuss the Potato Industry Extension Program, please contact Project Manager Adrian Dahlenburg on 08 8313 6706 or adahlenburg@arris.com.au or Arris Pty Ltd Managing Director Jim Kelly on 08 8313 6706 or jkelly@arris.com.au.

The Potato Industry Extension Program has been funded by Horticulture Innovation Australia Limited using the Fresh Potato Levy and funds from the Australian Government.

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According to DAFWA, the seed scheme in Western Australia is functioning effectively and regular testing gives the industry confidence that the state's potato crops are virtually free of virus.

WESTERN AUSTRALIA: PRISTINE SEED THE KEY TO A SUCCESSFUL FUTURE

The Western Australian Certified Seed Potato Scheme plays a vital role in the state's potato industry, working closely with growers to maintain the production of clean, high health seed. *Potatoes Australia* spoke to DAFWA's Dale Spencer about the program and its vision for the future.

For over 20 years, the Department of Agriculture and Food, Western Australia (DAFWA) has certified crops under the Australian National Certified Seed Potato (ANCSP) Standard, which is incorporated into its certified seed potato scheme.

DAFWA, through its Diagnostics and Laboratory Services division, manages the Western Australian Certified Seed Potato Scheme. The Department, in consultation with the Australian Seed Potato Council, assists in the maintenance of the national certification rules. Western Australia has four field inspectors located in the key potato growing regions of Bunbury, Albany, Manjimup and Perth.

PROGRAM BACKGROUND

Dale Spencer is DAFWA Unit Leader of Seed Potato Certification and is based at Manjimup, approximately 300 kilometres south of the Department's head office in Perth.

Mr Spencer is responsible for field operations and the administration of the Western Australian Certified Seed Potato Scheme under the management of Mike Davies in Perth. All Western Australian growers can contact Mr Spencer with their enquiries and applications, and he then disseminates the inspection reports.

"The National Standard, which every state sits under, provides a benchmark – every state must meet that standard," Mr Spencer said.

"Both the National Standard and the Western Australian Certified Seed Potato Scheme are not set in concrete. Every year, we have to look at whether there are improvements to be made, or if there

is an area we can change with the view of providing a vehicle for industry to use in producing pristine seed. New seed management techniques may be introduced, further improving the standard."

As the scheme constantly evolves, Mr Spencer added that it is industry's responsibility to keep abreast of the requirement changes made under the National Standard. DAFWA personnel can also assist growers when necessary.

"Our role is to facilitate and administrate the seed scheme for its customers at an affordable cost. We maintain those certification rules. Without the current robust standards, the investment in training, record keeping and quality inspections, then the high health seed currently produced in Western Australia, would be at risk," he said.

"Good standards delivering high health seed with extremely low levels of virus and disease really serves the customers of Western Australian seed potatoes well, whether they be in Western Australia itself, other Australian states or in Indonesia, Thailand, Vietnam or Mauritius."

INDUSTRY SUPPORT

Mr Spencer said over the years, he has welcomed industry involvement in the scheme.

"We have the WA Seed Potato Producers Inc. (WASPP), which is a dedicated seed growers' industry group. If there are any issues or any decisions to be made, or any enquiries – anything really that falls outside of our day-to-day duties, I contact that group," he said.

"I consult the WASPP group to ensure any significant decisions are inclusive and in the best interests of the broader industry, or when advice is required."

ANNUAL TESTING

DAFWA has a diagnostics laboratory set up in Perth, which is available for seed virus testing and disease identification, should it be required by any of the Department's field officers or growers.

"If I go to a crop and need to identify a virus, I'll send some leaves to our laboratory in Perth and they will do the scientific testing for us," Mr Spencer said.

DAFWA also conducts soil testing for Potato cyst nematode (PCN) as part of an international procedure and an ongoing surveillance program.

"We also conduct a laboratory testing survey of all generation two sown crops, which is funded by the industry. This has proved to be very beneficial in providing an early detection system for virus diseases and has assisted in reducing virus levels to negligible levels in crops in Western Australia," Mr Spencer said.

At random, 350 leaves are collected from each grower in the state every year across all generation two crops. These samples are then tested for five viruses that are considered to be of primary concern in potatoes: Potato virus X (PVX), Potato virus S (PVS), Potato virus Y (PVY), Tomato spotted wilt virus (TSWV) and Potato leafroll virus (PLRV).

"If any of the tests come back positive or if they fall outside the tolerances of the national scheme, then we determine that this seed is rejected from those crops and they play no further part in the seed scheme," Mr Spencer said.

"Last year we tested about 7,000 samples. The results showed that the level of total virus in our generation two crops was around .02 per cent. This survey shows that our seed scheme in Western Australia is functioning effectively and it gives the industry confidence going forward that the crops that they're planting are virtually free of virus."

"Testing is also undertaken for Potato spindle tuber viroid (PSTVd) in seed. The sampling and testing regime is consistent with that conducted in other states and was implemented to provide assurance that PSTVd is not present in Australian seed schemes.

"Samples are collected from every property that has applied for seed to be certified. This testing program has been in operation for two years and no positive results have been detected."

DAFWA also provides routine testing services at the request of growers to assist their programs.

FUTURE VISION

Western Australian seed potatoes are sold into other states as well as internationally. These "exports" will increase as DAFWA's vision is to double the value of agriculture by 2025.

"To couple in with that, we're going to try and develop an even better seed quality – and there are certain projects that our scientists are looking at. One was on physiological age and the development of suitable varieties for export markets and another one would be to identify seed markets," Mr Spencer said.

"This goes outside of certification, but it's linked in to DAFWA's overall focus. If we haven't got good certified seed scheme standards then all of these things are not going to matter. The good seed scheme standard comes first, which then leads to the development of even better seed quality and development of suitable varieties for exports.

"A good certification seed scheme provides high health seed. We believe we have consistent high health seed in WA, but you can always improve and we'll be looking to fine tune that with the view of achieving those three things already mentioned – physiological age, development of suitable varieties for export markets and identify seed markets – which will help to double the value of agriculture by 2025."

INFO

For more information, please visit agric.wa.gov.au.

The Western Australian Seed Potato Scheme's generation two virus surveys are funded by the Potato Producer Committee of the Western Australian Agricultural Produce Commission.

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Horticulture
Innovation
Australia



GENETICALLY MODIFIED POTATOES IN AUSTRALIA: A WAY OF THE FUTURE?

There is much debate about the pros and cons of genetically modified (GM) crops in Australian agriculture. In some parts of the world, the uptake of GM plant varieties is surpassing any other agricultural technology, with an estimated 10 per cent of the world's arable land planted with GM crops. Potato Processors Association of Australia Chair Peter Hardman investigates the use of GM in potatoes.

Genetic modification of plants through genetic engineering techniques aims to introduce new traits to the plants that might render it resistant to disease and pests, environmental conditions, herbicides and increase nutrient availability to the crops. While the plants will have enhanced characteristics, they still require sound agronomic practices and favourable environmental conditions to survive and to produce superior yields.

Gene management with the plant has also been used to provide enhanced health benefits for consumers; however in Australia and other parts of the world, uptake has been slow due to strong public opposition.

Many available genetically modified (GM) products have been generated and monopolised by the private sector, which has created products specifically for areas of high end productivity, sophistication and intensity. Sadly, a better strategy for the use of GM technologies would be to address growing food shortages in third world countries. These countries produce low yielding, large-scale crops with little access to water – and limited access to pest and disease control products.

POTENTIAL BENEFITS

In Australia, our French fry industry is constantly under threat from cheap imports and it's critical that we work together to increase efficiencies on-farm and within our factories to sustain a viable local industry. Our cost of production is our greatest challenge compared to global competitors, and GM technologies have the potential to mitigate some of these costly inputs.

Genetic engineering in potatoes has been limited to date, however they are now available in the American market. The first of the American GM potatoes has incorporated genes from other potato varieties which bruise less and have fewer black spots, leading to less spoilage. Web references suggest that these enhanced potatoes produce less asparagine, which is a precursor to acrylamide – a likely carcinogen.

There is also work towards introducing further innovation, which will see plants resistant to North American Late blight strains and have enhanced cold storage capability. These plants will have a significant impact on the volume of pesticide used, and greatly reduce waste through spoilage during storage.

There is substantial scientific evidence and agreement that suggests current foods derived from GM crops offer no greater risk

to human health compared to conventional food. However, despite this volume of evidence, the Australian public remains concerned about the safety and potential impact of GM crops.

ESTABLISHED CROPS

Cotton was the first GM crop to arrive in Australia in 1996, with commercial varieties available in 2008. All but two per cent of cotton crops planted in Australia are genetically modified to be tolerant to glyphosate and have superior insecticide resistance. Cotton Australia suggests that financial rewards for cotton farmers embracing this technology has been about \$180 per hectare.

While GM varieties of canola are available in Australia (offering herbicide tolerance and better weed control), the uptake and financial rewards have been mixed. With discounts for GM canola in the marketplace, uptake has been much lower than the cotton industry. Given the consumer pushback influencing the canola market, how would the introduction of more efficient GM potatoes into the Australian market fare?

In addition to canola oil, Australians are regularly consuming foods that contain GM sourced ingredients from other countries such as soy, potato, maize (corn) or sugar beet. All foods that contain GM ingredients are compliant with the Australia New Zealand Food Standards Code.

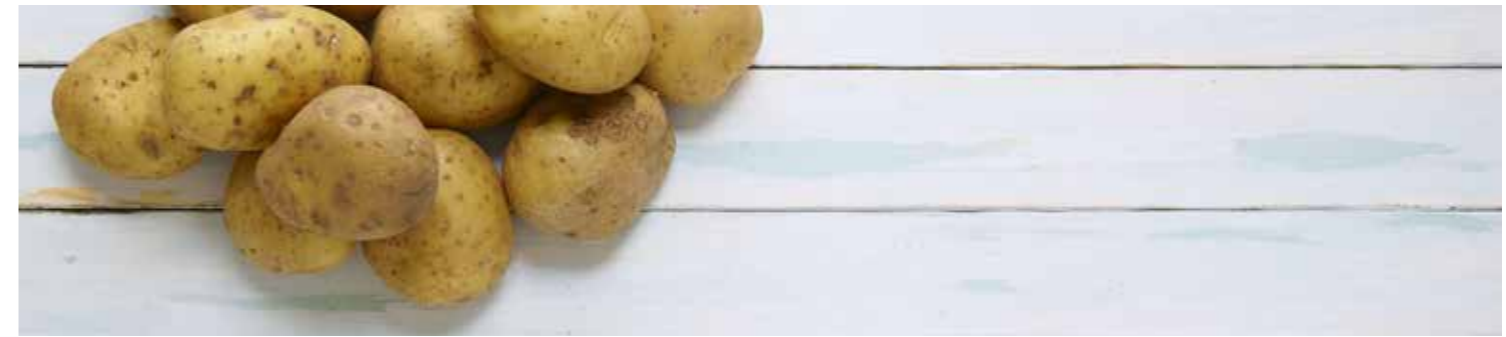
Perhaps it is just a matter of time before we see GM potatoes grown in Australia. With the opportunity to have a locally grown product with greater water efficiency, less wastage, less chemical reliance and a healthier content for consumers, the future and viability of Australian potato production might be, in part, safeguarded by GM technologies.

INFO

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

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ON HIGH ALERT: TRANSFORMING THE RISK CRITERIA FOR LATE BLIGHT IN POTATOES

A new risk criteria that will transform the performance of potato Late blight alert systems in the United Kingdom was revealed at the Agriculture and Horticulture Development Board (AHDB) Agronomists' Conference in December 2016. AHDB Knowledge Exchange Manager for Potatoes Claire Hodge and James Hutton Institute PhD student Siobhán Dancey provide an insight into the project.

The United Kingdom-based Agriculture and Horticulture Development Board (AHDB), in collaboration with partners, has developed an online BlightWatch alert system to provide potato growers with an indicator of Late blight risk in a given area.

According to AHDB Knowledge Exchange Manager for Potatoes Claire Hodge, the threat of Late blight is still high in the UK despite population numbers remaining stable. If the disease is not kept under control, it can result in widespread crop loss and can also lead to Tuber blight, which can be difficult to control in potato stores.

"Although we currently have a stable population and good understanding of control, Late blight remains one of the biggest threats to UK potato production," Ms Hodge said.

"Levels of Late blight are seasonally variable, however AHDB's Fight Against Blight (FAB) program involves close monitoring of any reported Late blight outbreaks and alerts growers about concerning weather conditions in their area which would be conducive to blight development.

"Where outbreaks occur, they are sampled by a diligent cohort of volunteers (known as Blight Scouts) who notify us and submit samples to our nominated analysis centres.

"Following analysis of the samples, we then provide information on the location, severity, crop and likely source of confirmed blight incidents to growers and agronomists through AHDB's online FAB service."

FIGURE 1

SMITH PERIOD CRITERIA	HUTTON CRITERIA
Two consecutive days: 1. Each day has a minimum temperature of 10°C 2. Each day has at least 11 hours with relative humidity ≥ 90 per cent	Two consecutive days: 1. Each day has a minimum temperature of 10°C 2. Each day has at least six hours with relative humidity ≥ 90 per cent

RISK ANALYSIS

To ensure growers and agronomists have access to the best risk model possible, AHDB has funded James Hutton Institute PhD student researcher Siobhán Dancey to re-examine blight alert systems using historical data analysis, experimental investigation of the criteria and modelling.

The historical data analysis revealed that the Smith Period criteria that is currently used for alerts was not performing equally well in all parts of the country. The experimental investigation and modelling showed that the time period of relative humidity of more than 90 per cent needed to be reduced to at least six hours to provide alerts, which would provide a better indicator of the risk of blight for more regions. This requirement will form the Hutton Criteria and AHDB's FAB services will use this to improve blight alert accuracy in 2017.

"We are also working with industry to encourage the uptake of the Hutton Criteria in other third party alerting systems that are available to UK potato growers," Ms Hodge said.

BENEFITS FOR AUSTRALIA

Ms Dancey said the Late blight alert project is building on a great deal of existing research at the James Hutton Institute. She added that the next step is to investigate the impact of solar radiation in controlling the disease, working with one of her supervisors, Dr Peter Skelsey.

"Solar radiation can greatly reduce spore viability and thus disease risk. Understanding spore survival in solar radiation should aid future spatial modelling aspects of disease movement," she said.

The PhD student researcher added that there could be benefits for Australian growers as a result of the research.

"Though the climatic conditions of Australia and Great Britain vary a great deal, I think the value could come from replicating the methods involved in this work," Ms Dancey said.

"First, the implementation of a monitoring system of potato Late blight outbreaks akin to AHDB's FAB program would prove beneficial if it does not already exist in Australia.

"The data set that has been established from AHDB's FAB outbreak monitoring has allowed for a deeper understanding of the pathogen populations, enabling a great deal of future research – which would not be possible otherwise."

INFO

For more information, please visit potatoes.ahdb.org.uk or blightwatch.co.uk.

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Ants defending Black bean aphids from a lady bug.



Ants with Black bean aphids.

BLACK BEAN APHID: A BIOSECURITY THREAT TO AUSTRALIA

In this edition of *The Front Line*, AUSVEG Biosecurity Coordinator Callum Fletcher profiles the Black bean aphid (BBA, *Aphis fabae*). BBA, also commonly known as Black fly, poses a potential threat to the potato industry and other crop industries should it arrive and establish itself in Australia.

Australia is unique in that it is one of only a small number of countries, along with New Zealand, where Black bean aphid (BBA, *Aphis fabae*) is not currently present. The pest is found in higher numbers in the temperate zones of the world and throughout North and South America, Africa, Europe and Asia.

The closest countries to Australia where it is found are Malaysia and the Philippines, although proximity is not the only determiner of biosecurity risk. Pests have arrived in Australia after sailing halfway around the world in shipping containers.

BROAD HOST RANGE

As its name suggests, the aphid is a major pest on bean crops where it colonises in large numbers (adults can produce over five young per day at the optimal temperature of mid-20 degrees Celsius) and it causes severe feeding damage. However, the aphid is not limited to these hosts.

BBA is highly polyphagous, meaning that it has a broad range of host plants that it can feed on. There are 81 known host species, including many common weeds and crops such as tomatoes, spinach, carrot, maize and potatoes.

The aphid is attracted to the younger plants or the younger shoots on a plant, compounding the effects of feeding damage as the small plant is unable to cope with the large number of

steadily multiplying and clustered aphids and it subsequently dies.

The broad host range is matched by BBA's ability to transmit a high number of plant viruses. It is known to carry approximately 42 viruses, making its potential arrival in Australia a problem for the majority of plant growing industries. The optimal weather conditions and broad distribution of host plants mean that the potential for establishment and spread of BBA in Australia is very high.

THREAT TO GROWERS

BBA ranges from 1.5-3mm long, is completely black (or very dark green) in appearance and is usually found clustered together in large numbers. Along with some feeding damage and secretion of honeydew that causes Sooty mold, the main harm that this aphid would bring to potato growers is that it transmits viruses, including Potato virus Y (PVY), Potato leaf roll virus (PLRV) and Potato virus A (PVA).

The aphid overwinters on European spindle plants (commonly found in Australia) and winged aphids spread to host plants in the warmer months. When colonies of aphids get too large for the plant host and it begins to die, winged aphids are produced that seek out new plant hosts.

It is these winged aphids, which fly into the crop during the

spring and autumn months and find new hosts throughout the summer, which are the major cause of concern for potato growers. Winged BBA transmit PVY, PLRV and PVA as they fly from plant to plant, probing the leaves, picking up and transmitting viruses as they attempt to find a preferred host plant to begin colonising.

APHID VIRUS TRANSMISSION

The rate at which different aphid species are able to effectively transmit viruses, which can be known as relative efficiency factors (REF), is important to measure.

In terms of PVY transmission, Green peach aphid (GPA, *Myzus persicae*) is the most efficient species of aphid vector. Experiments have been conducted that measure how effectively various isolates of PVY are transmitted by the different aphid species that feed on potato crops. On a range of 0-1, GPA has a REF of 1, while BBA has a REF of 0.07. These results have been published in *Determination of aphid transmission efficiencies for N, NTN and Wilga strains of Potato virus Y*. Other reports have given BBA a score of 0.1 for PVY and 0.3 for PLRV.

Winged BBL can transmit PLRV into potato crops. This virus is persistent, meaning that once it has been introduced to the aphid by feeding on an infected plant, it stays in the aphid and is able to be transmitted for the rest of its life.

Winged BBL can also transmit PVY, which is a non-persistent virus. This means that when the aphid feeds or probes the leaf to see if it is an appropriate host plant, the virus is introduced into its mouthparts. When it probes another plant, the virus can be transmitted.

As potato plants are not the most preferred host, winged BBA tend to feed on them just for sustenance. They will tend to move to multiple plants, spreading PVY, as they seek their preferred host to colonise.

Overseas experiences of trapping in potato crops tend to find large numbers of winged BBA, along with other potato aphids; as a consequence it is not an insect that the Australian potato industry would want to arrive on our shores.

ANTS AND BLACK BEAN APHID: A UNIQUE RELATIONSHIP

Black bean aphid (BBA, *Aphis fabae*) is a species of aphid that secretes honeydew and as a consequence, it has developed a mutualistic relationship with many common species of ants that farm them.

Ants collect the sugar-rich honeydew which serves as a food source, and in return protect the aphids from predators. It has been shown that a higher sugar content correlates with a greater level of ant attendance.

Ants also milk the aphids, pushing on their abdomen to encourage honeydew secretion. This symbiotic relationship even extends to seeking out and destroying the eggs or predators, like lady bugs.

Other protective behaviour that has been observed includes moving aphid eggs to spend the winter in their own nests and removing aphids infected with a toxic fungus away from the others to stop the spread of infection.

When the number of aphids on a plant become too great, ants move young aphids to new plants to start another colony farm, rather than have winged aphids develop. This desire to keep the colony in place has even resulted in observations of the ants pulling the wings off aphids so they do not leave.

INFO

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.

The Vegetable and Potato Biosecurity Program is funded by the Plant Health Levy.

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

Project Number: PT15007

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Photography by Jane Wilson Photography

RELOCATING ACROSS THE DITCH PAYS DIVIDENDS FOR DEDICATED POTATO GROWER

In 1990, Mark Pye relocated to South Australia from New Zealand at the tender age of 22. Now Managing Director of both Parilla Premium Potatoes and Zerella Fresh, Mark has gradually built a large horticulture empire with his businesses boasting 350 staff located around the state. Michelle De'Lisle spoke to the New Zealand-born potato grower about his achievements, the challenges he has faced and his plans for the future of the businesses.

Mark Pye's passion for potatoes stems all the way back to the South Island of New Zealand when, as a child, he helped his parents grow the humble spud.

Mark and his wife Fiona immigrated to South Australia from the Canterbury Plains, south of Christchurch, in 1990. The pair realised Australia had a much larger domestic market than New Zealand, therefore there were more opportunities to grow potatoes despite the extreme climate.

The Pyes then established Parilla Premium Potatoes in Parilla, a town nestled in the Murray Mallee region about 225 kilometres east of Adelaide.

The hard work was just beginning, with Mark buying the business Zerella Fresh around five years later to expand existing marketing opportunities. He was duly rewarded for his dedication and innovation to the businesses in 2001, taking home the Young Leader gong at the South Australian Food Industry Awards.

Mark is Managing Director of both Parilla Premium Potatoes and Zerella Fresh, which directly employs a workforce that is diverse in cultures, demographics and skills across various

departments located throughout South Australia (including a packing shed in Virginia).

Thanks to his parents, Mark learnt about all facets of the potato at an early age.

"I grew a passion of growing potatoes and could see the benefits of attention to detail, from seed selection, land and the steps through to harvest and the rewards when it is done right," he says.

ACTIVE INVOLVEMENT

As Managing Director of the businesses, Mark has the ultimate responsibility to his family, employees and customers to ensure that they are meeting their commitments and vision.

The father of three lives on-farm and plays an active role in the daily operations at Parilla, checking on both the crops and the packed produce.

"I have my pilot's licence and own a plane, which enables me to fly myself and our agronomy team to each of our growing regions every week so that we can inspect the crops and ensure

we are responsive to both market and climatic needs," Mark says.

"A significant amount of time is also devoted to meeting and working with our customers and suppliers. Every opportunity I get, I like to look at our produce in supermarkets to ensure I understand what the customer is seeing.

"At least once per year I like to get overseas to understand industry trends and opportunities. I especially enjoy having the opportunity to visit the businesses of the world's best and most innovative growers and packers."

Mark says he was always meant to be a farmer – whether it was growing potatoes or any other product. He also believes there are numerous roles available for younger people wishing to join the potato industry, and these are not just on the farming side.

"The potato industry is diverse with a huge range of opportunities including manual roles, tradesmen, equipment operators, specialists, administration, IT and management," Mark says.

"We have many examples of employees who have progressed from low-skilled entry positions to senior managers with real autonomy.

"The potato industry is hi-tech, utilising the latest available equipment and scientific practices. It is also a worldwide industry, providing young motivated people with the opportunity to expand their experience in many different countries and climates."

GROWER CHALLENGES

Like all growers, Mark says nature is always the biggest factor in determining many input needs and the resulting quality and yield.

Another challenge is keeping abreast of the latest advancements in agronomy, technology and product presentation.

"Nothing stays the same for long and the pace of change is accelerating as growers look to create a point of difference, manage cost pressures and succeed in very competitive markets," Mark says.

"Today, as a grower, we need to be providing the consumer with

a positive sensory experience while providing convenience and value. This needs to be done consistently and reliably every day."

The ambitious grower and businessman says he is lucky to be surrounded by family and a team that shares his drive to deliver on commitments and achieve success.

"Our suppliers, many of whom have been with me from the start, are also fully aligned," Mark says.

"It is with the support of my team and suppliers that we have been able to achieve a vertically integrated business that supplies quality produce 12 months of the year."

AN EXCITING FUTURE

Mark credits his immigration to Parilla from New Zealand 27 years ago, and how far his businesses have progressed over that period, as his proudest achievement.

There have also been some milestones along the way, including the 2001 Young Leader award and the creation of a unique potato brand.

"If I had to pick a single achievement to highlight, it would be the creation of the SpudLite brand of potatoes," Mark says.

"SpudLite is a healthy, and most importantly, great tasting option that gives people the permission to enjoy more potatoes."

However, Mark is most excited about the future vision of his businesses.

"Our ultimate goal as growers is to be the market's preferred potato supplier both today and for the long-term," he says.

"This requires a commitment to be on the ball today plus continued investment in fresh land, water, varieties, technology and people.

"I look forward to my kids, Renee and Lachie, taking on more senior roles within the business. I am sure that the combination of growing up entrenched in the family business, combined with their studies and external experiences, will enable them to contribute and challenge us to achieve bigger and better goals."



A young lesion with white mycelium and a developing sclerotium on the mycelium.

GAINING AN INSIGHT INTO A WIDESPREAD POTATO DISEASE

Sclerotinia stem rot, also known as White mold, is a critical disease affecting some of the United States' largest potato growing regions. Washington State University Professor of Plant Pathology Dr Dennis Johnson has released a web-based presentation explaining how growers can effectively identify and manage the disease.

Sclerotinia stem rot (*Sclerotinia sclerotiorum*), also known as White mold, is a widespread disease in sprinkler irrigated potato fields in the Columbia Basin of Washington and Oregon and in the Snake River Valley of southern Idaho in the United States.

The disease is labelled as critical in the Columbia Basin in Washington and Oregon states, and it is these regions which have the highest potato yields in the country.

To assist growers in the fight against Sclerotinia stem rot, Washington State University Professor of Plant Pathology Dr Dennis Johnson released a web presentation on the Plant Management Network, entitled *Epidemiology and Management of Potato White Mold*.

FOCUS ON AWARENESS

The presentation, released in December 2016, explains how potato plants become infected by the White mold fungus and how the disease is most effectively managed. Environmental and host factors that affect disease spread and progression are also discussed.

In a previous report, *Managing Sclerotinia Stem Rot (White Mold) of Potato*, Dr Johnson explained the hallmarks of Sclerotinia stem rot.

"Sclerotinia stem rot first appears as small water-soaked lesions, usually at the point where branches attach to stems, on branches or stems in contact with the soil. A white cottony growth of the fungus mycelium develops on the lesions and the infected tissue becomes soft and watery. Lesions expand and may girdle the stem, which causes the foliage to wilt," he said.

"During dry conditions, lesions become dry and will turn beige, tan or bleached white in colour and papery in appearance. Hard, irregularly shaped resting bodies of the fungus, called Sclerotia, form in and on decaying plant tissues.

"Sclerotia eventually fall to the ground and enable the fungus to survive until the next growing season, although they can be durable and can survive in soil for at least three years."

DISEASE MANAGEMENT

Dr Johnson said Sclerotinia stem rot is difficult to manage in the Columbia Basin due to dense potato canopies – the disease is favoured by shading, high humidity and long, wet periods.

"We sprinkle irrigate, and inoculum is present from fields where susceptible crops have been grown. Sclerotinia has a

very wide host range (over 400 plant species)," he said.

Dr Johnson added that yield losses due to Sclerotinia stem rot have been difficult to document in the past.

"We have not been able to completely control the disease for a healthy comparison. But with the current management tactics, we have seen yield reductions of seven to 10 per cent in commercial fields," he said.

In the presentation, growers are advised to:

- Rotate out of potatoes for more than three years as this gives time for Sclerotia soil to die.
- Avoid growing potatoes immediately in very susceptible crops.
- Avoid growing potato cultivars that tend to lie on the ground.
- Avoid practices that promote excessive vine growth.
- Time initial fungicide application to coincide with full bloom.

Dr Johnson said foliar fungicides are needed in areas with severe disease pressure, and current research has demonstrated that foliar fungicides should be applied at full bloom of primary flower clusters. An additional application of a foliar fungicide could be made seven to 10 days later to cover secondary and tertiary flower clusters in areas where disease pressure is severe.

GROWER FEEDBACK

Dr Johnson has received positive feedback from growers and field representatives from several potato producing regions in the United States.

He said while there is little new research being conducted into Sclerotinia stem rot, the work undertaken in the Columbia Basin by Washington State University personnel can apply to other regions, including Australia.

"It definitely can be useful for Australian growers. The crop and pathogens respond similarly given similar environments," Dr Johnson said.

"I believe this is a good example of grower-funded research that has paid off in a big way."

INFO

For more information or to view the presentation, please visit plantmanagementnetwork.org.

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

Project Number: PT15007

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A PRIME OPPORTUNITY FOR GROWTH IN POTATO EXPORTS

As it stands currently, potatoes, onions and carrots are the three Australian vegetable products dominating the export markets. In light of this, Horticulture Innovation Australia and AUSVEG have recently developed the *Vegetable Industry Export Strategy 2020*, which outlines a range of methods to assist the industry to increase Australia's vegetable exports by 40 per cent within four years and ensure Australia cements its place in the international vegetable export industry.

The future is bright for Australia's vegetable and potato industry, following the release of an industry strategy that aims to increase the value of vegetable exports to \$315 million, or 40 per cent, by 2020.

The Vegetable Industry Export Strategy 2020 was published in December 2016. Delivered by Horticulture Innovation Australia (Hort Innovation) and developed in conjunction with AUSVEG, the strategy outlines a range of methods to help more growers and the wider industry export Australian vegetables and potatoes to overseas markets.

Australia's overall vegetable and potato exports are currently lower than the industry's potential, with many growers not taking full advantage of the opportunities that exporting can provide. In particular, potatoes comprise 12 per cent of Australia's total vegetable exports, with the country exporting around 35,500 tonnes of potatoes at the end of the financial year in June 2016.

UNTAPPED POTENTIAL

Hort Innovation Chief Executive John Lloyd said that the Australian vegetable and potato industry has a huge appetite for export growth.

"There is a lot of untapped potential there. Hort Innovation is working with growers and AUSVEG to do everything it can to drive this growth and develop a financially sustainable vegetable export sector," Mr Lloyd said.

Mr Lloyd said vegetables make up around five per cent of national horticulture export production and through relationship building, working with industry to get it export ready, boosting supply chain efficiencies and overseas activities, that figure could significantly rise.

"With all the necessary mechanisms in place, the Australian vegetable industry could increase its exports by 40 per cent within four years, and close to double exports within the next decade."

South-east and north Asia are currently the biggest and second biggest markets for Australian exports respectively, while the Middle East is a rapidly growing market. South Korea in particular accounts for 65 per cent of Australia's fresh potato exports, all of which are for processing only.

There are rising numbers of middle and upper-middle class consumers in both Asian and Middle Eastern markets, with most Asian markets featuring a large cohort of young consumers. A shift in shopping habits has resulted in an increased demand for safe, traceable food from a reliable and sustainable source, as well as premium, packaged and convenient vegetable and potato products.

LONG-TERM INVESTMENT

AUSVEG National Manager – Export Development Michael Coote said data from the Global Trade Atlas and the Australian Bureau of Statistics showed Australia exported around 210,000 tonnes of vegetables valued at \$227 million this past financial year. In comparison, the strategy outlines an industry target of 310,000 tonnes of vegetable exports by 2020.

"The Australian vegetable industry has invested significantly in export development to help growers successfully export fresh Australian vegetables. The development of these markets is critical to the long-term viability of the industry," Mr Coote said.

"The strategy will ensure vegetable exports are treated as a long-term channel to market by delivering industry-specific export training programs for growers, increasing the range of opportunities for growers to connect directly with overseas buyers and exploring product development and collaboration opportunities to determine the best products or business models for export success."

INFO

For more information or to obtain a copy of the *Vegetable Industry Export Strategy 2020*, please contact AUSVEG on 03 9882 0277 or email export@ausveg.com.au.

The *Vegetable Industry Export Strategy 2020* has been funded by Horticulture Innovation Australia Limited using levies from the vegetable, potato and onion industries and funds from the Australian Government.

Project number: VG15052

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CROP PROTECTION: IT'S A MATTER OF RECORD

Maintaining an accurate log of crop protection application is a legal requirement in some Australian states. It can also prove to be extremely useful to potato growers and industry members, as Syngenta Technical Services Lead Scott Mathew explains.

At the end of last year, as I was doing some property visits, I noticed there were some concerns around the state of records being kept concerning crop protection use and fertiliser inputs. Having records that are legible and able to be kept for later reference is so important, especially if you find you have issues during or at the end of the season, and you are relying on these records to work out what might have gone wrong.

I was invited to a property due to the grower having had a minor issue with the crop, and I was there to help pinpoint what the issue was and to offer a solution. When asking for their records, I was shocked to find that a lot of the information was not in a great condition, and at times barely legible. As you can imagine, this can make it very difficult to find a solution.

WHY IS IT IMPORTANT TO KEEP ACCURATE CHEMICAL USE RECORDS?

There are a number of reasons for keeping timely and accurate chemical use records, such as:

- In the case of suspected spray drift, keeping the information contained in a chemical user's spray record provides information when required.
- Having records of chemical application rate and timing makes it easier to work out the relevant withholding period.
- Having records of environmental conditions at the time of and during the chemical applications helps to identify factors that may have affected the product's performance.
- It allows you to prove that application rates and wind speeds were checked prior to and during product application.
- Recording chemical use over many seasons can help you plan resistance management strategies.
- It helps to record and monitor the effectiveness of particular chemicals against specific insects, diseases or weeds.

It only takes a few minutes prior to and at the end of any agricultural chemical application to keep sufficient records. This small effort could save you a major inconvenience later down the track if the information is required, like the grower I mentioned earlier.

In fact, keeping accurate records is a label requirement stated

on many agricultural chemical labels. It is also a legal requirement in some states. For example, in Victoria it is a legal requirement to make specific records for all agricultural chemicals used in the state within 48 hours of the use, and to keep these records for a period of two years.

WHAT RECORDS ARE YOU EXPECTED TO KEEP WHEN SPRAYING CROP PROTECTION PRODUCTS?

As a general rule, always read and follow the label instructions, and as a minimum I suggest keeping the following records:

1. Dates with start and finish times of application.
2. Location address and paddock(s) sprayed.
3. Full name of the product.
4. Amount of product used per hectare and number of hectares applied to.
5. Crop/situation and weed/pest.
6. Wind speed and direction during application.
7. Air temperature and humidity.
8. Nozzle brand, type, spray angle, nozzle capacity and spray system pressure measured during application.
9. Name and address of the person applying this product (additional record details may be required by the state or territory where the product is used).

These details should be recorded and written down within 24 hours following application and the records kept for a minimum of two years.

INFO

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



COMPARISON OF POTATO YIELDS IN AUSTRALIA

Potatoes are the third most important food crop globally after rice and wheat. In a world reaching the limits of arable land suitable for intensive horticulture, increasing yields is an efficient way to feed a growing global population. For growers, improving yields means higher returns on their investments for a given set of inputs. *Potatoes Australia* investigates.

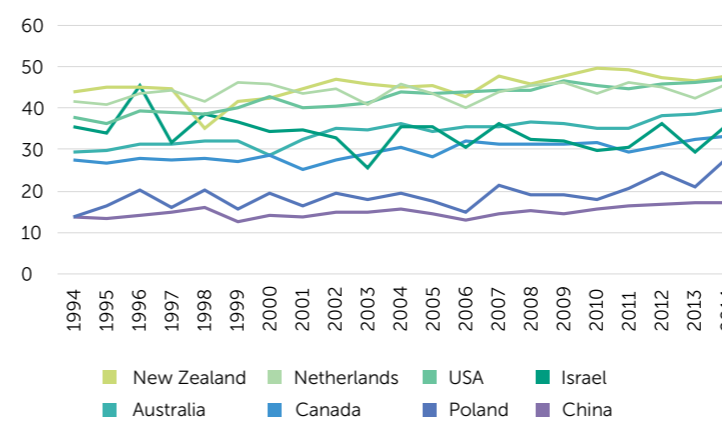
Potato yields in Australia averaged around 40 tonnes per hectare (t/Ha) in 2014-15. This compares to an average of around 30t/Ha in 1994.

Advances in technology, farm management and nutrient delivery mean growers have been able to consistently increase both tuber size and number per plant. A key to achieving this has been Australia's ability to keep the industry free from pests and diseases that have afflicted other countries.

For instance, in New Zealand (where conditions are arguably more suited to potato production than mainland Australia) potato yields have recently been falling due to the impact of pests and diseases. This underscores the importance of continued vigilance to prevent the introduction of harmful plant pathogens into the future.

Figure 1 provides a more detailed overview of Australia's potato yields compared with New Zealand, Canada, Poland, China, the United States, Israel and the Netherlands.

FIGURE 1: INTERNATIONAL POTATO YIELDS (TONNES/HA)



Source: FAOSTAT, fao.org/statistics

INTERNATIONAL INSIGHT

Australia's average potato yields are good by international standards, but we grow potatoes in a wide range of conditions – from the cool temperate moist soils of Tasmania and the hot sandy plains of the Swan River in Western Australia to the subtropical zones in southern Queensland and beyond. In fact, we grow potatoes in or near all of our major population centres whether marginal or not, reducing the measured average in total.

A comparison of yields at the state level neatly illustrates this (see Figure 2). Potato yields range from around 30t/Ha in Queensland to around the national average of 40t/Ha in Victoria and Western Australia to a very good 55t/Ha in Tasmania.

By international standards, Tasmanian yields are equal to or better than most countries, including those of world leaders such as the Netherlands and New Zealand (see Figure 1).

Yields in Tasmania are broadly consistent across the state. Its climate and growing conditions are relatively more consistent than the larger mainland states where conditions, and therefore yields, tend to show greater divergence.

For instance, in the Southern Rivers region of New South Wales, yields average around 50t/Ha while the Murrumbidgee averages under 20t/Ha. In Victoria, yields are more consistent across the state, ranging from 32t/Ha in Port Phillip and Western Port to 47t/Ha in Corangamite.

In South Australia, yields are consistently around the state average except for the northern and Yorke regions where they drop to around 20t/Ha.

In Western Australia, the most geographically and climatically diverse state, yields range from a very strong 57t/Ha in the Perth region to 42t/Ha in the south west and down to 20t/Ha on the south coast.

PROJECTED OUTLOOK

As the Australian population continues to grow from 24 million today to a projected 38 million in 2050, and given the relative fixed nature of land suitable for potato cultivation, further increases in yield is an effective way for local growers to continue meeting consumer demand.

While Australia remains a relatively small player by international standards in potato export markets, opportunities to the north will put further pressure on domestic supplies of this important food staple. To achieve this, the industry must continue to invest in science, plant genetics and technology associated with potato production.

Most importantly, we must do everything we can to prevent the introduction of pests and diseases, which not only impact yields but can also drive up costs of production and could damage Australia's reputation for producing clean, high quality produce.

FIGURE 2: POTATO YIELDS 2014-15 (TONNES/HA)



Source: ABS, *Agricultural Commodities Australia, 2014-15, Cat. 7121.04*

INFO

Please note, the information in this article was accurate at the time of printing.

For more information, please contact AUSVEG on 03 9882 0277 or 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





UNITED KINGDOM PREPARES TO TACKLE FREE LIVING NEMATODES

Scientists at the United Kingdom's James Hutton Institute have developed a molecular diagnostics test for Free living nematodes (FLN) in potatoes. Primarily funded by the Agriculture and Horticulture Development Board (AHDB) and the British Government, the five-year program highlighted the importance of studying FLN and aimed to understand the damage it causes.

Free living nematodes (FLN) have been identified as a major problem for potato growers in the United Kingdom. As a result, the British Government, along with the Agriculture and Horticulture Development Board (AHDB) and partners from the processing and fresh sectors of the potato industry, funded a five-year program which covered three integrated work packages: Diagnostics, field trials and Tobacco rattle virus (TRV) resistance.

While Potato cyst nematode (PCN) is also endemic in the UK, the focus has shifted to the FLN species. There have been forecasts that FLN numbers are likely to increase due to climate variability impacting the soil.

A HARMFUL PEST

According to AHDB Potatoes Crop Protection Scientist Sue Cowgill, FLN can have significant effects on a crop.

"FLN can drastically decrease a plant's uptake of nutrients and water. When crops show an in-field patchy decline, lack of vigour, chlorosis or slower than normal growth, nematodes may be the cause," Ms Cowgill said.

"During periods of stress or where there are nutrient deficiencies, nematode-infested plants will tend to be affected first. Other symptoms of FLN attack include a crooked or bushy appearance of tap roots, fleshy tap roots and stunted, stubby small root systems."

There were four field trials carried out within the project, and these looked at the direct feeding damage that FLN can cause in potatoes.

DIAGNOSTICS FOCUS

It took three years and approximately 5,000 soil sample tests from potato growing areas around the UK for the new molecular diagnostics test to receive validation.

Ms Cowgill said that the interest in diagnostics related to the ability of some FLN to transmit TRV.

"Accurate identification of the nematodes of concern (e.g. certain *Trichodorus* and *Paratrichodorus* species) is essential, but difficult due to the small differences in appearance between the species,

which can only be detected under the microscope by experts," Ms Cowgill said.

"This means the process can be time consuming. However, with the advancement of molecular biology there was the opportunity to develop a new suite of tests which would potentially be quicker and more reliable."

In addition, advancement in diagnostics has enabled scientists at the James Hutton Institute to identify molecular markers, which will ultimately assist in breeding TRV-resistant potato varieties and developing control strategies for FLN.

PROJECT OUTCOMES

Ms Cowgill said that the research program has focused on varieties of interest in the UK, therefore most of the information will not be directly relevant to Australian growers at this time. However, the program outcomes may prove beneficial to growers in Australia, and around the world, in years to come.

"In general, the work has highlighted the importance of studying FLN and trying to understand the damage that they do," she said.

"In the long-term, the work to develop markers that can be used in breeding programs to select varieties that don't show spraing symptoms (symptoms mainly caused by TRV) will be of benefit to other growers, not just those in the UK."

INFO

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

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BREAKDOWN OF LEVY PROJECTS 2016-17 (FRESH AND PROCESSED)

Each year, Horticulture Innovation Australia, using the Fresh and Processed Potato Levies and funds from the Federal Government, invests a significant amount of funding into grower-focused R&D projects to improve the productivity and profitability of the industry. *Potatoes Australia* provides a list of potato levy-funded projects (fresh and processed) for the 2016-17 financial year.

PROJECT NUMBER	PROJECT TITLE	SERVICE PROVIDER
PT14001	Monitoring psyllids and psyllid predators in Australian potato crops	Tasmanian Institute of Agriculture (TIA) – University of Tasmania
PT14002	<i>Spongospora</i> infection of potato roots – ecology epidemiology and control	Tasmanian Institute of Agriculture (TIA) – University of Tasmania
PT15002	Extension Program for the Australian Potato Industry 2016-2019	Arris Pty Ltd
PT15004	Review and Update of the National Standard for Certification of Australian Seed Potatoes	Miracle Dog Pty Ltd
PT15005	National Governance Framework for Australian Seed Potato Certification: An Options Paper	RMCG
PT15007	Potato Industry Communication Program 2016-2019	AUSVEG Ltd
PT16004	Review of the National Biosecurity Plan for the Potato Industry and Development of a Biosecurity Manual for Potato Producers	Plant Health Australia

CALENDAR

12 MARCH 2017: THORPDALE POTATO FESTIVAL

Where: Thorpdale, Victoria

What: The Thorpdale Potato Festival celebrates the long history of potato farming in the Thorpdale district, nestled in the beautiful foothills of the Strzelecki Ranges in Gippsland, Victoria. Attendees can meet potato growers, see the spectacle of the pallet throw, the speed of the spud pickers or peruse the 'hessians on the field'.

Further information: thorpdalepotatofestival.com.au.

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 A-NZ), Hort Connections will be co-hosted by Australian Organic, Onions Australia, Irrigation Australia, Central Markets Association of Australia, Fresh Markets Australia, Potatoes South Australia and Growcom. 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 visit hortconnections.com.au.

REGIONAL UPDATES



Dean Bone

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"I feel the need for seed," Tom Cruise declared famously before taking off at Mach 3 in search of suitable crops. Few of us could match his style, but at this time of the season many commercial growers are thinking about seed requirements for the planting season in the second half of the year in most areas.

The Seed Potatoes Victoria committee would like to emphasise the importance of clear communication between suppliers and customers, with written agreements detailing such things as variety, timing, physiological age, quantity, grade, packaging, pricing and terms of trade. These are the most basic elements of any normal transaction but sadly go missing all too often, and can result in grief and disappointment along with financial loss.

From the seed growers' perspective, the best time to receive an order is before the seed crop is

AUSVEG VIC is currently working to develop the Victorian vegetable and potato industry's policy priorities and advocacy strategies in the lead up to the 2018 state election.

Recent polling suggests that the election will be tightly contested and dominated by issues such as infrastructure and law and order. As such, it is important that the interests of the Victorian vegetable and potato industry remain front of mind as all sides of Parliament finalise their policy positions and begin campaigning ahead of the election.

The Victorian vegetable industry is a significant contributor to the Victorian economy, with a gross value of production (GVP) of over \$970 million (the highest GVP of any state vegetable industry in the financial year 2013-14), and approximately 840 businesses operating over 36,000 hectares of growing land.

During recent discussions, both major parties have expressed their desire to work with AUSVEG

At the time of writing this update, things have shifted in the weather and it is now extremely hot and dry. Not only are the days very hot, but it seems rare to get a moist night which is unusual at our altitude. This is, of course, testing the potato crops.

The early plots are well and truly up and starting to flower, and are handling the pressure of the heat pretty well. Later crops are feeling it, so irrigators are in full swing to help get the crops established.

Looking at Crookwell as a potato growing area, you can see how pest and disease pressure is limited. With our high elevation and extremes of weather from cold (or should I say freezing) to very hot, it does not favour well for most insects or bacteria to thrive. Our last winter was the coldest one in many, many years and now we

actually planted. In some cases, the seed grower will be able to offer a discount for seed pre-ordered and bound by contract. While some lines of seed may be in short supply this season, the overall area planted remains fairly stable, which indicates that most orders can be filled if the arrangements are good and timely.

Seed sales via merchants are still made easier when the relationship between grower and eventual seed customer is strong and there is trust on both sides. For those who are interested in formalising and simplifying the seed transaction, a contract pro forma is available for customisation to your own needs. Please contact SPV admin for a copy.

Seed harvesting is due to begin in Victoria, so the SPV committee would like to wish suppliers and customers best of luck for the season.

VIC to understand the needs of the Victorian vegetable and potato industry. As such, AUSVEG VIC would like to hear from you regarding any policy changes you believe will help the industry going forward.

AUSVEG VIC has previously called on the Victorian Government to commit to funding the construction of the North-East Link (connecting the Western Ring Road to Eastlink), the removal of truck curfews in Melbourne's north-east and for the regulation of the labour hire industry, and will continue to do so over the next two years.

If you have any other suggestions regarding potential regulatory changes, the development of key infrastructure or any other government initiative that could benefit our industry, please contact AUSVEG VIC Executive Officer Kurt Hermann on 0437 037 613 or kurt.hermann@ausvegvic.com.au.

are feeling the heat in what may become a very long, hot and dry summer.

Winter did leave us with a parting gift and that was full irrigation dams, although Mother Nature also gave us a backhander with the cold, wet winter and now another blow with the heat. However, leaving us with ample water in storage dams has allowed us to cushion the impact.

Older farmers in our area point the finger and say rain before February is wasted; that it only bleaches out the old grass and gives the clover a false start. Tell that to the potato crops – as a mixed farmer, I'll take rain in the warmer months anytime. I know nothing will prosper without it. So it's back to looking at the skies and hoping for a storm. Until then, we will just keep burning diesel.



Jordan Brooke-Barnett

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AUSVEG SA encourages all South Australian growers to support Hort Connections 2017 in May. For the first time ever, this event will be held in South Australia and provides an excellent opportunity to showcase our world-class potato and vegetable sector to Australian and international delegates. It will be hosted by AUSVEG and PMA Australia-New Zealand (PMA A-NZ), alongside Australian Organic, Onions Australia, Irrigation Australia, Central Markets Association of Australia, Fresh Markets Australia, Potatoes South Australia and Growcom.

Registrations are now open for delegates wishing to attend the largest event on the Australian horticulture calendar. Hort Connections will be held at the Adelaide Convention Centre from 15-17 May, and AUSVEG SA members are again eligible for a discounted member rate so we hope to see as many local growers as possible attend this exciting event.

Key highlights will include a specialised Potato Industry Extension Forum and Industry Luncheon

Eight or so weeks into the 2016-17 potato season, things are looking up for most Tasmanian growers. The prediction is that potatoes, along with most production sectors, will have a bountiful season as long as no other major weather events occur between now and harvest.

This is great news for the sector that, in some areas, suffered crop losses into the tens of thousands of dollars last year, thanks to the timing of the devastating wet conditions that blanketed many areas of the state in late winter and into spring. On the back of an 18-month dry spell, it made for challenging times for our growers. The north-east was hit particularly hard.

to present the latest in potato R&D to growers throughout Australia. In addition, there will also be a number of leading speakers and the largest ever Trade Show, combining exhibitors from last year's National Horticulture Convention and PMA Fresh Connections. AUSVEG SA hopes that South Australian growers extend their hospitality to their interstate and international peers to make this South Australian horticultural event the best ever.

In the lead-up to Hort Connections, AUSVEG SA will hold its second annual dinner and awards for excellence in April. This event is a great opportunity to recognise the people who contribute to the ongoing success of the South Australian vegetable industry in what has been a challenging year, marked by issues such as the Northern Adelaide Plains floods of late 2016. AUSVEG SA looks forward to welcoming attendees and will confirm a date for the event shortly.

Thankfully concerns about the viability and availability of potatoes at this stage appear to be unwarranted as, fingers crossed, the season generally looks like it will be a good one with farmers coming off marginally better than last year.



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SEND US YOUR STORY IDEAS!

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, let us know!
Send an email to info@ausveg.com.au or call 03 9882 0277.

YOUNG POTATO PEOPLE

G'day again,

It's a new year, and left, right and centre people are making New Year's resolutions. People are promising to do more, do less, move more, eat less, quit something, start something, remember some things, and forget others. A new year means new opportunities, new ideas and at times, new headaches. For some it could be a new personal endeavour; for others, it could be something as significant as a new hip!

This fresh, new thinking can provide a great opportunity to consider your own situation and decide if there is anything you might like to change. I'm sure most of you would be thinking daily of ways to improve your enterprise. Innovation is a huge part of any business, and an even bigger part of a farm.

They say that necessity is the mother of invention. I reckon that's why farmers have always been so good at inventing. We constantly need things in our businesses that are completely unique, which we won't be able to find on the shelves of our local supplies store. Either that, or the things you can buy aren't exactly what you require, and modification is necessary.

Invention and innovation are part of what makes farming so rewarding – if you have to strive to achieve something it always feels way better when you get it done! If it's handed to you on a platter, then why would you care enough to make it happen?

Hopefully 2017 is a good year for you to finally reach that goal you set, and maybe get that new hip if it's required.



All the best,
Stu Jennings



@youngpotatopeps



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